Dokumentacja formatu źródłowego epXML

Platforma Technologiczna epodreczniki.pl

**Wprowadzenie**

Platforma epodreczniki.pl jest oparta na standardach open source, w szczególności na standardzie XML. Jest to powszechnie stosowany język, używany do tworzenia ustrukturalizowanych zbiorów danych na podstawie reguł semantycznych. W projekcie epodreczniki.pl jest on używany do tworzenia i edytowania e-podreczników. Do tego celu został zaadaptowany i rozszerzony schemat XML zaproponowany przez projekt

Connexions: CNXML, CollXML, mdml, QML and BibTeXML.

Schemat Connexions został stworzony w formacie RNG. Na potrzeby epodreczniki.pl został on skonwertowany do formatu XSD, pozwalającym wyrazić potrzebne reguły i wymagania.

W rezultacie postały nowe schematy XML:

* epCollXML
* epXML

**epXML**

Moduł epXML reprezentuje jednostkę treści. Jako podstawowy element tworzący e-podręcznik, powinien zawierać spójną i niezależną część treści, być możliwy do wykorzystania w innych e-podręcznikach. Dokładna ilość informacji zawarta module epXML może być różna, jednak w przybliżeniu powinna odpowiadać rozdziałowi z klasycznego podręcznika.

**Schematy**

Elementem głównym każdego modułu epXML jest element **cnxml:document**. Może zawierać 4 elementy podrzędne: **cnxml:title, cnxml:metadata, cnxml:content** i opcjonalny **bib:file**.

Metadane specyficzne dla epXML (nowe względem Connexions) są zawarte w podelemencie cnxml:metadata: **ep:e-textbook-module.**

Główna treść modułu znajduje się w elemencie **cnxml:content**.

**Przykładowy epXML**

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<md:license url=**"**[**http://creativecommons.org/licenses/by/3.0/pl/legalcode**](http://creativecommons.org/licenses/by/3.0/pl/legalcode)**"**>**CC BY 3.0**</md:license>

<md:actors>

<md:person userid=**"person1"**>

<md:fullname>**Jan Kowalski**</md:fullname>

<md:firstname>**Jan**</md:firstname>

<md:surname>**Kowalski**</md:surname>

<md:email>[**jan.kowalski@example.com**](mailto:jan.kowalski@example.com)</md:email>

</md:person>

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<para id=**"com1pr1p1b"**>**Notatka typu wskazówka**</para>

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Schema **cnxml.xsd**

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| [**created**](#_bookmark393) | [**personType**](#_bookmark415) | [**languageType**](#_bookmark424) |
| [**email**](#_bookmark394) | [**presentationTitleType**](#_bookmark417) | [**licenseBaseType**](#_bookmark425) |
| [**firstname**](#_bookmark395) | [**rolesType**](#_bookmark418) | [**licenseURLType**](#_bookmark426) |
| [**fullname**](#_bookmark396) | [**roleType**](#_bookmark419) |  |
| [**keyword**](#_bookmark397) |  |  |
| [**keywordlist**](#_bookmark398) |  |  |
| [**language**](#_bookmark399) |  |  |
| [**license**](#_bookmark400) |  |  |
| [**person**](#_bookmark401) |  |  |
| [**presentationTitle**](#_bookmark402) |  |  |
| [**repository**](#_bookmark403) |  |  |
| [**revised**](#_bookmark404) |  |  |
| [**role**](#_bookmark405) |  |  |
| [**roles**](#_bookmark406) |  |  |
| [**surname**](#_bookmark407) |  |  |
| [**title**](#_bookmark408) |  |  |
| [**version**](#_bookmark409) |  |  |

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| schema location: | **bibtexml.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://bibtexml.sf.net/**](http://bibtexml.sf.net/) |

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| --- | --- | --- |
| Elements | Complex types | Simple types |
| [**address**](#_bookmark427) | [**articleType**](#_bookmark451) | [**dateType**](#_bookmark467) |
| [**article**](#_bookmark428) | [**entryType**](#_bookmark452) | [**nonEmptyString**](#_bookmark468) |
| [**author**](#_bookmark429) | [**fileType**](#_bookmark454) |  |
| [**booktitle**](#_bookmark430) | [**incollectionFreeType**](#_bookmark455) | |
| [**edition**](#_bookmark431) | [**incollectionType**](#_bookmark460) |  |
| [**editor**](#_bookmark432) | [**manualType**](#_bookmark463) |  |
| [**entry**](#_bookmark433) | [**miscType**](#_bookmark464) |  |
| [**file**](#_bookmark434) | [**unpublishedType**](#_bookmark465) |  |
| [**howpublished**](#_bookmark435) |  |  |
| [**incollection**](#_bookmark436) |  |  |
| [**incollectionFree**](#_bookmark437) | | |
| [**journal**](#_bookmark438) |  |  |
| [**key**](#_bookmark439) |  |  |
| [**manual**](#_bookmark440) |  |  |
| [**misc**](#_bookmark441) |  |  |
| [**note**](#_bookmark442) |  |  |
| [**number**](#_bookmark443) |  |  |
| [**organization**](#_bookmark444) |  |  |
| [**pages**](#_bookmark445) |  |  |
| [**publisher**](#_bookmark446) |  |  |
| [**series**](#_bookmark447) |  |  |
| [**title**](#_bookmark448) |  |  |

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| [**unpublished**](#_bookmark449) |
| [**year**](#_bookmark450) |

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| schema location: | **qml.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://cnx.rice.edu/qml/1.0**](http://cnx.rice.edu/qml/1.0) |

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| --- | --- | --- |
| Elements | Complex types | Simple types |
| [**answer**](#_bookmark469) | [**answerType**](#_bookmark479) | [**typeType**](#_bookmark484) |
| [**feedback**](#_bookmark470) | [**itemType**](#_bookmark481) |  |
| [**hint**](#_bookmark471) |  |  |
| [**item**](#_bookmark472) |  |  |
| [**key**](#_bookmark473) |  |  |
| [**question**](#_bookmark477) |  |  |
| [**response**](#_bookmark478) |  |  |

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| --- | --- |
| schema location: | **mathml3\mathml3.xsd** |
| attributeFormDefault: |  |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://www.w3.org/1998/Math/MathML**](http://www.w3.org/1998/Math/MathML) |

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| --- | --- |
| schema location: | **common.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://epodreczniki.pl/**](http://epodreczniki.pl/) |

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| --- |
| Simple types |
| [**idType**](#_bookmark485) |
| [**titleType**](#_bookmark486) |
| [**WOMIidType**](#_bookmark487) |

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| --- | --- |
| schema location: | **common.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://cnx.rice.edu/mdml**](http://cnx.rice.edu/mdml) |

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| Simple types |
| [**idType**](#_bookmark488) |
| [**titleType**](#_bookmark489) |
| [**WOMIidType**](#_bookmark490) |

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| --- | --- |
| schema location: | **common.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://bibtexml.sf.net/**](http://bibtexml.sf.net/) |

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| Simple types |
| [**idType**](#_bookmark491) |
| [**titleType**](#_bookmark492) |
| [**WOMIidType**](#_bookmark493) |

|  |  |
| --- | --- |
| schema location: | **common.xsd** |
| attributeFormDefault: | **unqualified** |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://cnx.rice.edu/qml/1.0**](http://cnx.rice.edu/qml/1.0) |

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| Simple types |
| [**idType**](#_bookmark494) |
| [**titleType**](#_bookmark495) |
| [**WOMIidType**](#_bookmark496) |

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| schema location: | **mathml3\mathml3-content.xsd** |
| attributeFormDefault: |  |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://www.w3.org/1998/Math/MathML**](http://www.w3.org/1998/Math/MathML) |

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| --- | --- | --- | --- |
| Elements | Groups | Complex types | Attr. groups |
| [**abs**](#_bookmark497) | [**binary-arith.class**](#_bookmark679) | [**apply.content**](#_bookmark683) | [**base**](#_bookmark688) |
| [**and**](#_bookmark498) | [**DomainQ**](#_bookmark680) | [**bind.content**](#_bookmark684) | [**cbytes.attributes**](#_bookmark690) |
| [**approx**](#_bookmark499) | [**Qualifier**](#_bookmark681) | [**ci.content**](#_bookmark685) | [**ci.attributes**](#_bookmark691) |
| [**arccos**](#_bookmark500) | [**unary-arith.class**](#_bookmark682) | [**cn.content**](#_bookmark686) | [**ci.type**](#_bookmark693) |
| [**arccosh**](#_bookmark501) |  | [**csymbol.content**](#_bookmark687) | [**closure**](#_bookmark695) |
| [**arccot**](#_bookmark502) |  |  | [**cn.attributes**](#_bookmark697) |
| [**arccoth**](#_bookmark503) |  |  | [**cs.attributes**](#_bookmark700) |
| [**arccsc**](#_bookmark504) |  |  | [**csymbol.attributes**](#_bookmark701) |
| [**arccsch**](#_bookmark505) |  |  | [**order**](#_bookmark704) |
| [**arcsec**](#_bookmark506) |  |  | [**type**](#_bookmark706) |
| [**arcsech**](#_bookmark507) |  |  |  |
| [**arcsin**](#_bookmark508) |  |  |  |
| [**arcsinh**](#_bookmark509) |  |  |  |
| [**arctan**](#_bookmark510) |  |  |  |
| [**arctanh**](#_bookmark511) |  |  |  |
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| [**binary-linalg.class**](#_bookmark513) |  |  |  |
| [**binary-logical.class**](#_bookmark514) |  |  |  |
| [**binary-reln.class**](#_bookmark515) |  |  |  |
| [**binary-set.class**](#_bookmark516) |  |  |  |
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| [**card**](#_bookmark518) | | | |
| [**cartesianproduct**](#_bookmark519) | | | |
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| [**complexes**](#_bookmark522) | | | |
| [**compose**](#_bookmark523) | | | |
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| [**conjugate**](#_bookmark525) | | | |
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| [**constant-set.class**](#_bookmark527) | | | |
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| [**cosh**](#_bookmark529) | | | |
| [**cot**](#_bookmark530) | | | |
| [**coth**](#_bookmark531) | | | |
| [**csc**](#_bookmark532) | | | |
| [**csch**](#_bookmark533) | | | |
| [**curl**](#_bookmark534) | | | |
| [**declare**](#_bookmark535) | | | |
| [**degree**](#_bookmark540) | | | |
| [**DeprecatedContExp**](#_bookmark541) | | | |
| [**determinant**](#_bookmark542) | | | |
| [**diff**](#_bookmark543) | | | |
| [**Differential-Operator.class**](#_bookmark544) | | | |
| [**divergence**](#_bookmark545) | | | |
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| [**image**](#_bookmark567) | | | |
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| [**implies**](#_bookmark570) | | | |
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| [**laplacian**](#_bookmark583) | | | |
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| [**limit.class**](#_bookmark587) | | | |
| [**list**](#_bookmark588) | | | |
| [**ln**](#_bookmark590) | | | |
| [**log**](#_bookmark591) | | | |
| [**logbase**](#_bookmark592) | | | |
| [**lowlimit**](#_bookmark593) | | | |
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| [**matrix**](#_bookmark595) | | | |
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| [**moment**](#_bookmark603) | | | |
| [**momentabout**](#_bookmark604) | | | |
| [**nary-arith.class**](#_bookmark605) | | | |
| [**nary-constructor.class**](#_bookmark606) | | | |
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| [**nary-linalg.class**](#_bookmark608) | | | |
| [**nary-logical.class**](#_bookmark609) | | | |
| [**nary-minmax.class**](#_bookmark610) | | | |
| [**nary-reln.class**](#_bookmark611) | | | |
| [**nary-set-reln.class**](#_bookmark612) | | | |
| [**nary-set.class**](#_bookmark613) | | | |
| [**nary-setlist-constructor.class**](#_bookmark614) | | | |

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| --- |
| [**nary-stats.class**](#_bookmark615) |
| [**naturalnumbers**](#_bookmark616) |
| [**neq**](#_bookmark617) |
| [**not**](#_bookmark618) |
| [**notanumber**](#_bookmark619) |
| [**notin**](#_bookmark620) |
| [**notprsubset**](#_bookmark621) |
| [**notsubset**](#_bookmark622) |
| [**or**](#_bookmark623) |
| [**otherwise**](#_bookmark624) |
| [**outerproduct**](#_bookmark625) |
| [**partialdiff**](#_bookmark626) |
| [**partialdiff.class**](#_bookmark627) |
| [**pi**](#_bookmark628) |
| [**piece**](#_bookmark629) |
| [**piecewise**](#_bookmark630) |
| [**plus**](#_bookmark631) |
| [**power**](#_bookmark632) |
| [**PresentationExpression**](#_bookmark633) |
| [**primes**](#_bookmark634) |
| [**product**](#_bookmark635) |
| [**product.class**](#_bookmark636) |
| [**prsubset**](#_bookmark637) |
| [**quantifier.class**](#_bookmark638) |
| [**quotient**](#_bookmark639) |
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| [**root**](#_bookmark645) |
| [**scalarproduct**](#_bookmark646) |
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| [**sec**](#_bookmark648) |
| [**sech**](#_bookmark649) |
| [**selector**](#_bookmark650) |
| [**sep**](#_bookmark651) |
| [**set**](#_bookmark652) |
| [**setdiff**](#_bookmark654) |
| [**sin**](#_bookmark655) |
| [**sinh**](#_bookmark656) |
| [**subset**](#_bookmark657) |
| [**sum**](#_bookmark658) |
| [**sum.class**](#_bookmark659) |
| [**tan**](#_bookmark660) |
| [**tanh**](#_bookmark661) |

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| --- |
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| [**times**](#_bookmark664) |
| [**transpose**](#_bookmark665) |
| [**true**](#_bookmark666) |
| [**unary-elementary.class**](#_bookmark667) |
| [**unary-functional.class**](#_bookmark668) |
| [**unary-linalg.class**](#_bookmark669) |
| [**unary-logical.class**](#_bookmark670) |
| [**unary-set.class**](#_bookmark671) |
| [**unary-veccalc.class**](#_bookmark672) |
| [**union**](#_bookmark673) |
| [**uplimit**](#_bookmark674) |
| [**variance**](#_bookmark675) |
| [**vector**](#_bookmark676) |
| [**vectorproduct**](#_bookmark677) |
| [**xor**](#_bookmark678) |

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| schema location: | **mathml3\mathml3-presentation.xsd** |
| attributeFormDefault: |  |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://www.w3.org/1998/Math/MathML**](http://www.w3.org/1998/Math/MathML) |

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| Elements | Groups | Complex types | Simple types | Attr. groups |
| [**maction**](#_bookmark708) | [**MsrowExpression**](#_bookmark752) | [**ImpliedMrow**](#_bookmark756) | [**character**](#_bookmark757) | [**CommonPresAtt**](#_bookmark771) |
| [**MalignExpression**](#_bookmark709) | [**MstackExpression**](#_bookmark753) |  | [**color**](#_bookmark758) | [**DeprecatedTokenAtt**](#_bookmark774) |
| [**maligngroup**](#_bookmark710) | [**MultiScriptExpression**](#_bookmark754) |  | [**columnalignstyle**](#_bookmark759) | [**maction.attributes**](#_bookmark781) |
| [**malignmark**](#_bookmark711) | [**token.content**](#_bookmark755) |  | [**group-alignment**](#_bookmark760) | [**maligngroup.attributes**](#_bookmark784) |
| [**menclose**](#_bookmark712) |  |  | [**group-alignment-list**](#_bookmark761) | [**malignmark.attributes**](#_bookmark786) |
| [**merror**](#_bookmark713) |  |  | [**group-alignment-list-list**](#_bookmark762) | [**math.attributes**](#_bookmark788) |
| [**mfenced**](#_bookmark714) |  |  | [**integer**](#_bookmark763) | [**menclose.attributes**](#_bookmark798) |
| [**mfrac**](#_bookmark715) |  |  | [**linestyle**](#_bookmark764) | [**merror.attributes**](#_bookmark800) |
| [**mglyph**](#_bookmark716) |  |  | [**mpadded-length**](#_bookmark765) | [**mfenced.attributes**](#_bookmark801) |
| [**mi**](#_bookmark717) |  |  | [**notationstyle**](#_bookmark766) | [**mfrac.attributes**](#_bookmark805) |
| [**mlabeledtr**](#_bookmark718) |  |  | [**number**](#_bookmark767) | [**mglyph.attributes**](#_bookmark810) |
| [**mlongdiv**](#_bookmark719) |  |  | [**positive-integer**](#_bookmark768) | [**mglyph.deprecatedattributes**](#_bookmark816) |
| [**mmultiscripts**](#_bookmark720) |  |  | [**unsigned-integer**](#_bookmark769) | [**mi.attributes**](#_bookmark820) |
| [**mn**](#_bookmark721) |  |  | [**verticalalign**](#_bookmark770) | [**mlabeledtr.attributes**](#_bookmark821) |
| [**mo**](#_bookmark722) |  |  |  | [**mlongdiv.attributes**](#_bookmark822) |
| [**mover**](#_bookmark723) |  |  |  | [**mmultiscripts.attributes**](#_bookmark824) |
| [**mpadded**](#_bookmark724) |  |  |  | [**mn.attributes**](#_bookmark825) |
| [**mphantom**](#_bookmark725) |  |  |  | [**mo.attributes**](#_bookmark826) |
| [**mprescripts**](#_bookmark726) |  |  |  | [**mover.attributes**](#_bookmark850) |
| [**mroot**](#_bookmark727) |  |  |  | [**mpadded.attributes**](#_bookmark853) |
| [**mrow**](#_bookmark728) |  |  |  | [**mphantom.attributes**](#_bookmark859) |
| [**ms**](#_bookmark729) |  |  |  | [**mprescripts.attributes**](#_bookmark860) |

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| --- | --- |
| [**mscarries**](#_bookmark730) | [**mroot.attributes**](#_bookmark861) |
| [**mscarry**](#_bookmark731) | [**mrow.attributes**](#_bookmark862) |
| [**msgroup**](#_bookmark732) | [**ms.attributes**](#_bookmark864) |
| [**msline**](#_bookmark733) | [**mscarries.attributes**](#_bookmark867) |
| [**mspace**](#_bookmark734) | [**mscarry.attributes**](#_bookmark872) |
| [**msqrt**](#_bookmark735) | [**msgroup.attributes**](#_bookmark875) |
| [**msrow**](#_bookmark736) | [**msline.attributes**](#_bookmark878) |
| [**mstack**](#_bookmark737) | [**mspace.attributes**](#_bookmark884) |
| [**mstyle**](#_bookmark738) | [**msqrt.attributes**](#_bookmark896) |
| [**msub**](#_bookmark739) | [**msrow.attributes**](#_bookmark897) |
| [**msubsup**](#_bookmark740) | [**mstack.attributes**](#_bookmark899) |
| [**msup**](#_bookmark741) | [**mstyle.attributes**](#_bookmark904) |
| [**mtable**](#_bookmark742) | [**mstyle.deprecatedattributes**](#_bookmark905) |
| [**mtd**](#_bookmark743) | [**mstyle.generalattributes**](#_bookmark913) |
| [**mtext**](#_bookmark744) | [**mstyle.specificattributes**](#_bookmark989) |
| [**mtr**](#_bookmark745) | [**msub.attributes**](#_bookmark996) |
| [**munder**](#_bookmark746) | [**msubsup.attributes**](#_bookmark998) |
| [**munderover**](#_bookmark747) | [**msup.attributes**](#_bookmark1001) |
| [**none**](#_bookmark748) | [**mtable.attributes**](#_bookmark1003) |
| [**TableCellExpression**](#_bookmark749) | [**mtd.attributes**](#_bookmark1022) |
| [**TableRowExpression**](#_bookmark750) | [**mtext.attributes**](#_bookmark1028) |
| [**TokenExpression**](#_bookmark751) | [**mtr.attributes**](#_bookmark1029) |
|  | [**munder.attributes**](#_bookmark1033) |
|  | [**munderover.attributes**](#_bookmark1036) |
|  | [**none.attributes**](#_bookmark1040) |
|  | [**TokenAtt**](#_bookmark1041) |

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| schema location: | **mathml3\mathml3-common.xsd** |
| attributeFormDefault: |  |
| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://www.w3.org/1998/Math/MathML**](http://www.w3.org/1998/Math/MathML) |

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| --- | --- | --- | --- | --- |
| Elements | Groups | Complex types | Simple types | Attr. groups |
| [**annotation**](#_bookmark1045) | [**anyElement**](#_bookmark1048) | [**annotation-xml.model**](#_bookmark1051) | [**length**](#_bookmark1052) | [**annotation.attributes**](#_bookmark1053) |
| [**annotation-xml**](#_bookmark1046) | [**semantics**](#_bookmark1049) |  |  | [**cd**](#_bookmark1056) |
| [**math**](#_bookmark1047) |  |  |  | [**CommonAtt**](#_bookmark1058) |
|  |  |  |  | [**CommonDeprecatedAtt**](#_bookmark1064) |
|  |  |  |  | [**DefEncAtt**](#_bookmark1066) |
|  |  |  |  | [**math.deprecatedattributes**](#_bookmark1069) |
|  |  |  |  | [**name**](#_bookmark1072) |
|  |  |  |  | [**semantics.attributes**](#_bookmark1074) |
|  |  |  |  | [**src**](#_bookmark1077) |

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| elementFormDefault: | **qualified** |
| targetNamespace: | [**http://www.w3.org/1998/Math/MathML**](http://www.w3.org/1998/Math/MathML) |

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| --- | --- | --- | --- |
| Elements | Groups | Simple types | Attr. groups |
| [**apply**](#_bookmark1079) | [**BvarQ**](#_bookmark1088) | [**base64**](#_bookmark1095) | [**cerror.attributes**](#_bookmark1097) |
| [**bind**](#_bookmark1080) | [**ContExp**](#_bookmark1089) | [**SymbolName**](#_bookmark1096) |  |
| [**cbytes**](#_bookmark1081) | [**MathExpression**](#_bookmark1090) |  |  |
| [**cerror**](#_bookmark1082) | [**semantics-ci**](#_bookmark1091) |  |  |
| [**ci**](#_bookmark1083) | [**semantics-contexp**](#_bookmark1093) |  |  |
| [**cn**](#_bookmark1084) |  |  |  |
| [**cs**](#_bookmark1085) |  |  |  |
| [**csymbol**](#_bookmark1086) |  |  |  |
| [**share**](#_bookmark1087) |  |  |  |

element **code**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | **xs:string** |
| properties | content simple |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) |
| annotation | documentation  INLINE Kod (EP Kod) |
| source | <xs:element name="code" type="xs:string">  <xs:annotation>  <xs:documentation>INLINE Kod (EP Kod)</xs:documentation>  </xs:annotation>  <!-- <xs:element name="code" type="cnxml:inlineContentType">-->  </xs:element> |

element **colspec**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| type | [**cnxml:colspecType**](#_bookmark54) | | | | | | |
| properties | content | complex | |  |  |  |  |
| used by | complexType | | [**tgroupType**](#_bookmark118) |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [colnum](#_bookmark55) |  | **xs:positiveInteger** | optional |  |  | documentation Numer kolumny. |
| [colname](#_bookmark56) |  | **derived by: xs:string** | required |  |  | documentation Nazwa kolumny tabeli - wykorzystywana do scalania w poziomie.  UWAGA: w  konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem  kolumny. |
| [colwidth](#_bookmark57) |  | **derived by: xs:positiveInteger** | optional |  |  | documentation Szerokość kolumny. |
| annotation | documentation | |  |  |  |  |  |
| Element specyfikacja kolumny tabeli | | |  |  |  |  |
| source | <xs:element name="colspec" type="cnxml:colspecType">  <xs:annotation>  <xs:documentation>Element specyfikacja kolumny tabeli</xs:documentation>  </xs:annotation>  </xs:element> | | | | | | |

element **commentary**

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| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | extension of [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**simpleExerciseGroup**](#_bookmark236) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required  [type](#_bookmark3) **derived by:**  **xs:string** |
| annotation | documentation  Wyjaśnienie ćwiczenia (w przypadku typu ustawionego na example przykładowe rozwiązanie) (EP Ćwiczenie - wyjaśnienie, EP Przykład) |
| source | <xs:element name="commentary">  <xs:annotation>  <xs:documentation>Wyjaśnienie ćwiczenia (w przypadku typu ustawionego na example przykładowe rozwiązanie) (EP Ćwiczenie - wyjaśnienie, EP Przykład)</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:paraContainerWithIdType">  <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="example"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> |

attribute **commentary/@ type**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  enumeration example |
| source | <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="example"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

element **content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:contentType**](#_bookmark58) |
| properties | content complex |
| children | [**cnxml:section**](#_bookmark59) [**ep:zebra-point**](#_bookmark228) |
| used by | complexType [**documentType**](#_bookmark63) |
| annotation | documentation  Element zawierający treść modułu |
| source | <xs:element name="content" type="cnxml:contentType">  <xs:annotation>  <xs:documentation>Element zawierający treść modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **definition**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | extension of [**cnxml:definitionType**](#_bookmark60) | |
| properties | content | complex |
| children | [**cnxml:term**](#_bookmark62) [**cnxml:meaning**](#_bookmark20) [**cnxml:example**](#_bookmark11) [**ep:source**](#_bookmark210) | |
| used by | group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark61) [**idType**](#_bookmark125)required  [ep:glossary](#_bookmark375) **xs:boolean** required documentation Oznaczenie, czy element ma trafić do słowniczka, czy nie  [ep:presentation-](#_bookmark376) **derived by:** documentation  [variant](#_bookmark376) **xs:string** Atrybut  pozwalający oznaczyć, że blok semantyczny ma być  wyeksponowany | |
|  | w warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie,  Praca domowa | |
| annotation | documentation  Element definicja | |
| source | <xs:element name="definition">  <xs:annotation>  <xs:documentation>Element definicja</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:definitionType"/>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **document**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespac  e | <http://cnx.rice.edu/cnxml> | | | | | |
| type | [**cnxml:documentType**](#_bookmark63) | | | | | |
| properties | content | complex | | | | |
| children | [**cnxml:title**](#_bookmark67) [**cnxml:metadata**](#_bookmark21) [**cnxml:content**](#_bookmark4) [**bib:file**](#_bookmark434) | | | | | |
| attributes | Name Type Use Default Fixed Annotation [module-id](#_bookmark64) [**idType**](#_bookmark125)required  [id](#_bookmark65) [**idType**](#_bookmark125)required | | | | | |
|  | [cnxml-version](#_bookmark66) **xs:string** | | required |  | 0.7 |  |
| identity | Name | | Refer | Selecto | Field(s) | Annotatio |
| constraints |  | |  | r |  | n |
|  | key PKDocumentId | |  | . | @id |  |
|  | keyre FKDocumentModule-id f | | [cnxml:PKDocumentId](#_bookmark6) | . | @module-id |  |
|  | keyre FKDocumentMetadataConten | | [cnxml:PKDocumentId](#_bookmark6) | . | cnxml:metadata/md:conten |  |
|  | f t-id  key PKDocumentTitle | |  | . | t-id cnxml:title |  |
|  | keyre FKDocumentMetadataTitle | | [cnxml:PKDocumentTitl](#_bookmark6) | . | cnxml:metadata/md:title |  |
|  | f | | [e](#_bookmark6) |  |  |  |
| annotation documentation  Element główny modułu  source <xs:element name="document" type="cnxml:documentType">  <xs:annotation>  <xs:documentation>Element główny modułu</xs:documentation>  </xs:annotation>  <xs:key name="PKDocumentId">  <xs:selector xpath="."/>  <xs:field xpath="@id"/>  </xs:key>  <xs:keyref name="FKDocumentModule-id" refer="cnxml:PKDocumentId">  <xs:selector xpath="."/>  <xs:field xpath="@module-id"/>  </xs:keyref>  <xs:keyref name="FKDocumentMetadataContent-id" refer="cnxml:PKDocumentId">  <xs:selector xpath="."/>  <xs:field xpath="cnxml:metadata/md:content-id"/>  </xs:keyref>  <xs:key name="PKDocumentTitle">  <xs:selector xpath="."/>  <xs:field xpath="cnxml:title"/>  </xs:key>  <xs:keyref name="FKDocumentMetadataTitle" refer="cnxml:PKDocumentTitle">  <xs:selector xpath="."/>  <xs:field xpath="cnxml:metadata/md:title"/>  </xs:keyref>  </xs:element> | | | | | | |

element **emphasis**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| properties | content | complex | |  |  |  |  |
| mixed | true |  |  |  |  |  |
| used by | complexType | | [**contentType**](#_bookmark268) |  |  |  |  |
| groups | | [**linkInlineContentGroup**](#_bookmark44) [**presentationTitleContentGroup**](#_bookmark410) [**verySimpleInlineContentGroup**](#_bookmark49) | | | | |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [effect](#_bookmark8) |  | **derived by: xs:string** | required |  |  |  |
| annotation | documentation  INLINE Emfaza (EP Emfaza, EP Emfaza - podrubienie, EP Emfaza - kursywa + pogrubienie) | | | | | | |
| source | <xs:element name="emphasis">  <xs:annotation>  <xs:documentation>INLINE Emfaza (EP Emfaza, EP Emfaza - podrubienie, EP Emfaza - kursywa + pogrubienie)</xs:documentation>  </xs:annotation>  <xs:complexType mixed="true">  <xs:attribute name="effect" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="italics"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="bolditalics"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <!-- <xs:complexContent>  <xs:extension base="cnxml:inlineContentType">  </xs:complexContent>-->  </xs:complexType>  </xs:element> | | | | | | |

attribute **emphasis/@ effect**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration italics enumeration bold enumeration bolditalics | |
| source | <xs:attribute name="effect" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="italics"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="bolditalics"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

element **entry**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://cnx.rice.edu/cnxml> | | |
| type | extension of [**cnxml:entryType**](#_bookmark68) | | |
| properties | content complex | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) | | |
| used by | complexType [**rowType**](#_bookmark105) | | |
| attributes | Name Type Use Default Fixed Annotation | | |
|  | [namest](#_bookmark69) | **derived by: xs:string** | documentation Nazwa kolumny  (table/tgroup/colspec/@colname) |
|  |  | , w której zaczyna się komórka. |
|  |  | Wykorzystywane razem z |
|  |  | nameend w momencie, gdy |
|  |  | potrzebne jest scalanie w |
|  |  | poziomie. UWAGA: w |
|  |  | konwerterze przyjęto schemat |
|  |  | nazewnictwa c{n}, gdzie n jest |
|  |  | tożsame z numerem kolumny. |
| [nameend](#_bookmark70) | **derived by: xs:string** | documentation Nazwa kolumny  (table/tgroup/colspec/@colname) |
|  |  | , w której kończy się komórka. |
|  |  | Wykorzystywane razem z |
|  |  | nameend w momencie, gdy |
|  |  | potrzebne jest scalanie w |
|  |  | poziomie. UWAGA: w |
|  |  | konwerterze przyjęto schemat |
|  |  | nazewnictwa c{n}, gdzie n jest |
|  |  | tożsame z numerem kolumny. |
| [morerows](#_bookmark71) | **xs:positiveInteger** | documentation  Liczba komórek tabeli do |
|  |  | scalenia w pionie (w dół). |
| annotation | documentation | |  |
| Element komórka tabeli | |  |
| source | <xs:element name="entry">  <xs:annotation>  <xs:documentation>Element komórka tabeli</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:entryType"/>  </xs:complexContent>  </xs:complexType>  </xs:element> | | |

element **equation**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:equationType**](#_bookmark72) |
| properties | content complex |
| children | [**m:math**](#_bookmark1047) |
| used by | group [**linkInlineContentGroup**](#_bookmark44) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark73) [**idType**](#_bookmark125)required |
| annotation | documentation  MathML w formie blokowej |
| source | <xs:element name="equation" type="cnxml:equationType">  <xs:annotation>  <xs:documentation>MathML w formie blokowej</xs:documentation>  </xs:annotation>  </xs:element> |

element **example**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexTypes [**definitionType**](#_bookmark60) [**ruleType**](#_bookmark106)  group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Przykład (EP Przykład) |
| source | <xs:element name="example" type="cnxml:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Przykład (EP Przykład)</xs:documentation>  </xs:annotation>  </xs:element> |

element **exercise**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | |
| type | [**cnxml:exerciseType**](#_bookmark74) | | | | |
| properties | content | complex | | | |
| children | [**ep:effect-of-education**](#_bookmark167) [**cnxml:title**](#_bookmark77) [**ep:alternatives**](#_bookmark129) [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) [**cnxml:solution**](#_bookmark33)[**cnxml:commentary**](#_bookmark2) [**q:item**](#_bookmark472) [**ep:reference**](#_bookmark206) | | | | |
| used by | complexType [**student-workType**](#_bookmark345)  group [**sectionElementGroup**](#_bookmark45) | | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark75) [**idType**](#_bookmark485)required | | | | |
|  | [ep:stretch](#_bookmark378) | | [**ep:stretchType**](#_bookmark366) |  | documentation  Atrybut |
|  | |  | oznaczający |
|  | |  | powiększoną |
|  | |  | szerokość |
|  | |  | elementu |
| [ep:foldable](#_bookmark374) | | **xs:boolean** |  | documentation Atrybut |
|  | |  | pozwalający |
|  | |  | oznaczyć, że notka |
|  | |  | jest, lub nie jest |
|  | |  | zwijalna. UWAGA: |
|  | |  | Ma zastosowanie |
|  | |  | tylko i wyłącznie w |
|  | |  | przypadku notki |
|  | |  | typu curiosity i ma |
|  | |  | dla niej domyślną |
|  | |  | wartość true. |
| [ep:content-](#_bookmark373) [status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) |  | documentation Status treści |
| [type](#_bookmark76) | | **derived by:** | optional |  |
| **xs:string** |
| [ep:context-](#_bookmark384) | | **xs:boolean** | required |  |
| [dependent](#_bookmark384) | |
| [ep:interactivity](#_bookmark385) | | **derived by: xs:string** |  | documentation  Atrybut interactivity powinien być |
|  | |  | wykorzystany do |
|  | |  | podjęcia decyzji |
|  | |  | jakie podelementy |
|  | |  | są dozwolone w |
|  | |  | ramach |
|  | |  | exercise/alternatyw. |
|  | |  | Są to zależności |
|  | |  | niewyrażalne w |
|  | |  | schemacie XML. |
| [ep:on-paper](#_bookmark386) | | **xs:boolean** | optional | false |
| [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** | optional | documentation  Atrybut pozwalający |
|  | |  |  | oznaczyć, że blok |
|  | |  |  | semantyczny ma |
|  | |  |  | być |
|  | |  |  | wyeksponowany w |
|  | |  |  | warstwie |
|  | |  |  | prezentacyjnej np. |
|  | |  |  | Zadanie, |
|  | |  |  | Polecenie, Notka, |
|  | |  |  | Definicja, Reguła, |
|  | |  |  | Pojęcie, Praca |
|  | |  |  | domowa |
| annotation | documentation | |  |  |  |
| Element ćwiczenie | | |  |  |
| source | <xs:element name="exercise" type="cnxml:exerciseType">  <xs:annotation>  <xs:documentation>Element ćwiczenie</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **foreign**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | **xs:string** |
| properties | content simple |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) |
| annotation | documentation  INLINE Język obcy (EP Język obcy) |
| source | <xs:element name="foreign" type="xs:string">  <xs:annotation>  <xs:documentation>INLINE Język obcy (EP Język obcy)</xs:documentation>  </xs:annotation>  <!-- <xs:element name="foreign" type="cnxml:inlineContentType">-->  </xs:element> |

element **item**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerType**](#_bookmark94) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**listType**](#_bookmark85) |
| annotation | documentation  Element składowy listy |
| source | <xs:element name="item" type="cnxml:paraContainerType">  <xs:annotation>  <xs:documentation>Element składowy listy</xs:documentation>  </xs:annotation>  </xs:element> |

element **label**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:simpleInlineContentType**](#_bookmark112) |
| properties | content complex  mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | complexType [**quoteType**](#_bookmark103) |
| annotation | documentation |
|  | Element będący tytułem cytatu, ... |
| source | <xs:element name="label" type="cnxml:simpleInlineContentType">  <xs:annotation>  <xs:documentation>Element będący tytułem cytatu, ...</xs:documentation>  </xs:annotation>  </xs:element> |

element **link**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | extension of [**cnxml:linkInlineContentType**](#_bookmark84) | |
| properties | content | complex |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | |
| attributes | Name Type Use Default Fixed Annotation [target-id](#_bookmark17) [**idType**](#_bookmark125)  [document](#_bookmark18) [**idType**](#_bookmark125)  [ep:collection-id](#_bookmark370) [**idType**](#_bookmark485)optional documentation Atrybut zawierający id kolekcji w łączu  [ep:collection-](#_bookmark372) **xs:positiveInteger** optional documentation  [version](#_bookmark372) Atrybut  zawierający wersję kolekcji w łączu  [ep:collection-](#_bookmark371) **xs:string** optional documentation  [recipient](#_bookmark371) Atrybut  zawierający odbiorcę treści kolekcji w  łączu | |
| annotation | documentation  Element łącza do modułu lub zakładki w module(bookmark). | |
| source | <xs:element name="link">  <xs:annotation>  <xs:documentation>Element łącza do modułu lub zakładki w module(bookmark).</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:linkInlineContentType">  <xs:attribute name="target-id" type="cnxml:idType"/>  <xs:attribute name="document" type="cnxml:idType"/>  <xs:attribute ref="ep:collection-id" use="optional"/>  <xs:attribute ref="ep:collection-version" use="optional"/>  <xs:attribute ref="ep:collection-recipient" use="optional"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

attribute **link/@ target -id**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**idType**](#_bookmark125) | | |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="target-id" type="cnxml:idType"/> | | |

attribute **link/@ document**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**idType**](#_bookmark125) | | |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="document" type="cnxml:idType"/> | | |

element **list**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:listType**](#_bookmark85) | |
| properties | content | complex |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:item**](#_bookmark14) | |
| used by | groups [**extendedInlineContentGroup**](#_bookmark43) [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark86) [**idType**](#_bookmark125)required  [list-type](#_bookmark87) **derived by:** required documentation  **xs:string** Typ listy:  punktowana lub numerowana  [number-style](#_bookmark88) **derived by:** documentation  **xs:string** Styl  numerowania. Ten atrybut występuje tylko w w momencie, gdy wartość list- type to 'enumerated'.  [start-value](#_bookmark89) **xs:positiveInteger** documentation  Wartość początkowa numerowania listy. Atrybut występuje tylko w momencie, gdy wartość list-type to 'enumerated'.  [mark-prefix](#_bookmark90) **derived by:** documentation  **xs:string** Prefix przed  numerowaniem elementu listy.  [mark-suffix](#_bookmark91) **derived by:** documentation  **xs:string** Postfix po  numerowaniu  elementu listy. | |
| annotation | documentation Element lista | |
| source | <xs:element name="list" type="cnxml:listType">  <xs:annotation>  <xs:documentation>Element lista</xs:documentation>  </xs:annotation>  </xs:element> | |

element **meaning**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**definitionType**](#_bookmark60) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Znaczenie definicji |
| source | <xs:element name="meaning" type="cnxml:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Znaczenie definicji</xs:documentation>  </xs:annotation>  </xs:element> |

element **metadata**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | [**cnxml:metadataType**](#_bookmark92) | | | |
| properties | content complex | | | |
| children | [**md:content-id**](#_bookmark392) [**md:repository**](#_bookmark403) [**md:version**](#_bookmark409) [**md:created**](#_bookmark393) [**md:revised**](#_bookmark404) [**md:title**](#_bookmark408) [**md:language**](#_bookmark399) [**md:license**](#_bookmark400)[**md:presentationTitle**](#_bookmark402) [**md:actors**](#_bookmark391)[**md:roles**](#_bookmark406)[**md:abstract**](#_bookmark390)[**md:keywordlist**](#_bookmark398)[**ep:e-textbook-module**](#_bookmark165)[**ep:origin-id**](#_bookmark196)[**ep:origin-**](#_bookmark197)[**version**](#_bookmark197) | | | |
| used by | complexType [**documentType**](#_bookmark63) | | | |
| attributes | Name Type Use Default Fixed Annotation | | | |
|  | [mdml-version](#_bookmark93) | **xs:string** | required | 0.5 |
| annotation | documentation |  |  |  |
| Element zawierający metadane modułu | | |  |
| source | <xs:element name="metadata" type="cnxml:metadataType">  <xs:annotation>  <xs:documentation>Element zawierający metadane modułu</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **newline**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | content complex |
| used by | complexType [**contentType**](#_bookmark268)  group [**linkInlineContentGroup**](#_bookmark44) |
| annotation | documentation  Przejście do nowej linii. Element pusty ("miękki enter"). |
| source | <xs:element name="newline">  <xs:annotation>  <xs:documentation>Przejście do nowej linii. Element pusty ("miękki enter").</xs:documentation>  </xs:annotation>  <xs:complexType/>  </xs:element> |

element **note**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | extension of [**cnxml:paraContainerWithIdType**](#_bookmark95) | | | |
| properties | content | complex | | |
| children | [**cnxml:para**](#_bookmark25) | | | |
| used by | complexTypes [**commandType**](#_bookmark264) [**experimentType**](#_bookmark299)[**observationType**](#_bookmark324)  groups [**sectionElementGroup**](#_bookmark45) [**simpleExerciseGroup**](#_bookmark236) | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required  [type](#_bookmark24) **derived by:** required  **xs:string**  [ep:presentation-](#_bookmark376) **derived by:** documentation  [variant](#_bookmark376) **xs:string** Atrybut  pozwalający oznaczyć, że blok semantyczny ma być wyeksponowany w warstwie prezentacyjnej | | | |
|  |  | |  | np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie,  Praca domowa |
| [ep:foldable](#_bookmark374) | | **xs:boolean** | documentation Atrybut pozwalający oznaczyć, że notka jest, lub nie jest zwijalna. UWAGA: Ma  zastosowanie tylko i wyłącznie w przypadku notki typu curiosity i ma dla niej domyślną  wartość true. |
| [ep:recipient](#_bookmark377) | | [**ep:recipientType**](#_bookmark365) | documentation Odbiorca treści |
| annotation | documentation | |  |  |
| Notka (EP Notka) | | |  |
| source | <xs:element name="note">  <xs:annotation>  <xs:documentation>Notka (EP Notka)</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:paraContainerWithIdType">  <xs:attribute name="type" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="tip"/>  <xs:enumeration value="important"/>  <xs:enumeration value="warning"/>  <xs:enumeration value="curiosity"/>  <xs:enumeration value="remember"/>  <xs:enumeration value="consider"/>  <xs:enumeration value="see-also"/>  <xs:enumeration value="good-to-know"/>  <xs:enumeration value="for-interested"/>  <xs:enumeration value="time-capsule"/>  <xs:enumeration value="no-label"/>  <!-- <xs:enumeration  value="more"></xs:enumeration>-->  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute ref="ep:presentation-variant"/>  <xs:attribute ref="ep:foldable"/>  <xs:attribute ref="ep:recipient"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | | | |

attribute **note/@ type**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration tip enumeration important enumeration warning enumeration curiosity enumeration remember enumeration consider enumeration see-also enumeration good-to-know enumeration for-interested enumeration time-capsule enumeration no-label | |
| source | <xs:attribute name="type" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="tip"/>  <xs:enumeration value="important"/>  <xs:enumeration value="warning"/>  <xs:enumeration value="curiosity"/>  <xs:enumeration value="remember"/>  <xs:enumeration value="consider"/>  <xs:enumeration value="see-also"/>  <xs:enumeration value="good-to-know"/>  <xs:enumeration value="for-interested"/>  <xs:enumeration value="time-capsule"/>  <xs:enumeration value="no-label"/>  <!-- <xs:enumeration  value="more"></xs:enumeration>-->  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

element **para**

diagram

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | extension of [**cnxml:extendedInlineContentType**](#_bookmark78) | |
| properties | content | complex |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) [**cnxml:newline**](#_bookmark22) [**ep:nbsp**](#_bookmark192) [**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36) [**cnxml:sub**](#_bookmark35) [**cnxml:link**](#_bookmark16) [**ep:tooltip-reference**](#_bookmark224) [**ep:glossary-reference**](#_bookmark181) [**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137) [**ep:event-reference**](#_bookmark171) [**ep:bibliography-reference**](#_bookmark134) [**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) [**ep:reference**](#_bookmark206)[**ep:gallery**](#_bookmark179) [**ep:fold-point**](#_bookmark175) | |
| used by | element [**qmlSectionContainerType/section**](#_bookmark101)  complexTypes [**codeType**](#_bookmark50) [**paraContainerType**](#_bookmark94)[**problemType**](#_bookmark97)[**quoteType**](#_bookmark103)  group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark26) [**idType**](#_bookmark125)required  [ep:stretch](#_bookmark378) [**ep:stretchType**](#_bookmark366)documentation  Atrybut oznaczający powiększoną szerokość  elementu | |
| annotation | documentation  Paragraf | |
| source | <xs:element name="para">  <xs:annotation>  <xs:documentation>Paragraf</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:extendedInlineContentType">  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute ref="ep:stretch"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

attribute **para/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

element **problem**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:problemType**](#_bookmark97) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) [**cnxml:quote**](#_bookmark99) |
| used by | complexTypes [**commandType**](#_bookmark264) [**student-workType**](#_bookmark345)  group [**simpleExerciseGroup**](#_bookmark236) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark98) [**idType**](#_bookmark125)required |
| annotation | documentation  Definicja problemu w ćwiczeniu, poleceniu, etc. (EP Ćwiczenie problem, EP Polecenie w EPK Polecenie) |
| source | <xs:element name="problem" type="cnxml:problemType">  <xs:annotation>  <xs:documentation>Definicja problemu w ćwiczeniu, poleceniu, etc. (EP Ćwiczenie problem, EP Polecenie w EPK Polecenie)</xs:documentation>  </xs:annotation>  </xs:element> |

element **proof**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**ruleType**](#_bookmark106) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Dowód reguły (EP Reguła - dowód) |
| source | <xs:element name="proof" type="cnxml:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Dowód reguły (EP Reguła - dowód)</xs:documentation>  </xs:annotation>  </xs:element> |

element **quote**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | extension of **xs:string** |
| properties | content complex |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) |
| attributes | Name Type Use Default Fixed Annotation  [display](#_bookmark30) required inline |
| annotation | documentation  INLINE Cytat (EP Cytat) |
| source | <xs:element name="quote">  <xs:annotation>  <xs:documentation>INLINE Cytat (EP Cytat)</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="display" use="required" fixed="inline"/>  </xs:extension>  </xs:simpleContent>  <!-- <xs:complexContent>  <xs:extension base="cnxml:inlineContentType">  </xs:complexContent>-->  </xs:complexType>  </xs:element> |

attribute **quote/@ display**

|  |  |  |
| --- | --- | --- |
| properties | use | required |
| fixed | inline |
| source | <xs:attribute name="display" use="required" fixed="inline"/> | |

element **row**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:rowType**](#_bookmark105) |
| properties | content complex |
| children | [**cnxml:entry**](#_bookmark9) |
| used by | complexTypes [**tbodyType**](#_bookmark117) [**theadType**](#_bookmark120) |
| annotation | documentation  Element wiersz tabeli |
| source | <xs:element name="row" type="cnxml:rowType">  <xs:annotation>  <xs:documentation>Element wiersz tabeli</xs:documentation>  </xs:annotation>  </xs:element> |

element **rule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | [**cnxml:ruleType**](#_bookmark106) | | | |
| properties | content | complex | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:statement**](#_bookmark34) [**cnxml:proof**](#_bookmark28) [**cnxml:example**](#_bookmark11) | | | |
| used by | group [**sectionElementGroup**](#_bookmark45) | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark107) [**idType**](#_bookmark125)required  [ep:glossary](#_bookmark375) **xs:boolean** required documentation Oznaczenie, czy element ma trafić do słowniczka, czy nie | | | |
|  | [type](#_bookmark108) | | **derived by:** |  |
| **xs:string** |
| [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** | documentation Atrybut pozwalający |
|  | |  | oznaczyć, że |
|  | |  | blok |
|  | |  | semantyczny |
|  | |  | ma być |
|  | |  | wyeksponowany |
|  | |  | w warstwie |
|  | |  | prezentacyjnej |
|  | |  | np. Zadanie, |
|  | |  | Polecenie, |
|  | |  | Notka, Definicja, |
|  | |  | Reguła, Pojęcie, |
|  | |  | Praca domowa |
| annotation | documentation | |  |  |
| Element reguły | |  |  |
| source | <xs:element name="rule" type="cnxml:ruleType">  <xs:annotation>  <xs:documentation>Element reguły</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **solution**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**simpleExerciseGroup**](#_bookmark236) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Rozwiązanie ćwiczenia (EP Ćwiczenie - rozwiązanie) |
| source | <xs:element name="solution" type="cnxml:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Rozwiązanie ćwiczenia (EP Ćwiczenie - rozwiązanie)</xs:documentation>  </xs:annotation>  </xs:element> |

element **statement**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:paraContainerWithIdType**](#_bookmark95) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**ruleType**](#_bookmark106) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Twierdzenie w regule (EP Reguła - twierdzenie) |
| source | <xs:element name="statement" type="cnxml:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Twierdzenie w regule (EP Reguła - twierdzenie)</xs:documentation>  </xs:annotation>  </xs:element> |

element **sub**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:verySimpleInlineContentType**](#_bookmark124) |
| properties | content complex mixed true |
| children | [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) |
| used by | complexType [**core-curriculum-abilityType**](#_bookmark271)  group [**linkInlineContentGroup**](#_bookmark44) |
| annotation | documentation  Element inline przypis dolny |
| source | <xs:element name="sub" type="cnxml:verySimpleInlineContentType">  <xs:annotation>  <xs:documentation>Element inline przypis dolny</xs:documentation>  </xs:annotation>  </xs:element> |

element **sup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:verySimpleInlineContentType**](#_bookmark124) |
| properties | content complex  mixed true |
| children | [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) |
| used by | complexType [**core-curriculum-abilityType**](#_bookmark271)  group [**linkInlineContentGroup**](#_bookmark44) |
| annotation | documentation  Element inline przypis górny |
| source | <xs:element name="sup" type="cnxml:verySimpleInlineContentType">  <xs:annotation>  <xs:documentation>Element inline przypis górny</xs:documentation>  </xs:annotation>  </xs:element> |

element **table**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:tableType**](#_bookmark113) | |
| properties | content | complex |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:tgroup**](#_bookmark40) | |
| used by | groups [**extendedInlineContentGroup**](#_bookmark43) [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark114) [**idType**](#_bookmark125)required  [summary](#_bookmark115) **xs:string** required  [ep:style](#_bookmark379) **derived by:** optional documentation  **xs:string** atrybut styl dla  cn:table  [pgwide](#_bookmark116) **derived by:** optional documentation  **xs:positiveInteger** Szerokość  tabeli. | |
| annotation | documentation  Element tabela | |
| source | <xs:element name="table" type="cnxml:tableType">  <xs:annotation>  <xs:documentation>Element tabela</xs:documentation>  </xs:annotation>  </xs:element> | |

element **tbody**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:tbodyType**](#_bookmark117) |
| properties | content complex |
| children | [**cnxml:row**](#_bookmark31) |
| used by | complexType [**tgroupType**](#_bookmark118) |
| annotation | documentation  Element ciało tabeli |
| source | <xs:element name="tbody" type="cnxml:tbodyType">  <xs:annotation>  <xs:documentation>Element ciało tabeli</xs:documentation>  </xs:annotation>  </xs:element> |

element **term**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | **xs:string** |
| properties | content simple |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) |
| annotation | documentation  INLINE Określenie (EP Określenie); Nazwa pojęcia/definicji (EP Nazwa) |
| source | <xs:element name="term" type="xs:string">  <xs:annotation>  <xs:documentation>INLINE Określenie (EP Określenie); Nazwa pojęcia/definicji (EP Nazwa)</xs:documentation>  </xs:annotation>  <!-- <xs:element name="term" type="cnxml:inlineContentType">-->  </xs:element> |

element **tgroup**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:tgroupType**](#_bookmark118) | |
| properties | content | complex |
| children | [**cnxml:colspec**](#_bookmark1) [**cnxml:thead**](#_bookmark41) [**cnxml:tbody**](#_bookmark38) | |
| used by | complexType [**tableType**](#_bookmark113) | |
| attributes | Name Type Use Default Fixed Annotation  [cols](#_bookmark119) **xs:positiveInteger** required documentation Liczba kolumn w tabeli | |
| annotation | documentation  Element grupy w tabeli | |
| source | <xs:element name="tgroup" type="cnxml:tgroupType">  <xs:annotation>  <xs:documentation>Element grupy w tabeli</xs:documentation>  </xs:annotation>  </xs:element> | |

element **thead**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:theadType**](#_bookmark120) |
| properties | content complex |
| children | [**cnxml:row**](#_bookmark31) |
| used by | complexType [**tgroupType**](#_bookmark118) |
| annotation | documentation  Element nagłówek tabeli |
| source | <xs:element name="thead" type="cnxml:theadType">  <xs:annotation>  <xs:documentation>Element nagłówek tabeli</xs:documentation>  </xs:annotation>  </xs:element> |

element **title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:simpleInlineContentType**](#_bookmark112) |
| properties | content complex  mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | complexTypes [**codeType**](#_bookmark50) [**experimentType**](#_bookmark299) [**firstLevelSectionType**](#_bookmark79) [**fourthLevelSectionType**](#_bookmark82) [**galleryType**](#_bookmark309) [**listType**](#_bookmark85)[**observationType**](#_bookmark324) [**procedure-instructionsType**](#_bookmark334) [**ruleType**](#_bookmark106) [**secondLevelSectionType**](#_bookmark109) [**tableType**](#_bookmark113)[**thirdLevelSectionType**](#_bookmark121) [**tooltipType**](#_bookmark348) |
| annotation | documentation  Element będący tytułem modułu, sekcji, listy, tabeli, kodu, doświadczenia, obserwacji etc. |
| source | <xs:element name="title" type="cnxml:simpleInlineContentType">  <xs:annotation>  <xs:documentation>Element będący tytułem modułu, sekcji, listy, tabeli, kodu, doświadczenia, obserwacji etc.</xs:documentation>  </xs:annotation>  </xs:element> |

# group extendedInlineContentGroup

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) [**ep:reference**](#_bookmark206) [**ep:gallery**](#_bookmark179) [**ep:fold-point**](#_bookmark175) |
| used by | complexType [**extendedInlineContentType**](#_bookmark78) |
| annotation | documentation  grupa elementów mogących wejść w skład zawartości rozszerzonej np. paragrafu |
| source | <xs:group name="extendedInlineContentGroup">  <xs:annotation>  <xs:documentation>grupa elementów mogących wejść w skład zawartości rozszerzonej np. paragrafu</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:element ref="cnxml:list"/> |
|  | <xs:element ref="cnxml:table"/>  <xs:element ref="ep:reference"/>  <xs:element ref="ep:gallery"/>  <xs:element ref="ep:fold-point"/>  </xs:choice>  </xs:group> |

group **linkInlineContentGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |

|  |  |
| --- | --- |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) |
| used by | complexTypes [**extendedInlineContentType**](#_bookmark78) [**linkInlineContentType**](#_bookmark84)[**simpleInlineContentType**](#_bookmark112) |
| annotation | documentation  Grupa bazowych elementów dozwolonych wewnątrz łączy, odwołań etc (to co w simpleInlineContentGroup, ale bez innych łączy). |
| source | <xs:group name="linkInlineContentGroup">  <xs:annotation>  <xs:documentation>Grupa bazowych elementów dozwolonych wewnątrz łączy, odwołań etc (to co w simpleInlineContentGroup, ale bez innych łączy).</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:element ref="ep:bookmark"/>  <xs:element ref="cnxml:emphasis"/>  <xs:element ref="cnxml:quote"/>  <xs:element ref="cnxml:foreign"/>  <xs:element ref="cnxml:term"/>  <xs:element ref="cnxml:code"/>  <xs:element ref="cnxml:newline"/>  <xs:element ref="ep:nbsp"/>  <xs:element ref="ep:tab"/>  <xs:element ref="mml:math"/>  <xs:element ref="cnxml:equation"/>  <xs:element ref="cnxml:sup"/>  <xs:element ref="cnxml:sub"/>  </xs:choice>  </xs:group> |

group **sectionElementGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:para**](#_bookmark25)[**cnxml:note**](#_bookmark23)[**cnxml:example**](#_bookmark11)[**cnxml:exercise**](#_bookmark12)[**cnxml:definition**](#_bookmark5)[**cnxml:rule**](#_bookmark32)[**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186)[**ep:effect**](#_bookmark166) [**ep:prerequisite**](#_bookmark199) [**ep:revisal**](#_bookmark208) [**ep:command**](#_bookmark143) [**ep:student-work**](#_bookmark219) [**ep:concept**](#_bookmark145) [**ep:tooltip**](#_bookmark223) [**ep:procedure-instructions**](#_bookmark204)[**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46) [**cnxml:code**](#_bookmark47) [**cnxml:list**](#_bookmark19)[**cnxml:table**](#_bookmark37) |
| used by | complexTypes [**firstLevelSectionType**](#_bookmark79) [**fourthLevelSectionType**](#_bookmark82)[**secondLevelSectionType**](#_bookmark109)[**thirdLevelSectionType**](#_bookmark121) |
| annotation | documentation  Dozwolona zawartość sekcji. UWAGA: Elementy dla cytatu blokowego oraz kodu blokowego są zdefiniowane wewnątrz grupy (inaczej byłaby kolizja z odpowiednikami inline). UWAGA: element ep:bookmark występuje tutaj na skutek zastosowania zakładki na tytule sekcji w MS Word. |
| source | <xs:group name="sectionElementGroup">  <xs:annotation>  <xs:documentation>Dozwolona zawartość sekcji. UWAGA: Elementy dla cytatu blokowego oraz kodu blokowego są zdefiniowane wewnątrz grupy (inaczej byłaby kolizja z odpowiednikami inline). UWAGA: element ep:bookmark występuje tutaj na skutek zastosowania zakładki na tytule sekcji w MS Word.</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:element ref="ep:bookmark"/>  <xs:element ref="cnxml:para"/>  <xs:element ref="cnxml:note"/>  <xs:element ref="cnxml:example"/>  <xs:element ref="cnxml:exercise"/>  <xs:element ref="cnxml:definition"/>  <xs:element ref="cnxml:rule"/>  <xs:element ref="ep:lead"/>  <xs:element ref="ep:intro"/>  <xs:element ref="ep:effect"/>  <xs:element ref="ep:prerequisite"/>  <xs:element ref="ep:revisal"/>  <xs:element ref="ep:command"/>  <xs:element ref="ep:student-work"/>  <xs:element ref="ep:concept"/>  <xs:element ref="ep:tooltip"/>  <xs:element ref="ep:procedure-instructions"/>  <xs:element ref="ep:biography"/>  <xs:element ref="ep:event"/>  <xs:element ref="ep:experiment"/>  <xs:element ref="ep:observation"/>  <xs:element ref="ep:technical-remarks"/>  <xs:element name="quote" type="cnxml:quoteType">  <xs:annotation>  <xs:documentation>Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma zupełnie inny charakter.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="code" type="cnxml:codeType">  <xs:annotation>  <xs:documentation>Kod blokowy jest zdefiniowany tutaj, aby nie było kolizji z kodem inline, który ma zupełnie inny charakter.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="cnxml:list"/>  <xs:element ref="cnxml:table"/>  </xs:choice>  </xs:group> |

element **sectionElementGroup/quote**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | [**cnxml:quoteType**](#_bookmark103) | | | |
| properties | content | complex | | |
| children | [**cnxml:label**](#_bookmark15) [**ep:author**](#_bookmark131) [**ep:comment**](#_bookmark144) [**cnxml:para**](#_bookmark25) [**ep:source**](#_bookmark210) [**ep:license**](#_bookmark188) [**ep:license-additional-info**](#_bookmark189) | | | |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark104) [**idType**](#_bookmark485)required  [ep:foldable](#_bookmark374) **xs:boolean** documentation | | | |
|  |  | |  | Atrybut pozwalający oznaczyć, że notka jest, lub nie jest zwijalna.  UWAGA: Ma  zastosowanie tylko i wyłącznie w przypadku notki typu curiosity i ma dla niej domyślną  wartość true. |
| [ep:content-status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) | documentation Status treści |
| annotation | documentation | |  |  |
| Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma  zupełnie inny charakter. | | | |
| source | <xs:element name="quote" type="cnxml:quoteType">  <xs:annotation>  <xs:documentation>Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma zupełnie inny charakter.</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **sectionElementGroup/code**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:codeType**](#_bookmark50) |
| properties | content complex |

children

used by

groups

attributes

Name

Type

Use required

required

Default

Fixed

Annotation

block

**derived by: xs:string**

annotation

source

documentation

Kod blokowy jest zdefiniowany tutaj, aby nie było kolizji z kodem inline, który ma zupełnie inny charakter.

<xs:element name="code" type="cnxml:codeType">

<xs:annotation>

<xs:documentation>Kod blokowy jest zdefiniowany tutaj, aby nie było kolizji z kodem inline, który ma zupełnie inny charakter.</xs:documentation>

</xs:annotation>

</xs:element>

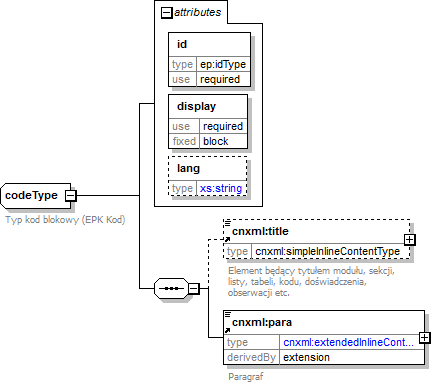
# group simpleInlineContentGroup

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:link**](#_bookmark16) [**ep:tooltip-reference**](#_bookmark224) [**ep:glossary-reference**](#_bookmark181) [**ep:concept-reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137) [**ep:event-**](#_bookmark171)[**reference**](#_bookmark171) [**ep:bibliography-reference**](#_bookmark134) |
| used by | complexTypes [**extendedInlineContentType**](#_bookmark78) [**simpleInlineContentType**](#_bookmark112) |
| annotation | documentation  grupa bazowych elementów dozwolonych w celi tabelki (to co w paragrafie, ale bez referencji WOMI, Galerii, tabel, czy list). |
| source | <xs:group name="simpleInlineContentGroup">  <xs:annotation>  <xs:documentation>grupa bazowych elementów dozwolonych w celi tabelki (to co w paragrafie, ale bez referencji WOMI, Galerii, tabel, czy list).</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:element ref="cnxml:link"/>  <xs:element ref="ep:tooltip-reference"/>  <xs:element ref="ep:glossary-reference"/>  <xs:element ref="ep:concept-reference"/>  <xs:element ref="ep:biography-reference"/>  <xs:element ref="ep:event-reference"/>  <xs:element ref="ep:bibliography-reference"/>  </xs:choice>  </xs:group> |

group **verySimpleInlineContentGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) |
| used by | complexType [**verySimpleInlineContentType**](#_bookmark124) |
| annotation | documentation  Grupa bazowych elementów dozwolonych wewnątrz elementów inline typu sub i sup. |
| source | <xs:group name="verySimpleInlineContentGroup">  <xs:annotation>  <xs:documentation>Grupa bazowych elementów dozwolonych wewnątrz elementów inline typu sub i sup.</xs:documentation>  </xs:annotation>  <xs:choice> |
|  | <xs:element ref="cnxml:emphasis"/>  <xs:element ref="cnxml:quote"/>  <xs:element ref="cnxml:foreign"/>  <xs:element ref="cnxml:term"/>  <xs:element ref="cnxml:code"/>  </xs:choice>  </xs:group> |

complexType **codeType**

diagram

namespace <http://cnx.rice.edu/cnxml> children [**cnxml:title**](#_bookmark42) [**cnxml:para**](#_bookmark25)

used by element [**sectionElementGroup/code**](#_bookmark47)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark51) [**idType**](#_bookmark485)required

[display](#_bookmark52) required block [lang](#_bookmark53) **derived by:**

**xs:string**

annotation documentation

Typ kod blokowy (EPK Kod)

source <xs:complexType name="codeType">

<xs:annotation>

<xs:documentation>Typ kod blokowy (EPK Kod)</xs:documentation>

</xs:annotation>

<xs:sequence>

<xs:element ref="cnxml:title" minOccurs="0"/>

<xs:element ref="cnxml:para"/>

</xs:sequence>

<xs:attribute name="id" type="ep:idType" use="required"/>

<xs:attribute name="display" use="required" fixed="block"/>

<xs:attribute name="lang">

<xs:simpleType>

<xs:restriction base="xs:string">

|  |  |
| --- | --- |
|  | <xs:enumeration value="C"/>  <xs:enumeration value="Java"/>  <xs:enumeration value="Objective -C"/>  <xs:enumeration value="C++"/>  <xs:enumeration value="PHP"/>  <xs:enumeration value="C#"/>  <xs:enumeration value="(Visual) Basic"/>  <xs:enumeration value="Python"/>  <xs:enumeration value="Transact -SQL"/>  <xs:enumeration value="JavaScript"/>  <xs:enumeration value="Visual Basic .NET"/>  <xs:enumeration value="Perl"/>  <xs:enumeration value="Ruby"/>  <xs:enumeration value="Pascal"/>  <xs:enumeration value="PL/SQL"/>  <xs:enumeration value="Lisp"/>  <xs:enumeration value="Delphi/Object Pascal"/>  <xs:enumeration value="Groovy"/>  <xs:enumeration value="MATLAB"/>  <xs:enumeration value="COBOL"/>  </xs:restriction>  <!-- W chwili obecnej zamknięta lista - do rozszerzenia, lub wyłączenia, jeżeli będzie taka potrzeba -->  </xs:simpleType>  </xs:attribute>  </xs:complexType> |

attribute **codeType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **codeType/@ display**

|  |  |  |
| --- | --- | --- |
| properties | use | required |
| fixed | block |
| source | <xs:attribute name="display" use="required" fixed="block"/> | |

attribute **codeType/@ lang**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | C |  |
| enumeration | Java |  |

|  |  |  |
| --- | --- | --- |
|  | enumeration | Objective -C |
| enumeration | C++ |
| enumeration | PHP |
| enumeration | C# |
| enumeration | (Visual) Basic |
| enumeration | Python |
| enumeration | Transact -SQL |
| enumeration | JavaScript |
| enumeration | Visual Basic .NET |
| enumeration | Perl |
| enumeration | Ruby |
| enumeration | Pascal |
| enumeration | PL/SQL |
| enumeration | Lisp |
| enumeration | Delphi/Object Pascal |
| enumeration | Groovy |
| enumeration | MATLAB |
| enumeration | COBOL |
| source | <xs:attribute name="lang">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="C"/>  <xs:enumeration value="Java"/>  <xs:enumeration value="Objective -C"/>  <xs:enumeration value="C++"/>  <xs:enumeration value="PHP"/>  <xs:enumeration value="C#"/>  <xs:enumeration value="(Visual) Basic"/>  <xs:enumeration value="Python"/>  <xs:enumeration value="Transact -SQL"/>  <xs:enumeration value="JavaScript"/>  <xs:enumeration value="Visual Basic .NET"/>  <xs:enumeration value="Perl"/>  <xs:enumeration value="Ruby"/>  <xs:enumeration value="Pascal"/>  <xs:enumeration value="PL/SQL"/>  <xs:enumeration value="Lisp"/>  <xs:enumeration value="Delphi/Object Pascal"/>  <xs:enumeration value="Groovy"/>  <xs:enumeration value="MATLAB"/>  <xs:enumeration value="COBOL"/>  </xs:restriction>  <!-- W chwili obecnej zamknięta lista - do rozszerzenia, lub wyłączenia, jeżeli będzie taka potrzeba -->  </xs:simpleType>  </xs:attribute> | |

complexType **colspecType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| used by | element | [**colspec**](#_bookmark1) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [colnum](#_bookmark55) | **xs:positiveInteger** | optional |  |  | documentation  Numer kolumny. |
| [colname](#_bookmark56) | **derived by: xs:string** | required |  |  | documentation Nazwa kolumny tabeli - wykorzystywana do scalania w poziomie.  UWAGA: w  konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem  kolumny. |
| [colwidth](#_bookmark57) | **derived by: xs:positiveInteger** | optional |  |  | documentation Szerokość kolumny. |
| annotation | documentation | |  |  |  |  |
| Typ specyfikacja kolumny tabeli | |  |  |  |  |
| source | <xs:complexType name="colspecType">  <xs:annotation>  <xs:documentation>Typ specyfikacja kolumny tabeli</xs:documentation>  </xs:annotation>  <xs:attribute name="colnum" type="xs:positiveInteger" use="optional">  <xs:annotation>  <xs:documentation>Numer kolumny.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="colname" use="required">  <xs:annotation>  <xs:documentation>Nazwa kolumny tabeli - wykorzystywana do scalania w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation> | | | | | |
|  | </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/>  <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="colwidth" use="optional">  <xs:annotation>  <xs:documentation>Szerokość kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="99"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> | | | | | |

attribute **colspecType/@ colnum**

|  |  |
| --- | --- |
| type | **xs:positiveInteger** |
| properties | use optional |
| annotation | documentation  Numer kolumny. |
| source | <xs:attribute name="colnum" type="xs:positiveInteger" use="optional">  <xs:annotation>  <xs:documentation>Numer kolumny.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **colspecType/@ colname**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  pattern c[1-9][0-9]\* pattern col[A-Z] | |
| annotation | documentation  Nazwa kolumny tabeli - wykorzystywana do scalania w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny. | |
| source | <xs:attribute name="colname" use="required">  <xs:annotation>  <xs:documentation>Nazwa kolumny tabeli - wykorzystywana do scalania w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/> | |
|  | <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

attribute **colspecType/@ colwidth**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:positiveInteger** | |
| properties | use | optional |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 99 | |
| annotation | documentation  Szerokość kolumny. | |
| source | <xs:attribute name="colwidth" use="optional">  <xs:annotation>  <xs:documentation>Szerokość kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="99"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

complexType **contentType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:section**](#_bookmark59) [**ep:zebra-point**](#_bookmark228) |
| used by | element [**content**](#_bookmark4) |
| annotation | documentation  Typ treści modułu |
| source | <xs:complexType name="contentType">  <xs:annotation>  <xs:documentation>Typ treści modułu</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element name="section" type="cnxml:firstLevelSectionType"/>  <xs:element ref="ep:zebra-point"/>  </xs:choice>  </xs:complexType> |

element **contentType/section**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | [**cnxml:firstLevelSectionType**](#_bookmark79) | | | |
| properties | content complex | | | |
| children | [**ep:parameters**](#_bookmark233) [**cnxml:title**](#_bookmark42)[**ep:bookmark**](#_bookmark139)[**cnxml:para**](#_bookmark25)[**cnxml:note**](#_bookmark23)[**cnxml:example**](#_bookmark11)[**cnxml:exercise**](#_bookmark12)[**cnxml:definition**](#_bookmark5)[**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186)[**ep:effect**](#_bookmark166)[**ep:prerequisite**](#_bookmark199)[**ep:revisal**](#_bookmark208)[**ep:command**](#_bookmark143)[**ep:student-work**](#_bookmark219)[**ep:concept**](#_bookmark145)[**ep:tooltip**](#_bookmark223)[**ep:procedure-instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46)[**cnxml:code**](#_bookmark47) [**cnxml:list**](#_bookmark19)[**cnxml:table**](#_bookmark37)[**ep:zebra-point**](#_bookmark228)[**cnxml:section**](#_bookmark81) | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark80) [**idType**](#_bookmark125)required | | | |
|  | [ep:recipient](#_bookmark377) | [**ep:recipientType**](#_bookmark365) | optional | documentation UWAGA: ten atrybut sekcji może być używany tylko w momencie, gdy globalnie zadeklarowano moduł jako uczniowski, a jedyna wartość jaką może przyjąć to  teacher |
| [ep:content-status](#_bookmark373) | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) | optional | documentation UWAGA: ten atrybut sekcji może być używany tylko w momencie, gdy globalnie zadeklarowano moduł jako kanon, a jedyna wartość jaką może przyjąć to  expanding |
| source | <xs:element name="section" type="cnxml:firstLevelSectionType"/> | | | |

complexType **definitionType**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| children | [**cnxml:term**](#_bookmark62) [**cnxml:meaning**](#_bookmark20) [**cnxml:example**](#_bookmark11) [**ep:source**](#_bookmark210) | | | | | | |
| used by | elements | [**concept**](#_bookmark145) [**definition**](#_bookmark5) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark61) |  | [**idType**](#_bookmark125) | required |  |  |  |
|  | [ep:glossary](#_bookmark375) |  | **xs:boolean** | required |  |  | documentation Oznaczenie, czy |
|  |  |  |  | element ma |
|  |  |  |  | trafić do |
|  |  |  |  | słowniczka, czy |
|  |  |  |  | nie |
|  | [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** |  |  |  | documentation Atrybut pozwalający |
|  |  | |  | oznaczyć, że |
|  |  | |  | blok |
|  |  | |  | semantyczny |
|  |  | |  | ma być |
|  |  | |  | wyeksponowany |
|  |  | |  | w warstwie |
|  |  | |  | prezentacyjnej |
|  |  | |  | np. Zadanie, |
|  |  | |  | Polecenie, |
|  |  | |  | Notka, Definicja, |
|  |  | |  | Reguła, Pojęcie, |
|  |  | |  | Praca domowa |
| annotation | documentation  Typ definicja | | | | | | |
| source | <xs:complexType name="definitionType">  <xs:annotation>  <xs:documentation>Typ definicja</xs:documentation>  </xs:annotation>  <xs:sequence>  <!--<xs:element name="term" type="cnxml:titleType"/>-->  <xs:element name="term" type="cnxml:simpleInlineContentType"/>  <xs:sequence maxOccurs="unbounded">  <xs:element ref="cnxml:meaning"/>  <xs:element ref="cnxml:example" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="ep:source" minOccurs="0"/>  </xs:sequence>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute ref="ep:glossary" use="required"/>  <xs:attribute ref="ep:presentation-variant"/>  </xs:complexType> | | | | | | |

attribute **definitionType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

element **definitionType/term**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:simpleInlineContentType**](#_bookmark112) |
| properties | content complex  mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) |
| source | <xs:element name="term" type="cnxml:simpleInlineContentType"/> |

complexType **documentType**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| children | [**cnxml:title**](#_bookmark67) [**cnxml:metadata**](#_bookmark21) [**cnxml:content**](#_bookmark4) [**bib:file**](#_bookmark434) | | | | | | |
| used by | element | [**document**](#_bookmark6) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [module-id](#_bookmark64) |  | [**idType**](#_bookmark125) | required |  |  |  |
| [id](#_bookmark65) |  | [**idType**](#_bookmark125) | required |  |  |  |
| [cnxml-version](#_bookmark66) | | **xs:string** | required |  | 0.7 |  |
| annotation | documentation | |  |  |  |  |  |
| Typ elementu głównego modułu | | |  |  |  |  |
| source | <xs:complexType name="documentType">  <xs:annotation>  <xs:documentation>Typ elementu głównego modułu</xs:documentation>  </xs:annotation>  <xs:sequence>  <!--<xs:element ref="cnxml:title"/>-->  <xs:element name="title" type="cnxml:titleType"/>  <xs:element ref="cnxml:metadata"/>  <xs:element ref="cnxml:content"/>  <xs:element ref="bib:file" minOccurs="0"/> | | | | | | |
|  | </xs:sequence>  <xs:attribute name="module-id" type="cnxml:idType" use="required"/>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute name="cnxml-version" type="xs:string" use="required" fixed="0.7"/>  </xs:complexType> | | | | | | |

attribute **documentType/@ module -id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="module-id" type="cnxml:idType" use="required"/> | |

attribute **documentType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

attribute **documentType/@ cnxml -version**

|  |  |
| --- | --- |
| type | **xs:string** |
| properties | use required  fixed 0.7 |
| source | <xs:attribute name="cnxml-version" type="xs:string" use="required" fixed="0.7"/> |

element **documentType/title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**titleType**](#_bookmark126) |
| properties | content simple |
| used by | complexTypes [**codeType**](#_bookmark50) [**experimentType**](#_bookmark299) [**firstLevelSectionType**](#_bookmark79) [**fourthLevelSectionType**](#_bookmark82) [**galleryType**](#_bookmark309) [**listType**](#_bookmark85)[**observationType**](#_bookmark324) [**procedure-instructionsType**](#_bookmark334) [**ruleType**](#_bookmark106) [**secondLevelSectionType**](#_bookmark109) [**tableType**](#_bookmark113)[**thirdLevelSectionType**](#_bookmark121) [**tooltipType**](#_bookmark348) |

|  |  |  |  |
| --- | --- | --- | --- |
| facets | Kind | Value | Annotation |
| minLength | 1 |  |
| maxLength | 140 |  |
| source | <xs:element name="title" type="cnxml:titleType"/> | | |

complexType **entryType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | extension of [**cnxml:simpleInlineContentType**](#_bookmark112) |

|  |  |  |
| --- | --- | --- |
| properties | base | cnxml:simpleInlineContentType |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) | |
| used by | element [**entry**](#_bookmark9) | |
| attributes | Name Type Use Default Fixed Annotation [namest](#_bookmark69) **derived by:** documentation  **xs:string** Nazwa kolumny  (table/tgroup/colspec/@colname)  , w której zaczyna się komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.  [nameend](#_bookmark70) **derived by:** documentation  **xs:string** Nazwa kolumny  (table/tgroup/colspec/@colname)  , w której kończy się komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.  [morerows](#_bookmark71) **xs:positiveInteger** documentation  Liczba komórek tabeli do  scalenia w pionie (w dół). | |
| annotation | documentation  Typ komórka tabeli | |
| source | <xs:complexType name="entryType">  <xs:annotation>  <xs:documentation>Typ komórka tabeli</xs:documentation>  </xs:annotation>  <xs:complexContent>  <xs:extension base="cnxml:simpleInlineContentType">  <xs:attribute name="namest">  <xs:annotation>  <xs:documentation>Nazwa kolumny (table/tgroup/colspec/@colname) , w której zaczyna się komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/>  <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="nameend">  <xs:annotation>  <xs:documentation>Nazwa kolumny (table/tgroup/colspec/@colname) , w której kończy się komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation>  </xs:annotation> | |

|  |  |
| --- | --- |
|  | <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/>  <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="morerows" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Liczba komórek tabeli do scalenia w pionie (w dół).</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType> |

attribute **entryType/@ namest**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| pattern | c[1-9][0-9]\* | |
| pattern | col[A-Z] |  |
| annotation | documentation | |  |
| Nazwa kolumny (table/tgroup/colspec/@colname) , w której zaczyna się komórka. Wykorzystywane razem z nameend w  momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny. | | |
| source | <xs:attribute name="namest">  <xs:annotation>  <xs:documentation>Nazwa kolumny (table/tgroup/colspec/@colname) , w której zaczyna się komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/>  <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **entryType/@ nameend**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| pattern | c[1-9][0-9]\* | |
| pattern | col[A-Z] |  |
| annotation | documentation | |  |
| Nazwa kolumny (table/tgroup/colspec/@colname) , w której kończy się komórka. Wykorzystywane razem z nameend w  momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny. | | |
| source | <xs:attribute name="nameend">  <xs:annotation>  <xs:documentation>Nazwa kolumny (table/tgroup/colspec/@colname) , w której kończy się | | |

|  |  |
| --- | --- |
|  | komórka. Wykorzystywane razem z nameend w momencie, gdy potrzebne jest scalanie w poziomie. UWAGA: w konwerterze przyjęto schemat nazewnictwa c{n}, gdzie n jest tożsame z numerem kolumny.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="c[1-9][0-9]\*"/>  <xs:pattern value="col[A-Z]"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **entryType/@ morerows**

|  |  |
| --- | --- |
| type | **xs:positiveInteger** |
| annotation | documentation  Liczba komórek tabeli do scalenia w pionie (w dół). |
| source | <xs:attribute name="morerows" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Liczba komórek tabeli do scalenia w pionie (w dół).</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **equationType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**m:math**](#_bookmark1047) |
| used by | element [**equation**](#_bookmark10) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark73) [**idType**](#_bookmark125)required |
| annotation | documentation  MathML w formie blokowej |
| source | <xs:complexType name="equationType">  <xs:annotation>  <xs:documentation>MathML w formie blokowej</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="mml:math"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> |

attribute **equationType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

complexType **exerciseType**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | | | |
| children | [**ep:effect-of-education**](#_bookmark167) [**cnxml:title**](#_bookmark77) [**ep:alternatives**](#_bookmark129) [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) [**cnxml:solution**](#_bookmark33)[**cnxml:commentary**](#_bookmark2) [**q:item**](#_bookmark472) [**ep:reference**](#_bookmark206) | | | | | | | | |
| used by | element | [**exercise**](#_bookmark12) | | |  |  | |  |  |
| attributes | Name | Type | | | Use | Default | | Fixed | Annotation |
| [id](#_bookmark75) | [**idType**](#_bookmark485) | | | required |  | |  |  |
| [ep:stretch](#_bookmark378) | [**ep:stretchType**](#_bookmark366) | | |  |  | |  | documentation Atrybut  oznaczający powiększoną |
|  |  | |  |  | | | szerokość | | |
| elementu | | |
| [ep:foldable](#_bookmark374) | | **xs:boolean** |  | | | documentation Atrybut | | |
|  | |  | pozwalający | | |
|  | |  | oznaczyć, że notka | | |
|  | |  | jest, lub nie jest | | |
|  | |  | zwijalna. UWAGA: | | |
|  | |  | Ma zastosowanie | | |
|  | |  | tylko i wyłącznie w | | |
|  | |  | przypadku notki | | |
|  | |  | typu curiosity i ma | | |
|  | |  | dla niej domyślną | | |
|  | |  | wartość true. | | |
| [ep:content-](#_bookmark373) [status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) |  | | | documentation Status treści | | |
| [type](#_bookmark76) | | **derived by:** | optional | | |  | | |
| **xs:string** |
| [ep:context-](#_bookmark384) | | **xs:boolean** | required | | |  | | |
| [dependent](#_bookmark384) | |
| [ep:interactivity](#_bookmark385) | | **derived by: xs:string** |  | | | documentation Atrybut interactivity powinien być | | |
|  | |  | wykorzystany do | | |
|  | |  | podjęcia decyzji | | |
|  | |  | jakie podelementy | | |
|  | |  | są dozwolone w | | |
|  | |  | ramach | | |
|  | |  | exercise/alternatyw. | | |
|  | |  | Są to zależności | | |
|  | |  | niewyrażalne w | | |
|  | |  | schemacie XML. | | |
| [ep:on-paper](#_bookmark386) | | **xs:boolean** | optional | | | false | | |
| [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** | optional | | | documentation Atrybut pozwalający | | |
|  | |  |  | | | oznaczyć, że blok | | |
|  | |  |  | | | semantyczny ma | | |
|  | |  |  | | | być | | |
|  | |  |  | | | wyeksponowany w | | |
|  | |  |  | | | warstwie | | |
|  | |  |  | | | prezentacyjnej np. | | |
|  | |  |  | | | Zadanie, | | |
|  | |  |  | | | Polecenie, Notka, | | |
|  | |  |  | | | Definicja, Reguła, | | |
|  | |  |  | | | Pojęcie, Praca | | |
|  | |  |  | | | domowa | | |
| annotation | documentation | |  |  | | |  | | |
| Typ ćwiczenie | |  |  | | |  | | |
| source | <xs:complexType name="exerciseType">  <xs:annotation>  <xs:documentation>Typ ćwiczenie</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:effect-of-education" minOccurs="0"/>  <xs:choice>  <xs:sequence>  <!--<xs:element name="title" type="cnxml:titleType2" minOccurs="0"/>-->  <xs:element name="title" type="cnxml:simpleInlineContentType" minOccurs="0"/>  <xs:choice>  <xs:element ref="ep:alternatives"/>  <xs:group ref="ep:simpleExerciseGroup"/>  <xs:element ref="q:item"/>  </xs:choice>  </xs:sequence> | | | | | | | | |
|  | <xs:choice>  <xs:element ref="ep:reference" minOccurs="0" maxOccurs="1"/>  </xs:choice>  </xs:choice>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute ref="ep:stretch"/>  <xs:attribute ref="ep:foldable"/>  <xs:attribute ref="ep:content-status"/>  <xs:attribute name="type" use="optional">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="WOMI"/>  <xs:enumeration value="common"/>  <xs:enumeration value="pair-work"/>  <xs:enumeration value="groupwork"/>  <xs:enumeration value="game"/>  <xs:enumeration value="witch"/>  <xs:enumeration value="gremlin"/>  <xs:enumeration value="reading"/>  <xs:enumeration value="challenge"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attributeGroup ref="ep:exerciseAttributesGroup"/>  </xs:complexType> | | | | | | | | |

attribute **exerciseType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **exerciseType/@ type**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:string** | |
| properties | use | optional |
| facets | Kind Value Annotation  enumeration WOMI enumeration common enumeration pair-work enumeration groupwork enumeration game enumeration witch enumeration gremlin | |

|  |  |  |
| --- | --- | --- |
|  | enumeration | reading |
| enumeration | challenge |
| source | <xs:attribute name="type" use="optional">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="WOMI"/>  <xs:enumeration value="common"/>  <xs:enumeration value="pair-work"/>  <xs:enumeration value="groupwork"/>  <xs:enumeration value="game"/>  <xs:enumeration value="witch"/>  <xs:enumeration value="gremlin"/>  <xs:enumeration value="reading"/>  <xs:enumeration value="challenge"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

element **exerciseType/title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:simpleInlineContentType**](#_bookmark112) |
| properties | minOcc 0  maxOcc 1 content complex  mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | complexTypes [**codeType**](#_bookmark50) [**experimentType**](#_bookmark299) [**firstLevelSectionType**](#_bookmark79) [**fourthLevelSectionType**](#_bookmark82) [**galleryType**](#_bookmark309) [**listType**](#_bookmark85)[**observationType**](#_bookmark324) [**procedure-instructionsType**](#_bookmark334) [**ruleType**](#_bookmark106) [**secondLevelSectionType**](#_bookmark109) [**tableType**](#_bookmark113)[**thirdLevelSectionType**](#_bookmark121) [**tooltipType**](#_bookmark348) |
| source | <xs:element name="title" type="cnxml:simpleInlineContentType" minOccurs="0"/> |

complexType **extendedInlineContentType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) [**cnxml:newline**](#_bookmark22) [**ep:nbsp**](#_bookmark192) [**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36) [**cnxml:sub**](#_bookmark35) [**cnxml:link**](#_bookmark16) [**ep:tooltip-reference**](#_bookmark224) [**ep:glossary-reference**](#_bookmark181) [**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137) [**ep:event-reference**](#_bookmark171) [**ep:bibliography-reference**](#_bookmark134) [**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) [**ep:reference**](#_bookmark206)[**ep:gallery**](#_bookmark179) [**ep:fold-point**](#_bookmark175) |
| used by | element [**para**](#_bookmark25) |
| annotation | documentation  Typ bazowy dla paragrafu dozwalający elementy typu: przypisy, odwołania, emfazy, listy, galerie, referencje WOMI |
| source | <xs:complexType name="extendedInlineContentType" mixed="true">  <xs:annotation>  <xs:documentation>Typ bazowy dla paragrafu dozwalający elementy typu: przypisy, odwołania, emfazy, listy, galerie, referencje WOMI</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:group ref="cnxml:linkInlineContentGroup"/>  <xs:group ref="cnxml:simpleInlineContentGroup"/>  <xs:group ref="cnxml:extendedInlineContentGroup"/>  </xs:choice>  </xs:complexType> |

complexType **firstLevelSectionType**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | | | |
| children | [**ep:parameters**](#_bookmark233) [**cnxml:title**](#_bookmark42)[**ep:bookmark**](#_bookmark139)[**cnxml:para**](#_bookmark25)[**cnxml:note**](#_bookmark23)[**cnxml:example**](#_bookmark11)[**cnxml:exercise**](#_bookmark12)[**cnxml:definition**](#_bookmark5)[**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186)[**ep:effect**](#_bookmark166)[**ep:prerequisite**](#_bookmark199)[**ep:revisal**](#_bookmark208)[**ep:command**](#_bookmark143)[**ep:student-work**](#_bookmark219)[**ep:concept**](#_bookmark145)[**ep:tooltip**](#_bookmark223)[**ep:procedure-instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46)[**cnxml:code**](#_bookmark47) [**cnxml:list**](#_bookmark19)[**cnxml:table**](#_bookmark37)[**ep:zebra-point**](#_bookmark228)[**cnxml:section**](#_bookmark81) | | | | | | | | |
| used by | element | [**contentType/section**](#_bookmark59) | | |  |  |  | |  |
| attributes | Name | Type | | | Use | Default | Fixed | | Annotation |
| [id](#_bookmark80) | [**idType**](#_bookmark125) | | | required |  |  | |  |
| [ep:recipient](#_bookmark377) | [**ep:recipientType**](#_bookmark365) | | | optional |  |  | | documentation UWAGA: ten atrybut sekcji |
|  |  | |  |  | | | | może być | |
| używany tylko | |
| w momencie, | |
| gdy globalnie | |
| zadeklarowano | |
| moduł jako | |
| uczniowski, a | |
| jedyna wartość | |
| jaką może | |
| przyjąć to | |
| teacher | |
| [ep:content-status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) | optional | | | | documentation UWAGA: ten atrybut sekcji | |
|  | |  |  | | | | może być | |
|  | |  |  | | | | używany tylko | |
|  | |  |  | | | | w momencie, | |
|  | |  |  | | | | gdy globalnie | |
|  | |  |  | | | | zadeklarowano | |
|  | |  |  | | | | moduł jako | |
|  | |  |  | | | | kanon, a | |
|  | |  |  | | | | jedyna wartość | |
|  | |  |  | | | | jaką może | |
|  | |  |  | | | | przyjąć to | |
|  | |  |  | | | | expanding | |
| annotation | documentation | |  |  | | | |  | |
| Typ opisujący sekcję pierwszego poziomu | | | | | | |  | |
| source | <xs:complexType name="firstLevelSectionType">  <xs:annotation>  <xs:documentation>Typ opisujący sekcję pierwszego poziomu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:group ref="ep:firstLevelSectionParametersGroup" minOccurs="0"/>  <xs:element ref="cnxml:title" minOccurs="0"/>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:group ref="cnxml:sectionElementGroup">  <xs:annotation>  <xs:documentation>Dozwolona zawartość sekcji. UWAGA: Elementy dla cytatu blokowego oraz kodu blokowego są zdefiniowane wewnątrz grupy (inaczej byłaby kolizja z odpowiednikami inline). UWAGA: Gdy sekcja jest podzielona na kolumny (patrz ep:parameters), wtedy może zawierać tylko podsekcje!</xs:documentation>  </xs:annotation>  </xs:group>  <xs:element ref="ep:zebra-point"/>  </xs:choice>  <xs:element name="section" type="cnxml:secondLevelSectionType" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attributeGroup ref="ep:firstLevelSectionAttributesGroup"/>  </xs:complexType> | | | | | | | | |

attribute **firstLevelSectionType/@ id**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| type | [**idType**](#_bookmark125) | | | |
| properties | use | required | | |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. | | | |
|  | pattern | | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | | | |

element **firstLevelSectionType/section**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:secondLevelSectionType**](#_bookmark109) | |
| properties | minOcc | 0 |
| maxOcc | unbounded |
| content | complex |
| children | [**ep:parameters**](#_bookmark235) [**cnxml:title**](#_bookmark42)[**ep:bookmark**](#_bookmark139)[**cnxml:para**](#_bookmark25)[**cnxml:note**](#_bookmark23)[**cnxml:example**](#_bookmark11)[**cnxml:exercise**](#_bookmark12)[**cnxml:definition**](#_bookmark5)[**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186)[**ep:effect**](#_bookmark166)[**ep:prerequisite**](#_bookmark199)[**ep:revisal**](#_bookmark208)[**ep:command**](#_bookmark143)[**ep:student-work**](#_bookmark219)[**ep:concept**](#_bookmark145)[**ep:tooltip**](#_bookmark223)[**ep:procedure-instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46)[**cnxml:code**](#_bookmark47) [**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37)[**cnxml:section**](#_bookmark111) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark110) [**idType**](#_bookmark125)required | |
| source | <xs:element name="section" type="cnxml:secondLevelSectionType" minOccurs="0" maxOccurs="unbounded"/> | |

complexType **fourthLevelSectionType**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**ep:bookmark**](#_bookmark139) [**cnxml:para**](#_bookmark25) [**cnxml:note**](#_bookmark23) [**cnxml:example**](#_bookmark11) [**cnxml:exercise**](#_bookmark12) [**cnxml:definition**](#_bookmark5) [**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186) [**ep:effect**](#_bookmark166) [**ep:prerequisite**](#_bookmark199) [**ep:revisal**](#_bookmark208) [**ep:command**](#_bookmark143) [**ep:student-work**](#_bookmark219) [**ep:concept**](#_bookmark145) [**ep:tooltip**](#_bookmark223) [**ep:procedure-**](#_bookmark204)[**instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46) [**cnxml:code**](#_bookmark47)[**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) | | | | | |
| used by | element | [**thirdLevelSectionType/section**](#_bookmark123) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark83) | [**idType**](#_bookmark125) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Typ opisujący sekcję pierwszego poziomu | | |  |  |  |
| source | <xs:complexType name="fourthLevelSectionType">  <xs:annotation>  <xs:documentation>Typ opisujący sekcję pierwszego poziomu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title"/>  <xs:group ref="cnxml:sectionElementGroup" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> | | | | | |

attribute **fourthLevelSectionType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

complexType **linkInlineContentType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) |
| used by | element [**link**](#_bookmark16)  complexType [**baseGlossaryReferenceType**](#_bookmark240) |
| annotation | documentation  Typ dla łączy, dozwalający zawarcie elementów inline wewnątrz łączy |
| source | <xs:complexType name="linkInlineContentType" mixed="true">  <xs:annotation>  <xs:documentation>Typ dla łączy, dozwalający zawarcie elementów inline wewnątrz |
|  | łączy</xs:documentation>  </xs:annotation>  <xs:sequence minOccurs="0" maxOccurs="unbounded">  <xs:group ref="cnxml:linkInlineContentGroup"/>  </xs:sequence>  </xs:complexType> |

complexType **listType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:item**](#_bookmark14) | | | | | | | |
| used by | element | [**list**](#_bookmark19) | |  |  | |  |  |
| attributes | Name | Type | | Use | Default | | Fixed | Annotation |
| [id](#_bookmark86) | [**idType**](#_bookmark125) | | required |  | |  |  |
| [list-type](#_bookmark87) | **derived by:** | | required |  | |  | documentation |
|  |  | | **xs:string** | | | Typ listy: punktowana lub  numerowana | | |
| [number-style](#_bookmark88) | | **derived by: xs:string** | | | documentation Styl numerowania. Ten atrybut występuje tylko w w momencie, gdy wartość list- type to  'enumerated'. | | |
| [start-value](#_bookmark89) | | **xs:positiveInteger** | | | documentation Wartość początkowa numerowania listy. Atrybut występuje tylko w momencie, gdy wartość list-type to  'enumerated'. | | |
| [mark-prefix](#_bookmark90) | | **derived by: xs:string** | | | documentation Prefix przed numerowaniem  elementu listy. | | |
| [mark-suffix](#_bookmark91) | | **derived by: xs:string** | | | documentation Postfix po numerowaniu  elementu listy. | | |
| annotation | documentation | |  | | |  | | |
| Typ lista | |  | | |  | | |
| source | <xs:complexType name="listType">  <xs:annotation>  <xs:documentation>Typ lista</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title" minOccurs="0"/>  <xs:element ref="cnxml:item" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute name="list-type" use="required">  <xs:annotation>  <xs:documentation>Typ listy: punktowana lub numerowana</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="enumerated"/>  <xs:enumeration value="enumerated-full-path"/>  <xs:enumeration value="bulleted"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="number-style">  <xs:annotation>  <xs:documentation>Styl numerowania. Ten atrybut występuje tylko w w momencie, gdy wartość list-type to 'enumerated'.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string"> | | | | | | | |

|  |  |
| --- | --- |
|  | <xs:enumeration value="arabic"/>  <xs:enumeration value="lower-roman"/>  <xs:enumeration value="upper-roman"/>  <xs:enumeration value="lower-alpha"/>  <xs:enumeration value="upper-alpha"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="start-value" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Wartość początkowa numerowania listy. Atrybut występuje tylko w momencie, gdy wartość list-type to 'enumerated'.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="mark-prefix">  <xs:annotation>  <xs:documentation>Prefix przed numerowaniem elementu listy.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="mark-suffix">  <xs:annotation>  <xs:documentation>Postfix po numerowaniu elementu listy.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> |

attribute **listType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

attribute **listType/@ list -type**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| properties | use required |

|  |  |  |  |
| --- | --- | --- | --- |
| facets | Kind | Value | Annotation |
| enumeration | enumerated |  |
| enumeration | enumerated-full-path | |
| enumeration | bulleted |  |
| annotation | documentation | |  |
| Typ listy: punktowana lub numerowana | | |
| source | <xs:attribute name="list-type" use="required">  <xs:annotation>  <xs:documentation>Typ listy: punktowana lub numerowana</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="enumerated"/>  <xs:enumeration value="enumerated-full-path"/>  <xs:enumeration value="bulleted"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **listType/@ number -style**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | arabic |  |
| enumeration | lower-roman | |
| enumeration | upper-roman | |
| enumeration | lower-alpha | |
| enumeration | upper-alpha | |
| annotation | documentation | |  |
| Styl numerowania. Ten atrybut występuje tylko w w momencie, gdy wartość list-type to 'enumerated'. | | |
| source | <xs:attribute name="number-style">  <xs:annotation>  <xs:documentation>Styl numerowania. Ten atrybut występuje tylko w w momencie, gdy wartość list-type to 'enumerated'.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="arabic"/>  <xs:enumeration value="lower-roman"/>  <xs:enumeration value="upper-roman"/>  <xs:enumeration value="lower-alpha"/>  <xs:enumeration value="upper-alpha"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **listType/@ start -value**

|  |  |
| --- | --- |
| type | **xs:positiveInteger** |
| annotation | documentation  Wartość początkowa numerowania listy. Atrybut występuje tylko w momencie, gdy wartość list-type to 'enumerated'. |
| source | <xs:attribute name="start-value" type="xs:positiveInteger"> |

|  |  |
| --- | --- |
|  | <xs:annotation>  <xs:documentation>Wartość początkowa numerowania listy. Atrybut występuje tylko w momencie, gdy wartość list-type to 'enumerated'.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **listType/@ mark -prefix**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Prefix przed numerowaniem elementu listy. |
| source | <xs:attribute name="mark-prefix">  <xs:annotation>  <xs:documentation>Prefix przed numerowaniem elementu listy.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **listType/@ mark -suffix**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Postfix po numerowaniu elementu listy. |
| source | <xs:attribute name="mark-suffix">  <xs:annotation>  <xs:documentation>Postfix po numerowaniu elementu listy.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

complexType **metadataType**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| children | [**md:content-id**](#_bookmark392) [**md:repository**](#_bookmark403) [**md:version**](#_bookmark409) [**md:created**](#_bookmark393) [**md:revised**](#_bookmark404) [**md:title**](#_bookmark408) [**md:language**](#_bookmark399) [**md:license**](#_bookmark400)[**md:presentationTitle**](#_bookmark402) [**md:actors**](#_bookmark391)[**md:roles**](#_bookmark406)[**md:abstract**](#_bookmark390)[**md:keywordlist**](#_bookmark398)[**ep:e-textbook-module**](#_bookmark165)[**ep:origin-id**](#_bookmark196)[**ep:origin-**](#_bookmark197)[**version**](#_bookmark197) | | | | | | |
| used by | element | [**metadata**](#_bookmark21) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [mdml-version](#_bookmark93) | | **xs:string** | required |  | 0.5 |  |
| annotation | documentation | |  |  |  |  |  |
| Typ metadanych modułu | | |  |  |  |  |
| source | <xs:complexType name="metadataType"> | | | | | | |
|  | <xs:annotation>  <xs:documentation>Typ metadanych modułu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:annotation>  <xs:documentation>UWAGA: zarówno actors jak i roles są wymagane w przypadku, gdy mamy do czynienia z modułem, który nie jest technicznym.</xs:documentation>  </xs:annotation>  <xs:element ref="md:content-id"/>  <xs:element ref="md:repository"/>  <xs:element ref="md:version"/>  <xs:element ref="md:created"/>  <xs:element ref="md:revised"/>  <xs:element ref="md:title"/>  <xs:element ref="md:language"/>  <xs:element ref="md:license"/>  <xs:element ref="md:presentationTitle" minOccurs="0"/>  <xs:element ref="md:actors" minOccurs="0"/>  <xs:element ref="md:roles" minOccurs="0"/>  <xs:element ref="md:abstract" minOccurs="0"/>  <xs:element ref="md:keywordlist" minOccurs="0"/>  <xs:element ref="ep:e-textbook-module"/>  <xs:element ref="ep:origin-id" minOccurs="0"/>  <xs:element ref="ep:origin-version" minOccurs="0"/>  </xs:sequence>  <xs:attribute name="mdml-version" type="xs:string" use="required" fixed="0.5"/>  </xs:complexType> | | | | | | |

attribute **metadataType/@ mdml -version**

|  |  |
| --- | --- |
| type | **xs:string** |
| properties | use required  fixed 0.5 |
| source | <xs:attribute name="mdml-version" type="xs:string" use="required" fixed="0.5"/> |

complexType **paraContainerType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:para**](#_bookmark25) |
| used by | element [**item**](#_bookmark14)  complexTypes [**paraContainerWithIdType**](#_bookmark95) [**paraContainerWithIdType**](#_bookmark328) |
| annotation | documentation  dozwolona zawartość bloków, które do tej pory posiadały wewnątrz same para |
| source | <xs:complexType name="paraContainerType">  <xs:annotation>  <xs:documentation>dozwolona zawartość bloków, które do tej pory posiadały wewnątrz same para</xs:documentation> |
|  | </xs:annotation>  <xs:sequence maxOccurs="unbounded">  <xs:element ref="cnxml:para"/>  </xs:sequence>  </xs:complexType> |

complexType **paraContainerWithIdType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | extension of [**cnxml:paraContainerType**](#_bookmark94) |
| properties | base cnxml:paraContainerType |
| children | [**cnxml:para**](#_bookmark25) |
| used by | elements [**commentary**](#_bookmark2) [**example**](#_bookmark11)[**meaning**](#_bookmark20)[**note**](#_bookmark23)[**proof**](#_bookmark28)[**solution**](#_bookmark33)[**statement**](#_bookmark34) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark96) [**idType**](#_bookmark125)required |
| annotation | documentation  Kontener na paragrafy z id |
| source | <xs:complexType name="paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Kontener na paragrafy z id</xs:documentation>  </xs:annotation>  <xs:complexContent>  <xs:extension base="cnxml:paraContainerType">  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:extension>  </xs:complexContent>  </xs:complexType> |

attribute **paraContainerWithIdType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez | |

|  |  |
| --- | --- |
|  | konwerter. |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> |

complexType **problemType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:para**](#_bookmark25) [**cnxml:quote**](#_bookmark99) |
| used by | element [**problem**](#_bookmark27) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark98) [**idType**](#_bookmark125)required |
| annotation | documentation  Typ dla problemu w zadaniu |
| source | <xs:complexType name="problemType">  <xs:annotation>  <xs:documentation>Typ dla problemu w zadaniu</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="cnxml:para"/>  <xs:element name="quote" type="cnxml:quoteType">  <xs:annotation>  <xs:documentation>Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma zupełnie inny charakter.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:choice>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> |

attribute **problemType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez | |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | | |

element **problemType/quote**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | [**cnxml:quoteType**](#_bookmark103) |

|  |  |  |
| --- | --- | --- |
| properties | content | complex |
| children | [**cnxml:label**](#_bookmark15) [**ep:author**](#_bookmark131) [**ep:comment**](#_bookmark144) [**cnxml:para**](#_bookmark25) [**ep:source**](#_bookmark210) [**ep:license**](#_bookmark188) [**ep:license-additional-info**](#_bookmark189) | |
| used by | groups [**linkInlineContentGroup**](#_bookmark44) [**verySimpleInlineContentGroup**](#_bookmark49) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark104) [**idType**](#_bookmark485)required  [ep:foldable](#_bookmark374) **xs:boolean** documentation  Atrybut pozwalający oznaczyć, że notka jest, lub nie jest zwijalna.  UWAGA: Ma  zastosowanie tylko i wyłącznie w przypadku notki typu curiosity i ma dla niej domyślną wartość true.  [ep:content-status](#_bookmark373) [**ep:content-**](#_bookmark355)documentation  [**statusType**](#_bookmark355)Status treści | |
| annotation | documentation  Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma zupełnie inny charakter. | |
| source | <xs:element name="quote" type="cnxml:quoteType">  <xs:annotation>  <xs:documentation>Cytat blokowy (EP Cytat - akapit, EPK Cytat) jest zdefiniowany tutaj, aby nie było kolizji z cytatem inline, który ma zupełnie inny charakter.</xs:documentation>  </xs:annotation>  </xs:element> | |

complexType **qmlSectionContainerType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:section**](#_bookmark101) |
| used by | elements [**feedback**](#_bookmark470) [**hint**](#_bookmark471)[**key/feedback**](#_bookmark475)[**question**](#_bookmark477)[**response**](#_bookmark478) |
| annotation | documentation  Typ kontener sekcji dla QML |
| source | <xs:complexType name="qmlSectionContainerType">  <xs:annotation>  <xs:documentation>Typ kontener sekcji dla QML</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="section">  <xs:complexType>  <xs:sequence>  <xs:element ref="cnxml:para" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> |

|  |  |
| --- | --- |
|  | </xs:element>  </xs:sequence>  </xs:complexType> |

element **qmlSectionContainerType/section**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark102) [**idType**](#_bookmark125)required |
| source | <xs:element name="section">  <xs:complexType>  <xs:sequence>  <xs:element ref="cnxml:para" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType>  </xs:element> |

attribute **qmlSectionContainerType/section/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

complexType **quoteType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | | |
| children | [**cnxml:label**](#_bookmark15) [**ep:author**](#_bookmark131) [**ep:comment**](#_bookmark144) [**cnxml:para**](#_bookmark25) [**ep:source**](#_bookmark210) [**ep:license**](#_bookmark188) [**ep:license-additional-info**](#_bookmark189) | | | | | | | |
| used by | elements | [**problemType/quote**](#_bookmark99) [**sectionElementGroup/quote**](#_bookmark46) | | | | |  |  |
| attributes | Name | Type | | Use | Default | | Fixed | Annotation |
| [id](#_bookmark104) | [**idType**](#_bookmark485) | | required |  | |  |  |
| [ep:foldable](#_bookmark374) | **xs:boolean** | |  |  | |  | documentation Atrybut pozwalający oznaczyć, że notka jest, lub |
|  |  | |  | | | nie jest | | |
| zwijalna. | | |
| UWAGA: Ma | | |
| zastosowanie | | |
| tylko i | | |
| wyłącznie w | | |
| przypadku | | |
| notki typu | | |
| curiosity i ma | | |
| dla niej | | |
| domyślną | | |
| wartość true. | | |
| [ep:content-status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) | | | documentation Status treści | | |
| annotation | documentation | |  | | |  | | |
| Typ cytat blokowy (EPK Cytat) | | | | |  | | |
| source | <xs:complexType name="quoteType">  <xs:annotation>  <xs:documentation>Typ cytat blokowy (EPK Cytat)</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:label" minOccurs="0"/>  <xs:element ref="ep:author" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="ep:comment" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="cnxml:para" maxOccurs="unbounded"/>  <xs:element ref="ep:source" minOccurs="0"/>  <xs:element ref="ep:license" minOccurs="0"/>  <xs:element ref="ep:license-additional-info" minOccurs="0"/>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute ref="ep:foldable"/>  <xs:attribute ref="ep:content-status"/>  </xs:complexType> | | | | | | | |

attribute **quoteType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

complexType **rowType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:entry**](#_bookmark9) |
| used by | element [**row**](#_bookmark31) |
| annotation | documentation Typ wiersz tabeli |
| source | <xs:complexType name="rowType">  <xs:annotation>  <xs:documentation>Typ wiersz tabeli</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:entry" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **ruleType**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:statement**](#_bookmark34) [**cnxml:proof**](#_bookmark28) [**cnxml:example**](#_bookmark11) | | | | | | |
| used by | element | [**rule**](#_bookmark32) |  |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark107) |  | [**idType**](#_bookmark125) | required |  |  |  |
|  | [ep:glossary](#_bookmark375) |  | **xs:boolean** | required |  |  | documentation Oznaczenie, czy |
|  |  |  |  | element ma |
|  |  |  |  | trafić do |
|  |  |  |  | słowniczka, czy |
|  |  |  |  | nie |
|  | [type](#_bookmark108) |  | **derived by:** |  |  |  |  |
|  | **xs:string** |
|  | [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** |  |  |  | documentation  Atrybut pozwalający |
|  |  | |  | oznaczyć, że |
|  |  | |  | blok |
|  |  | |  | semantyczny |
|  |  | |  | ma być |
|  |  | |  | wyeksponowany |
|  |  | |  | w warstwie |
|  |  | |  | prezentacyjnej |
|  |  | |  | np. Zadanie, |
|  |  | |  | Polecenie, |
|  |  | |  | Notka, Definicja, |
|  |  | |  | Reguła, Pojęcie, |
|  |  | |  | Praca domowa |
| annotation | documentation | |  |  |  |  |  |
| Typ reguła |  |  |  |  |  |  |
| source | <xs:complexType name="ruleType">  <xs:annotation>  <xs:documentation>Typ reguła</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title"/>  <xs:element ref="cnxml:statement" maxOccurs="unbounded"/>  <xs:element ref="cnxml:proof" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="cnxml:example" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute ref="ep:glossary" use="required"/>  <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="rule"/>  <xs:enumeration value="theorem"/>  <xs:enumeration value="lemma"/>  <xs:enumeration value="law"/>  <xs:enumeration value="property"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute ref="ep:presentation-variant"/>  </xs:complexType> | | | | | | |

attribute **ruleType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

attribute **ruleType/@ type**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | rule |  |
| enumeration | theorem |  |
| enumeration | lemma |  |
| enumeration | law |  |
| enumeration | property |  |
| source | <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="rule"/>  <xs:enumeration value="theorem"/>  <xs:enumeration value="lemma"/>  <xs:enumeration value="law"/>  <xs:enumeration value="property"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

complexType **secondLevelSectionType**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| children | [**ep:parameters**](#_bookmark235) [**cnxml:title**](#_bookmark42)[**ep:bookmark**](#_bookmark139)[**cnxml:para**](#_bookmark25)[**cnxml:note**](#_bookmark23)[**cnxml:example**](#_bookmark11)[**cnxml:exercise**](#_bookmark12)[**cnxml:definition**](#_bookmark5)[**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186)[**ep:effect**](#_bookmark166)[**ep:prerequisite**](#_bookmark199)[**ep:revisal**](#_bookmark208)[**ep:command**](#_bookmark143)[**ep:student-work**](#_bookmark219)[**ep:concept**](#_bookmark145)[**ep:tooltip**](#_bookmark223)[**ep:procedure-instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46)[**cnxml:code**](#_bookmark47) [**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37)[**cnxml:section**](#_bookmark111) | | | | | |
| used by | element | [**firstLevelSectionType/section**](#_bookmark81) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark110) | [**idType**](#_bookmark125) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Typ opisujący sekcję drugiego poziomu | | |  |  |  |
| source | <xs:complexType name="secondLevelSectionType">  <xs:annotation>  <xs:documentation>Typ opisujący sekcję drugiego poziomu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:group ref="ep:secondLevelSecionParametersGroup" minOccurs="0"/>  <xs:element ref="cnxml:title" minOccurs="0"/>  <xs:group ref="cnxml:sectionElementGroup" minOccurs="0" maxOccurs="unbounded"/>  <xs:element name="section" type="cnxml:thirdLevelSectionType" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> | | | | | |

attribute **secondLevelSectionType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

element **secondLevelSectionType/section**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:thirdLevelSectionType**](#_bookmark121) | |
| properties | minOcc | 0 |
| maxOcc | unbounded |
| content | complex |
| children | [**cnxml:title**](#_bookmark42) [**ep:bookmark**](#_bookmark139) [**cnxml:para**](#_bookmark25) [**cnxml:note**](#_bookmark23) [**cnxml:example**](#_bookmark11) [**cnxml:exercise**](#_bookmark12) [**cnxml:definition**](#_bookmark5) [**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186) [**ep:effect**](#_bookmark166) [**ep:prerequisite**](#_bookmark199) [**ep:revisal**](#_bookmark208) [**ep:command**](#_bookmark143) [**ep:student-work**](#_bookmark219) [**ep:concept**](#_bookmark145) [**ep:tooltip**](#_bookmark223) [**ep:procedure-**](#_bookmark204)[**instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46) [**cnxml:code**](#_bookmark47)[**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) [**cnxml:section**](#_bookmark123) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark122) [**idType**](#_bookmark125)required | |
| source | <xs:element name="section" type="cnxml:thirdLevelSectionType" minOccurs="0" maxOccurs="unbounded"/> | |

complexType **simpleInlineContentType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | elements [**definitionType/term**](#_bookmark62) [**exerciseType/title**](#_bookmark77)[**label**](#_bookmark15)[**name**](#_bookmark191)[**title**](#_bookmark42)  complexType [**entryType**](#_bookmark68) |
| annotation | documentation  Typ dla elementów będących nagłówkami lub tytułami elementów blokowych (title, name, label) |
| source | <xs:complexType name="simpleInlineContentType" mixed="true"> |
|  | <xs:annotation>  <xs:documentation>Typ dla elementów będących nagłówkami lub tytułami elementów blokowych (title, name, label)</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:group ref="cnxml:linkInlineContentGroup"/>  <xs:group ref="cnxml:simpleInlineContentGroup"/>  </xs:choice>  </xs:complexType> |

complexType **tableType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:tgroup**](#_bookmark40) | | | | | |
| used by | element | [**table**](#_bookmark37) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark114) | [**idType**](#_bookmark125) | required |  |  |  |
| [summary](#_bookmark115) | **xs:string** | required |  |  |  |
| [ep:style](#_bookmark379) | **derived by: xs:string** | optional |  |  | documentation atrybut styl dla cn:table |
| [pgwide](#_bookmark116) | **derived by: xs:positiveInteger** | optional |  |  | documentation Szerokość tabeli. |
| annotation | documentation | |  |  |  |  |
| Typ tabela |  |  |  |  |  |
| source | <xs:complexType name="tableType">  <xs:annotation>  <xs:documentation>Typ tabela</xs:documentation> | | | | | |
|  | </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title"/>  <xs:element ref="cnxml:tgroup"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  <xs:attribute name="summary" type="xs:string" use="required"/>  <xs:attribute ref="ep:style" use="optional"/>  <xs:attribute name="pgwide" use="optional">  <xs:annotation>  <xs:documentation>Szerokość tabeli.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="100"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> | | | | | |

attribute **tableType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

attribute **tableType/@ summa ry**

|  |  |
| --- | --- |
| type | **xs:string** |
| properties | use required |
| source | <xs:attribute name="summary" type="xs:string" use="required"/> |

attribute **tableType/@ pgwide**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:positiveInteger** | |
| properties | use | optional |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 100 | |
| annotation | documentation  Szerokość tabeli. | |
| source | <xs:attribute name="pgwide" use="optional">  <xs:annotation> | |

|  |  |
| --- | --- |
|  | <xs:documentation>Szerokość tabeli.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="100"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

complexType **tbodyType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:row**](#_bookmark31) |
| used by | element [**tbody**](#_bookmark38) |
| annotation | documentation  Typ ciało tabeli |
| source | <xs:complexType name="tbodyType">  <xs:annotation>  <xs:documentation>Typ ciało tabeli</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:row" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **tgroupType**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| children | [**cnxml:colspec**](#_bookmark1) [**cnxml:thead**](#_bookmark41) [**cnxml:tbody**](#_bookmark38) | | | | | |
| used by | element | [**tgroup**](#_bookmark40) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [cols](#_bookmark119) | **xs:positiveInteger** | required |  |  | documentation Liczba kolumn  w tabeli |
| annotation | documentation | |  |  |  |  |
| Typ grupy w tabeli | |  |  |  |  |
| source | <xs:complexType name="tgroupType">  <xs:annotation>  <xs:documentation>Typ grupy w tabeli</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:colspec" maxOccurs="unbounded"/>  <xs:element ref="cnxml:thead" minOccurs="0"/>  <xs:element ref="cnxml:tbody"/>  </xs:sequence>  <xs:attribute name="cols" type="xs:positiveInteger" use="required">  <xs:annotation>  <xs:documentation>Liczba kolumn w tabeli</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType> | | | | | |

attribute **tgroupType/@ cols**

|  |  |
| --- | --- |
| type | **xs:positiveInteger** |
| properties | use required |
| annotation | documentation  Liczba kolumn w tabeli |
| source | <xs:attribute name="cols" type="xs:positiveInteger" use="required">  <xs:annotation>  <xs:documentation>Liczba kolumn w tabeli</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **theadType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| children | [**cnxml:row**](#_bookmark31) |
| used by | element [**thead**](#_bookmark41) |
| annotation | documentation  Typ nagłówek tabeli |
| source | <xs:complexType name="theadType">  <xs:annotation> |

|  |  |
| --- | --- |
|  | <xs:documentation>Typ nagłówek tabeli</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:row" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **thirdLevelSectionType**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**ep:bookmark**](#_bookmark139) [**cnxml:para**](#_bookmark25) [**cnxml:note**](#_bookmark23) [**cnxml:example**](#_bookmark11) [**cnxml:exercise**](#_bookmark12) [**cnxml:definition**](#_bookmark5) [**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186) [**ep:effect**](#_bookmark166) [**ep:prerequisite**](#_bookmark199) [**ep:revisal**](#_bookmark208) [**ep:command**](#_bookmark143) [**ep:student-work**](#_bookmark219) [**ep:concept**](#_bookmark145) [**ep:tooltip**](#_bookmark223) [**ep:procedure-**](#_bookmark204)[**instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46) [**cnxml:code**](#_bookmark47)[**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) [**cnxml:section**](#_bookmark123) | | | | | |
| used by | element | [**secondLevelSectionType/section**](#_bookmark111) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark122) | [**idType**](#_bookmark125) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Typ opisujący sekcję trzeciego poziomu | | |  |  |  |
| source | <xs:complexType name="thirdLevelSectionType">  <xs:annotation>  <xs:documentation>Typ opisujący sekcję trzeciego poziomu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title"/>  <xs:group ref="cnxml:sectionElementGroup" minOccurs="0" maxOccurs="unbounded"/>  <xs:element name="section" type="cnxml:fourthLevelSectionType" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="cnxml:idType" use="required"/>  </xs:complexType> | | | | | |

attribute **thirdLevelSectionType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark125) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="cnxml:idType" use="required"/> | |

element **thirdLevelSectionType/section**

diagram

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | [**cnxml:fourthLevelSectionType**](#_bookmark82) | |
| properties | minOcc | 0 |
| maxOcc | unbounded |
| content | complex |
| children | [**cnxml:title**](#_bookmark42) [**ep:bookmark**](#_bookmark139) [**cnxml:para**](#_bookmark25) [**cnxml:note**](#_bookmark23) [**cnxml:example**](#_bookmark11) [**cnxml:exercise**](#_bookmark12) [**cnxml:definition**](#_bookmark5) [**cnxml:rule**](#_bookmark32) [**ep:lead**](#_bookmark187)[**ep:intro**](#_bookmark186) [**ep:effect**](#_bookmark166) [**ep:prerequisite**](#_bookmark199) [**ep:revisal**](#_bookmark208) [**ep:command**](#_bookmark143) [**ep:student-work**](#_bookmark219) [**ep:concept**](#_bookmark145) [**ep:tooltip**](#_bookmark223) [**ep:procedure-**](#_bookmark204)[**instructions**](#_bookmark204) [**ep:biography**](#_bookmark136) [**ep:event**](#_bookmark169) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) [**ep:technical-remarks**](#_bookmark221) [**cnxml:quote**](#_bookmark46) [**cnxml:code**](#_bookmark47)[**cnxml:list**](#_bookmark19) [**cnxml:table**](#_bookmark37) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark83) [**idType**](#_bookmark125)required | |
| source | <xs:element name="section" type="cnxml:fourthLevelSectionType" minOccurs="0" maxOccurs="unbounded"/> | |

complexType **verySimpleInlineContentType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/cnxml> |
| properties | mixed true |
| children | [**cnxml:emphasis**](#_bookmark7) [**cnxml:quote**](#_bookmark29) [**cnxml:foreign**](#_bookmark13) [**cnxml:term**](#_bookmark39) [**cnxml:code**](#_bookmark0) |
| used by | elements [**sub**](#_bookmark35) [**sup**](#_bookmark36) |
| annotation | documentation  Typ bazowy dla elementów sub i sup |
| source | <xs:complexType name="verySimpleInlineContentType" mixed="true">  <xs:annotation>  <xs:documentation>Typ bazowy dla elementów sub i sup</xs:documentation>  </xs:annotation>  <xs:sequence minOccurs="0" maxOccurs="unbounded">  <xs:group ref="cnxml:verySimpleInlineContentGroup"/>  </xs:sequence>  </xs:complexType> |

simpleType **idType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attributes | | [**link/@ document**](#_bookmark18) [**para/@id**](#_bookmark26) [**documentType/@ i d**](#_bookmark65) [**firstLevelSectionType/@ id**](#_bookmark80)  [**secondLevelSectionType/@ id**](#_bookmark110) [**thirdLevelSectionType/@**](#_bookmark122) **id** [**fourthLevelSectionType/@**](#_bookmark83) **id** [**paraContainerWithIdType/@ id**](#_bookmark96) [**qmlSectionContainerType/section/@**](#_bookmark102) **id** [**problemType/@**](#_bookmark98) **id** [**definitionType/@ id**](#_bookmark61) [**ruleType/@**](#_bookmark107) **id** [**equationType/@**](#_bookmark73) **id** [**listType/@**](#_bookmark86) **id** [**tableType/@**](#_bookmark114) **id**  [**documentType/@ module -id**](#_bookmark64) [**link/@ target -id**](#_bookmark17) | |
| facets | Kind | Value | | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | | |  |
| Identyfikator | | |  |
| source | <xs:simpleType name="idType">  <xs:annotation>  <xs:documentation>Identyfikator</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-9]+)?">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  <xs:pattern value="[a-zA-Z0-9\_]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **titleType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**documentType/title**](#_bookmark67) |
| facets | Kind Value Annotation  minLength 1  maxLength 140 |
| annotation | documentation  Tytuł modułu, sekcji, kodu etc. |
| source | <xs:simpleType name="titleType">  <xs:annotation>  <xs:documentation>Tytuł modułu, sekcji, kodu etc.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string"> |
|  | <xs:maxLength value="140"/>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **WOMIidType**

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/cnxml> | |
| type | restriction of **xs:string** | |
| properties | base | xs:string |
| facets | Kind Value Annotation  pattern [0-9a-zA-Z\_]+ documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. | |
| annotation | documentation  Identyfikator WOMI | |
| source | <xs:simpleType name="WOMIidType">  <xs:annotation>  <xs:documentation>Identyfikator WOMI</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="[0-9]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora WOMI.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | |

element **alternative**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:alternativeType**](#_bookmark238) |
| properties | content complex |
| children | [**ep:formats**](#_bookmark178) [**ep:reference**](#_bookmark206) [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) [**cnxml:solution**](#_bookmark33) [**cnxml:commentary**](#_bookmark2) [**ep:config**](#_bookmark148)[**q:item**](#_bookmark472) |
| used by | complexType [**alternativesType**](#_bookmark237) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark239) [**idType**](#_bookmark485)required |
| annotation | documentation  Element dla alternatywy w epXML. |
| source | <xs:element name="alternative" type="ep:alternativeType">  <xs:annotation>  <xs:documentation>Element dla alternatywy w epXML.</xs:documentation>  </xs:annotation>  </xs:element> |

element **alternatives**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:alternativesType**](#_bookmark237) |
| properties | content complex |
| children | [**ep:alternative**](#_bookmark128) |
| used by | complexType [**exerciseType**](#_bookmark74) |
| annotation | documentation  Element alternatyw w epXML. UWAGA: w chwili obecnej stosowane tylko i wyłącznie w odniesieniu do zawartości elementu exercise. UWAGA: w ep:alternatives nie mogą występować dwie ep:alternative dla tej samej wartości ep:format. |
| source | <xs:element name="alternatives" type="ep:alternativesType">  <xs:annotation>  <xs:documentation>Element alternatyw w epXML. UWAGA: w chwili obecnej stosowane tylko i wyłącznie w odniesieniu do zawartości elementu exercise. UWAGA: w ep:alternatives nie mogą występować dwie ep:alternative dla tej samej wartości ep:format.</xs:documentation>  </xs:annotation>  </xs:element> |

element **aside**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:asideType**](#_bookmark352) | | |
| properties | content simple | | |
| used by | complexType | [**referenceType**](#_bookmark339) | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| annotation | documentation |  |  |
| Oznaczenie, czy WOMI powinno być wypchnięte na prawą lub lewą stronę | | |
| source | <xs:element name="aside" type="ep:asideType">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI powinno być wypchnięte na prawą lub lewą stronę</xs:documentation>  </xs:annotation>  </xs:element> | | |

element **author**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**quoteType**](#_bookmark103) |
| annotation | documentation  Autor cytatu (EP Autor) |
| source | <xs:element name="author" type="xs:string">  <xs:annotation>  <xs:documentation>Autor cytatu (EP Autor)</xs:documentation>  </xs:annotation>  </xs:element> |

element **avatar**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | content simple  default false |
| used by | complexType [**referenceType**](#_bookmark339) |
| annotation | documentation  Oznaczenie, czy jest to WOMI typu awatar. |
| source | <xs:element name="avatar" type="xs:boolean" default="false">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to WOMI typu awatar.</xs:documentation>  </xs:annotation> |

|  |  |
| --- | --- |
|  | </xs:element> |

element **behaviour**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:behaviourType**](#_bookmark353) |
| properties | content simple |
| used by | complexType [**configType**](#_bookmark267) |
| facets | Kind Value Annotation  enumeration randomize enumeration randomize-sets enumeration all-sets |
| annotation | documentation  Element dla sposób przetwarzania odpowiedzi w zadaniu z elementami losowości. |
| source | <xs:element name="behaviour" type="ep:behaviourType">  <xs:annotation>  <xs:documentation>Element dla sposób przetwarzania odpowiedzi w zadaniu z elementami losowości.</xs:documentation>  </xs:annotation>  </xs:element> |

element **bibliography-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do bibliografii ( (EPK Zapis bibliograficzny - odwołanie)). | | | |  |
| source | <xs:element name="bibliography-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do bibliografii ( (EPK Zapis bibliograficzny - odwołanie)).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **bibliographyPattern**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:bibliographyPatternType**](#_bookmark243) |
| properties | content complex  mixed true |
| children | [**ep:title**](#_bookmark244) [**ep:author**](#_bookmark245)[**ep:booktitle**](#_bookmark246)[**ep:year**](#_bookmark247)[**ep:key**](#_bookmark248)[**ep:edition**](#_bookmark249)[**ep:organization**](#_bookmark250)[**ep:address**](#_bookmark251)[**ep:series**](#_bookmark252)[**ep:editor**](#_bookmark253)[**ep:publisher**](#_bookmark254) [**ep:number**](#_bookmark255)[**ep:journal**](#_bookmark256)[**ep:note**](#_bookmark257)[**ep:howpublished**](#_bookmark258)[**ep:pages**](#_bookmark259) |
| used by | complexTypes [**articleType**](#_bookmark451) [**incollectionFreeType**](#_bookmark455)[**incollectionType**](#_bookmark460)[**manualType**](#_bookmark463)[**miscType**](#_bookmark464)[**unpublishedType**](#_bookmark465) |
| annotation | documentation  Element wzóru wstawiania bibliografii. |
| source | <xs:element name="bibliographyPattern" type="ep:bibliographyPatternType">  <xs:annotation>  <xs:documentation>Element wzóru wstawiania bibliografii.</xs:documentation>  </xs:annotation>  </xs:element> |

element **biography**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | [**ep:biographyType**](#_bookmark260) | |
| properties | content | complex |
| children | [**ep:name**](#_bookmark191) [**ep:sorting-key**](#_bookmark262) [**ep:birth**](#_bookmark138) [**ep:death**](#_bookmark161) [**ep:reference**](#_bookmark206) [**ep:gallery**](#_bookmark179) [**ep:content**](#_bookmark263) | |
| used by | group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark261) [**idType**](#_bookmark485)required  [ep:glossary](#_bookmark375) **xs:boolean** required documentation Oznaczenie, | |
|  | czy element ma trafić do słowniczka,  czy nie | |
| annotation | documentation  Element biogram (EPK Biogram) | |
| source | <xs:element name="biography" type="ep:biographyType">  <xs:annotation>  <xs:documentation>Element biogram (EPK Biogram)</xs:documentation>  </xs:annotation>  </xs:element> | |

element **biography-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do biogramu (EPK Biogram - odwołanie). | | | |  |
| source | <xs:element name="biography-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do biogramu (EPK Biogram - odwołanie).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **birth**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:startEndType**](#_bookmark343) |
| properties | content complex |
| children | [**ep:date**](#_bookmark160) [**ep:location**](#_bookmark344) |
| used by | complexType [**biographyType**](#_bookmark260) |
| annotation | documentation  Element urodzenie |
| source | <xs:element name="birth" type="ep:startEndType">  <xs:annotation>  <xs:documentation>Element urodzenie</xs:documentation>  </xs:annotation> |
|  | </xs:element> |

element **bookmark**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| properties | content | complex |  |  |  |  |
| used by | groups | [**linkInlineContentGroup**](#_bookmark44) [**sectionElementGroup**](#_bookmark45) | | |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark140) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:name](#_bookmark141) | **xs:string** | required |  |  | documentation Nazwa zakładki pozwalająca zorganizować edycję łączy w sposób wygodniejszy dla  użytkownika. |
| annotation | documentation | |  |  |  |  |
| Zakładka - cel łącza | |  |  |  |  |
| source | <xs:element name="bookmark">  <xs:annotation>  <xs:documentation>Zakładka - cel łącza</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="name" type="xs:string" use="required">  <xs:annotation>  <xs:documentation>Nazwa zakładki pozwalająca zorganizować edycję łączy w sposób wygodniejszy dla użytkownika.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType>  </xs:element> | | | | | |

attribute **bookmark/@ id**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | [**idType**](#_bookmark485) |
| properties | use required |

|  |  |  |  |
| --- | --- | --- | --- |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- 9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | | |

attribute **bookmark/@ name**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |
| annotation | documentation  Nazwa zakładki pozwalająca zorganizować edycję łączy w sposób wygodniejszy dla użytkownika. |
| source | <xs:attribute name="name" type="xs:string" use="required">  <xs:annotation>  <xs:documentation>Nazwa zakładki pozwalająca zorganizować edycję łączy w sposób wygodniejszy dla użytkownika.</xs:documentation>  </xs:annotation>  </xs:attribute> |

element **columns**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:columnsType**](#_bookmark354) |
| properties | content simple |
| used by | complexType [**firstLevelSectionParametersType**](#_bookmark306) |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 5 |
| annotation | documentation  Element liczby kolumn w sekcji. UWAGA: Gdy liczba jest różna od 1, wtedy sekcja musi posiadać dokładnie tyle podsekcji ile wynosi liczba kolumn (każda z tych podsekcji musi mieć parametr oznaczający szerokość kolumny). Sekcja dzielona na kolumny nie może posiadać innych elementów niż podsekcje i parametry. |
| source | <xs:element name="columns" type="ep:columnsType">  <xs:annotation>  <xs:documentation>Element liczby kolumn w sekcji. UWAGA: Gdy liczba jest różna od 1, wtedy sekcja musi posiadać dokładnie tyle podsekcji ile wynosi liczba kolumn (każda z tych podsekcji musi mieć parametr oznaczający szerokość kolumny). Sekcja dzielona na kolumny nie może posiadać innych elementów niż podsekcje i parametry.</xs:documentation> |

|  |  |
| --- | --- |
|  | </xs:annotation>  </xs:element> |

element **command**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | extension of [**ep:commandType**](#_bookmark264) | |
| properties | content | complex |
| children | [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) | |
| used by | complexType [**student-workType**](#_bookmark345)  group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark265) [**idType**](#_bookmark485)required  [ep:type](#_bookmark266) **derived by:** documentation  **xs:string** Typ polecenia.  Narazie tylko dodany dla zdefiniowania debaty.  [ep:presentation-](#_bookmark376) **derived by:** documentation  [variant](#_bookmark376) **xs:string** Atrybut  pozwalający oznaczyć, że | |

|  |  |
| --- | --- |
|  | blok semantyczny ma być wyeksponowany w warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie,  Praca domowa |
| annotation | documentation  Blok command (EP Polecenie) |
| source | <xs:element name="command">  <xs:annotation>  <xs:documentation>Blok command (EP Polecenie)</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="ep:commandType"/>  </xs:complexContent>  </xs:complexType>  </xs:element> |

element **comment**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**quoteType**](#_bookmark103) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Komentarz do cytatu (EP Cytat akapit - komentarz) |
| source | <xs:element name="comment" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Komentarz do cytatu (EP Cytat akapit - komentarz)</xs:documentation>  </xs:annotation>  </xs:element> |

element **concept**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | [**cnxml:definitionType**](#_bookmark60) | |
| properties | content | complex |
| children | [**cnxml:term**](#_bookmark62) [**cnxml:meaning**](#_bookmark20) [**cnxml:example**](#_bookmark11) [**ep:source**](#_bookmark210) | |
| used by | group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark61) [**idType**](#_bookmark125)required  [ep:glossary](#_bookmark375) **xs:boolean** required documentation Oznaczenie, czy element ma trafić do słowniczka, czy nie  [ep:presentation-](#_bookmark376) **derived by:** documentation  [variant](#_bookmark376) **xs:string** Atrybut  pozwalający oznaczyć, że blok semantyczny ma być | |
|  | wyeksponowany w warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie,  Praca domowa | |
| annotation | documentation Pojęcie (EPK Pojęcie) | |
| source | <xs:element name="concept" type="cnxml:definitionType">  <xs:annotation>  <xs:documentation>Pojęcie (EPK Pojęcie)</xs:documentation>  </xs:annotation>  </xs:element> | |

element **concept-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do pojęcia (EPK Pojęcie - odwołanie). | | | |  |
| source | <xs:element name="concept-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do pojęcia (EPK Pojęcie - odwołanie).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **conclusions**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexTypes [**experimentType**](#_bookmark299) [**observationType**](#_bookmark324) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element podsumowanie z doświadczenia/obserwacji (EP Doświadczenie - podsumowanie) |
| source | <xs:element name="conclusions" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element podsumowanie z doświadczenia/obserwacji (EP Doświadczenie - podsumowanie)</xs:documentation>  </xs:annotation>  </xs:element> |

element **config**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:configType**](#_bookmark267) |
| properties | content complex |
| children | [**ep:behaviour**](#_bookmark133) [**ep:presented-answers**](#_bookmark202) [**ep:correct-in-set**](#_bookmark159) [**ep:presentation-style**](#_bookmark201) |
| used by | complexType [**alternativeType**](#_bookmark238) |

|  |  |
| --- | --- |
| annotation | documentation  Element konfiguracji zadania z elementami losowości. |
| source | <xs:element name="config" type="ep:configType">  <xs:annotation>  <xs:documentation>Element konfiguracji zadania z elementami losowości.</xs:documentation>  </xs:annotation>  </xs:element> |

element **content**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | [**ep:contentType**](#_bookmark268) | |
| properties | content | complex |
| mixed | true |
| children | [**m:math**](#_bookmark1047) [**cnxml:newline**](#_bookmark22) [**ep:nbsp**](#_bookmark192) [**cnxml:emphasis**](#_bookmark7) [**bib:entry**](#_bookmark433) | |
| used by | group [**contentGroup**](#_bookmark231) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark269) [**idType**](#_bookmark485)required  [ep:format](#_bookmark270) **derived by:** required documentation  **xs:string** Format dla  którego | |

|  |  |
| --- | --- |
|  | przeznaczony  jest tekst skojarzony. |
| annotation | documentation  Tekst skojarzony z WOMI lub galerią WOMI. |
| source | <xs:element name="content" type="ep:contentType">  <xs:annotation>  <xs:documentation>Tekst skojarzony z WOMI lub galerią WOMI.</xs:documentation>  </xs:annotation>  </xs:element> |

element **context**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | content simple  default false |
| used by | complexType [**referenceType**](#_bookmark339) |
| annotation | documentation  Oznaczenie, czy jest to WOMI kontekstu - prezentowane jako przypinka w portalu. |
| source | <xs:element name="context" type="xs:boolean" default="false">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to WOMI kontekstu - prezentowane jako przypinka w portalu.</xs:documentation>  </xs:annotation>  </xs:element> |

element **core-curriculum-ability**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | extension of [**ep:core-curriculum-abilityType**](#_bookmark271) | |
| properties | content | complex |
| children | [**m:math**](#_bookmark1047) [**cnxml:sup**](#_bookmark36) [**cnxml:sub**](#_bookmark35) | |
| used by | complexType [**core-curriculum-entryType**](#_bookmark274) | |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark272) **xs:string** required  [ep:core-](#_bookmark152) **xs:boolean** optional [curriculum-main](#_bookmark152) | |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). | |
| source | <xs:element name="core-curriculum-ability">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="ep:core-curriculum-abilityType">  <xs:attribute name="core-curriculum-main" type="xs:boolean" use="optional"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

# attribute core-curriculum-ability/@ core -curriculum-main

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use optional |
| source | <xs:attribute name="core-curriculum-main" type="xs:boolean" use="optional"/> |

element **core-curriculum-entries**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:core-curriculum-entriesType**](#_bookmark273) |
| properties | content complex |
| children | [**ep:core-curriculum-entry**](#_bookmark154) |
| used by | complexType [**e-textbook-moduleType**](#_bookmark291) |
| annotation | documentation  Element dla grupy wpisów zgodnych z podstawą programową pochodzących z USPP |
| source | <xs:element name="core-curriculum-entries" type="ep:core-curriculum-entriesType">  <xs:annotation>  <xs:documentation>Element dla grupy wpisów zgodnych z podstawą programową pochodzących z USPP</xs:documentation>  </xs:annotation>  </xs:element> |

element **core-curriculum-entry**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:core-curriculum-entryType**](#_bookmark274) |
| properties | content complex |
| children | [**ep:core-curriculum-stage**](#_bookmark156) [**ep:core-curriculum-school**](#_bookmark155) [**ep:core-curriculum-subject**](#_bookmark157) [**ep:core-curriculum-version**](#_bookmark158)[**ep:core-curriculum-ability**](#_bookmark151) |
| used by | complexType [**core-curriculum-entriesType**](#_bookmark273) |
| annotation | documentation  Element dla wpisu zgodnego z podstawą programową pochodzącą z USPP |
| source | <xs:element name="core-curriculum-entry" type="ep:core-curriculum-entryType">  <xs:annotation>  <xs:documentation>Element dla wpisu zgodnego z podstawą programową pochodzącą z USPP</xs:documentation>  </xs:annotation>  </xs:element> |

element **core-curriculum-school**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| type | [**ep:core-curriculum-schoolType**](#_bookmark275) | | | | | | |
| properties | content | complex | |  |  |  |  |
| used by | complexType | | [**core-curriculum-entryType**](#_bookmark274) | |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:key](#_bookmark276) |  | **xs:string** | required |  |  |  |
| annotation | documentation | |  |  |  |  |  |
| Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). | | | | |  |  |
| source | <xs:element name="core-curriculum-school" type="ep:core-curriculum-schoolType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  </xs:element> | | | | | | |

element **core-curriculum-stage**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:core-curriculum-stageType**](#_bookmark277) |
| properties | content complex |
| used by | complexType [**core-curriculum-entryType**](#_bookmark274) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark278) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:element name="core-curriculum-stage" type="ep:core-curriculum-stageType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  </xs:element> |

element **core-curriculum-subject**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:core-curriculum-subjectType**](#_bookmark279) |
| properties | content complex |
| used by | complexType [**core-curriculum-entryType**](#_bookmark274) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark280) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:element name="core-curriculum-subject" type="ep:core-curriculum-subjectType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  </xs:element> |

element **core-curriculum-version**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:core-curriculum-versionType**](#_bookmark281) |
| properties | content complex |
| used by | complexType [**core-curriculum-entryType**](#_bookmark274) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark282) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:element name="core-curriculum-version" type="ep:core-curriculum-versionType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  </xs:element> |

element **correct-in-set**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexType [**configType**](#_bookmark267) |
| facets | Kind Value Annotation  pattern (\d+-)?[1-9]\d\* |
| annotation | documentation  Element dla liczby poprawnych odpowiedzi w zestawie w zadaniu z elementami losowości w momencie, gdy mamy doczynienia z pytaniem wielokrotnej odpowiedzi. UWAGA: zakres zależy od ep:presented-answers oraz count(q:item/q:answer). |
| source | <xs:element name="correct-in-set">  <xs:annotation>  <xs:documentation>Element dla liczby poprawnych odpowiedzi w zestawie w zadaniu z elementami losowości w momencie, gdy mamy doczynienia z pytaniem wielokrotnej odpowiedzi. UWAGA: zakres zależy od ep:presented-answers oraz count(q:item/q:answer).</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="(\d+-)?[1-9]\d\*"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

element **date**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:dateType**](#_bookmark287) |
| properties | content complex |
| children | [**ep:date-start**](#_bookmark289) [**ep:date-end**](#_bookmark290) |
| used by | complexType [**startEndType**](#_bookmark343) |
| attributes | Name Type Use Default Fixed Annotation [ep:type](#_bookmark288) **derived by:** required  **xs:string** |
| annotation | documentation  Element data |
| source | <xs:element name="date" type="ep:dateType">  <xs:annotation>  <xs:documentation>Element data</xs:documentation>  </xs:annotation>  </xs:element> |

element **death**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:startEndType**](#_bookmark343) |
| properties | content complex |
| children | [**ep:date**](#_bookmark160) [**ep:location**](#_bookmark344) |
| used by | complexType [**biographyType**](#_bookmark260) |
| annotation | documentation  Element śmierć |
| source | <xs:element name="death" type="ep:startEndType">  <xs:annotation>  <xs:documentation>Element śmierć</xs:documentation>  </xs:annotation>  </xs:element> |

element **demonstration**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexTypes [**experimentType**](#_bookmark299) [**observationType**](#_bookmark324) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element zawierający zilustrowanie całego procesu doświadczenia/obserwacji |
| source | <xs:element name="demonstration" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element zawierający zilustrowanie całego procesu doświadczenia/obserwacji</xs:documentation>  </xs:annotation>  </xs:element> |

element **disabled-alternative-reference**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| properties | content | complex | |  |  |  |  |
| used by | complexType | | [**referenceType**](#_bookmark339) |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark164) |  | [**idType**](#_bookmark485) | required |  |  | documentation UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Wskazuje na tooltip z opisem alternatywnym dla  niepełnosprawnych w tym module. |
| annotation | documentation | |  |  |  |  |  |
| Odwołanie do dymka z tekstem alternatywnym (EPK Dymek - odwołanie). | | | | | |  |
| source | <xs:element name="disabled-alternative-reference">  <xs:annotation>  <xs:documentation>Odwołanie do dymka z tekstem alternatywnym (EPK Dymek - odwołanie).</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required">  <xs:annotation>  <xs:documentation>UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Wskazuje na tooltip z opisem alternatywnym dla niepełnosprawnych w tym module.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType>  </xs:element> | | | | | | |

attribute **disabled-alternative-reference/@ id**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**idType**](#_bookmark485) | | | |
| properties | use | required | | |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez | | | |
|  |  | |  | konwerter. |
| pattern | | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | | |  |
| UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Wskazuje  na tooltip z opisem alternatywnym dla niepełnosprawnych w tym module. | | | |
| source | <xs:attribute name="id" type="ep:idType" use="required">  <xs:annotation>  <xs:documentation>UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Wskazuje na tooltip z opisem alternatywnym dla niepełnosprawnych w tym module.</xs:documentation>  </xs:annotation>  </xs:attribute> | | | |

element **e-textbook-module**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | extension of [**ep:e-textbook-moduleType**](#_bookmark291) | |
| properties | content | complex |
| children | [**ep:references**](#_bookmark207) [**ep:generated-type**](#_bookmark180) [**ep:presentation**](#_bookmark200) [**ep:core-curriculum-entries**](#_bookmark153) | |
| used by | complexType [**metadataType**](#_bookmark92) | |
| attributes | Name Type Use Default Fixed Annotation [ep:version](#_bookmark292) **xs:string** required 1.5  [ep:recipient](#_bookmark377) [**ep:recipientType**](#_bookmark365)required documentation Odbiorca treści  [ep:content-status](#_bookmark373) [**ep:content-**](#_bookmark355)required documentation  [**statusType**](#_bookmark355)Status treści | |
| annotation | documentation  Rozszerzenia metadanych stworzone na potrzeby e-podręczników. UWAGA: nie dodaję generated-type, dzięki temu wywali się, gdy ktoś spróbuje edytować słownik | |
| source | <xs:element name="e-textbook-module">  <xs:annotation>  <xs:documentation>Rozszerzenia metadanych stworzone na potrzeby e-podręczników. UWAGA: nie dodaję generated-type, dzięki temu wywali się, gdy ktoś spróbuje edytować słownik</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="ep:e-textbook-moduleType">  <xs:attribute ref="ep:recipient" use="required"/>  <xs:attribute ref="ep:content-status" use="required"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **effect**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:effectType**](#_bookmark293) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required  [ep:type](#_bookmark294) **derived by: xs:string** |
| annotation | documentation  Blok effect (EP Nauczysz się) |
| source | <xs:element name="effect" type="ep:effectType">  <xs:annotation>  <xs:documentation>Blok effect (EP Nauczysz się)</xs:documentation>  </xs:annotation>  </xs:element> |

element **effect-of-education**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | content | simple | |  |
| used by | complexType | | [**exerciseType**](#_bookmark74) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | A |  |
| enumeration | | B |  |
| enumeration | | C |  |
| enumeration | | K |  |
| annotation | documentation | |  |  |
| Efekt kształcenia wykorzystywany przez matematyków w ćwiczeniach | | | |
| source | <xs:element name="effect-of-education">  <xs:annotation>  <xs:documentation>Efekt kształcenia wykorzystywany przez matematyków w ćwiczeniach</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="A"/>  <xs:enumeration value="B"/>  <xs:enumeration value="C"/>  <xs:enumeration value="K"/>  </xs:restriction>  </xs:simpleType>  </xs:element> | | | |

element **embedded**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | content simple  default true |
| used by | complexType [**referenceType**](#_bookmark339) |
| annotation | documentation  Oznaczenie, czy jest to WOMI osadzone w treści. |
| source | <xs:element name="embedded" type="xs:boolean" default="true">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to WOMI osadzone w treści.</xs:documentation>  </xs:annotation>  </xs:element> |

element **event**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | [**ep:eventType**](#_bookmark295) | |
| properties | content | complex |
| children | [**ep:name**](#_bookmark191) [**ep:sorting-key**](#_bookmark297) [**ep:event-start**](#_bookmark172) [**ep:event-end**](#_bookmark170) [**ep:reference**](#_bookmark206) [**ep:gallery**](#_bookmark179) [**ep:content**](#_bookmark298) | |
| used by | group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark296) [**idType**](#_bookmark485)required  [ep:glossary](#_bookmark375) **xs:boolean** required documentation Oznaczenie, czy element ma trafić do słowniczka,  czy nie | |
| annotation | documentation  Element wydarzenie (EPK Wydarzenie) | |
| source | <xs:element name="event" type="ep:eventType">  <xs:annotation>  <xs:documentation>Element wydarzenie (EPK Wydarzenie)</xs:documentation>  </xs:annotation>  </xs:element> | |

element **event-end**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:startEndType**](#_bookmark343) |
| properties | content complex |
| children | [**ep:date**](#_bookmark160) [**ep:location**](#_bookmark344) |
| used by | complexType [**eventType**](#_bookmark295) |
| annotation | documentation  Element koniec wydarzenia |
| source | <xs:element name="event-end" type="ep:startEndType">  <xs:annotation>  <xs:documentation>Element koniec wydarzenia</xs:documentation>  </xs:annotation>  </xs:element> |

element **event-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do wydarzenia (EPK Wydarzenie - odwołanie). | | | |  |
| source | <xs:element name="event-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do wydarzenia (EPK Wydarzenie - odwołanie).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **event-start**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:startEndType**](#_bookmark343) |
| properties | content complex |
| children | [**ep:date**](#_bookmark160) [**ep:location**](#_bookmark344) |
| used by | complexType [**eventType**](#_bookmark295) |
| annotation | documentation  Element początek wydarzenia |
| source | <xs:element name="event-start" type="ep:startEndType">  <xs:annotation>  <xs:documentation>Element początek wydarzenia</xs:documentation> |
|  | </xs:annotation>  </xs:element> |

element **experiment**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:experimentType**](#_bookmark299) |
| properties | content complex |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:note**](#_bookmark23) [**ep:problem**](#_bookmark203) [**ep:hypothesis**](#_bookmark183) [**ep:objective**](#_bookmark194) [**ep:instruments**](#_bookmark185) [**ep:instructions**](#_bookmark184) [**ep:conclusions**](#_bookmark147) |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | [**ep:demonstration**](#_bookmark162) | | | | | |
| used by | complexType | [**student-workType**](#_bookmark345) |  |  |  |  |
| group | [**sectionElementGroup**](#_bookmark45) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark300) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:supervised](#_bookmark301) | **xs:boolean** | required |  |  | documentation Wymaga  nadzoru osoby dorosłej. |
| [ep:context-](#_bookmark302) [dependent](#_bookmark302) | **xs:boolean** | required |  |  | documentation  Zależny od kontekstu. |
| annotation | documentation |  |  |  |  |  |
| Element doświadczenie | |  |  |  |  |
| source | <xs:element name="experiment" type="ep:experimentType">  <xs:annotation>  <xs:documentation>Element doświadczenie</xs:documentation>  </xs:annotation>  </xs:element> | | | | | |

element **external**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:externalType**](#_bookmark303) |
| properties | content complex |
| children | [**ep:reference**](#_bookmark304) |
| used by | complexType [**referencesType**](#_bookmark338) |
| annotation | documentation  Powiązanie z modułem zasobów z KZD |
| source | <xs:element name="external" type="ep:externalType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem zasobów z KZD</xs:documentation>  </xs:annotation>  </xs:element> |

element **fold-point**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| properties | content | complex |  |  |  |  |
| used by | group | [**extendedInlineContentGroup**](#_bookmark43) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark176) | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Miejsce zawijania się. Uwaga: do stosowania tylko i wyłącznie w połączeniu z ep:foldable=true | | | | |  |
| source | <xs:element name="fold-point">  <xs:annotation>  <xs:documentation>Miejsce zawijania się. Uwaga: do stosowania tylko i wyłącznie w połączeniu z ep:foldable=true</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element> | | | | | |

attribute **fold-point/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

element **format**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:formatType**](#_bookmark356) |
| properties | content simple |
| used by | complexType [**formatsType**](#_bookmark308) |
| facets | Kind Value Annotation  enumeration classicmobile enumeration static enumeration static-mono |
| annotation | documentation  Element dla formatu alternatywy epXML |
| source | <xs:element name="format" type="ep:formatType">  <xs:annotation>  <xs:documentation>Element dla formatu alternatywy epXML</xs:documentation>  </xs:annotation> |

|  |  |
| --- | --- |
|  | </xs:element> |

element **formats**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:formatsType**](#_bookmark308) |
| properties | content complex |
| children | [**ep:format**](#_bookmark177) |
| used by | complexType [**alternativeType**](#_bookmark238) |
| annotation | documentation  Element dla formatów alternatyw epXML. UWAGA: elementy format są zadeklarowane wewnątrz typu, aby zrobić wybór między predefiniowanymi wartościami. |
| source | <xs:element name="formats" type="ep:formatsType">  <xs:annotation>  <xs:documentation>Element dla formatów alternatyw epXML. UWAGA: elementy format są zadeklarowane wewnątrz typu, aby zrobić wybór między predefiniowanymi wartościami.</xs:documentation>  </xs:annotation>  </xs:element> |

element **gallery**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**ep:galleryType**](#_bookmark309) | | | |
| properties | content | complex | | |
| children | [**cnxml:title**](#_bookmark42) [**ep:content**](#_bookmark149) [**ep:reference**](#_bookmark206) | | | |
| used by | complexTypes [**biographyType**](#_bookmark260) [**eventType**](#_bookmark295)  group [**extendedInlineContentGroup**](#_bookmark43) | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark310) [**idType**](#_bookmark485)required  [ep:start-on](#_bookmark311) **xs:positiveInteger** documentation | | | |
|  |  | |  | Numer elementu, który ma być aktywnego po załadowaniu  się galerii. |
| [ep:miniatures-](#_bookmark312) [only](#_bookmark312) | | **xs:boolean** | documentation Oznaczenie, czy jest to galeria składająca się tylko z miniatur bez elementu głównego -  galeria typu C. |
| [ep:thumbnails](#_bookmark313) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | documentation Widoczność miniaturek  galerii. |
| [ep:titles](#_bookmark314) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | documentation Widoczność tytułów galerii  oraz WOMI. |
| [ep:format-](#_bookmark315) [contents](#_bookmark315) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | documentation Widoczność tekstów skojarzonmych z galerią oraz  WOMI. |
| [ep:view-width](#_bookmark316) | | **derived by: xs:positiveInteger** | documentation Szerokość siatki galerii. |
| [ep:view-](#_bookmark317) [height](#_bookmark317) | | **derived by: xs:positiveInteger** | documentation  Wysokość siatki galerii. |
| [ep:playlist](#_bookmark318) | | **derived by: xs:string** | documentation Sposób odtwarzania elementów  playlisty |
| annotation | documentation | |  |  |
| Galeria WOMI. UWAGA: w zależności od typu galerii, wymagane są różne zestawy atrybutów ([R] - wymagany). Galerie: A - pokaz slajdów, B - siatka, C - pozioma, D - playlista wideo. Atrybuty galerii slideshow (A): id [R], start-on, thumbnails, titles, format-contents. Atrybuty galerii grid (B): id [R], view-width [R], view-height[R]. Atrybuty galerii miniatures (C): id [R], miniatures-only [R]=true, thumbnails, titles, format-contents. Atrybuty galerii playlist (D): id [R], start-on, thumbnails,  titles, format-contents, playlist [R]. | | | |
| source | <xs:element name="gallery" type="ep:galleryType">  <xs:annotation>  <xs:documentation>Galeria WOMI. UWAGA: w zależności od typu galerii, wymagane są różne zestawy atrybutów ([R] - wymagany). Galerie: A - pokaz slajdów, B - siatka, C - pozioma, D - playlista wideo. Atrybuty galerii slideshow (A): id [R], start-on, thumbnails, titles, format-contents. Atrybuty galerii grid (B): id [R], view-width [R], view-height[R]. Atrybuty galerii miniatures (C): id [R], miniatures-only [R]=true, thumbnails, titles, format-contents. Atrybuty galerii playlist (D): id [R], start-on, thumbnails, titles, format-contents, playlist [R].</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **generated-type**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**ep:generated-typeType**](#_bookmark358) | | | |
| properties | content | simple | |  |
| used by | complexType | | [**e-textbook-moduleType**](#_bookmark291) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | glossary |  |
| enumeration | | biography |  |
| enumeration | | bibliography | |
| enumeration | | concept |  |
| annotation | documentation | |  |  |
| Element typu modułu generowanego automatycznie. | | | |
| source | <xs:element name="generated-type" type="ep:generated-typeType">  <xs:annotation>  <xs:documentation>Element typu modułu generowanego automatycznie.</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **glossary-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do słowniczka (do definicji lub reguły) (EPK Słowniczek - odwołanie). | | | | |
| source | <xs:element name="glossary-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do słowniczka (do definicji lub reguły) (EPK Słowniczek - odwołanie).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **hide-caption**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**ep:hide-captionType**](#_bookmark359) | | | |
| properties | content | simple | |  |
| used by | complexType | | [**referenceType**](#_bookmark339) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | none |  |
| enumeration | | title |  |
| enumeration | | number |  |
| enumeration | | all |  |
| annotation | documentation | |  |  |
| Oznaczenie, które z podpisów WOMI powinny być ukryte, a które nie. | | | |
| source | <xs:element name="hide-caption" type="ep:hide-captionType">  <xs:annotation>  <xs:documentation>Oznaczenie, które z podpisów WOMI powinny być ukryte, a które | | | |
|  | nie.</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **hypothesis**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**experimentType**](#_bookmark299) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element hipoteza z doświadczenia (EP Doświadczenie - hipoteza) |
| source | <xs:element name="hypothesis" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element hipoteza z doświadczenia (EP Doświadczenie - hipoteza)</xs:documentation>  </xs:annotation>  </xs:element> |

element **instructions**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |

|  |  |  |
| --- | --- | --- |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) | |
| properties | content | complex |
| children | [**cnxml:para**](#_bookmark25) | |
| used by | complexTypes [**experimentType**](#_bookmark299) [**observationType**](#_bookmark324) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required | |
| annotation | documentation  Element instrukcja z doświadczenia/obserwacji (EP Doświadczenie - instrukcja) | |
| source | <xs:element name="instructions" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element instrukcja z doświadczenia/obserwacji (EP Doświadczenie - instrukcja)</xs:documentation>  </xs:annotation>  </xs:element> | |

element **instruments**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexTypes [**experimentType**](#_bookmark299) [**observationType**](#_bookmark324) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element materiały i przyrządy z doświadczenia/obserwacji (EP Doświadczenie - materiały i przyrządy) |
| source | <xs:element name="instruments" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element materiały i przyrządy z doświadczenia/obserwacji (EP Doświadczenie - materiały i przyrządy)</xs:documentation>  </xs:annotation>  </xs:element> |

element **intro**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Blok intro (EP Intro) |
| source | <xs:element name="intro" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Blok intro (EP Intro)</xs:documentation>  </xs:annotation>  </xs:element> |

element **lead**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) | | | | | |
| properties | content complex | | | | | |
| children | [**cnxml:para**](#_bookmark25) | | | | | |
| used by | group [**sectionElementGroup**](#_bookmark45) | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark329) | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Blok lead (EP Lead). | |  |  |  |  |
| source | <xs:element name="lead" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Blok lead (EP Lead).</xs:documentation>  </xs:annotation>  </xs:element> | | | | | |

element **license**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | | | |
| type | [**ep:licenseType**](#_bookmark319) | | | | | | | | |
| properties | content | complex | | | |  | | | |
| used by | complexType | | | [**quoteType**](#_bookmark103) | |  | | | |
| facets | Kind |  | | Value | | Annotation | | | |
| enumeration | | |  | |  | | | |
| enumeration | | | E-podręczniki 1.0 | |  | | | |
| enumeration | | | CC 0 1.0 | |  | | | |
| enumeration | | | CC BY 1.0 | |  | | | |
| enumeration | | | CC BY 2.0 | |  | | | |
| enumeration | | | CC BY 2.5 | |  | | | |
| enumeration | | | CC BY 3.0 | |  | | | |
| enumeration | | | CC BY 4.0 | |  | | | |
| enumeration | | | CC BY SA 1.0 | |  | | | |
| enumeration | | | CC BY SA 2.0 | |  | | | |
| enumeration | | | CC BY SA 2.5 | |  | | | |
| enumeration | | | CC BY SA 3.0 | |  | | | |
| enumeration | | | CC BY SA 4.0 | |  | | | |
| enumeration | | | CC BY-ND 1.0 | |  | | | |
| enumeration | | | CC BY-ND 2.0 | |  | | | |
| enumeration | | | CC BY-ND 2.5 | |  | | | |
| enumeration | | | CC BY-ND 3.0 | |  | | | |
| enumeration | | | CC BY-ND 4.0 | |  | | | |
| enumeration | | | CC BY-NC 1.0 | |  | | | |
| enumeration | | | CC BY-NC 2.0 | |  | | | |
| enumeration | | | CC BY-NC 2.5 | |  | | | |
| enumeration | | | CC BY-NC 3.0 | |  | | | |
|  | enumeration | | CC BY-NC 4.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-ND 2.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-ND 2.5 | |  | |  |  |  |
| enumeration | | CC BY-NC-ND 3.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-ND 4.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-SA 1.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-SA 2.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-SA 2.5 | |  | |  |  |  |
| enumeration | | CC BY-NC-SA 3.0 | |  | |  |  |  |
| enumeration | | CC BY-NC-SA 4.0 | |  | |  |  |  |
| enumeration | | domena publiczna | |  | |  |  |  |
| enumeration | | tylko do użytku edukacyjnego | | | |  |  |  |
| enumeration | | tylko do użytku edukacyjnego na epodreczniki.pl | | | | |  |  |
| enumeration | | tylko do użytku niekomercyjnego | | | |  |  |  |
| attributes | Name | | Type | | Use | | Default | Fixed | Annotation |
| [ep:url](#_bookmark320) | | [**ep:licenseURLType**](#_bookmark361) | | required | |  |  |  |
| annotation | documentation | | | |  | |  |  |  |
| Element zawierający licencję elementu nadrzędnego (np. cytatu) | | | | | | |  |  |
| source | <xs:element name="license" type="ep:licenseType">  <xs:annotation>  <xs:documentation>Element zawierający licencję elementu nadrzędnego (np. cytatu)</xs:documentation>  </xs:annotation>  </xs:element> | | | | | | | | |

element **license-additional-info**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**quoteType**](#_bookmark103) |
| annotation | documentation  Element zawierający dodatkowe informacje licencyjne (np. w cytacie) |
| source | <xs:element name="license-additional-info" type="xs:string">  <xs:annotation>  <xs:documentation>Element zawierający dodatkowe informacje licencyjne (np. w cytacie)</xs:documentation>  </xs:annotation>  </xs:element> |

element **module-header**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:module-headerType**](#_bookmark321) |
| properties | content complex |
| children | [**ep:reference**](#_bookmark206) |
| used by | complexType [**referencesType**](#_bookmark338) |
| attributes | Name Type Use Default Fixed Annotation [ep:title-](#_bookmark322) **derived by:** required  [presentation](#_bookmark322) **xs:string**  [ep:title-position](#_bookmark323) **derived by:**  **xs:string** |
| annotation | documentation  Powiązanie z modułem WOMI z nagłówkiem |
| source | <xs:element name="module-header" type="ep:module-headerType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem WOMI z nagłówkiem</xs:documentation>  </xs:annotation>  </xs:element> |

element **name**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**cnxml:simpleInlineContentType**](#_bookmark112) |
| properties | content complex  mixed true |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10)[**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35)[**cnxml:link**](#_bookmark16)[**ep:tooltip-reference**](#_bookmark224)[**ep:glossary-reference**](#_bookmark181)[**ep:concept-**](#_bookmark146)[**reference**](#_bookmark146) [**ep:biography-reference**](#_bookmark137)[**ep:event-reference**](#_bookmark171)[**ep:bibliography-reference**](#_bookmark134) |
| used by | complexTypes [**biographyType**](#_bookmark260) [**eventType**](#_bookmark295) |
| annotation | documentation |
|  | Nazwa wydarzenia, biogramu (EP Nazwa) |
| source | <xs:element name="name" type="cnxml:simpleInlineContentType">  <xs:annotation>  <xs:documentation>Nazwa wydarzenia, biogramu (EP Nazwa)</xs:documentation>  </xs:annotation>  </xs:element> |

element **nbsp**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| used by | complexType [**contentType**](#_bookmark268)  group [**linkInlineContentGroup**](#_bookmark44) |
| annotation | documentation  Nbsp. Element pusty - znak nbsp ("spacja niełamiąca"). |
| source | <xs:element name="nbsp">  <xs:annotation>  <xs:documentation>Nbsp. Element pusty - znak nbsp ("spacja niełamiąca").</xs:documentation>  </xs:annotation>  <xs:complexType/>  </xs:element> |

element **numbering**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:numberingType**](#_bookmark362) |
| properties | content simple |
| used by | complexType [**presentationType**](#_bookmark333) |
| facets | Kind Value Annotation  enumeration skip |
| annotation | documentation  Element numbering |
| source | <xs:element name="numbering" type="ep:numberingType">  <xs:annotation>  <xs:documentation>Element numbering</xs:documentation>  </xs:annotation>  </xs:element> |

element **objective**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexTypes [**experimentType**](#_bookmark299) [**observationType**](#_bookmark324) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element cel z doświadczenia/obserwacji (EP Doświadczenie - cel) |
| source | <xs:element name="objective" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element cel z doświadczenia/obserwacji (EP Doświadczenie - cel)</xs:documentation>  </xs:annotation>  </xs:element> |

element **observation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:observationType**](#_bookmark324) | | | | |
| properties | content | complex | | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:note**](#_bookmark23) [**ep:objective**](#_bookmark194) [**ep:instruments**](#_bookmark185) [**ep:instructions**](#_bookmark184) [**ep:conclusions**](#_bookmark147) [**ep:demonstration**](#_bookmark162) | | | | |
| used by | complexType [**student-workType**](#_bookmark345)  group [**sectionElementGroup**](#_bookmark45) | | | | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark325) [**idType**](#_bookmark485)required | | | | |
|  | [ep:supervised](#_bookmark326) | | **xs:boolean** | required | documentation Wymaga nadzoru osoby  dorosłej. |
| [ep:context-](#_bookmark327) [dependent](#_bookmark327) | | **xs:boolean** | required | documentation Zależna od  kontekstu. |
| annotation | documentation | |  |  |  |
| Element obserwacja | | |  |  |
| source | <xs:element name="observation" type="ep:observationType">  <xs:annotation>  <xs:documentation>Element obserwacja</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **origin-id**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:origin-idType**](#_bookmark363) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element id źrodłowego modułu |
| source | <xs:element name="origin-id" type="ep:origin-idType">  <xs:annotation>  <xs:documentation>Element id źrodłowego modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **origin-version**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:origin-versionType**](#_bookmark364) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element wersji źrodłowego modułu, w przypadku gdy moduł był tworzony na podstawie innego |
| source | <xs:element name="origin-version" type="ep:origin-versionType">  <xs:annotation>  <xs:documentation>Element wersji źrodłowego modułu, w przypadku gdy moduł był tworzony na podstawie innego</xs:documentation>  </xs:annotation>  </xs:element> |

element **play-and-learn**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:play-and-learnType**](#_bookmark330) |
| properties | content complex |
| children | [**ep:reference**](#_bookmark331) |
| used by | complexType [**referencesType**](#_bookmark338) |
| annotation | documentation  Powiązanie z modułem WOMI z baw się i ucz |
| source | <xs:element name="play-and-learn" type="ep:play-and-learnType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem WOMI z baw się i ucz</xs:documentation>  </xs:annotation>  </xs:element> |

element **prerequisite**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**sectionElementGroup**](#_bookmark45) |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark329) | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Blok prerequisite (EP Przygotuj przed lekcją) | | |  |  |  |
| source | <xs:element name="prerequisite" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Blok prerequisite (EP Przygotuj przed lekcją)</xs:documentation>  </xs:annotation>  </xs:element> | | | | | |

element **presentation**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:presentationType**](#_bookmark333) |
| properties | content complex |
| children | [**ep:numbering**](#_bookmark193) [**ep:type**](#_bookmark225) [**ep:template**](#_bookmark222) |
| used by | complexType [**e-textbook-moduleType**](#_bookmark291) |
| annotation | documentation  Atrybuty prezentacyjne dla modułu. UWAGA: nie dodaję width, height, fixed-tile-layout bo kafli nie wspieramy |
| source | <xs:element name="presentation" type="ep:presentationType">  <xs:annotation>  <xs:documentation>Atrybuty prezentacyjne dla modułu. UWAGA: nie dodaję width, height, fixed- tile-layout bo kafli nie wspieramy</xs:documentation>  </xs:annotation>  </xs:element> |

element **presentation-style**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexType [**configType**](#_bookmark267) |
| facets | Kind Value Annotation  enumeration true-false |
| annotation | documentation  Element określający typ prezentowania odpowiedzi w przypadku zadań z elementami losowości. Uwaga: ma zastosowanie w przypadku, gdy mamy do czynienia z q:item/@type='multiple-response'. |
| source | <xs:element name="presentation-style">  <xs:annotation>  <xs:documentation>Element określający typ prezentowania odpowiedzi w przypadku zadań z elementami losowości. Uwaga: ma zastosowanie w przypadku, gdy mamy do czynienia z q:item/@type='multiple-response'.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="true-false"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

element **presented-answers**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:positiveInteger** |
| properties | content simple |
| used by | complexType [**configType**](#_bookmark267) |
| facets | Kind Value Annotation  minInclusive 2 |
| annotation | documentation  Element dla liczby prezentowanych odpowiedzi w zadaniu z elementami losowości. UWAGA: dozwolone wartości dla |
|  | liczby prezentowanych odpowiedzi zależą od wartości ep:behaviour oraz count(q:item/q:answer). |
| source | <xs:element name="presented-answers">  <xs:annotation>  <xs:documentation>Element dla liczby prezentowanych odpowiedzi w zadaniu z elementami losowości. UWAGA: dozwolone wartości dla liczby prezentowanych odpowiedzi zależą od wartości ep:behaviour oraz count(q:item/q:answer).</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="2"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

element **problem**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**experimentType**](#_bookmark299) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element problem z doświadczenia (EP Doświadczenie - problem badawczy). |
| source | <xs:element name="problem" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element problem z doświadczenia (EP Doświadczenie - problem badawczy).</xs:documentation>  </xs:annotation>  </xs:element> |

element **procedure-instructions**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:procedure-instructionsType**](#_bookmark334) |
| properties | content complex |
| children | [**cnxml:title**](#_bookmark42) [**ep:step**](#_bookmark216) |
| used by | group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark335) [**idType**](#_bookmark485)required |
| annotation | documentation  Element instrukcja postępowania (EP Instrukcja postępowania) |
| source | <xs:element name="procedure-instructions" type="ep:procedure-instructionsType">  <xs:annotation>  <xs:documentation>Element instrukcja postępowania (EP Instrukcja postępowania)</xs:documentation>  </xs:annotation>  </xs:element> |

element **reading-room**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| type | [**ep:reading-roomType**](#_bookmark336) | | | | | | |
| properties | content | complex | |  |  |  |  |
| default | false |  |  |  |  |  |
| used by | complexType | | [**referenceType**](#_bookmark339) |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:show-format-](#_bookmark337) [contents](#_bookmark337) | | **xs:boolean** | optional |  |  | documentation Informacja, czy WOMI powinno trafić do galerii razem z tekstem skojarzonym. Atrybut powinien być ustawiony tylko w momencie, gdy wartość reading- roomType jest ustawiona na  true. |
| annotation | documentation | |  |  |  |  |  |
| Oznaczenie, czy WOMI powinno trafić do ogólnoe-podręcznikowej galerii WOMI. | | | | | |  |
| source | <xs:element name="reading-room" type="ep:reading-roomType" default="false">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI powinno trafić do ogólnoe-podręcznikowej galerii WOMI.</xs:documentation>  </xs:annotation>  </xs:element> | | | | | | |

element **reference**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**ep:referenceType**](#_bookmark339) | | | |
| properties | content | complex | | |
| children | [**ep:width**](#_bookmark226) [**ep:context**](#_bookmark150)[**ep:reading-room**](#_bookmark205)[**ep:zoomable**](#_bookmark230)[**ep:avatar**](#_bookmark132)[**ep:embedded**](#_bookmark168)[**ep:hide-caption**](#_bookmark182)[**ep:aside**](#_bookmark130)[**ep:disabled-**](#_bookmark163)[**alternative-reference**](#_bookmark163) [**ep:content**](#_bookmark149) | | | |
| used by | complexTypes [**alternativeType**](#_bookmark238) [**biographyType**](#_bookmark260)[**eventType**](#_bookmark295)[**exerciseType**](#_bookmark74)[**galleryType**](#_bookmark309)[**module-headerType**](#_bookmark321)  group [**extendedInlineContentGroup**](#_bookmark43) | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark340) [**WOMIidType**](#_bookmark487)required documentation  Identyfikator | | | |
|  |  | |  | WOMI |
| nadany przez |
| dostawcę |
| [ep:instance-id](#_bookmark341) | | [**idType**](#_bookmark485) | documentation Identyfikator |
|  | |  | konkretnej |
|  | |  | instancji |
|  | |  | WOMI - |
|  | |  | wystąpienia |
|  | |  | WOMI w treści |
| annotation | documentation | |  |  |
| Referencja do WOMI | | |  |
| source | <xs:element name="reference" type="ep:referenceType">  <xs:annotation>  <xs:documentation>Referencja do WOMI</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **references**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:referencesType**](#_bookmark338) |
| properties | content complex |
| children | [**ep:module-header**](#_bookmark190) [**ep:play-and-learn**](#_bookmark198) [**ep:external**](#_bookmark174) |
| used by | complexType [**e-textbook-moduleType**](#_bookmark291) |
| annotation | documentation  Powiązania modułu z WOMI (nagłówek, baw się i ucz, KZD). |
| source | <xs:element name="references" type="ep:referencesType">  <xs:annotation>  <xs:documentation>Powiązania modułu z WOMI (nagłówek, baw się i ucz, KZD).</xs:documentation>  </xs:annotation>  </xs:element> |

element **revisal**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Blok revisal (EP Przypomnij sobie) |
| source | <xs:element name="revisal" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Blok revisal (EP Przypomnij sobie)</xs:documentation>  </xs:annotation>  </xs:element> |

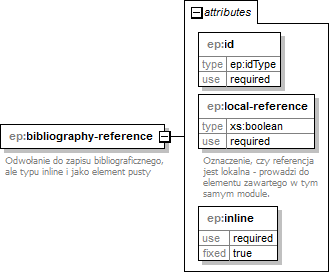
element **role**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | content | simple | |  |
| used by | complexType | | [**firstLevelSectionParametersType**](#_bookmark306) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | JPOL\_E3\_E4\_Konteksty | |
| enumeration | | JPOL\_E3\_E4\_Tekstykultury | |
| enumeration | | JPOL\_E3\_E4\_Preteksty |  |
| enumeration | | JPOL\_E3\_E4\_Gramatyka | |
| enumeration | | JPOL\_E3\_E4\_Komunikacjaizycie | |
| enumeration | | JPOL\_E3\_E4\_Zadaniowo | |
|  | enumeration JPOL\_E3\_E4\_Dodatkowyopiszasobow | | | |
| annotation | documentation  Element rola sekcji - używany do wprowadzania nagłówków sekcji typu: Konteksty, Preteksty, itp. lub szarej apli - Dodatkowy opis zasobów. | | | |
| source | <xs:element name="role">  <xs:annotation>  <xs:documentation>Element rola sekcji - używany do wprowadzania nagłówków sekcji typu: Konteksty, Preteksty, itp. lub szarej apli - Dodatkowy opis zasobów.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="JPOL\_E3\_E4\_Konteksty"/>  <xs:enumeration value="JPOL\_E3\_E4\_Tekstykultury"/>  <xs:enumeration value="JPOL\_E3\_E4\_Preteksty"/>  <xs:enumeration value="JPOL\_E3\_E4\_Gramatyka"/>  <xs:enumeration value="JPOL\_E3\_E4\_Komunikacjaizycie"/>  <xs:enumeration value="JPOL\_E3\_E4\_Zadaniowo"/>  <xs:enumeration value="JPOL\_E3\_E4\_Dodatkowyopiszasobow"/>  </xs:restriction>  </xs:simpleType>  </xs:element> | | | |

element **source**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| children | [**ep:bibliography-reference**](#_bookmark211) |
| used by | complexTypes [**definitionType**](#_bookmark60) [**quoteType**](#_bookmark103) |
| annotation | documentation  Źródło cytatu w postaci odwołania do zapisu bibliograficznego |
| source | <xs:element name="source">  <xs:annotation>  <xs:documentation>Źródło cytatu w postaci odwołania do zapisu bibliograficznego</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:sequence>  <xs:element name="bibliography-reference">  <xs:annotation>  <xs:documentation>Odwołanie do zapisu bibliograficznego, ale typu inline i jako element pusty</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="local-reference" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.</xs:documentation> |
|  | </xs:annotation>  </xs:attribute>  <xs:attribute name="inline" use="required" fixed="true"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:complexType>  </xs:element> |

element **source/bibliography-reference**

diagram

namespace <http://epodreczniki.pl/> properties content complex

used by group [**simpleInlineContentGroup**](#_bookmark48)

attributes Name Type Use Default Fixed Annotation [ep:id](#_bookmark212) [**idType**](#_bookmark485)required

[ep:local-](#_bookmark213) [reference](#_bookmark213)

**xs:boolean** required documentation

Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.

[ep:inline](#_bookmark214) required true

annotation documentation

Odwołanie do zapisu bibliograficznego, ale typu inline i jako element pusty

source <xs:element name="bibliography-reference">

<xs:annotation>

<xs:documentation>Odwołanie do zapisu bibliograficznego, ale typu inline i jako element pusty</xs:documentation>

</xs:annotation>

<xs:complexType>

<xs:attribute name="id" type="ep:idType" use="required"/>

<xs:attribute name="local-reference" type="xs:boolean" use="required">

<xs:annotation>

<xs:documentation>Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.</xs:documentation>

</xs:annotation>

|  |  |
| --- | --- |
|  | </xs:attribute>  <xs:attribute name="inline" use="required" fixed="true"/>  </xs:complexType>  </xs:element> |

attribute **source/bibliography-reference/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

# attribute source/bibliography-reference/@ local -reference

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module. |
| source | <xs:attribute name="local-reference" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **source/bibliography-reference/@ inline**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| properties | use required  fixed true |
| source | <xs:attribute name="inline" use="required" fixed="true"/> |

element **start-new-page**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |

|  |  |
| --- | --- |
| properties | content simple |
| used by | complexType [**firstLevelSectionParametersType**](#_bookmark306) |
| annotation | documentation  Element oznaczający początek nowej paginy. |
| source | <xs:element name="start-new-page" type="xs:boolean">  <xs:annotation>  <xs:documentation>Element oznaczający początek nowej paginy.</xs:documentation>  </xs:annotation>  </xs:element> |

element **step**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | complexType [**procedure-instructionsType**](#_bookmark334) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Element krok w instrukcji postępowania (EP Krok) |
| source | <xs:element name="step" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Element krok w instrukcji postępowania (EP Krok)</xs:documentation>  </xs:annotation>  </xs:element> |

element **stretch**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| type | restriction of **xs:string** | | | |
| properties | content | simple | |  |
| used by | complexType | | [**firstLevelSectionParametersType**](#_bookmark306) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | full-width |  |
| enumeration | | extended-width |  |
| enumeration | | extended-shifted-width | |
| annotation | documentation | |  |  |
| Element oznaczający powiększoną szerokość sekcji kolumnowej (nie sekcji standardowej) | | | |
| source | <xs:element name="stretch">  <xs:annotation>  <xs:documentation>Element oznaczający powiększoną szerokość sekcji kolumnowej (nie sekcji standardowej)</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="full-width"/>  <xs:enumeration value="extended-width"/>  <xs:enumeration value="extended-shifted-width"/>  </xs:restriction>  </xs:simpleType>  </xs:element> | | | |

element **stretch-title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexTypes [**firstLevelSectionParametersType**](#_bookmark306) [**secondLevelSectionParametersType**](#_bookmark342) |
| facets | Kind Value Annotation  enumeration full-width enumeration extended-width |
| annotation | documentation  Element oznaczający powiększoną szerokość tytułu sekcji (standardowej lub kolumnowej) |
| source | <xs:element name="stretch-title">  <xs:annotation>  <xs:documentation>Element oznaczający powiększoną szerokość tytułu sekcji (standardowej lub kolumnowej)</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="full-width"/>  <xs:enumeration value="extended-width"/>  </xs:restriction> |

|  |  |
| --- | --- |
|  | </xs:simpleType>  </xs:element> |

element **student-work**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:student-workType**](#_bookmark345) |
| properties | content complex |
| children | [**cnxml:problem**](#_bookmark27) [**cnxml:exercise**](#_bookmark12) [**ep:command**](#_bookmark143) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| used by | group | [**sectionElementGroup**](#_bookmark45) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark346) |  | [**idType**](#_bookmark485) | required |  |  |  |
|  | [ep:type](#_bookmark347) |  | **derived by: xs:string** | required |  |  | documentation  Typ zestawu zadań. UWAGA: |
|  |  |  |  | Jeżeli jest równy |
|  |  |  |  | 'homework', w |
|  |  |  |  | zestawie mogą |
|  |  |  |  | występować |
|  |  |  |  | polecenia, |
|  |  |  |  | ćwiczenia, |
|  |  |  |  | doświadczenia i |
|  |  |  |  | obserwacje. |
|  |  |  |  | Gdy type jest |
|  |  |  |  | równy exercise- |
|  |  |  |  | set, to |
|  |  |  |  | zawartością |
|  |  |  |  | bloku może być |
|  |  |  |  | problem, po |
|  |  |  |  | którym |
|  |  |  |  | następuje wiele |
|  |  |  |  | podrzędnych |
|  |  |  |  | ćwiczeń. |
|  | [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** |  |  |  | documentation  Atrybut pozwalający |
|  |  | |  | oznaczyć, że |
|  |  | |  | blok |
|  |  | |  | semantyczny |
|  |  | |  | ma być |
|  |  | |  | wyeksponowany |
|  |  | |  | w warstwie |
|  |  | |  | prezentacyjnej |
|  |  | |  | np. Zadanie, |
|  |  | |  | Polecenie, |
|  |  | |  | Notka, Definicja, |
|  |  | |  | Reguła, Pojęcie, |
|  |  | |  | Praca domowa |
| annotation | documentation | |  |  |  |  |  |
| Element zestawu zadań dla ucznia | | |  |  |  |  |
| source | <xs:element name="student-work" type="ep:student-workType">  <xs:annotation>  <xs:documentation>Element zestawu zadań dla ucznia</xs:documentation>  </xs:annotation>  </xs:element> | | | | | | |

element **tab**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| used by | group [**linkInlineContentGroup**](#_bookmark44) |
| annotation | documentation  Tab. Element pusty pozwalający na kontrolę wcięć, szczególnie w cn:code. |
| source | <xs:element name="tab"> |

|  |  |
| --- | --- |
|  | <xs:annotation>  <xs:documentation>Tab. Element pusty pozwalający na kontrolę wcięć, szczególnie w cn:code.</xs:documentation>  </xs:annotation>  <xs:complexType/>  </xs:element> |

element **technical-remarks**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**sectionElementGroup**](#_bookmark45) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Blok komentarza technicznego (EP Komentarz techniczny) |
| source | <xs:element name="technical-remarks" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Blok komentarza technicznego (EP Komentarz techniczny)</xs:documentation>  </xs:annotation>  </xs:element> |

element **template**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:templateType**](#_bookmark367) |
| properties | content simple |
| used by | complexType [**presentationType**](#_bookmark333) |
| facets | Kind Value Annotation |

|  |  |
| --- | --- |
|  | enumeration linear |
| annotation | documentation  Element szablon modułu. |
| source | <xs:element name="template" type="ep:templateType">  <xs:annotation>  <xs:documentation>Element szablon modułu.</xs:documentation>  </xs:annotation>  </xs:element> |

element **tooltip**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| type | [**ep:tooltipType**](#_bookmark348) | |
| properties | content | complex |
| children | [**cnxml:title**](#_bookmark42) [**ep:content**](#_bookmark351) | |
| used by | group [**sectionElementGroup**](#_bookmark45) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark349) [**idType**](#_bookmark485)required  [ep:type](#_bookmark350) **derived by:** documentation  **xs:string** Typ dymka | |
| annotation | documentation  Element dymek (EP Dymek) | |
| source | <xs:element name="tooltip" type="ep:tooltipType">  <xs:annotation>  <xs:documentation>Element dymek (EP Dymek)</xs:documentation>  </xs:annotation>  </xs:element> | |

element **tooltip-reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | [**ep:baseGlossaryReferenceType**](#_bookmark240) | | | | |
| properties | content | complex | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | group [**simpleInlineContentGroup**](#_bookmark48) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation  UWAGA: ep:id w tym | | | | |
|  |  | |  |  | przypadku nie jest |
| unikalnym |
| identyfikatorem tego |
| elementu, lecz |
| identyfikatorem celu. |
| Zależnie od typu |
| odwołania wskazuje |
| na definicję, regułe, |
| pojęcie, biogram, |
| wydarzenie lub wpis |
| bibliograficzny |
| znajdujący się w |
| słowniczku/bibliografii |
| lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji |
|  | |  | np. do wykorzystania |
|  | |  | jako indeks, który |
|  | |  | pojawi się w |
|  | |  | formatach |
|  | |  | statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy |
|  | |  |  | referencja jest |
|  | |  |  | lokalna - prowadzi do |
|  | |  |  | elementu zawartego |
|  | |  |  | w tym samym |
|  | |  |  | module. |
| annotation | documentation | |  |  |  |
| Odwołanie do dymka (EPK Dymek - odwołanie). | | | |  |
| source | <xs:element name="tooltip-reference" type="ep:baseGlossaryReferenceType">  <xs:annotation>  <xs:documentation>Odwołanie do dymka (EPK Dymek - odwołanie).</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **type**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**presentationType**](#_bookmark333) |
| annotation | documentation  Element typ modułu - w chwili obecnej xs:string, nie wprowadzamy restrykcji zgodnej z templateMappings.xml, gdyż nikt w prezentacji z tego nie korzysta. |
| source | <xs:element name="type" type="xs:string">  <xs:annotation>  <xs:documentation>Element typ modułu - w chwili obecnej xs:string, nie wprowadzamy restrykcji zgodnej z templateMappings.xml, gdyż nikt w prezentacji z tego nie korzysta.</xs:documentation>  </xs:annotation>  </xs:element> |

element **width**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:widthType**](#_bookmark368) |
| properties | content simple |
| used by | complexTypes [**referenceType**](#_bookmark339) [**secondLevelSectionParametersType**](#_bookmark342) |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 100 |
| annotation | documentation  Szerokość kolumny/szerokość WOMI. |
| source | <xs:element name="width" type="ep:widthType">  <xs:annotation>  <xs:documentation>Szerokość kolumny/szerokość WOMI.</xs:documentation>  </xs:annotation>  </xs:element> |

element **work-area**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| used by | complexType [**commandType**](#_bookmark264)  group [**simpleExerciseGroup**](#_bookmark236) |
| annotation | documentation  Text area do zadań otwartych. |
| source | <xs:element name="work-area">  <xs:annotation>  <xs:documentation>Text area do zadań otwartych.</xs:documentation>  </xs:annotation>  <xs:complexType/>  </xs:element> |

element **zebra-point**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| properties | content | complex | |  |  |  |  |
| used by | complexTypes | | [**contentType**](#_bookmark58) [**firstLevelSectionType**](#_bookmark79) | | |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark229) |  | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |  |
| Miejsce zmiany pasa zebry na inny kolor. | | | |  |  |  |
| source | <xs:element name="zebra-point">  <xs:annotation>  <xs:documentation>Miejsce zmiany pasa zebry na inny kolor.</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element> | | | | | | |

attribute **zebra-point/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

element **zoomable**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**ep:zoomableType**](#_bookmark369) | | | |
| properties | content | simple | |  |
| default | no |  |  |
| used by | complexType | | [**referenceType**](#_bookmark339) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | no |  |
| enumeration | | zoom |  |
| enumeration | | magnifier |  |
| annotation | documentation | |  |  |
| Oznaczenie, czy WOMI można przybliżyć oraz w jakim trybie (lupa/przybliżenie). | | | |
| source | <xs:element name="zoomable" type="ep:zoomableType" default="no">  <xs:annotation> | | | |
|  | <xs:documentation>Oznaczenie, czy WOMI można przybliżyć oraz w jakim trybie (lupa/przybliżenie). </xs:documentation>  </xs:annotation>  </xs:element> | | | |

group **contentGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:content**](#_bookmark149) |
| used by | complexTypes [**galleryType**](#_bookmark309) [**referenceType**](#_bookmark339) |
| annotation | documentation  Grupa tekstów skojarzonych z WOMI lub galerią WOMI. |
| source | <xs:group name="contentGroup">  <xs:annotation>  <xs:documentation>Grupa tekstów skojarzonych z WOMI lub galerią WOMI.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:content" maxOccurs="4">  <xs:annotation>  <xs:documentation>Tekst skojarzony z WOMI lub galerią WOMI. UWAGA: maksymalnie mogą wystąpić 4 teksty skojarzone z WOMI / galerią WOMI - po jednym dla danego formatu.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  </xs:group> |

# group firstLevelSectionParametersGroup

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:parameters**](#_bookmark233) |
| used by | complexType [**firstLevelSectionType**](#_bookmark79) |
| annotation | documentation  Grupa parametrów dla sekcji pierwszego stopnia. |
| source | <xs:group name="firstLevelSectionParametersGroup">  <xs:annotation>  <xs:documentation>Grupa parametrów dla sekcji pierwszego stopnia.</xs:documentation> |

|  |  |
| --- | --- |
|  | </xs:annotation>  <xs:sequence>  <xs:element name="parameters" type="ep:firstLevelSectionParametersType"/>  </xs:sequence>  </xs:group> |

element **firstLevelSectionParametersGroup/parameters**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:firstLevelSectionParametersType**](#_bookmark306) |
| properties | content complex |
| children | [**ep:role**](#_bookmark209) [**ep:columns**](#_bookmark142) [**ep:start-new-page**](#_bookmark215) [**ep:foldable**](#_bookmark307) [**ep:stretch**](#_bookmark217) [**ep:stretch-title**](#_bookmark218) |

|  |  |
| --- | --- |
| source | <xs:element name="parameters" type="ep:firstLevelSectionParametersType"/> |

group **secondLevelSecionParametersGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:parameters**](#_bookmark235) |
| used by | complexType [**secondLevelSectionType**](#_bookmark109) |
| annotation | documentation  Grupa parametrów dla sekcji drugiego stopnia. UWAGA: Gdy sekcja pierwszego stopnia jest podzielona na kolumny (liczba kolumn różna od 1), wszystkie jej podsekcje drugiego stopnia muszą posiadać parametry. |
| source | <xs:group name="secondLevelSecionParametersGroup">  <xs:annotation>  <xs:documentation>Grupa parametrów dla sekcji drugiego stopnia. UWAGA: Gdy sekcja pierwszego stopnia jest podzielona na kolumny (liczba kolumn różna od 1), wszystkie jej podsekcje drugiego stopnia muszą posiadać parametry.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="parameters" type="ep:secondLevelSectionParametersType"/>  </xs:sequence>  </xs:group> |

element **secondLevelSecionParametersGroup/parameters**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:secondLevelSectionParametersType**](#_bookmark342) |
| properties | content complex |
| children | [**ep:width**](#_bookmark226) [**ep:stretch-title**](#_bookmark218) |
| source | <xs:element name="parameters" type="ep:secondLevelSectionParametersType"/> |

group **simpleExerciseGroup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) [**cnxml:solution**](#_bookmark33) [**cnxml:commentary**](#_bookmark2) |
| used by | complexTypes [**alternativeType**](#_bookmark238) [**exerciseType**](#_bookmark74) |
| annotation | documentation  Grupa elementów, które można zawrzeć w prostym ćwiczeniu. |
| source | <xs:group name="simpleExerciseGroup">  <xs:annotation>  <xs:documentation>Grupa elementów, które można zawrzeć w prostym ćwiczeniu.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:problem"/>  <xs:element ref="cnxml:note" minOccurs="0">  <xs:annotation>  <xs:documentation>Notka. UWAGA: w tym miejscu może występować tylko notka typu tip, jest to wskazówka rozwiązania zadania.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:work-area" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="cnxml:solution" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="cnxml:commentary" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:group> |

complexType **alternativesType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:alternative**](#_bookmark128) |
| used by | element [**alternatives**](#_bookmark129) |
| annotation | documentation  Typ dla alternatyw w epXML. |
| source | <xs:complexType name="alternativesType">  <xs:annotation>  <xs:documentation>Typ dla alternatyw w epXML.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:alternative" minOccurs="2" maxOccurs="2">  <xs:annotation>  <xs:documentation>W ramach alternatyw może znajdować się między 2, a 3 alternatywy dla każdego z formatów emisyjnych. UWAGA: na chwilę obecną w trakcie konwersji powstaje alternatywa dla formatów dynamicznych (classicmobile) oraz dla formatów statycznych (static oraz static-mono).</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  </xs:complexType> |

complexType **alternativeType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:formats**](#_bookmark178) [**ep:reference**](#_bookmark206) [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) [**cnxml:solution**](#_bookmark33) [**cnxml:commentary**](#_bookmark2) [**ep:config**](#_bookmark148)[**q:item**](#_bookmark472) |
| used by | element [**alternative**](#_bookmark128) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark239) [**idType**](#_bookmark485)required |
| annotation | documentation  Typ dla alternatywy w epXML. |
| source | <xs:complexType name="alternativeType"> |
|  | <xs:annotation>  <xs:documentation>Typ dla alternatywy w epXML.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:formats">  <xs:annotation>  <xs:documentation>Element dla formatów alternatyw epXML. UWAGA: ze względu na uproszczenie możliwe powinny być 2 typy alternatyw: classicmobile - wtedy wewnątrz alternativeType powinno znajdować się ep:reference, lub static i static-mono na raz (2 ep:format), wtedy w alternativeType powinny znajdować się elementy z grupy simpleExercise.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:choice>  <xs:element ref="ep:reference"/>  <xs:group ref="ep:simpleExerciseGroup"/>  <xs:sequence>  <xs:element ref="ep:config" minOccurs="0"/>  <xs:element ref="q:item"/>  </xs:sequence>  </xs:choice>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType> |

attribute **alternativeType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

complexType **baseGlossaryReferenceType**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://epodreczniki.pl/> | | | | |
| type | extension of [**cnxml:linkInlineContentType**](#_bookmark84) | | | | |
| properties | base | cnxml:linkInlineContentType | | | |
| mixed | true | | | |
| children | [**ep:bookmark**](#_bookmark139) [**cnxml:emphasis**](#_bookmark7)[**cnxml:quote**](#_bookmark29)[**cnxml:foreign**](#_bookmark13)[**cnxml:term**](#_bookmark39)[**cnxml:code**](#_bookmark0)[**cnxml:newline**](#_bookmark22)[**ep:nbsp**](#_bookmark192)[**ep:tab**](#_bookmark220)[**m:math**](#_bookmark1047) [**cnxml:equation**](#_bookmark10) [**cnxml:sup**](#_bookmark36)[**cnxml:sub**](#_bookmark35) | | | | |
| used by | elements [**bibliography-reference**](#_bookmark134) [**biography-reference**](#_bookmark137) [**concept-reference**](#_bookmark146) [**event-reference**](#_bookmark171) [**glossary-reference**](#_bookmark181)[**tooltip-reference**](#_bookmark224) | | | | |
| attributes | Name Type Use Default Fixed Annotation  [ep:id](#_bookmark241) [**idType**](#_bookmark485)required documentation | | | | |
|  |  | |  |  | UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Zależnie od typu odwołania wskazuje na definicję, regułe, pojęcie, biogram, wydarzenie lub wpis bibliograficzny znajdujący się w słowniczku/bibliografii  lub w tym module. |
| [ep:target-name](#_bookmark380) | | **xs:string** |  | documentation Nazwa dla referencji np. do wykorzystania jako indeks, który pojawi się w formatach  statycznych. |
| [ep:local-](#_bookmark242) [reference](#_bookmark242) | | **xs:boolean** | required | documentation Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym  module. |
| annotation | documentation | |  |  |  |
| Baza referencji do elementu semantycznego znajdującego się w słowniczku lub w tym module. Ma zastosowanie w  przypadku: definicji, reguł, pojęć, biogramów, wydarzeń oraz bibliografii. | | | | |
| source | <xs:complexType name="baseGlossaryReferenceType" mixed="true">  <xs:annotation>  <xs:documentation>Baza referencji do elementu semantycznego znajdującego się w słowniczku lub w tym module. Ma zastosowanie w przypadku: definicji, reguł, pojęć, biogramów, wydarzeń oraz bibliografii.</xs:documentation>  </xs:annotation>  <xs:complexContent>  <xs:extension base="cnxml:linkInlineContentType">  <xs:attribute name="id" type="ep:idType" use="required">  <xs:annotation>  <xs:documentation>UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Zależnie od typu odwołania wskazuje na definicję, regułe, pojęcie, biogram, wydarzenie lub wpis bibliograficzny znajdujący się w słowniczku/bibliografii lub w tym module.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute ref="ep:target-name"/>  <xs:attribute name="local-reference" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType> | | | | |

attribute **baseGlossaryReferenceType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| annotation | documentation  UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Zależnie od typu odwołania wskazuje na definicję, regułe, pojęcie, biogram, wydarzenie lub wpis bibliograficzny znajdujący się w słowniczku/bibliografii lub w tym module. | |
| source | <xs:attribute name="id" type="ep:idType" use="required">  <xs:annotation>  <xs:documentation>UWAGA: ep:id w tym przypadku nie jest unikalnym identyfikatorem tego elementu, lecz identyfikatorem celu. Zależnie od typu odwołania wskazuje na definicję, regułe, pojęcie, biogram, wydarzenie lub wpis bibliograficzny znajdujący się w słowniczku/bibliografii lub w tym module.</xs:documentation>  </xs:annotation>  </xs:attribute> | |

# attribute baseGlossaryReferenceType/@ local -reference

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module. |
| source | <xs:attribute name="local-reference" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Oznaczenie, czy referencja jest lokalna - prowadzi do elementu zawartego w tym samym module.</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **bibliographyPatternType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | mixed true |
| children | [**ep:title**](#_bookmark244) [**ep:author**](#_bookmark245)[**ep:booktitle**](#_bookmark246)[**ep:year**](#_bookmark247)[**ep:key**](#_bookmark248)[**ep:edition**](#_bookmark249)[**ep:organization**](#_bookmark250)[**ep:address**](#_bookmark251)[**ep:series**](#_bookmark252)[**ep:editor**](#_bookmark253)[**ep:publisher**](#_bookmark254) [**ep:number**](#_bookmark255)[**ep:journal**](#_bookmark256)[**ep:note**](#_bookmark257)[**ep:howpublished**](#_bookmark258)[**ep:pages**](#_bookmark259) |
| used by | element [**bibliographyPattern**](#_bookmark135) |
| annotation | documentation  Wzór wstawiania bibliografii |
| source | <xs:complexType name="bibliographyPatternType" mixed="true">  <xs:annotation>  <xs:documentation>Wzór wstawiania bibliografii</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element name="title">  <xs:complexType/>  </xs:element>  <xs:element name="author">  <xs:complexType/>  </xs:element>  <xs:element name="booktitle">  <xs:complexType/>  </xs:element> |
|  | <xs:element name="year">  <xs:complexType/>  </xs:element>  <xs:element name="key">  <xs:complexType/>  </xs:element>  <xs:element name="edition">  <xs:complexType/>  </xs:element>  <xs:element name="organization">  <xs:complexType/>  </xs:element>  <xs:element name="address">  <xs:complexType/>  </xs:element>  <xs:element name="series">  <xs:complexType/>  </xs:element>  <xs:element name="editor">  <xs:complexType/>  </xs:element>  <xs:element name="publisher">  <xs:complexType/>  </xs:element>  <xs:element name="number">  <xs:complexType/>  </xs:element>  <xs:element name="journal">  <xs:complexType/>  </xs:element>  <xs:element name="note">  <xs:complexType/>  </xs:element>  <xs:element name="howpublished">  <xs:complexType/>  </xs:element>  <xs:element name="pages">  <xs:complexType/>  </xs:element>  </xs:choice>  </xs:complexType> |

element **bibliographyPatternType/title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="title">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/author**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| used by | complexType [**quoteType**](#_bookmark103) |
| source | <xs:element name="author">  <xs:complexType/>  </xs:element> |

# element bibliographyPatternType/booktitle

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="booktitle">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/year**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="year">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/key**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="key">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/edition**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="edition">  <xs:complexType/>  </xs:element> |

# element bibliographyPatternType/organization

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="organization">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/address**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="address">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/series**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="series">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/editor**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="editor">  <xs:complexType/>  </xs:element> |

# element bibliographyPatternType/publisher

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="publisher">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/number**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="number">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/journal**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="journal">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/note**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="note"> |
|  | <xs:complexType/>  </xs:element> |

# element bibliographyPatternType/howpublished

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="howpublished">  <xs:complexType/>  </xs:element> |

element **bibliographyPatternType/pages**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | content complex |
| source | <xs:element name="pages">  <xs:complexType/>  </xs:element> |

complexType **biographyType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| children | [**ep:name**](#_bookmark191) [**ep:sorting-key**](#_bookmark262) [**ep:birth**](#_bookmark138) [**ep:death**](#_bookmark161) [**ep:reference**](#_bookmark206) [**ep:gallery**](#_bookmark179) [**ep:content**](#_bookmark263) | | | | | |
| used by | element | [**biography**](#_bookmark136) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark261) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:glossary](#_bookmark375) | **xs:boolean** | required |  |  | documentation Oznaczenie, czy element ma trafić do słowniczka, |
|  | czy nie | | | | | |
| annotation | documentation  Typ biogram | | | | | |
| source | <xs:complexType name="biographyType">  <xs:annotation>  <xs:documentation>Typ biogram</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:name">  <xs:annotation>  <xs:documentation>Imie i nazwisko (EP Name)</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="sorting-key" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Klucz sortowania</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:birth" minOccurs="0"/>  <xs:element ref="ep:death" minOccurs="0"/>  <xs:element ref="ep:reference" minOccurs="0">  <xs:annotation>  <xs:documentation>Referencja do WOMI. UWAGA: Referencja WOMI w biogramie ma ograniczoną liczbę właściwości. Elementy, które należy uwzględnić to: ep:reading-room, ep:zoomable, ep:hide-caption oraz ep:content. Uwaga ta dotyczy się również referencji do WOMI zawartych w ep:gallery w biogramie.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:gallery" minOccurs="0">  <xs:annotation>  <xs:documentation>Galeria WOMI. UWAGA: w zależności od typu galerii, wymagane są różne zestawy atrybutów ([R] - wymagany). Galerie: A - pokaz slajdów, B - siatka, C - pozioma, D - playlista wideo. Atrybuty galerii slideshow (A): id [R], start-on, thumbnails, titles, format-contents.  Atrybuty galerii grid (B): id [R], view-width [R], view-height[R]. Atrybuty galerii miniatures (C): id [R], miniatures-only [R]=true, thumbnails, titles, format-contents. Atrybuty galerii playlist (D): id [R], start-on, thumbnails, titles, format-contents, playlist [R]. UWAGA: Galeria WOMI wewnątrz  biogramu ma ograniczoną liczbę opcji. Atrybuty przyjmują stałe wartości: ep:miniatures-only="true", ep:format-contents="hide-normal", a tytuł jest kopią zawartości ep:name.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="content" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Zawartość biogramu. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w skład referencji WOMI.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute ref="ep:glossary" use="required"/>  </xs:complexType> | | | | | |

attribute **biographyType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

element **biographyType/sorting-key**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | minOcc 0  maxOcc 1 content simple |
| annotation | documentation  Klucz sortowania |
| source | <xs:element name="sorting-key" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Klucz sortowania</xs:documentation>  </xs:annotation>  </xs:element> |

element **biographyType/content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**contentGroup**](#_bookmark231) |
| attributes | Name Type Use Default Fixed Annotation |

|  |  |  |  |
| --- | --- | --- | --- |
|  | [ep:id](#_bookmark329) | [**idType**](#_bookmark485) | required |
| annotation | documentation | |  |
| Zawartość biogramu. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w skład  referencji WOMI. | | |
| source | <xs:element name="content" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Zawartość biogramu. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w skład referencji WOMI.</xs:documentation>  </xs:annotation>  </xs:element> | | |

complexType **commandType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| children | [**cnxml:problem**](#_bookmark27) [**cnxml:note**](#_bookmark23) [**ep:work-area**](#_bookmark227) | | | | | |
| used by | element | [**command**](#_bookmark143) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark265) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:type](#_bookmark266) | **derived by: xs:string** |  |  |  | documentation Typ polecenia. Narazie tylko dodany dla zdefiniowania debaty. |

|  |  |  |  |
| --- | --- | --- | --- |
|  | [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | **derived by: xs:string** | documentation Atrybut pozwalający oznaczyć, że blok semantyczny ma być wyeksponowany w warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie,  Praca domowa |
| annotation | documentation |  |  |
| Typ command (EP Polecenie) | |  |
| source | <xs:complexType name="commandType">  <xs:annotation>  <xs:documentation>Typ command (EP Polecenie)</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:annotation>  <xs:documentation>UWAGA: W commandType mogą wystąpić tylko notki typu: tip, important, warning</xs:documentation>  </xs:annotation>  <xs:element ref="cnxml:problem"/>  <xs:element ref="cnxml:note"/>  <xs:element ref="ep:work-area" minOccurs="0" maxOccurs="unbounded"/>  </xs:choice>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="type">  <xs:annotation>  <xs:documentation>Typ polecenia. Narazie tylko dodany dla zdefiniowania debaty.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="debate"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute ref="ep:presentation-variant"/>  </xs:complexType> | | |

attribute **commandType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |

|  |  |
| --- | --- |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> |

attribute **commandType/@ type**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  enumeration debate |
| annotation | documentation  Typ polecenia. Narazie tylko dodany dla zdefiniowania debaty. |
| source | <xs:attribute name="type">  <xs:annotation>  <xs:documentation>Typ polecenia. Narazie tylko dodany dla zdefiniowania debaty.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="debate"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

complexType **configType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:behaviour**](#_bookmark133) [**ep:presented-answers**](#_bookmark202) [**ep:correct-in-set**](#_bookmark159) [**ep:presentation-style**](#_bookmark201) |
| used by | element [**config**](#_bookmark148) |
| annotation | documentation  Typ konfiguracji zadania z elementami losowości. |
| source | <xs:complexType name="configType">  <xs:annotation>  <xs:documentation>Typ konfiguracji zadania z elementami losowości.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:behaviour"/>  <xs:element ref="ep:presented-answers"/>  <xs:element ref="ep:correct-in-set" minOccurs="0"/>  <xs:element ref="ep:presentation-style" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **contentType**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://epodreczniki.pl/> | |
| properties | mixed | true |
| children | [**m:math**](#_bookmark1047) [**cnxml:newline**](#_bookmark22) [**ep:nbsp**](#_bookmark192) [**cnxml:emphasis**](#_bookmark7) [**bib:entry**](#_bookmark433) | |
| used by | element [**content**](#_bookmark149) | |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark269) [**idType**](#_bookmark485)required  [ep:format](#_bookmark270) **derived by:** required documentation  **xs:string** Format dla  którego przeznaczony jest tekst  skojarzony. | |
| annotation | documentation  Tekst skojarzony z WOMI lub galerią WOMI. | |
| source | <xs:complexType name="contentType" mixed="true">  <xs:annotation>  <xs:documentation>Tekst skojarzony z WOMI lub galerią WOMI.</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="mml:math"/>  <xs:element ref="cnxml:newline"/>  <xs:element ref="ep:nbsp"/>  <xs:element ref="cnxml:emphasis"/> | |
|  | <xs:element ref="bib:entry"/>  </xs:choice>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="format" use="required">  <xs:annotation>  <xs:documentation>Format dla którego przeznaczony jest tekst skojarzony.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="classic"/>  <xs:enumeration value="mobile"/>  <xs:enumeration value="static"/>  <xs:enumeration value="static-mono"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> | |

attribute **contentType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **contentType/@ format**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration classic enumeration mobile enumeration static enumeration static-mono | |
| annotation | documentation  Format dla którego przeznaczony jest tekst skojarzony. | |
| source | <xs:attribute name="format" use="required">  <xs:annotation>  <xs:documentation>Format dla którego przeznaczony jest tekst skojarzony.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="classic"/> | |
|  | <xs:enumeration value="mobile"/>  <xs:enumeration value="static"/>  <xs:enumeration value="static-mono"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

complexType **core-curriculum-abilityType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| properties | mixed true |
| children | [**m:math**](#_bookmark1047) [**cnxml:sup**](#_bookmark36) [**cnxml:sub**](#_bookmark35) |
| used by | element [**core-curriculum-ability**](#_bookmark151) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark272) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:complexType name="core-curriculum-abilityType" mixed="true">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="mml:math"/>  <xs:element ref="cnxml:sup"/>  <xs:element ref="cnxml:sub"/>  </xs:choice>  <xs:attribute name="key" type="xs:string" use="required"/>  </xs:complexType> |

attribute **core-curriculum-abilityType/@ key**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |

|  |  |
| --- | --- |
| source | <xs:attribute name="key" type="xs:string" use="required"/> |

complexType **core-curriculum-entriesType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:core-curriculum-entry**](#_bookmark154) |
| used by | element [**core-curriculum-entries**](#_bookmark153) |
| annotation | documentation  Typ dla grupy wpisów zgodnych z podstawą programową pochodzących z USPP |
| source | <xs:complexType name="core-curriculum-entriesType">  <xs:annotation>  <xs:documentation>Typ dla grupy wpisów zgodnych z podstawą programową pochodzących z USPP</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:core-curriculum-entry" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **core-curriculum-entryType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:core-curriculum-stage**](#_bookmark156) [**ep:core-curriculum-school**](#_bookmark155) [**ep:core-curriculum-subject**](#_bookmark157) [**ep:core-curriculum-version**](#_bookmark158)[**ep:core-curriculum-ability**](#_bookmark151) |

|  |  |
| --- | --- |
| used by | element [**core-curriculum-entry**](#_bookmark154) |
| annotation | documentation  Typ dla wpisu zgodnego z podstawą programową pochodzącą z USPP |
| source | <xs:complexType name="core-curriculum-entryType">  <xs:annotation>  <xs:documentation>Typ dla wpisu zgodnego z podstawą programową pochodzącą z USPP</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:core-curriculum-stage"/>  <xs:element ref="ep:core-curriculum-school"/>  <xs:element ref="ep:core-curriculum-subject"/>  <xs:element ref="ep:core-curriculum-version" minOccurs="0"/>  <xs:element ref="ep:core-curriculum-ability" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **core-curriculum-schoolType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of **xs:string** |
| properties | base xs:string |
| used by | element [**core-curriculum-school**](#_bookmark155) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark276) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:complexType name="core-curriculum-schoolType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="key" type="xs:string" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> |

attribute **core-curriculum-schoolType/@ key**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |

|  |  |
| --- | --- |
| source | <xs:attribute name="key" type="xs:string" use="required"/> |

complexType **core-curriculum-stageType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of **xs:string** |
| properties | base xs:string |
| used by | element [**core-curriculum-stage**](#_bookmark156) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark278) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:complexType name="core-curriculum-stageType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="key" type="xs:string" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> |

attribute **core-curriculum-stageType/@ key**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |
| source | <xs:attribute name="key" type="xs:string" use="required"/> |

complexType **core-curriculum-subjectType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of **xs:string** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| properties | base | xs:string |  |  |  |  |
| used by | element | [**core-curriculum-subject**](#_bookmark157) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:key](#_bookmark280) | **xs:string** | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). | | | |  |  |
| source | <xs:complexType name="core-curriculum-subjectType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="key" type="xs:string" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> | | | | | |

attribute **core-curriculum-subjectType/@ key**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |
| source | <xs:attribute name="key" type="xs:string" use="required"/> |

complexType **core-curriculum-versionType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of **xs:string** |
| properties | base xs:string |
| used by | element [**core-curriculum-version**](#_bookmark158) |
| attributes | Name Type Use Default Fixed Annotation [ep:key](#_bookmark282) **xs:string** required |
| annotation | documentation  Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć). |
| source | <xs:complexType name="core-curriculum-versionType">  <xs:annotation>  <xs:documentation>Patrz <http://uspp.pl/>(do dyskusji z grupą portalową jak się tam podpiąć).</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="key" type="xs:string" use="required"/> |

|  |  |
| --- | --- |
|  | </xs:extension>  </xs:simpleContent>  </xs:complexType> |

attribute **core-curriculum-versionType/@ key**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required |
| source | <xs:attribute name="key" type="xs:string" use="required"/> |

complexType **datePartType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:year**](#_bookmark284) [**ep:month**](#_bookmark285) [**ep:day**](#_bookmark286) |
| used by | elements [**dateType/date-end**](#_bookmark290) [**dateType/date-start**](#_bookmark289) |
| annotation | documentation  Typ składowa daty |
| source | <xs:complexType name="datePartType">  <xs:annotation>  <xs:documentation>Typ składowa daty</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="year" type="xs:int"/>  <xs:element name="month" minOccurs="0">  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="12"/>  </xs:restriction>  </xs:simpleType>  </xs:element>  <xs:element name="day" minOccurs="0">  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="31"/>  </xs:restriction>  </xs:simpleType> |

|  |  |
| --- | --- |
|  | </xs:element>  </xs:sequence>  </xs:complexType> |

element **datePartType/year**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:int** |
| properties | content simple |
| source | <xs:element name="year" type="xs:int"/> |

element **datePartType/month**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:positiveInteger** | | | |
| properties | minOcc | 0 |  |  |
| maxOcc | 1 |  |  |
| content | simple | |  |
| facets | Kind |  | Value | Annotation |
| minInclusive | | 1 |  |
| maxInclusive | | 12 |  |
| source | <xs:element name="month" minOccurs="0">  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="12"/>  </xs:restriction>  </xs:simpleType>  </xs:element> | | | |

element **datePartType/day**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:positiveInteger** |
| properties | minOcc 0  maxOcc 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | content | simple | |  |
| facets | Kind |  | Value | Annotation |
| minInclusive | | 1 |  |
| maxInclusive | | 31 |  |
| source | <xs:element name="day" minOccurs="0">  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="31"/>  </xs:restriction>  </xs:simpleType>  </xs:element> | | | |

complexType **dateType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:date-start**](#_bookmark289) [**ep:date-end**](#_bookmark290) |
| used by | element [**date**](#_bookmark160) |
| attributes | Name Type Use Default Fixed Annotation [ep:type](#_bookmark288) **derived by:** required  **xs:string** |
| annotation | documentation  Typ data |
| source | <xs:complexType name="dateType">  <xs:annotation>  <xs:documentation>Typ data</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="date-start" type="ep:datePartType"/>  <xs:element name="date-end" type="ep:datePartType" minOccurs="0">  <xs:annotation>  <xs:documentation>End date musi być zdefiniowane dla opcji: century, beginning-of-century, end-of-century, middle-of-century, turn-of-century</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  <xs:attribute name="type" use="required">  <xs:simpleType> |

|  |  |
| --- | --- |
|  | <xs:restriction base="xs:string">  <xs:enumeration value="century"/>  <xs:enumeration value="year"/>  <xs:enumeration value="date"/>  <xs:enumeration value="around-year"/>  <xs:enumeration value="beginning-of-century"/>  <xs:enumeration value="end-of-century"/>  <xs:enumeration value="middle-of-century"/>  <xs:enumeration value="turn-of-century"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> |

attribute **dateType/@ type**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration century enumeration year enumeration date enumeration around-year  enumeration beginning-of-century enumeration end-of-century enumeration middle-of-century enumeration turn-of-century | |
| source | <xs:attribute name="type" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="century"/>  <xs:enumeration value="year"/>  <xs:enumeration value="date"/>  <xs:enumeration value="around-year"/>  <xs:enumeration value="beginning-of-century"/>  <xs:enumeration value="end-of-century"/>  <xs:enumeration value="middle-of-century"/>  <xs:enumeration value="turn-of-century"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

element **dateType/date-start**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:datePartType**](#_bookmark283) |
| properties | content complex |
| children | [**ep:year**](#_bookmark284) [**ep:month**](#_bookmark285) [**ep:day**](#_bookmark286) |
| source | <xs:element name="date-start" type="ep:datePartType"/> |

element **dateType/date-end**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:datePartType**](#_bookmark283) |
| properties | minOcc 0  maxOcc 1 content complex |
| children | [**ep:year**](#_bookmark284) [**ep:month**](#_bookmark285) [**ep:day**](#_bookmark286) |
| annotation | documentation  End date musi być zdefiniowane dla opcji: century, beginning-of-century, end-of-century, middle-of-century, turn-of- century |
| source | <xs:element name="date-end" type="ep:datePartType" minOccurs="0">  <xs:annotation>  <xs:documentation>End date musi być zdefiniowane dla opcji: century, beginning-of-century, end-of-century, middle-of-century, turn-of-century</xs:documentation>  </xs:annotation> |
|  | </xs:element> |

complexType **e-textbook-moduleType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| children | [**ep:references**](#_bookmark207) [**ep:generated-type**](#_bookmark180) [**ep:presentation**](#_bookmark200) [**ep:core-curriculum-entries**](#_bookmark153) | | | | | |
| used by | element | [**e-textbook-module**](#_bookmark165) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:version](#_bookmark292) | **xs:string** | required |  | 1.5 |  |
| annotation | documentation | |  |  |  |  |
| Typ dla rozszerzeń metadanych stworzonych na potrzeby e-podręczników. | | | |  |  |
| source | <xs:complexType name="e-textbook-moduleType">  <xs:annotation>  <xs:documentation>Typ dla rozszerzeń metadanych stworzonych na potrzeby e- podręczników.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:references" minOccurs="0"/>  <xs:element ref="ep:generated-type" minOccurs="0"/>  <xs:element ref="ep:presentation"/>  <xs:element ref="ep:core-curriculum-entries" minOccurs="0">  <xs:annotation>  <xs:documentation>Element dla grupy wpisów zgodnych z podstawą programową pochodzących z USPP. UWAGA: W każdym module poza technicznymi jest potrzebne minimum jedno hasło podstawy programowej.</xs:documentation>  </xs:annotation> | | | | | |
|  | </xs:element>  </xs:sequence>  <xs:attribute name="version" type="xs:string" use="required" fixed="1.5"/>  </xs:complexType> | | | | | |

attribute **e-textbook-moduleType/@ version**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | use required  fixed 1.5 |
| source | <xs:attribute name="version" type="xs:string" use="required" fixed="1.5"/> |

complexType **effectType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | base ep:paraContainerWithIdType |
| children | [**cnxml:para**](#_bookmark25) |
| used by | element [**effect**](#_bookmark166) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required  [ep:type](#_bookmark294) **derived by: xs:string** |
| annotation | documentation  Typ elementu effect (EP Nauczysz się). Typ służy do stworzenia labeli: Co wiem, Co potrafię, Co rozumiem |
| source | <xs:complexType name="effectType">  <xs:annotation>  <xs:documentation>Typ elementu effect (EP Nauczysz się). Typ służy do stworzenia labeli: Co wiem, Co potrafię, Co rozumiem</xs:documentation>  </xs:annotation>  <xs:complexContent> |

|  |  |
| --- | --- |
|  | <xs:extension base="ep:paraContainerWithIdType">  <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="skill"/>  <xs:enumeration value="knowledge"/>  <xs:enumeration value="understanding"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType> |

attribute **effectType/@ type**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | skill |  |
| enumeration | knowledge |  |
| enumeration | understanding | |
| source | <xs:attribute name="type">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="skill"/>  <xs:enumeration value="knowledge"/>  <xs:enumeration value="understanding"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

complexType **eventType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| children | [**ep:name**](#_bookmark191) [**ep:sorting-key**](#_bookmark297) [**ep:event-start**](#_bookmark172) [**ep:event-end**](#_bookmark170) [**ep:reference**](#_bookmark206) [**ep:gallery**](#_bookmark179) [**ep:content**](#_bookmark298) | | | | | |
| used by | element | [**event**](#_bookmark169) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark296) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:glossary](#_bookmark375) | **xs:boolean** | required |  |  | documentation Oznaczenie, czy element  ma trafić do słowniczka, |
|  | czy nie | | | | | |
| annotation | documentation  Typ wydarzenie | | | | | |
| source | <xs:complexType name="eventType">  <xs:annotation>  <xs:documentation>Typ wydarzenie</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:name">  <xs:annotation>  <xs:documentation>Nazwa (EP Nazwa)</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="sorting-key" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Klucz sortowania</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:event-start" minOccurs="0"/>  <xs:element ref="ep:event-end" minOccurs="0"/>  <xs:element ref="ep:reference" minOccurs="0">  <xs:annotation>  <xs:documentation>Referencja do WOMI. UWAGA: Referencja WOMI w wydarzeniu ma ograniczoną liczbę właściwości. Elementy, które należy uwzględnić to: ep:reading-room, ep:zoomable, ep:hide-caption oraz ep:content. Uwaga ta dotyczy się również referencji do WOMI zawartych w ep:gallery w wydarzeniu.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:gallery" minOccurs="0">  <xs:annotation>  <xs:documentation>Galeria WOMI. UWAGA: w zależności od typu galerii, wymagane są różne zestawy atrybutów ([R] - wymagany). Galerie: A - pokaz slajdów, B - siatka, C - pozioma, D - playlista wideo. Atrybuty galerii slideshow (A): id [R], start-on, thumbnails, titles, format-contents.  Atrybuty galerii grid (B): id [R], view-width [R], view-height[R]. Atrybuty galerii miniatures (C): id [R], miniatures-only [R]=true, thumbnails, titles, format-contents. Atrybuty galerii playlist (D): id [R], start-on, thumbnails, titles, format-contents, playlist [R]. UWAGA: Galeria WOMI wewnątrz wydarzenia ma ograniczoną liczbę opcji. Atrybuty przyjmują stałe wartości: ep:miniatures- only="true", ep:format-contents="hide-normal", a tytuł jest kopią zawartości ep:name.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="content" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Zawartość wydarzenia. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w skład referencji WOMI.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute ref="ep:glossary" use="required"/>  </xs:complexType> | | | | | |

attribute **eventType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

element **eventType/sorting-key**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | minOcc 0  maxOcc 1 content simple |
| annotation | documentation  Klucz sortowania |
| source | <xs:element name="sorting-key" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Klucz sortowania</xs:documentation>  </xs:annotation>  </xs:element> |

element **eventType/content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**contentGroup**](#_bookmark231) |
| attributes | Name Type Use Default Fixed Annotation |

|  |  |  |  |
| --- | --- | --- | --- |
|  | [ep:id](#_bookmark329) | [**idType**](#_bookmark485) | required |
| annotation | documentation | |  |
| Zawartość wydarzenia. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w  skład referencji WOMI. | | |
| source | <xs:element name="content" type="ep:paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Zawartość wydarzenia. Zdefiniowana na tym poziomie ze względu na potencjalną kolizję z ep:content wchodzący w skład referencji WOMI.</xs:documentation>  </xs:annotation>  </xs:element> | | |

complexType **experimentType**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:note**](#_bookmark23)[**ep:problem**](#_bookmark203)[**ep:hypothesis**](#_bookmark183)[**ep:objective**](#_bookmark194)[**ep:instruments**](#_bookmark185)[**ep:instructions**](#_bookmark184)[**ep:conclusions**](#_bookmark147)[**ep:demonstration**](#_bookmark162) | | | | | | | | |
| used by | element | [**experiment**](#_bookmark173) | | |  |  |  | |  |
| attributes | Name |  | | Type | Use | Default | Fixed | | Annotation |
| [ep:id](#_bookmark300) |  | | [**idType**](#_bookmark485) | required |  |  | |  |
| [ep:supervised](#_bookmark301) | | | **xs:boolean** | required |  |  | | documentation Wymaga nadzoru osoby  dorosłej. |
|  | [ep:context-](#_bookmark302) [dependent](#_bookmark302) | | **xs:boolean** | | required | | | documentation  Zależny od kontekstu. | |
| annotation | documentation | |  | |  | | |  | |
| Typ doświadczenie (EPK Doświadczenie) | | | | | | |  | |
| source | <xs:complexType name="experimentType">  <xs:annotation>  <xs:documentation>Typ doświadczenie (EPK Doświadczenie)</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:annotation>  <xs:documentation>UWAGA: W eksperymencie mogą występować tylko notki typu: tip, warning, important.</xs:documentation>  </xs:annotation>  <xs:element ref="cnxml:title"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:choice>  <xs:sequence>  <xs:element ref="ep:problem"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="ep:hypothesis"/>  </xs:sequence>  <xs:element ref="ep:objective"/>  </xs:choice>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:sequence minOccurs="0">  <xs:element ref="ep:instruments"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:element ref="ep:instructions"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:sequence minOccurs="0">  <xs:element ref="ep:conclusions"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:sequence minOccurs="0">  <xs:element ref="ep:demonstration"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="supervised" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Wymaga nadzoru osoby dorosłej.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="context-dependent" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Zależny od kontekstu.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType> | | | | | | | | |

attribute **experimentType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **experimentType/@ supervised**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Wymaga nadzoru osoby dorosłej. |
| source | <xs:attribute name="supervised" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Wymaga nadzoru osoby dorosłej.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **experimentType/@ context -dependent**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Zależny od kontekstu. |
| source | <xs:attribute name="context-dependent" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Zależny od kontekstu.</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **externalType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:reference**](#_bookmark304) |
| used by | element [**external**](#_bookmark174) |
| annotation | documentation  Powiązanie z modułem zasobów z KZD |
| source | <xs:complexType name="externalType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem zasobów z KZD</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="reference" maxOccurs="unbounded">  <xs:annotation>  <xs:documentation>Referencja do WOMI z zasobem KZD</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:complexType> |

element **externalType/reference**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| properties | minOcc | 1 |  |  |  |  |  |
| maxOcc | unbounded | |  |  |  |  |
| content | complex | |  |  |  |  |
| used by | complexTypes | | [**alternativeType**](#_bookmark238) [**biographyType**](#_bookmark260) [**eventType**](#_bookmark295) [**exerciseType**](#_bookmark74) [**galleryType**](#_bookmark309) [**module-headerType**](#_bookmark321) | | | | |
| group | | [**extendedInlineContentGroup**](#_bookmark43) | |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark305) |  | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |  |
| Referencja do WOMI z zasobem KZD | | | |  |  |  |
| source | <xs:element name="reference" maxOccurs="unbounded">  <xs:annotation>  <xs:documentation>Referencja do WOMI z zasobem KZD</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element> | | | | | | |

attribute **externalType/reference/@ id**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | [**idType**](#_bookmark485) | | | |
| properties | use | required | | |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez | | | |
|  |  | |  | konwerter. |
| pattern | | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | | | |

complexType **firstLevelSectionParametersType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:role**](#_bookmark209) [**ep:columns**](#_bookmark142) [**ep:start-new-page**](#_bookmark215) [**ep:foldable**](#_bookmark307) [**ep:stretch**](#_bookmark217) [**ep:stretch-title**](#_bookmark218) |
| used by | element [**firstLevelSectionParametersGroup/parameters**](#_bookmark233) |
| annotation | documentation  Typ parametrów dla sekcji pierwszego stopnia |
| source | <xs:complexType name="firstLevelSectionParametersType">  <xs:annotation> |

|  |  |
| --- | --- |
|  | <xs:documentation>Typ parametrów dla sekcji pierwszego stopnia</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:role" minOccurs="0"/>  <xs:element ref="ep:columns"/>  <xs:element ref="ep:start-new-page" minOccurs="0"/>  <xs:element name="foldable" type="xs:boolean" minOccurs="0">  <xs:annotation>  <xs:documentation>Element mówiący o tym, czy sekcja powinna być zwinięta, czy nie.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:stretch" minOccurs="0"/>  <xs:element ref="ep:stretch-title" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

# element firstLevelSectionParametersType/foldable

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | minOcc 0  maxOcc 1 content simple |
| annotation | documentation  Element mówiący o tym, czy sekcja powinna być zwinięta, czy nie. |
| source | <xs:element name="foldable" type="xs:boolean" minOccurs="0">  <xs:annotation>  <xs:documentation>Element mówiący o tym, czy sekcja powinna być zwinięta, czy nie.</xs:documentation>  </xs:annotation>  </xs:element> |

complexType **formatsType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:format**](#_bookmark177) |
| used by | element [**formats**](#_bookmark178) |
| annotation | documentation  Typ dla formatów alternatyw epXML. |
| source | <xs:complexType name="formatsType"> |

|  |  |
| --- | --- |
|  | <xs:annotation>  <xs:documentation>Typ dla formatów alternatyw epXML. </xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:format" maxOccurs="2">  <xs:annotation>  <xs:documentation>Element dla formatu alternatywy epXML. </xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  </xs:complexType> |

complexType **galleryType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**ep:content**](#_bookmark149) [**ep:reference**](#_bookmark206) | | | | | | | |
| used by | element | [**gallery**](#_bookmark179) | |  |  | |  |  |
| attributes | Name | Type | | Use | Default | | Fixed | Annotation |
| [ep:id](#_bookmark310) | [**idType**](#_bookmark485) | | required |  | |  |  |
| [ep:start-on](#_bookmark311) | **xs:positiveInteger** | |  |  | |  | documentation Numer elementu, który ma być aktywnego po |
|  |  | |  | | | załadowaniu  się galerii. | | |
| [ep:miniatures-](#_bookmark312) [only](#_bookmark312) | | **xs:boolean** | | | documentation Oznaczenie, czy jest to galeria składająca się tylko z miniatur bez elementu głównego -  galeria typu C. | | |
| [ep:thumbnails](#_bookmark313) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | | documentation Widoczność  miniaturek galerii. | | |
| [ep:titles](#_bookmark314) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | | documentation Widoczność tytułów galerii  oraz WOMI. | | |
| [ep:format-](#_bookmark315) [contents](#_bookmark315) | | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | | documentation Widoczność tekstów skojarzonmych z galerią oraz  WOMI. | | |
| [ep:view-width](#_bookmark316) | | **derived by: xs:positiveInteger** | | | documentation Szerokość  siatki galerii. | | |
| [ep:view-](#_bookmark317) [height](#_bookmark317) | | **derived by: xs:positiveInteger** | | | documentation Wysokość  siatki galerii. | | |
| [ep:playlist](#_bookmark318) | | **derived by: xs:string** | | | documentation Sposób odtwarzania elementów  playlisty | | |
| annotation | documentation | |  | | |  | | |
| Galeria WOMI. | |  | | |  | | |
| source | <xs:complexType name="galleryType">  <xs:annotation>  <xs:documentation>Galeria WOMI.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title" minOccurs="0"/>  <xs:group ref="ep:contentGroup" minOccurs="0"/>  <xs:element ref="ep:reference" minOccurs="0" maxOccurs="unbounded">  <xs:annotation>  <xs:documentation>Referencja do WOMI. UWAGA: W galerii powinny być minimum 2 WOMI, ale ze względu na możliwość wstawiania nowych galerii trzeba to sprawdzić w momencie zapisywania modułów.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="start-on" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Numer elementu, który ma być aktywnego po załadowaniu się galerii.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="miniatures-only" type="xs:boolean">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to galeria składająca się tylko z miniatur bez | | | | | | | |
|  | elementu głównego - galeria typu C.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="thumbnails" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność miniaturek galerii.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="titles" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność tytułów galerii oraz WOMI.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="format-contents" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność tekstów skojarzonmych z galerią oraz WOMI.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="view-width">  <xs:annotation>  <xs:documentation>Szerokość siatki galerii.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="8"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="view-height">  <xs:annotation>  <xs:documentation>Wysokość siatki galerii.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="8"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="playlist">  <xs:annotation>  <xs:documentation>Sposób odtwarzania elementów playlisty</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="autoplay"/>  <xs:enumeration value="pause"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> | | | | | | | |

attribute **galleryType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **galleryType/@ start -on**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:positiveInteger** |
| annotation | documentation  Numer elementu, który ma być aktywnego po załadowaniu się galerii. |
| source | <xs:attribute name="start-on" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Numer elementu, który ma być aktywnego po załadowaniu się galerii.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **galleryType/@ miniatures -only**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| annotation | documentation  Oznaczenie, czy jest to galeria składająca się tylko z miniatur bez elementu głównego - galeria typu C. |
| source | <xs:attribute name="miniatures-only" type="xs:boolean">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to galeria składająca się tylko z miniatur bez elementu głównego - galeria typu C.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **galleryType/@ thumbnails**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | |
| facets | Kind | Value | Annotation |
| enumeration | all |  |
| enumeration | hide-fullscreen | |
| enumeration | hide-normal |  |
| enumeration | hide |  |
| annotation | documentation | |  |
| Widoczność miniaturek galerii. | | |
| source | <xs:attribute name="thumbnails" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność miniaturek galerii.</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **galleryType/@ titles**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | |
| facets | Kind | Value | Annotation |
| enumeration | all |  |
| enumeration | hide-fullscreen | |
| enumeration | hide-normal |  |
| enumeration | hide |  |
| annotation | documentation | |  |
| Widoczność tytułów galerii oraz WOMI. | | |
| source | <xs:attribute name="titles" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność tytułów galerii oraz WOMI.</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **galleryType/@ format -contents**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:galleryOptionsVisibilityType**](#_bookmark357) | | |
| facets | Kind | Value | Annotation |
| enumeration | all |  |
| enumeration | hide-fullscreen | |
| enumeration | hide-normal |  |
| enumeration | hide |  |
| annotation | documentation | |  |
| Widoczność tekstów skojarzonmych z galerią oraz WOMI. | | |
| source | <xs:attribute name="format-contents" type="ep:galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczność tekstów skojarzonmych z galerią oraz WOMI.</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **galleryType/@ view -width**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:positiveInteger** | | |
| facets | Kind | Value | Annotation |
| minInclusive | 1 |  |
| maxInclusive | 8 |  |
| annotation | documentation  Szerokość siatki galerii. | | |
| source | <xs:attribute name="view-width">  <xs:annotation>  <xs:documentation>Szerokość siatki galerii.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="8"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **galleryType/@ view -height**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:positiveInteger** |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 8 |
| annotation | documentation  Wysokość siatki galerii. |
| source | <xs:attribute name="view-height">  <xs:annotation>  <xs:documentation>Wysokość siatki galerii.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="8"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **galleryType/@ playlist**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  enumeration autoplay enumeration pause |
| annotation | documentation  Sposób odtwarzania elementów playlisty |
| source | <xs:attribute name="playlist">  <xs:annotation>  <xs:documentation>Sposób odtwarzania elementów playlisty</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="autoplay"/>  <xs:enumeration value="pause"/> |

|  |  |
| --- | --- |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute> |

complexType **licenseType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://epodreczniki.pl/> | | | |
| type | extension of [**ep:licenseBaseType**](#_bookmark360) | | | |
| properties | base | ep:licenseBaseType | |  |
| used by | element | [**license**](#_bookmark188) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | |  |  |
| enumeration | | E-podręczniki 1.0 |  |
| enumeration | | CC 0 1.0 |  |
| enumeration | | CC BY 1.0 |  |
| enumeration | | CC BY 2.0 |  |
| enumeration | | CC BY 2.5 |  |
| enumeration | | CC BY 3.0 |  |
| enumeration | | CC BY 4.0 |  |
| enumeration | | CC BY SA 1.0 |  |
| enumeration | | CC BY SA 2.0 |  |
| enumeration | | CC BY SA 2.5 |  |
| enumeration | | CC BY SA 3.0 |  |
| enumeration | | CC BY SA 4.0 |  |
| enumeration | | CC BY-ND 1.0 |  |
| enumeration | | CC BY-ND 2.0 |  |
| enumeration | | CC BY-ND 2.5 |  |
| enumeration | | CC BY-ND 3.0 |  |
| enumeration | | CC BY-ND 4.0 |  |
| enumeration | | CC BY-NC 1.0 |  |
| enumeration | | CC BY-NC 2.0 |  |
| enumeration | | CC BY-NC 2.5 |  |
| enumeration | | CC BY-NC 3.0 |  |
| enumeration | | CC BY-NC 4.0 |  |
| enumeration | | CC BY-NC-ND 2.0 |  |
| enumeration | | CC BY-NC-ND 2.5 |  |
| enumeration | | CC BY-NC-ND 3.0 |  |
| enumeration | | CC BY-NC-ND 4.0 |  |
| enumeration | | CC BY-NC-SA 1.0 |  |
| enumeration | | CC BY-NC-SA 2.0 |  |
| enumeration | | CC BY-NC-SA 2.5 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | enumeration | CC BY-NC-SA 3.0 |  |  |  |  |
| enumeration | CC BY-NC-SA 4.0 |  |  |  |  |
| enumeration | domena publiczna |  |  |  |  |
| enumeration | tylko do użytku edukacyjnego | |  |  |  |
| enumeration | tylko do użytku edukacyjnego na epodreczniki.pl | | |  |  |
| enumeration | tylko do użytku niekomercyjnego | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:url](#_bookmark320) | [**ep:licenseURLType**](#_bookmark361) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Kompletny typ licencji WOMI/cytatu | |  |  |  |  |
| source | <xs:complexType name="licenseType">  <xs:annotation>  <xs:documentation>Kompletny typ licencji WOMI/cytatu</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="ep:licenseBaseType">  <xs:attribute name="url" type="ep:licenseURLType" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> | | | | | |

attribute **licenseType/@ url**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**ep:licenseURLType**](#_bookmark361) | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration  enumeration <http://www.epodreczniki.pl/licenses/e-podreczniki/1.0> enumeration <http://creativecommons.org/publicdomain/zero/1.0/legalcode> enumeration https://creativecommons.org/licenses/by/1.0/legalcode enumeration https://creativecommons.org/licenses/by/2.0/pl/legalcode enumeration https://creativecommons.org/licenses/by/2.5/pl/legalcode enumeration <http://creativecommons.org/licenses/by/3.0/pl/legalcode> enumeration https://creativecommons.org/licenses/by/4.0/legalcode enumeration https://creativecommons.org/licenses/by-sa/1.0/legalcode enumeration https://creativecommons.org/licenses/by-sa/2.0/pl/legalcode enumeration https://creativecommons.org/licenses/by-sa/2.5/pl/legalcode enumeration https://creativecommons.org/licenses/by-sa/3.0/pl/legalcode enumeration https://creativecommons.org/licenses/by-sa/4.0/legalcode enumeration https://creativecommons.org/licenses/by-nd/1.0/legalcode enumeration https://creativecommons.org/licenses/by-nd/2.0/pl/legalcode enumeration https://creativecommons.org/licenses/by-nd/2.5/pl/legalcode enumeration https://creativecommons.org/licenses/by-nd/3.0/pl/legalcode enumeration https://creativecommons.org/licenses/by-nd/4.0/legalcode enumeration https://creativecommons.org/licenses/by-nc/1.0/legalcode enumeration https://creativecommons.org/licenses/by-nc/2.0/pl/legalcode enumeration https://creativecommons.org/licenses/by-nc/2.5/pl/legalcode | |

|  |  |  |
| --- | --- | --- |
|  | enumeration | https://creativecommons.org/licenses/by-nc/3.0/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc/4.0/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-nd/2.0/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-nd/2.5/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-nd/3.0/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-sa/1.0/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-sa/2.0/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-sa/2.5/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-sa/3.0/pl/legalcode |
| enumeration | https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode |
| enumeration | <http://www.epodreczniki.pl/licenses/domena-publiczna/1.0> |
| enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-edukacyjnego/1.0> |
| enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-edukacyjnego-na-epodreczniki_pl/1.0> |
| enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-niekomercyjnego/1.0> |
| source | <xs:attribute name="url" type="ep:licenseURLType" use="required"/> | |

complexType **module-headerType**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| children | [**ep:reference**](#_bookmark206) | | | | | | |
| used by | element | [**module-header**](#_bookmark190) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:title-](#_bookmark322)  [presentation](#_bookmark322) | | **derived by:**  **xs:string** | required |  |  |  |
| [ep:title-position](#_bookmark323) | | **derived by: xs:string** |  |  |  |  |
| annotation | documentation | |  |  |  |  |  |
| Powiązanie z modułem WOMI z nagłówkiem | | | |  |  |  |
| source | <xs:complexType name="module-headerType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem WOMI z nagłówkiem</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:reference"/>  <!-- <xs:element name="reference">  <xs:annotation>  <xs:documentation>Referencja do WOMI z  nagłówkiem</xs:documentation> | | | | | | |

|  |  |
| --- | --- |
|  | </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element> -->  </xs:sequence>  <xs:attribute name="title-presentation" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="dark"/>  <xs:enumeration value="light"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="title-position">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="on-header"/>  <xs:enumeration value="above-header"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> |

attribute **module-headerType/@ title -presentation**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | use required |
| facets | Kind Value Annotation  enumeration dark enumeration light |
| source | <xs:attribute name="title-presentation" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="dark"/>  <xs:enumeration value="light"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **module-headerType/@ title -position**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  enumeration on-header enumeration above-header |
| source | <xs:attribute name="title-position">  <xs:simpleType>  <xs:restriction base="xs:string"> |

|  |  |
| --- | --- |
|  | <xs:enumeration value="on-header"/>  <xs:enumeration value="above-header"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

complexType **observationType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**cnxml:title**](#_bookmark42) [**cnxml:note**](#_bookmark23) [**ep:objective**](#_bookmark194) [**ep:instruments**](#_bookmark185) [**ep:instructions**](#_bookmark184) [**ep:conclusions**](#_bookmark147) [**ep:demonstration**](#_bookmark162) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| used by | element | [**observation**](#_bookmark195) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark325) |  | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:supervised](#_bookmark326) | | **xs:boolean** | required |  |  | documentation Wymaga nadzoru osoby  dorosłej. |
| [ep:context-](#_bookmark327) [dependent](#_bookmark327) |  | **xs:boolean** | required |  |  | documentation Zależna od  kontekstu. |
| annotation | documentation | |  |  |  |  |  |
| Typ obserwacja (EPK Obserwacja) | | |  |  |  |  |
| source | <xs:complexType name="observationType">  <xs:annotation>  <xs:documentation>Typ obserwacja (EPK Obserwacja)</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:annotation>  <xs:documentation>UWAGA: W obserwacji mogą występować tylko notki typu: tip, warning, important.</xs:documentation>  </xs:annotation>  <xs:element ref="cnxml:title"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="ep:objective"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:sequence minOccurs="0">  <xs:element ref="ep:instruments"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:element ref="ep:instructions"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  <xs:sequence minOccurs="0">  <xs:element ref="ep:conclusions"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:sequence minOccurs="0">  <xs:element ref="ep:demonstration"/>  <xs:element ref="cnxml:note" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="supervised" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Wymaga nadzoru osoby dorosłej.</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="context-dependent" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Zależna od kontekstu.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType> | | | | | | |

attribute **observationType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **observationType/@ supervised**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Wymaga nadzoru osoby dorosłej. |
| source | <xs:attribute name="supervised" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Wymaga nadzoru osoby dorosłej.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **observationType/@ context -dependent**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| annotation | documentation  Zależna od kontekstu. |
| source | <xs:attribute name="context-dependent" type="xs:boolean" use="required">  <xs:annotation>  <xs:documentation>Zależna od kontekstu.</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **paraContainerWithIdType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | extension of [**cnxml:paraContainerType**](#_bookmark94) |
| properties | base cnxml:paraContainerType |
| children | [**cnxml:para**](#_bookmark25) |
| used by | elements [**comment**](#_bookmark144) [**conclusions**](#_bookmark147) [**demonstration**](#_bookmark162) [**tooltipType/content**](#_bookmark351) [**biographyType/content**](#_bookmark263)[**eventType/content**](#_bookmark298) [**hypothesis**](#_bookmark183)[**instructions**](#_bookmark184)[**instruments**](#_bookmark185)[**intro**](#_bookmark186)[**lead**](#_bookmark187)[**objective**](#_bookmark194)[**prerequisite**](#_bookmark199)[**problem**](#_bookmark203)[**revisal**](#_bookmark208) [**step**](#_bookmark216)[**technical-remarks**](#_bookmark221)  complexType [**effectType**](#_bookmark293) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| annotation | documentation  Kontener na paragrafy z ep:id |
| source | <xs:complexType name="paraContainerWithIdType">  <xs:annotation>  <xs:documentation>Kontener na paragrafy z ep:id</xs:documentation>  </xs:annotation>  <xs:complexContent>  <xs:extension base="cnxml:paraContainerType">  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:extension>  </xs:complexContent>  </xs:complexType> |

attribute **paraContainerWithIdType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

complexType **play-and-learnType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:reference**](#_bookmark331) |
| used by | element [**play-and-learn**](#_bookmark198) |
| annotation | documentation  Powiązanie z modułem WOMI z baw się i ucz |
| source | <xs:complexType name="play-and-learnType">  <xs:annotation>  <xs:documentation>Powiązanie z modułem WOMI z baw się i ucz</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element name="reference">  <xs:annotation>  <xs:documentation>Referencja do WOMI z baw się i ucz</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:complexType> |

element **play-and-learnType/reference**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| properties | content | complex | |  |  |  |  |
| used by | complexTypes | | [**alternativeType**](#_bookmark238) [**biographyType**](#_bookmark260) [**eventType**](#_bookmark295) [**exerciseType**](#_bookmark74) [**galleryType**](#_bookmark309) [**module-headerType**](#_bookmark321) | | | | |
|  | group | [**extendedInlineContentGroup**](#_bookmark43) | |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark332) |  | [**idType**](#_bookmark485) | required |  |  |  |
| annotation | documentation | |  |  |  |  |  |
| Referencja do WOMI z baw się i ucz | | | |  |  |  |
| source | <xs:element name="reference">  <xs:annotation>  <xs:documentation>Referencja do WOMI z baw się i ucz</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:attribute name="id" type="ep:idType" use="required"/>  </xs:complexType>  </xs:element> | | | | | | |

attribute **play-and-learnType/reference/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

complexType **presentationType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:numbering**](#_bookmark193) [**ep:type**](#_bookmark225) [**ep:template**](#_bookmark222) |
| used by | element [**presentation**](#_bookmark200) |
| annotation | documentation  Atrybuty prezentacyjne dla modułu. UWAGA: nie dodaję width, height, fixed-tile-layout bo kafli nie wspieramy |
| source | <xs:complexType name="presentationType">  <xs:annotation>  <xs:documentation>Atrybuty prezentacyjne dla modułu. UWAGA: nie dodaję width, height, fixed- tile-layout bo kafli nie wspieramy</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:numbering" minOccurs="0">  <xs:annotation>  <xs:documentation>Element numbering odpowiadający za "wyjęcie" modułu z numerowania. UWAGA: W przypadku, gdy odbiorcą treści jest nauczyciel (/document/metadata/ep:e-textbook- module/@ep:recipient) trzeba wstawić ten element.</xs:documentation>  </xs:annotation> |
|  | </xs:element>  <xs:element ref="ep:type" minOccurs="0">  <xs:annotation>  <xs:documentation>Typ modułu nie jest wspierany, ale jest przepuszczany, tak, żeby nie było problemów z edycją i gdyby nagle okazało się, że wracamy do typów modułów i ról sekcji.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:template">  <xs:annotation>  <xs:documentation>Jedyny wspierany rodzaj szablonu to 'linear', gdyż nie wspieramy edycji kafli.</xs:documentation>  </xs:annotation>  </xs:element>  </xs:sequence>  </xs:complexType> |

complexType **procedure-instructionsType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**cnxml:title**](#_bookmark42) [**ep:step**](#_bookmark216) |
| used by | element [**procedure-instructions**](#_bookmark204) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark335) [**idType**](#_bookmark485)required |
| annotation | documentation  Typ instrukcja postępowania (EP Instrukcja postępowania) |
| source | <xs:complexType name="procedure-instructionsType">  <xs:annotation>  <xs:documentation>Typ instrukcja postępowania (EP Instrukcja postępowania)</xs:documentation>  </xs:annotation>  <xs:sequence>  <!--<xs:group ref="cnxml:titleWithMathMLGroup"/>-->  <xs:element ref="cnxml:title"/>  <xs:element ref="ep:step" minOccurs="2" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/> |
|  | </xs:complexType> |

attribute **procedure-instructionsType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

complexType **reading-roomType**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| type | extension of **xs:boolean** | | | | | | |
| properties | base | xs:boolean |  |  |  |  |  |
| used by | element | [**reading-room**](#_bookmark205) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:show-format-](#_bookmark337) [contents](#_bookmark337) | | **xs:boolean** | optional |  |  | documentation Informacja, czy WOMI powinno trafić do galerii razem z tekstem skojarzonym. Atrybut powinien być ustawiony tylko w momencie, gdy wartość reading- roomType jest ustawiona na  true. |
| annotation | documentation | |  |  |  |  |  |
| Oznaczenie, czy WOMI powinno trafić do ogólnoe-podręcznikowej galerii WOMI. | | | | | |  |
| source | <xs:complexType name="reading-roomType">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI powinno trafić do ogólnoe-podręcznikowej galerii | | | | | | |

|  |  |
| --- | --- |
|  | WOMI.</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:boolean">  <xs:attribute name="show-format-contents" type="xs:boolean" use="optional">  <xs:annotation>  <xs:documentation>Informacja, czy WOMI powinno trafić do galerii razem z tekstem skojarzonym. Atrybut powinien być ustawiony tylko w momencie, gdy wartość reading-roomType jest ustawiona na true.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:extension>  </xs:simpleContent>  </xs:complexType> |

# attribute reading-roomType/@ show -format-contents

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use optional |
| annotation | documentation  Informacja, czy WOMI powinno trafić do galerii razem z tekstem skojarzonym. Atrybut powinien być ustawiony tylko w momencie, gdy wartość reading-roomType jest ustawiona na true. |
| source | <xs:attribute name="show-format-contents" type="xs:boolean" use="optional">  <xs:annotation>  <xs:documentation>Informacja, czy WOMI powinno trafić do galerii razem z tekstem skojarzonym. Atrybut powinien być ustawiony tylko w momencie, gdy wartość reading-roomType jest ustawiona na true.</xs:documentation>  </xs:annotation>  </xs:attribute> |

complexType **referencesType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:module-header**](#_bookmark190) [**ep:play-and-learn**](#_bookmark198) [**ep:external**](#_bookmark174) |
| used by | element [**references**](#_bookmark207) |
| annotation | documentation  Powiązania modułu z WOMI (nagłówek, baw się i ucz, KZD). |

|  |  |
| --- | --- |
| source | <xs:complexType name="referencesType">  <xs:annotation>  <xs:documentation>Powiązania modułu z WOMI (nagłówek, baw się i ucz, KZD).</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:module-header" minOccurs="0"/>  <xs:element ref="ep:play-and-learn" minOccurs="0"/>  <xs:element ref="ep:external" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **referenceType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | | |
| children | [**ep:width**](#_bookmark226) [**ep:context**](#_bookmark150)[**ep:reading-room**](#_bookmark205)[**ep:zoomable**](#_bookmark230)[**ep:avatar**](#_bookmark132)[**ep:embedded**](#_bookmark168)[**ep:hide-caption**](#_bookmark182)[**ep:aside**](#_bookmark130)[**ep:disabled-**](#_bookmark163)[**alternative-reference**](#_bookmark163) [**ep:content**](#_bookmark149) | | | | | | | |
| used by | element | [**reference**](#_bookmark206) | |  |  | |  |  |
| attributes | Name | Type | | Use | Default | | Fixed | Annotation |
| [ep:id](#_bookmark340) | [**WOMIidType**](#_bookmark487) | | required |  | |  | documentation Identyfikator WOMI  nadany przez dostawce |
|  | [ep:instance-id](#_bookmark341) | | [**idType**](#_bookmark485) | | | documentation Identyfikator konkretnej instancji WOMI -  wystąpienia  WOMI w treści | | |
| annotation | documentation | |  | | |  | | |
| Typ referencja do WOMI | | | | |  | | |
| source | <xs:complexType name="referenceType">  <xs:annotation>  <xs:documentation>Typ referencja do WOMI</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:width" minOccurs="0">  <xs:annotation>  <xs:documentation>Szerokość - jest wartością wyrażoną w procentach w odniesieniu do kolumny tekstu, w której umieszczone jest WOMI. UWAGA: ustawianie szerokości WOMI jest dopuszczalne tylko w przypadku WOMI wizualnych (wideo, ilustracja, ikona, aplikacja).</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:context" minOccurs="0"/>  <xs:element ref="ep:reading-room" minOccurs="0"/>  <xs:element ref="ep:zoomable" minOccurs="0">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI można przybliżyć oraz w jakim trybie (lupa/przybliżenie). UWAGA: atrybut dotyczy tylko WOMI typu ikona oraz ilustracja.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:avatar" minOccurs="0">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to WOMI typu awatar. UWAGA: wartość 'true' może być zastosowana tylko w połączeniu z WOMI typu aplikacja.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:embedded" minOccurs="0">  <xs:annotation>  <xs:documentation>Oznaczenie, czy jest to WOMI osadzone w treści. UWAGA: stosowanie tego elementu i nadawanie mu wartości false ma sens tylko w połączeniu z elementem context ustawionym na true.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="ep:hide-caption" minOccurs="0"/>  <xs:element ref="ep:aside" minOccurs="0"/>  <xs:element ref="ep:disabled-alternative-reference" minOccurs="0"/>  <xs:group ref="ep:contentGroup" minOccurs="0"/>  </xs:sequence>  <xs:attribute name="id" type="ep:WOMIidType" use="required">  <xs:annotation>  <xs:documentation>Identyfikator WOMI nadany przez dostawce</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute name="instance-id" type="ep:idType">  <xs:annotation>  <xs:documentation>Identyfikator konkretnej instancji WOMI - wystąpienia WOMI w | | | | | | | |
|  | treści</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType> | | | | | | | |

attribute **referenceType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**WOMIidType**](#_bookmark487) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern [0-9a-zA-Z\_]+ documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. | |
| annotation | documentation  Identyfikator WOMI nadany przez dostawce | |
| source | <xs:attribute name="id" type="ep:WOMIidType" use="required">  <xs:annotation>  <xs:documentation>Identyfikator WOMI nadany przez dostawce</xs:documentation>  </xs:annotation>  </xs:attribute> | |

attribute **referenceType/@ instance -id**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**idType**](#_bookmark485) | | |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |
| Identyfikator konkretnej instancji WOMI - wystąpienia WOMI w treści | | |
| source | <xs:attribute name="instance-id" type="ep:idType">  <xs:annotation>  <xs:documentation>Identyfikator konkretnej instancji WOMI - wystąpienia WOMI w treści</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

complexType **secondLevelSectionParametersType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:width**](#_bookmark226) [**ep:stretch-title**](#_bookmark218) |
| used by | element [**secondLevelSecionParametersGroup/parameters**](#_bookmark235) |
| annotation | documentation  Typ parametrów dla sekcji drugiego stopnia |
| source | <xs:complexType name="secondLevelSectionParametersType">  <xs:annotation>  <xs:documentation>Typ parametrów dla sekcji drugiego stopnia</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:width"/>  <xs:element ref="ep:stretch-title" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **startEndType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| children | [**ep:date**](#_bookmark160) [**ep:location**](#_bookmark344) |
| used by | elements [**birth**](#_bookmark138) [**death**](#_bookmark161) [**event-end**](#_bookmark170)[**event-start**](#_bookmark172) |
| annotation | documentation  Typ początek / koniec (wydarzenia, biogramu, ...) |
| source | <xs:complexType name="startEndType">  <xs:annotation>  <xs:documentation>Typ początek / koniec (wydarzenia, biogramu, ...)</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="ep:date" minOccurs="0"/>  <xs:element name="location" type="xs:string" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

element **startEndType/location**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| properties | minOcc 0  maxOcc 1 content simple |
| source | <xs:element name="location" type="xs:string" minOccurs="0"/> |

complexType **student-workType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | | | |
| children | [**cnxml:problem**](#_bookmark27) [**cnxml:exercise**](#_bookmark12) [**ep:command**](#_bookmark143) [**ep:experiment**](#_bookmark173) [**ep:observation**](#_bookmark195) | | | | | | | |
| used by | element | [**student-work**](#_bookmark219) | |  |  | |  |  |
| attributes | Name | Type | | Use | Default | | Fixed | Annotation |
| [ep:id](#_bookmark346) | [**idType**](#_bookmark485) | | required |  | |  |  |
| [ep:type](#_bookmark347) | **derived by: xs:string** | | required |  | |  | documentation Typ zestawu zadań. UWAGA: Jeżeli jest równy 'homework', w |
|  |  | |  | | | zestawie mogą | | |
| występować | | |
| polecenia, | | |
| ćwiczenia, | | |
| doświadczenia i | | |
| obserwacje. | | |
| Gdy type jest | | |
| równy exercise- | | |
| set, to | | |
| zawartością | | |
| bloku może być | | |
| problem, po | | |
| którym | | |
| następuje wiele | | |
| podrzędnych | | |
| ćwiczeń. | | |
| [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | | **derived by: xs:string** | | | documentation Atrybut  pozwalający | | |
|  | |  | | | oznaczyć, że | | |
|  | |  | | | blok | | |
|  | |  | | | semantyczny | | |
|  | |  | | | ma być | | |
|  | |  | | | wyeksponowany | | |
|  | |  | | | w warstwie | | |
|  | |  | | | prezentacyjnej | | |
|  | |  | | | np. Zadanie, | | |
|  | |  | | | Polecenie, | | |
|  | |  | | | Notka, Definicja, | | |
|  | |  | | | Reguła, Pojęcie, | | |
|  | |  | | | Praca domowa | | |
| annotation | documentation | |  | | |  | | |
| Typ zestawu zadań dla ucznia (EPK Praca domowa, EPK Zbiór zadań) | | | | | | | |
| source | <xs:complexType name="student-workType">  <xs:annotation>  <xs:documentation>Typ zestawu zadań dla ucznia (EPK Praca domowa, EPK Zbiór zadań)</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:sequence>  <xs:element ref="cnxml:problem"/>  <xs:element ref="cnxml:exercise" maxOccurs="unbounded"/>  </xs:sequence>  <xs:choice maxOccurs="unbounded">  <xs:element ref="ep:command"/>  <xs:element ref="cnxml:exercise"/>  <xs:element ref="ep:experiment"/>  <xs:element ref="ep:observation"/>  </xs:choice>  </xs:choice>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="type" use="required">  <xs:annotation>  <xs:documentation>Typ zestawu zadań. UWAGA: Jeżeli jest równy 'homework', w zestawie mogą występować polecenia, ćwiczenia, doświadczenia i obserwacje. Gdy type jest równy exercise-set, to zawartością bloku może być problem, po którym następuje wiele podrzędnych ćwiczeń.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="homework"/>  <xs:enumeration value="exercise-set"/> | | | | | | | |
|  | <xs:enumeration value="project"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute ref="ep:presentation-variant"/>  </xs:complexType> | | | | | | | |

attribute **student-workType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **student-workType/@ type**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | restriction of **xs:string** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration homework enumeration exercise-set enumeration project | |
| annotation | documentation  Typ zestawu zadań. UWAGA: Jeżeli jest równy 'homework', w zestawie mogą występować polecenia, ćwiczenia, doświadczenia i obserwacje. Gdy type jest równy exercise-set, to zawartością bloku może być problem, po którym następuje wiele podrzędnych ćwiczeń. | |
| source | <xs:attribute name="type" use="required">  <xs:annotation>  <xs:documentation>Typ zestawu zadań. UWAGA: Jeżeli jest równy 'homework', w zestawie mogą występować polecenia, ćwiczenia, doświadczenia i obserwacje. Gdy type jest równy exercise-set, to zawartością bloku może być problem, po którym następuje wiele podrzędnych ćwiczeń.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="homework"/>  <xs:enumeration value="exercise-set"/>  <xs:enumeration value="project"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

complexType **tooltipType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://epodreczniki.pl/> | | | | | |
| children | [**cnxml:title**](#_bookmark42) [**ep:content**](#_bookmark351) | | | | | |
| used by | element | [**tooltip**](#_bookmark223) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:id](#_bookmark349) | [**idType**](#_bookmark485) | required |  |  |  |
| [ep:type](#_bookmark350) | **derived by: xs:string** |  |  |  | documentation Typ dymka |
| annotation | documentation | |  |  |  |  |
| Typ dymek (EP Dymek) | |  |  |  |  |
| source | <xs:complexType name="tooltipType">  <xs:annotation>  <xs:documentation>Typ dymek (EP Dymek)</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="cnxml:title"/>  <xs:element name="content" type="ep:paraContainerWithIdType"/>  </xs:sequence>  <xs:attribute name="id" type="ep:idType" use="required"/>  <xs:attribute name="type">  <xs:annotation>  <xs:documentation>Typ dymka</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="JPOL\_E3\_E4\_glossary"/>  <xs:enumeration value="JPOL\_E3\_E4\_apposition"/>  <xs:enumeration value="JPOL\_E3\_E4\_curiosity"/>  <xs:enumeration value="disabled-alternative"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType> | | | | | |

attribute **tooltipType/@ id**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | [**idType**](#_bookmark485) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="ep:idType" use="required"/> | |

attribute **tooltipType/@ type**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | JPOL\_E3\_E4\_glossary | |
| enumeration | JPOL\_E3\_E4\_apposition | |
| enumeration | JPOL\_E3\_E4\_curiosity | |
| enumeration | disabled-alternative | |
| annotation | documentation | |  |
| Typ dymka |  |  |
| source | <xs:attribute name="type">  <xs:annotation>  <xs:documentation>Typ dymka</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="JPOL\_E3\_E4\_glossary"/>  <xs:enumeration value="JPOL\_E3\_E4\_apposition"/>  <xs:enumeration value="JPOL\_E3\_E4\_curiosity"/>  <xs:enumeration value="disabled-alternative"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

element **tooltipType/content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://epodreczniki.pl/> |
| type | [**ep:paraContainerWithIdType**](#_bookmark328) |
| properties | content complex |
| children | [**cnxml:para**](#_bookmark25) |
| used by | group [**contentGroup**](#_bookmark231) |
| attributes | Name Type Use Default Fixed Annotation [ep:id](#_bookmark329) [**idType**](#_bookmark485)required |
| source | <xs:element name="content" type="ep:paraContainerWithIdType"/> |

simpleType **asideType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**aside**](#_bookmark130) |
| facets | Kind Value Annotation  enumeration left enumeration right |
| annotation | documentation  Oznaczenie, czy WOMI powinno być wypchnięte na prawą lub lewą stronę |
| source | <xs:simpleType name="asideType">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI powinno być wypchnięte na prawą lub lewą stronę</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType> |

simpleType **behaviourType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | element | [**behaviour**](#_bookmark133) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | randomize |  |
| enumeration | | randomize-sets | |
| enumeration | | all-sets |  |
| annotation | documentation | | |  |
| Typ dla sposób przetwarzania odpowiedzi w zadaniu z elementami losowości. | | | |
| source | <xs:simpleType name="behaviourType">  <xs:annotation>  <xs:documentation>Typ dla sposób przetwarzania odpowiedzi w zadaniu z elementami losowości.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="randomize"/>  <xs:enumeration value="randomize-sets"/>  <xs:enumeration value="all-sets"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **columnsType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:positiveInteger** |
| properties | base xs:positiveInteger |
| used by | element [**columns**](#_bookmark142) |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 5 |
| annotation | documentation  Typ liczby kolumn. Wprowadziłem restrykcję na max. 5 kolumn (to i tak przesada). |
| source | <xs:simpleType name="columnsType">  <xs:annotation>  <xs:documentation>Typ liczby kolumn. Wprowadziłem restrykcję na max. 5 kolumn (to i tak przesada).</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="5"/>  </xs:restriction>  </xs:simpleType> |

simpleType **content-statusType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base xs:string | | | |
| used by | attribute | [**content-status**](#_bookmark373) | | |
| facets | Kind |  | Value | Annotation |
| enumeration | | canon |  |
| enumeration | | expanding | |
| annotation | documentation | | |  |
| Status treści | |  |  |
| source | <xs:simpleType name="content-statusType">  <xs:annotation>  <xs:documentation>Status treści</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="canon"/>  <xs:enumeration value="expanding"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **formatType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | element | [**format**](#_bookmark177) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | classicmobile | |
| enumeration | | static |  |
| enumeration | | static-mono |  |
| annotation | documentation | | |  |
| Typ dla formatu alternatywy epXML. | | | |
| source | <xs:simpleType name="formatType">  <xs:annotation>  <xs:documentation>Typ dla formatu alternatywy epXML.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="classicmobile"/>  <xs:enumeration value="static"/>  <xs:enumeration value="static-mono"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **galleryOptionsVisibilityType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attributes | | [**galleryType/@ format -contents**](#_bookmark315) [**galleryType/@ thumbnails**](#_bookmark313) [**galleryType/@ titles**](#_bookmark314) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | all |  |
| enumeration | | hide-fullscreen | |
| enumeration | | hide-normal |  |

|  |  |
| --- | --- |
|  | enumeration hide |
| annotation | documentation  Widoczności poszczególnych atrybutów galerii. |
| source | <xs:simpleType name="galleryOptionsVisibilityType">  <xs:annotation>  <xs:documentation>Widoczności poszczególnych atrybutów galerii.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="all"/>  <xs:enumeration value="hide-fullscreen"/>  <xs:enumeration value="hide-normal"/>  <xs:enumeration value="hide"/>  </xs:restriction>  </xs:simpleType> |

simpleType **generated-typeType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | element | [**generated-type**](#_bookmark180) | | |
| facets | Kind |  | Value | Annotation |
| enumeration | | glossary |  |
| enumeration | | biography |  |
| enumeration | | bibliography | |
| enumeration | | concept |  |
| annotation | documentation | | |  |
| Typ modułu generowanego automatycznie (np. słowniczek, biogramy, etc). | | | |
| source | <xs:simpleType name="generated-typeType">  <xs:annotation>  <xs:documentation>Typ modułu generowanego automatycznie (np. słowniczek, biogramy, etc).</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="glossary"/>  <xs:enumeration value="biography"/>  <xs:enumeration value="bibliography"/>  <xs:enumeration value="concept"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **hide-captionType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**hide-caption**](#_bookmark182) |
| facets | Kind Value Annotation  enumeration none |

|  |  |  |
| --- | --- | --- |
|  | enumeration | title |
| enumeration | number |
| enumeration | all |
| annotation | documentation | |
| Oznaczenie, które z podpisów WOMI powinny być ukryte, a które nie. | |
| source | <xs:simpleType name="hide-captionType">  <xs:annotation>  <xs:documentation>Oznaczenie, które z podpisów WOMI powinny być ukryte, a które nie.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="none"/>  <xs:enumeration value="title"/>  <xs:enumeration value="number"/>  <xs:enumeration value="all"/>  </xs:restriction>  </xs:simpleType> | |

simpleType **licenseBaseType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | complexType | | [**licenseType**](#_bookmark319) |  |
| facets | Kind |  | Value | Annotation |
| enumeration | |  |  |
| enumeration | | E-podręczniki 1.0 |  |
| enumeration | | CC 0 1.0 |  |
| enumeration | | CC BY 1.0 |  |
| enumeration | | CC BY 2.0 |  |
| enumeration | | CC BY 2.5 |  |
| enumeration | | CC BY 3.0 |  |
| enumeration | | CC BY 4.0 |  |
| enumeration | | CC BY SA 1.0 |  |
| enumeration | | CC BY SA 2.0 |  |
| enumeration | | CC BY SA 2.5 |  |
| enumeration | | CC BY SA 3.0 |  |
| enumeration | | CC BY SA 4.0 |  |
| enumeration | | CC BY-ND 1.0 |  |
| enumeration | | CC BY-ND 2.0 |  |
| enumeration | | CC BY-ND 2.5 |  |
| enumeration | | CC BY-ND 3.0 |  |
| enumeration | | CC BY-ND 4.0 |  |
| enumeration | | CC BY-NC 1.0 |  |
| enumeration | | CC BY-NC 2.0 |  |
| enumeration | | CC BY-NC 2.5 |  |
| enumeration | | CC BY-NC 3.0 |  |
| enumeration | | CC BY-NC 4.0 |  |

|  |  |  |
| --- | --- | --- |
|  | enumeration | CC BY-NC-ND 2.0 |
| enumeration | CC BY-NC-ND 2.5 |
| enumeration | CC BY-NC-ND 3.0 |
| enumeration | CC BY-NC-ND 4.0 |
| enumeration | CC BY-NC-SA 1.0 |
| enumeration | CC BY-NC-SA 2.0 |
| enumeration | CC BY-NC-SA 2.5 |
| enumeration | CC BY-NC-SA 3.0 |
| enumeration | CC BY-NC-SA 4.0 |
| enumeration | domena publiczna |
| enumeration | tylko do użytku edukacyjnego |
| enumeration | tylko do użytku edukacyjnego na epodreczniki.pl |
| enumeration | tylko do użytku niekomercyjnego |
| annotation | documentation | |
| Bazowy typ licencji WOMI/cytatu z ograniczeniem na wartości | |
| source | <xs:simpleType name="licenseBaseType">  <xs:annotation>  <xs:documentation>Bazowy typ licencji WOMI/cytatu z ograniczeniem na wartości</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value=""/>  <xs:enumeration value="E-podręczniki 1.0"/>  <xs:enumeration value="CC 0 1.0"/>  <xs:enumeration value="CC BY 1.0"/>  <xs:enumeration value="CC BY 2.0"/>  <xs:enumeration value="CC BY 2.5"/>  <xs:enumeration value="CC BY 3.0"/>  <xs:enumeration value="CC BY 4.0"/>  <xs:enumeration value="CC BY SA 1.0"/>  <xs:enumeration value="CC BY SA 2.0"/>  <xs:enumeration value="CC BY SA 2.5"/>  <xs:enumeration value="CC BY SA 3.0"/>  <xs:enumeration value="CC BY SA 4.0"/>  <xs:enumeration value="CC BY-ND 1.0"/>  <xs:enumeration value="CC BY-ND 2.0"/>  <xs:enumeration value="CC BY-ND 2.5"/>  <xs:enumeration value="CC BY-ND 3.0"/>  <xs:enumeration value="CC BY-ND 4.0"/>  <xs:enumeration value="CC BY-NC 1.0"/>  <xs:enumeration value="CC BY-NC 2.0"/>  <xs:enumeration value="CC BY-NC 2.5"/>  <xs:enumeration value="CC BY-NC 3.0"/>  <xs:enumeration value="CC BY-NC 4.0"/>  <xs:enumeration value="CC BY-NC-ND 2.0"/>  <xs:enumeration value="CC BY-NC-ND 2.5"/>  <xs:enumeration value="CC BY-NC-ND 3.0"/>  <xs:enumeration value="CC BY-NC-ND 4.0"/>  <xs:enumeration value="CC BY-NC-SA 1.0"/>  <xs:enumeration value="CC BY-NC-SA 2.0"/>  <xs:enumeration value="CC BY-NC-SA 2.5"/>  <xs:enumeration value="CC BY-NC-SA 3.0"/>  <xs:enumeration value="CC BY-NC-SA 4.0"/> | |

|  |  |
| --- | --- |
|  | <xs:enumeration value="domena publiczna"/>  <xs:enumeration value="tylko do użytku edukacyjnego"/>  <xs:enumeration value="tylko do użytku edukacyjnego na epodreczniki.pl"/>  <xs:enumeration value="tylko do użytku niekomercyjnego"/>  </xs:restriction>  </xs:simpleType> |

simpleType **licenseURLType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attribute | [**licenseType/@ url**](#_bookmark320) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | |  |  |
| enumeration | | <http://www.epodreczniki.pl/licenses/e-podreczniki/1.0> | |
| enumeration | | <http://creativecommons.org/publicdomain/zero/1.0/legalcode> | |
| enumeration | | https://creativecommons.org/licenses/by/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by/2.5/pl/legalcode | |
| enumeration | | <http://creativecommons.org/licenses/by/3.0/pl/legalcode> | |
| enumeration | | https://creativecommons.org/licenses/by/4.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-sa/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-sa/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-sa/2.5/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-sa/3.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-sa/4.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nd/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nd/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nd/2.5/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nd/3.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nd/4.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc/2.5/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc/3.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc/4.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-nd/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-nd/2.5/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-nd/3.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-sa/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-sa/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-sa/2.5/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-sa/3.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode | |
| enumeration | | <http://www.epodreczniki.pl/licenses/domena-publiczna/1.0> | |

|  |  |  |
| --- | --- | --- |
|  | enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-edukacyjnego/1.0> |
| enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-edukacyjnego-na-epodreczniki_pl/1.0> |
| enumeration | <http://www.epodreczniki.pl/licenses/tylko-do-uzytku-niekomercyjnego/1.0> |
| annotation | documentation | |
| Opcje dla URL licencji WOMI/cytatu | |
| source | <xs:simpleType name="licenseURLType">  <xs:annotation>  <xs:documentation>Opcje dla URL licencji WOMI/cytatu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value=""/>  <xs:enumeration value="<http://www.epodreczniki.pl/licenses/e-podreczniki/1.0>"/>  <xs:enumeration value="<http://creativecommons.org/publicdomain/zero/1.0/legalcode>"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/2.5/pl/legalcode"/>  <xs:enumeration value="<http://creativecommons.org/licenses/by/3.0/pl/legalcode>"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/4.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-sa/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-sa/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-sa/2.5/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-sa/3.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-sa/4.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nd/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nd/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nd/2.5/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nd/3.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nd/4.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc/2.5/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc/3.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc/4.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-nd/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-nd/2.5/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-nd/3.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-sa/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-sa/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-sa/2.5/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-sa/3.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode"/>  <xs:enumeration value="<http://www.epodreczniki.pl/licenses/domena-publiczna/1.0>"/>  <xs:enumeration value="<http://www.epodreczniki.pl/licenses/tylko-do-uzytku-> edukacyjnego/1.0"/>  <xs:enumeration value="<http://www.epodreczniki.pl/licenses/tylko-do-uzytku-edukacyjnego-na-> epodreczniki\_pl/1.0"/>  <xs:enumeration value="<http://www.epodreczniki.pl/licenses/tylko-do-uzytku-> niekomercyjnego/1.0"/>  </xs:restriction>  </xs:simpleType> | |

simpleType **numberingType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**numbering**](#_bookmark193) |
| facets | Kind Value Annotation  enumeration skip |
| annotation | documentation  Typ elementu numbering. |
| source | <xs:simpleType name="numberingType">  <xs:annotation>  <xs:documentation>Typ elementu numbering.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="skip"/>  </xs:restriction>  </xs:simpleType> |

simpleType **origin-idType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**origin-id**](#_bookmark196) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Typ id źrodłowego modułu |
| source | <xs:simpleType name="origin-idType">  <xs:annotation>  <xs:documentation>Typ id źrodłowego modułu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **origin-versionType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**origin-version**](#_bookmark197) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Typ elementu wersji źrodłowego modułu |
| source | <xs:simpleType name="origin-versionType"> |
|  | <xs:annotation>  <xs:documentation>Typ elementu wersji źrodłowego modułu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **recipientType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | attribute [**recipient**](#_bookmark377) |
| facets | Kind Value Annotation  enumeration student enumeration teacher |
| annotation | documentation  Odbiorca treści |
| source | <xs:simpleType name="recipientType">  <xs:annotation>  <xs:documentation>Odbiorca treści</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="student"/>  <xs:enumeration value="teacher"/>  </xs:restriction>  </xs:simpleType> |

simpleType **stretchType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | attribute [**stretch**](#_bookmark378) |
| facets | Kind Value Annotation  enumeration full-width enumeration extended-width |
| annotation | documentation  Typ oznaczający powiększoną szerokość elementu |
| source | <xs:simpleType name="stretchType">  <xs:annotation>  <xs:documentation>Typ oznaczający powiększoną szerokość elementu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="full-width"/>  <xs:enumeration value="extended-width"/>  </xs:restriction>  </xs:simpleType> |

simpleType **templateType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**template**](#_bookmark222) |
| facets | Kind Value Annotation  enumeration linear |
| annotation | documentation  Typ szablon modułu. UWAGA: W edytorze nie wspieramy układu kaflowego, dlatego jedyną opcją jest 'linear' |
| source | <xs:simpleType name="templateType">  <xs:annotation>  <xs:documentation>Typ szablon modułu. UWAGA: W edytorze nie wspieramy układu kaflowego, dlatego jedyną opcją jest 'linear'</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="linear"/>  </xs:restriction>  </xs:simpleType> |

simpleType **widthType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:positiveInteger** |
| properties | base xs:positiveInteger |
| used by | element [**width**](#_bookmark226) |
| facets | Kind Value Annotation  minInclusive 1  maxInclusive 100 |
| annotation | documentation  Szerokość kolumny/szerokość WOMI wyrażona w procentach. |
| source | <xs:simpleType name="widthType">  <xs:annotation>  <xs:documentation>Szerokość kolumny/szerokość WOMI wyrażona w procentach.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:positiveInteger">  <xs:minInclusive value="1"/>  <xs:maxInclusive value="100"/>  </xs:restriction>  </xs:simpleType> |

simpleType **zoomableType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base xs:string | | | |
| used by | element | [**zoomable**](#_bookmark230) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | no |  |
| enumeration | | zoom |  |
| enumeration | | magnifier |  |
| annotation | documentation | | |  |
| Oznaczenie, czy WOMI można przybliżyć oraz w jakim trybie (lupa/przybliżenie). | | | |
| source | <xs:simpleType name="zoomableType">  <xs:annotation>  <xs:documentation>Oznaczenie, czy WOMI można przybliżyć oraz w jakim trybie (lupa/przybliżenie). </xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="no"/>  <xs:enumeration value="zoom"/>  <xs:enumeration value="magnifier"/>  </xs:restriction>  </xs:simpleType> | | | |

attribute **collection-id**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**idType**](#_bookmark485) | | |
| used by | element | [**link**](#_bookmark16) |  |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |
| Atrybut zawierający id kolekcji w łączu | |  |
| source | <xs:attribute name="collection-id" type="ep:idType">  <xs:annotation>  <xs:documentation>Atrybut zawierający id kolekcji w łączu</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **collection-recipient**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| used by | element [**link**](#_bookmark16) |
| annotation | documentation  Atrybut zawierający odbiorcę treści kolekcji w łączu |
| source | <xs:attribute name="collection-recipient" type="xs:string">  <xs:annotation>  <xs:documentation>Atrybut zawierający odbiorcę treści kolekcji w łączu</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **collection-version**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:positiveInteger** |
| used by | element [**link**](#_bookmark16) |
| annotation | documentation  Atrybut zawierający wersję kolekcji w łączu |
| source | <xs:attribute name="collection-version" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Atrybut zawierający wersję kolekcji w łączu</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **content-status**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:content-statusType**](#_bookmark355) | | |
| used by | element | [**e-textbook-module**](#_bookmark165) | |
| complexTypes | [**exerciseType**](#_bookmark74) [**quoteType**](#_bookmark103) | |
| attributeGroup | [**firstLevelSectionAttributesGroup**](#_bookmark387) | |
| facets | Kind | Value | Annotation |
| enumeration | canon |  |
| enumeration | expanding | |
| annotation | documentation |  |  |
| Status treści |  |  |
| source | <xs:attribute name="content-status" type="ep:content-statusType">  <xs:annotation>  <xs:documentation>Status treści</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **foldable**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| used by | element [**note**](#_bookmark23)  complexTypes [**exerciseType**](#_bookmark74) [**quoteType**](#_bookmark103) |
| annotation | documentation  Atrybut pozwalający oznaczyć, że notka jest, lub nie jest zwijalna. UWAGA: Ma zastosowanie tylko i wyłącznie w przypadku notki typu curiosity i ma dla niej domyślną wartość true. |
| source | <xs:attribute name="foldable" type="xs:boolean">  <xs:annotation>  <xs:documentation>Atrybut pozwalający oznaczyć, że notka jest, lub nie jest zwijalna. UWAGA: Ma zastosowanie tylko i wyłącznie w przypadku notki typu curiosity i ma dla niej domyślną wartość true.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **glossary**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| used by | complexTypes [**biographyType**](#_bookmark260) [**definitionType**](#_bookmark60)[**eventType**](#_bookmark295)[**ruleType**](#_bookmark106) |
| annotation | documentation  Oznaczenie, czy element ma trafić do słowniczka, czy nie |
| source | <xs:attribute name="glossary" type="xs:boolean">  <xs:annotation>  <xs:documentation>Oznaczenie, czy element ma trafić do słowniczka, czy nie</xs:documentation>  </xs:annotation>  </xs:attribute> |

attribute **presentation-variant**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:string** | | |
| used by | element | [**note**](#_bookmark23) |  |
| complexTypes | [**commandType**](#_bookmark264) [**definitionType**](#_bookmark60) [**ruleType**](#_bookmark106) [**student-workType**](#_bookmark345) | |
| attributeGroup | [**exerciseAttributesGroup**](#_bookmark383) | |
| facets | Kind | Value | Annotation |
| enumeration | exposed |  |
| annotation | documentation |  |  |
| Atrybut pozwalający oznaczyć, że blok semantyczny ma być wyeksponowany w warstwie prezentacyjnej np. Zadanie,  Polecenie, Notka, Definicja, Reguła, Pojęcie, Praca domowa | | |
| source | <xs:attribute name="presentation-variant">  <xs:annotation>  <xs:documentation>Atrybut pozwalający oznaczyć, że blok semantyczny ma być wyeksponowany w warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie, Praca domowa</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="exposed"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **recipient**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:recipientType**](#_bookmark365) | | |
| used by | elements | [**e-textbook-module**](#_bookmark165) [**note**](#_bookmark23) | |
| attributeGroup | [**firstLevelSectionAttributesGroup**](#_bookmark387) | |
| facets | Kind | Value | Annotation |
| enumeration | student |  |
| enumeration | teacher |  |
| annotation | documentation |  |  |
| Odbiorca treści |  |  |
| source | <xs:attribute name="recipient" type="ep:recipientType">  <xs:annotation>  <xs:documentation>Odbiorca treści</xs:documentation> | | |
|  | </xs:annotation>  </xs:attribute> | | |

attribute **stretch**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | [**ep:stretchType**](#_bookmark366) | | |
| used by | element | [**para**](#_bookmark25) |  |
| complexType | [**exerciseType**](#_bookmark74) | |
| facets | Kind | Value | Annotation |
| enumeration | full-width |  |
| enumeration | extended-width | |
| annotation | documentation |  |  |
| Atrybut oznaczający powiększoną szerokość elementu | | |
| source | <xs:attribute name="stretch" type="ep:stretchType">  <xs:annotation>  <xs:documentation>Atrybut oznaczający powiększoną szerokość elementu</xs:documentation>  </xs:annotation>  </xs:attribute> | | |

attribute **style**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | restriction of **xs:string** |
| used by | complexType [**tableType**](#_bookmark113) |
| facets | Kind Value Annotation  enumeration zebra enumeration plain |
| annotation | documentation  atrybut styl dla cn:table |
| source | <xs:attribute name="style">  <xs:annotation>  <xs:documentation>atrybut styl dla cn:table</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="zebra"/>  <xs:enumeration value="plain"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **target-name**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:string** |
| used by | complexType [**baseGlossaryReferenceType**](#_bookmark240)  attributeGroup [**bibtexmlEntryAttributesGroup**](#_bookmark381) |
| annotation | documentation  Nazwa dla referencji np. do wykorzystania jako indeks, który pojawi się w formatach statycznych. |
| source | <xs:attribute name="target-name" type="xs:string">  <xs:annotation>  <xs:documentation>Nazwa dla referencji np. do wykorzystania jako indeks, który pojawi się w formatach statycznych.</xs:documentation>  </xs:annotation>  </xs:attribute> |

attributeGroup **bibtexmlEntryAttributesGroup**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | | | |
| used by | complexType | [**entryType**](#_bookmark452) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:target-name](#_bookmark380) | **xs:string** | required |  |  | documentation Nazwa dla referencji np. do wykorzystania jako indeks, który pojawi się w formatach  statycznych. |
| [ep:show-in](#_bookmark382) | **derived by: xs:string** | optional |  |  | documentation Pozwala określić, czy zapis bibliograficzny ma się pojawić również w module, w którym jest zdefiniowany, czy tylko w bibliografi zbiorczej (domyslnie bibliography-  and-module). |
| annotation | documentation |  |  |  |  |  |
| Atrybuty dla zapisu bibliograficznego. | |  |  |  |  |
| source | <xs:attributeGroup name="bibtexmlEntryAttributesGroup">  <xs:annotation>  <xs:documentation>Atrybuty dla zapisu bibliograficznego.</xs:documentation>  </xs:annotation>  <xs:attribute ref="ep:target-name" use="required"/>  <xs:attribute name="show-in" use="optional">  <xs:annotation>  <xs:documentation>Pozwala określić, czy zapis bibliograficzny ma się pojawić również w module, w którym jest zdefiniowany, czy tylko w bibliografi zbiorczej (domyslnie bibliography-and- module).</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="bibliography-and-module"/>  <xs:enumeration value="bibliography-only"/>  <xs:enumeration value="inline-only"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | | | | |

|  |  |
| --- | --- |
|  | </xs:attributeGroup> |

attribute **bibtexmlEntryAttributesGroup/@ show -in**

|  |  |  |
| --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | |
| type | restriction of **xs:string** | |
| properties | use | optional |
| facets | Kind Value Annotation  enumeration bibliography-and-module enumeration bibliography-only enumeration inline-only | |
| annotation | documentation  Pozwala określić, czy zapis bibliograficzny ma się pojawić również w module, w którym jest zdefiniowany, czy tylko w bibliografi zbiorczej (domyslnie bibliography-and-module). | |
| source | <xs:attribute name="show-in" use="optional">  <xs:annotation>  <xs:documentation>Pozwala określić, czy zapis bibliograficzny ma się pojawić również w module, w którym jest zdefiniowany, czy tylko w bibliografi zbiorczej (domyslnie bibliography-and- module).</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="bibliography-and-module"/>  <xs:enumeration value="bibliography-only"/>  <xs:enumeration value="inline-only"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

attributeGroup **exerciseAttributesGroup**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | | | |
| used by | complexType | [**exerciseType**](#_bookmark74) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:context-](#_bookmark384)  [dependent](#_bookmark384) | **xs:boolean** | required |  |  |  |
| [ep:interactivity](#_bookmark385) | **derived by: xs:string** |  |  |  | documentation Atrybut interactivity powinien być wykorzystany do podjęcia decyzji jakie podelementy są dozwolone w ramach exercise/alternatyw. Są to zależności niewyrażalne w  schemacie XML. |
| [ep:on-paper](#_bookmark386) | **xs:boolean** | optional | false |  |  |
| [ep:presentation-](#_bookmark376) [variant](#_bookmark376) | **derived by: xs:string** | optional |  |  | documentation Atrybut pozwalający oznaczyć, że blok semantyczny ma  być wyeksponowany w |

|  |  |
| --- | --- |
|  | warstwie prezentacyjnej np. Zadanie, Polecenie, Notka, Definicja, Reguła, Pojęcie, Praca  domowa |
| annotation | documentation  Atrybuty ćwiczenia |
| source | <xs:attributeGroup name="exerciseAttributesGroup">  <xs:annotation>  <xs:documentation>Atrybuty ćwiczenia</xs:documentation>  </xs:annotation>  <xs:attribute name="context-dependent" type="xs:boolean" use="required"/>  <!-- TODO: OPIS-->  <xs:attribute name="interactivity">  <xs:annotation>  <xs:documentation>Atrybut interactivity powinien być wykorzystany do podjęcia decyzji jakie podelementy są dozwolone w ramach exercise/alternatyw. Są to zależności niewyrażalne w schemacie XML.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="static"/>  <xs:enumeration value="random"/>  <xs:enumeration value="interactive"/>  <xs:enumeration value="womi\_with\_alternatives"/>  <xs:enumeration value="quiz"/>  <xs:enumeration value="random\_quiz"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="on-paper" type="xs:boolean" use="optional" default="false"/>  <xs:attribute ref="ep:presentation-variant" use="optional"/>  </xs:attributeGroup> |

# attribute exerciseAttributesGroup/@ context -dependent

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use required |
| source | <xs:attribute name="context-dependent" type="xs:boolean" use="required"/> |

attribute **exerciseAttributesGroup/@ interactivity**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:string** | | |
| facets | Kind | Value | Annotation |
| enumeration | static |  |
| enumeration | random |  |
| enumeration | interactive |  |
| enumeration | womi\_with\_alternatives | |

|  |  |
| --- | --- |
|  | enumeration quiz  enumeration random\_quiz |
| annotation | documentation  Atrybut interactivity powinien być wykorzystany do podjęcia decyzji jakie podelementy są dozwolone w ramach exercise/alternatyw. Są to zależności niewyrażalne w schemacie XML. |
| source | <xs:attribute name="interactivity">  <xs:annotation>  <xs:documentation>Atrybut interactivity powinien być wykorzystany do podjęcia decyzji jakie podelementy są dozwolone w ramach exercise/alternatyw. Są to zależności niewyrażalne w schemacie XML.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="static"/>  <xs:enumeration value="random"/>  <xs:enumeration value="interactive"/>  <xs:enumeration value="womi\_with\_alternatives"/>  <xs:enumeration value="quiz"/>  <xs:enumeration value="random\_quiz"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **exerciseAttributesGroup/@ on -paper**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:boolean** |
| properties | use optional  default false |
| source | <xs:attribute name="on-paper" type="xs:boolean" use="optional" default="false"/> |

attributeGroup **firstLevelSectionAttributesGroup**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | | | | |
| used by | complexType | [**firstLevelSectionType**](#_bookmark79) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [ep:recipient](#_bookmark377) |  | [**ep:recipientType**](#_bookmark365) | optional |  |  | documentation UWAGA: ten atrybut sekcji może być używany tylko w momencie, gdy globalnie zadeklarowano moduł jako uczniowski, a jedyna wartość jaką może przyjąć to  teacher |
| [ep:content-status](#_bookmark373) | | [**ep:content-**](#_bookmark355)[**statusType**](#_bookmark355) | optional |  |  | documentation UWAGA: ten atrybut sekcji może być używany tylko  w momencie, |

|  |  |
| --- | --- |
|  | gdy globalnie zadeklarowano moduł jako kanon, a jedyna wartość jaką może przyjąć to  expanding |
| annotation | documentation  Atrybuty ep sekcji pierwszego stopnia. |
| source | <xs:attributeGroup name="firstLevelSectionAttributesGroup">  <xs:annotation>  <xs:documentation>Atrybuty ep sekcji pierwszego stopnia.</xs:documentation>  </xs:annotation>  <xs:attribute ref="ep:recipient" use="optional">  <xs:annotation>  <xs:documentation>UWAGA: ten atrybut sekcji może być używany tylko w momencie, gdy globalnie zadeklarowano moduł jako uczniowski, a jedyna wartość jaką może przyjąć to teacher</xs:documentation>  </xs:annotation>  </xs:attribute>  <xs:attribute ref="ep:content-status" use="optional">  <xs:annotation>  <xs:documentation>UWAGA: ten atrybut sekcji może być używany tylko w momencie, gdy globalnie zadeklarowano moduł jako kanon, a jedyna wartość jaką może przyjąć to expanding</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:attributeGroup> |

attributeGroup **qmlAnswerAttributesGroup**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | | | |
| used by | complexType | [**answerType**](#_bookmark479) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [ep:in-set](#_bookmark389) | **xs:positiveInteger** | |  |  |  |
| annotation | documentation |  |  |  |  |  |
| Atrybuty odpowiedzi qml | |  |  |  |  |
| source | <xs:attributeGroup name="qmlAnswerAttributesGroup">  <xs:annotation>  <xs:documentation>Atrybuty odpowiedzi qml</xs:documentation>  </xs:annotation>  <xs:attribute name="in-set" type="xs:positiveInteger"/>  </xs:attributeGroup> | | | | | |

attribute **qmlAnswerAttributesGroup/@ in -set**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |
| type | **xs:positiveInteger** |
| source | <xs:attribute name="in-set" type="xs:positiveInteger"/> |

element **abstract**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:abstractType**](#_bookmark411) |
| properties | content complex  mixed true |
| children | [**m:math**](#_bookmark1047) |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający abstrakt modułu |
| source | <xs:element name="abstract" type="md:abstractType">  <xs:annotation>  <xs:documentation>Element zawierający abstrakt modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **actors**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:actorsType**](#_bookmark412) |
| properties | content complex |
| children | [**md:person**](#_bookmark401) |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element listę autorów modułu |
| source | <xs:element name="actors" type="md:actorsType">  <xs:annotation>  <xs:documentation>Element listę autorów modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **content-id**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| diagram |  | | | |
| namespace | <http://cnx.rice.edu/mdml> | | | |
| type | [**idType**](#_bookmark488) | | | |
| properties | content | simple | |  |
| used by | complexType | | [**metadataType**](#_bookmark92) |  |
| facets | Kind | Value |  | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |  |
| Element zawierający identyfikator modułu | | | |
| source | <xs:element name="content-id" type="md:idType">  <xs:annotation>  <xs:documentation>Element zawierający identyfikator modułu</xs:documentation>  </xs:annotation>  </xs:element> | | | |

element **created**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:dateTimeType**](#_bookmark421) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  pattern \d{4}-\d{2}-\d{2} \d{2}:\d{2} CES?T |
| annotation | documentation  Element zawierający datę utworzenia modułu |
| source | <xs:element name="created" type="md:dateTimeType">  <xs:annotation>  <xs:documentation>Element zawierający datę utworzenia modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **email**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:emailType**](#_bookmark422) |
| properties | content simple |
| used by | complexType [**personType**](#_bookmark415) |
| facets | Kind Value Annotation  minLength 1  pattern [-0-9a-zA-Z.+\_]+@[-0-9a-zA-Z.+\_]+ |
| annotation | documentation  Element zawierający e-mail aktora |
| source | <xs:element name="email" type="md:emailType">  <xs:annotation>  <xs:documentation>Element zawierający e-mail aktora</xs:documentation>  </xs:annotation>  </xs:element> |

element **firstname**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**personType**](#_bookmark415) |
| annotation | documentation  Element zawierający imię aktora |
| source | <xs:element name="firstname" type="xs:string">  <xs:annotation>  <xs:documentation>Element zawierający imię aktora</xs:documentation>  </xs:annotation>  </xs:element> |

element **fullname**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**personType**](#_bookmark415) |
| annotation | documentation  Element zawierający pełne imię i nazwisko aktora |
| source | <xs:element name="fullname" type="xs:string">  <xs:annotation>  <xs:documentation>Element zawierający pełne imię i nazwisko aktora</xs:documentation>  </xs:annotation>  </xs:element> |

element **keyword**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:keywordType**](#_bookmark423) |
| properties | content simple |
| used by | element [**keywordlist**](#_bookmark398) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element zawierający pojedyncze słowo kluczowe |
| source | <xs:element name="keyword" type="md:keywordType">  <xs:annotation>  <xs:documentation>Element zawierający pojedyncze słowo kluczowe</xs:documentation>  </xs:annotation>  </xs:element> |

element **keywordlist**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| properties | content complex |
| children | [**md:keyword**](#_bookmark397) |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający listę słów kluczowych |
| source | <xs:element name="keywordlist">  <xs:annotation>  <xs:documentation>Element zawierający listę słów kluczowych</xs:documentation> |
|  | </xs:annotation>  <xs:complexType>  <xs:sequence>  <xs:element ref="md:keyword" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType>  </xs:element> |

element **language**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:languageType**](#_bookmark424) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  enumeration pl-PL enumeration en-US enumeration fr-FR |
| annotation | documentation  Element zawierający treści modułu |
| source | <xs:element name="language" type="md:languageType">  <xs:annotation>  <xs:documentation>Element zawierający treści modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **license**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:licenseType**](#_bookmark413) |
| properties | content complex |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  enumeration CC BY 1.0 enumeration CC BY 2.0 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | enumeration | CC BY 2.5 |  |  |  |  |
| enumeration | CC BY 3.0 |  |  |  |  |
| enumeration | CC BY 4.0 |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [url](#_bookmark414) | [**md:licenseURLType**](#_bookmark426) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Element zawierający licencję modułu | |  |  |  |  |
| source | <xs:element name="license" type="md:licenseType">  <xs:annotation>  <xs:documentation>Element zawierający licencję modułu</xs:documentation>  </xs:annotation>  </xs:element> | | | | | |

element **person**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:personType**](#_bookmark415) |
| properties | content complex |
| children | [**md:fullname**](#_bookmark396) [**md:firstname**](#_bookmark395) [**md:surname**](#_bookmark407) [**md:email**](#_bookmark394) |
| used by | complexType [**actorsType**](#_bookmark412) |
| attributes | Name Type Use Default Fixed Annotation [userid](#_bookmark416) [**idType**](#_bookmark488)required |
| annotation | documentation  Element zawierający pojedynczego autora |
| source | <xs:element name="person" type="md:personType"> |

|  |  |
| --- | --- |
|  | <xs:annotation>  <xs:documentation>Element zawierający pojedynczego autora</xs:documentation>  </xs:annotation>  </xs:element> |

element **presentationTitle**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:presentationTitleType**](#_bookmark417) |
| properties | content complex  mixed true |
| children | [**cnxml:emphasis**](#_bookmark7) |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający tytuł modułu, w przypadku gdy potrzebne jest formatowanie przy pomocy emfaz, itp. |
| source | <xs:element name="presentationTitle" type="md:presentationTitleType">  <xs:annotation>  <xs:documentation>Element zawierający tytuł modułu, w przypadku gdy potrzebne jest formatowanie przy pomocy emfaz, itp.</xs:documentation>  </xs:annotation>  </xs:element> |

element **repository**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | **xs:string** |
| properties | content simple  fixed https://rep.epodreczniki.pl/ |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający repozytorium źródłowe modułu (domyślnie zawsze https://rep.epodreczniki.pl/) |
| source | <xs:element name="repository" type="xs:string" fixed="https://rep.epodreczniki.pl/">  <xs:annotation>  <xs:documentation>Element zawierający repozytorium źródłowe modułu (domyślnie zawsze https://rep.epodreczniki.pl/)</xs:documentation>  </xs:annotation>  </xs:element> |

element **revised**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:dateTimeType**](#_bookmark421) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  pattern \d{4}-\d{2}-\d{2} \d{2}:\d{2} CES?T |
| annotation | documentation  Element zawierający datę modyfikacji modułu |
| source | <xs:element name="revised" type="md:dateTimeType">  <xs:annotation>  <xs:documentation>Element zawierający datę modyfikacji modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **role**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:roleType**](#_bookmark419) |
| properties | content complex |
| used by | complexType [**rolesType**](#_bookmark418) |
| attributes | Name Type Use Default Fixed Annotation [type](#_bookmark420) **xs:string** required |
| annotation | documentation  Element zawierający pojedynczą rolę aktora (autor, recenzent, edytor, itp.) |
| source | <xs:element name="role" type="md:roleType">  <xs:annotation>  <xs:documentation>Element zawierający pojedynczą rolę aktora (autor, recenzent, edytor, itp.)</xs:documentation>  </xs:annotation>  </xs:element> |

element **roles**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**md:rolesType**](#_bookmark418) |
| properties | content complex |
| children | [**md:role**](#_bookmark405) |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający listę ról aktorów |
| source | <xs:element name="roles" type="md:rolesType">  <xs:annotation>  <xs:documentation>Element zawierający listę ról aktorów</xs:documentation>  </xs:annotation>  </xs:element> |

element **surname**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**personType**](#_bookmark415) |
| annotation | documentation  Element zawierający nazwisko aktora |
| source | <xs:element name="surname" type="xs:string">  <xs:annotation>  <xs:documentation>Element zawierający nazwisko aktora</xs:documentation>  </xs:annotation>  </xs:element> |

element **title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | [**titleType**](#_bookmark489) |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| facets | Kind Value Annotation  minLength 1  maxLength 140 |
| annotation | documentation  Element zawierający tytuł modułu |
| source | <xs:element name="title" type="md:titleType">  <xs:annotation>  <xs:documentation>Element zawierający tytuł modułu</xs:documentation>  </xs:annotation>  </xs:element> |

element **version**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | **xs:positiveInteger** |
| properties | content simple |
| used by | complexType [**metadataType**](#_bookmark92) |
| annotation | documentation  Element zawierający wersję modułu |
| source | <xs:element name="version" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Element zawierający wersję modułu</xs:documentation>  </xs:annotation>  </xs:element> |

# group presentationTitleContentGroup

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| children | [**cnxml:emphasis**](#_bookmark7) |
| used by | complexType [**presentationTitleType**](#_bookmark417) |
| annotation | documentation  Grupa bazowych elementów dozwolonych tytułu modułu |
| source | <xs:group name="presentationTitleContentGroup">  <xs:annotation>  <xs:documentation>Grupa bazowych elementów dozwolonych tytułu |
|  | modułu</xs:documentation>  </xs:annotation>  <xs:choice>  <xs:element ref="cnxml:emphasis"/>  </xs:choice>  </xs:group> |

complexType **abstractType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| properties | mixed true |
| children | [**m:math**](#_bookmark1047) |
| used by | element [**abstract**](#_bookmark390) |
| annotation | documentation  Typ elementu abstraktu/opisu modułu |
| source | <xs:complexType name="abstractType" mixed="true">  <xs:annotation>  <xs:documentation>Typ elementu abstraktu/opisu modułu</xs:documentation>  </xs:annotation>  <xs:sequence minOccurs="0" maxOccurs="unbounded">  <xs:element ref="mml:math"/>  </xs:sequence>  </xs:complexType> |

complexType **actorsType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| children | [**md:person**](#_bookmark401) |
| used by | element [**actors**](#_bookmark391) |
| annotation | documentation  Typ elemetu aktorów zaangażowanych w tworzenie dokumentu |
| source | <xs:complexType name="actorsType">  <xs:annotation>  <xs:documentation>Typ elemetu aktorów zaangażowanych w tworzenie dokumentu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="md:person" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **licenseType**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | |
| namespace | <http://cnx.rice.edu/mdml> | | | | | | | |
| type | extension of [**md:licenseBaseType**](#_bookmark425) | | | | | | | |
| properties | base | md:licenseBaseType | | |  |  |  |  |
| used by | element | [**license**](#_bookmark400) | |  |  |  |  |  |
| facets | Kind |  | Value | Annotation |  |  |  |  |
| enumeration | | CC BY 1.0 |  |  |  |  |  |
| enumeration | | CC BY 2.0 |  |  |  |  |  |
| enumeration | | CC BY 2.5 |  |  |  |  |  |
| enumeration | | CC BY 3.0 |  |  |  |  |  |
| enumeration | | CC BY 4.0 |  |  |  |  |  |
| attributes | Name |  | Type |  | Use | Default | Fixed | Annotation |
| [url](#_bookmark414) |  | [**md:licenseURLType**](#_bookmark426) | | required |  |  |  |
| annotation | documentation | | |  |  |  |  |  |
| Typ kompletny licencji | | |  |  |  |  |  |
| source | <xs:complexType name="licenseType">  <xs:annotation>  <xs:documentation>Typ kompletny licencji</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="md:licenseBaseType">  <xs:attribute name="url" type="md:licenseURLType" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> | | | | | | | |

attribute **licenseType/@ url**

|  |  |  |
| --- | --- | --- |
| type | [**md:licenseURLType**](#_bookmark426) | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration https://creativecommons.org/licenses/by/1.0/legalcode enumeration https://creativecommons.org/licenses/by/2.0/pl/legalcode enumeration https://creativecommons.org/licenses/by/2.5/pl/legalcode  enumeration <http://creativecommons.org/licenses/by/3.0/pl/legalcode> enumeration https://creativecommons.org/licenses/by/4.0/legalcode | |
| source | <xs:attribute name="url" type="md:licenseURLType" use="required"/> | |

complexType **personType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| children | [**md:fullname**](#_bookmark396) [**md:firstname**](#_bookmark395) [**md:surname**](#_bookmark407) [**md:email**](#_bookmark394) |
| used by | element [**person**](#_bookmark401) |
| attributes | Name Type Use Default Fixed Annotation [userid](#_bookmark416) [**idType**](#_bookmark488)required |
| annotation | documentation  Typ elementu aktora |
| source | <xs:complexType name="personType">  <xs:annotation>  <xs:documentation>Typ elementu aktora</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="md:fullname"/>  <xs:element ref="md:firstname"/>  <xs:element ref="md:surname"/>  <xs:element ref="md:email"/>  </xs:sequence>  <xs:attribute name="userid" type="md:idType" use="required"/>  </xs:complexType> |

attribute **personType/@ userid**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| type | [**idType**](#_bookmark488) | | | |
| properties | use | required | | |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. | | | |
|  | pattern | | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| source | <xs:attribute name="userid" type="md:idType" use="required"/> | | | |

complexType **presentationTitleType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| properties | mixed true |
| children | [**cnxml:emphasis**](#_bookmark7) |
| used by | element [**presentationTitle**](#_bookmark402) |
| annotation | documentation  Typ elementu tytuł modułu z formatowaniem w postaci emfaz, itp. |
| source | <xs:complexType name="presentationTitleType" mixed="true">  <xs:annotation>  <xs:documentation>Typ elementu tytuł modułu z formatowaniem w postaci emfaz, itp.</xs:documentation>  </xs:annotation>  <xs:sequence minOccurs="0" maxOccurs="unbounded">  <xs:group ref="md:presentationTitleContentGroup"/>  </xs:sequence>  </xs:complexType> |

complexType **rolesType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| children | [**md:role**](#_bookmark405) |
| used by | element [**roles**](#_bookmark406) |
| annotation | documentation  Typ elementu z rolami aktorów zaangażowanych w projekt |
| source | <xs:complexType name="rolesType">  <xs:annotation>  <xs:documentation>Typ elementu z rolami aktorów zaangażowanych w projekt</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="md:role" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **roleType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/mdml> |
| type | extension of **xs:string** |
| properties | base xs:string |
| used by | element [**role**](#_bookmark405) |
| attributes | Name Type Use Default Fixed Annotation [type](#_bookmark420) **xs:string** required |
| annotation | documentation  Typ elementu roli aktora zaangażowanego w projekt |
| source | <xs:complexType name="roleType">  <xs:annotation>  <xs:documentation>Typ elementu roli aktora zaangażowanego w projekt</xs:documentation>  </xs:annotation>  <xs:simpleContent>  <xs:extension base="xs:string">  <xs:attribute name="type" type="xs:string" use="required"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType> |

attribute **roleType/@ type**

|  |  |
| --- | --- |
| type | **xs:string** |
| properties | use required |
| source | <xs:attribute name="type" type="xs:string" use="required"/> |

simpleType **dateTimeType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/mdml> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | elements [**created**](#_bookmark393) [**revised**](#_bookmark404) |
| facets | Kind Value Annotation  pattern \d{4}-\d{2}-\d{2} \d{2}:\d{2} CES?T |
| annotation | documentation  Typ elementu data i czasu |
| source | <xs:simpleType name="dateTimeType">  <xs:annotation>  <xs:documentation>Typ elementu data i czasu</xs:documentation>  </xs:annotation> |
|  | <xs:restriction base="xs:string">  <xs:pattern value="\d{4}-\d{2}-\d{2} \d{2}:\d{2} CES?T"/>  </xs:restriction>  </xs:simpleType> |

simpleType **emailType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/mdml> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**email**](#_bookmark394) |
| facets | Kind Value Annotation  minLength 1  pattern [-0-9a-zA-Z.+\_]+@[-0-9a-zA-Z.+\_]+ |
| annotation | documentation  Typ elementu adresu e-mail |
| source | <xs:simpleType name="emailType">  <xs:annotation>  <xs:documentation>Typ elementu adresu e-mail</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  <xs:pattern value="[-0-9a-zA-Z.+\_]+@[-0-9a-zA-Z.+\_]+"/>  </xs:restriction>  </xs:simpleType> |

simpleType **keywordType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/mdml> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**keyword**](#_bookmark397) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Typ elementu słowa kluczowego modułu |
| source | <xs:simpleType name="keywordType">  <xs:annotation>  <xs:documentation>Typ elementu słowa kluczowego modułu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **languageType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/mdml> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | element | [**language**](#_bookmark399) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | pl-PL |  |
| enumeration | | en-US |  |
| enumeration | | fr-FR |  |
| annotation | documentation | | |  |
| Typ elementu języka w zapisie zdefiniowanym przez IETF w BCP 47 - tylko wybrane, wspierane opcje | | | |
| source | <xs:simpleType name="languageType">  <xs:annotation>  <xs:documentation>Typ elementu języka w zapisie zdefiniowanym przez IETF w BCP 47 - tylko wybrane, wspierane opcje</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="pl-PL"/>  <xs:enumeration value="en-US"/>  <xs:enumeration value="fr-FR"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **licenseBaseType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/mdml> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | complexType | | [**licenseType**](#_bookmark413) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | CC BY 1.0 | |
| enumeration | | CC BY 2.0 | |
| enumeration | | CC BY 2.5 | |
| enumeration | | CC BY 3.0 | |
| enumeration | | CC BY 4.0 | |
| annotation | documentation | |  |  |
| Typ bazowy licencji z ograniczeniem na wartości | | | |
| source | <xs:simpleType name="licenseBaseType">  <xs:annotation>  <xs:documentation>Typ bazowy licencji z ograniczeniem na wartości</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="CC BY 1.0"/>  <xs:enumeration value="CC BY 2.0"/>  <xs:enumeration value="CC BY 2.5"/>  <xs:enumeration value="CC BY 3.0"/>  <xs:enumeration value="CC BY 4.0"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **licenseURLType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/mdml> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attribute | [**licenseType/@ url**](#_bookmark414) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | https://creativecommons.org/licenses/by/1.0/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by/2.0/pl/legalcode | |
| enumeration | | https://creativecommons.org/licenses/by/2.5/pl/legalcode | |
| enumeration | | <http://creativecommons.org/licenses/by/3.0/pl/legalcode> | |
| enumeration | | https://creativecommons.org/licenses/by/4.0/legalcode | |
| annotation | documentation | | |  |
| Typ atrybutu url z adresem w elemencie licencji | | |  |
| source | <xs:simpleType name="licenseURLType">  <xs:annotation>  <xs:documentation>Typ atrybutu url z adresem w elemencie licencji</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="https://creativecommons.org/licenses/by/1.0/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/2.0/pl/legalcode"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/2.5/pl/legalcode"/>  <xs:enumeration value="<http://creativecommons.org/licenses/by/3.0/pl/legalcode>"/>  <xs:enumeration value="https://creativecommons.org/licenses/by/4.0/legalcode"/>  </xs:restriction>  </xs:simpleType> | | | |

element **address**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexType [**incollectionType**](#_bookmark460) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element miejsce wydania dla zapisu typu książka, fragment książki |
| source | <xs:element name="address" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element miejsce wydania dla zapisu typu książka, fragment książki</xs:documentation>  </xs:annotation>  </xs:element> |

element **article**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:articleType**](#_bookmark451) |
| properties | content complex |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:journal**](#_bookmark438) [**bib:year**](#_bookmark450) [**bib:number**](#_bookmark443) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element dla zapisu bibliograficznego typu artykuł. |
| source | <xs:element name="article" type="bib:articleType">  <xs:annotation>  <xs:documentation>Element dla zapisu bibliograficznego typu artykuł.</xs:documentation>  </xs:annotation>  </xs:element> |

element **author**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexTypes [**articleType**](#_bookmark451) [**incollectionFreeType**](#_bookmark455)[**incollectionType**](#_bookmark460)[**miscType**](#_bookmark464)[**unpublishedType**](#_bookmark465) |
| annotation | documentation  Element autor. UWAGA: należy wstawić autorów oddzielonych od siebie przecinkami. |
| source | <xs:element name="author" type="xs:string">  <xs:annotation>  <xs:documentation>Element autor. UWAGA: należy wstawić autorów oddzielonych od siebie przecinkami.</xs:documentation>  </xs:annotation>  </xs:element> |

element **booktitle**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexType [**incollectionType**](#_bookmark460) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element tytuł książki. |
| source | <xs:element name="booktitle" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element tytuł książki.</xs:documentation>  </xs:annotation>  </xs:element> |

element **edition**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:dateType**](#_bookmark467) |
| properties | content simple |
| used by | complexType [**manualType**](#_bookmark463) |
| facets | Kind Value Annotation  pattern ([0-2]?\d|3[01])/(0?\d|1[0-2])/[12]\d\d\d |
| annotation | documentation  Element dla daty zapisu bibliograficznego typu ustawa |
| source | <xs:element name="edition" type="bib:dateType">  <xs:annotation>  <xs:documentation>Element dla daty zapisu bibliograficznego typu ustawa</xs:documentation>  </xs:annotation>  </xs:element> |

element **editor**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexTypes [**incollectionFreeType**](#_bookmark455) [**incollectionType**](#_bookmark460) |
| annotation | documentation  Element tłumacz w zapisie typu książka, fragment książki. Uwaga: podobnie jak w przypadku autora, kolejnych tłumaczy oddzielamy przecinkami. |
| source | <xs:element name="editor" type="xs:string">  <xs:annotation>  <xs:documentation>Element tłumacz w zapisie typu książka, fragment książki. Uwaga: podobnie jak w przypadku autora, kolejnych tłumaczy oddzielamy przecinkami.</xs:documentation>  </xs:annotation>  </xs:element> |

element **entry**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| diagram |  | | | | |
| namespace | <http://bibtexml.sf.net/> | | | | |
| type | [**bib:entryType**](#_bookmark452) | | | | |
| properties | content | complex | | | |
| children | [**bib:misc**](#_bookmark441) [**bib:article**](#_bookmark428) [**bib:incollection**](#_bookmark436) [**bib:incollectionFree**](#_bookmark437) [**bib:manual**](#_bookmark440) [**bib:unpublished**](#_bookmark449) | | | | |
| used by | complexTypes [**contentType**](#_bookmark268) [**fileType**](#_bookmark454) | | | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark453) [**idType**](#_bookmark491)required  [ep:target-name](#_bookmark380) **xs:string** required documentation | | | | |
|  |  | |  |  | Nazwa dla |
| referencji np. |
| do |
| wykorzystania |
| jako indeks, |
| który pojawi |
| się w |
| formatach |
| statycznych. |
| [ep:show-in](#_bookmark382) | | **derived by: xs:string** | optional | documentation  Pozwala określić, czy |
|  | |  |  | zapis |
|  | |  |  | bibliograficzny |
|  | |  |  | ma się pojawić |
|  | |  |  | również w |
|  | |  |  | module, w |
|  | |  |  | którym jest |
|  | |  |  | zdefiniowany, |
|  | |  |  | czy tylko w |
|  | |  |  | bibliografi |
|  | |  |  | zbiorczej |
|  | |  |  | (domyslnie |
|  | |  |  | bibliography- |
|  | |  |  | and-module). |
| annotation | documentation | |  |  |  |
| Element entry odpowiadający pojedynczemu zapisowi bibliograficznemu | | | |  |
| source | <xs:element name="entry" type="bib:entryType">  <xs:annotation>  <xs:documentation>Element entry odpowiadający pojedynczemu zapisowi bibliograficznemu</xs:documentation>  </xs:annotation>  </xs:element> | | | | |

element **file**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:fileType**](#_bookmark454) |
| properties | content complex |
| children | [**bib:entry**](#_bookmark433) |
| used by | complexType [**documentType**](#_bookmark63) |
| annotation | documentation  Element file zawierający wszystkie zapisy bibliograficzne z modułu |
| source | <xs:element name="file" type="bib:fileType">  <xs:annotation>  <xs:documentation>Element file zawierający wszystkie zapisy bibliograficzne z modułu</xs:documentation>  </xs:annotation> |
|  | </xs:element> |

element **howpublished**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexType [**miscType**](#_bookmark464) |
| facets | Kind Value Annotation  pattern https?://[-a-zA-Z0-9.]+\.[a-zA-Z][a-zA-Z][a-zA-Z]?[a-zA-Z]?(/\S\*)? |
| annotation | documentation  Element url dla zapisu typu źródło internetowe. |
| source | <xs:element name="howpublished">  <xs:annotation>  <xs:documentation>Element url dla zapisu typu źródło internetowe.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="https?://[-a-zA-Z0-9.]+\.[a-zA-Z][a-zA-Z][a-zA-Z]?[a-zA-Z]?(/\S\*)?"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

element **incollection**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:incollectionType**](#_bookmark460) |
| properties | content complex |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark461)[**bib:edition**](#_bookmark462)[**bib:booktitle**](#_bookmark430)[**bib:publisher**](#_bookmark446)[**bib:year**](#_bookmark450)[**bib:editor**](#_bookmark432)[**bib:series**](#_bookmark447)[**bib:pages**](#_bookmark445)[**bib:address**](#_bookmark427)[**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element dla zapisu bibliograficznego książka oraz fragment książki. |
| source | <xs:element name="incollection" type="bib:incollectionType">  <xs:annotation>  <xs:documentation>Element dla zapisu bibliograficznego książka oraz fragment książki.</xs:documentation>  </xs:annotation>  </xs:element> |

element **incollectionFree**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:incollectionFreeType**](#_bookmark455) |
| properties | content complex |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark456)[**bib:edition**](#_bookmark457)[**bib:booktitle**](#_bookmark458)[**bib:publisher**](#_bookmark446)[**bib:year**](#_bookmark450)[**bib:editor**](#_bookmark432)[**bib:series**](#_bookmark447)[**bib:pages**](#_bookmark445)[**bib:address**](#_bookmark459)[**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element dla zapisu bibliograficznego bez ograniczeń |
| source | <xs:element name="incollectionFree" type="bib:incollectionFreeType">  <xs:annotation>  <xs:documentation>Element dla zapisu bibliograficznego bez ograniczeń</xs:documentation>  </xs:annotation>  </xs:element> |

element **journal**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexType [**articleType**](#_bookmark451) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element dla tytułu czasopisma w zapisie bibliograficznym typu artykuł. |
| source | <xs:element name="journal" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element dla tytułu czasopisma w zapisie bibliograficznym typu artykuł.</xs:documentation>  </xs:annotation>  </xs:element> |

element **key**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**manualType**](#_bookmark463) |
| annotation | documentation  Element dla adresu publikacyjnego ustawy np. Dz.U. 2011 nr 21 poz. 112 |

|  |  |
| --- | --- |
| source | <xs:element name="key" type="xs:string">  <xs:annotation>  <xs:documentation>Element dla adresu publikacyjnego ustawy np. Dz.U. 2011 nr 21 poz.  112</xs:documentation>  </xs:annotation>  </xs:element> |

element **manual**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:manualType**](#_bookmark463) |
| properties | content complex |
| children | [**bib:title**](#_bookmark448) [**bib:organization**](#_bookmark444) [**bib:edition**](#_bookmark431) [**bib:key**](#_bookmark439) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element dla zapisu bibliograficznego typu ustawa. |
| source | <xs:element name="manual" type="bib:manualType">  <xs:annotation>  <xs:documentation>Element dla zapisu bibliograficznego typu ustawa.</xs:documentation>  </xs:annotation>  </xs:element> |

element **misc**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:miscType**](#_bookmark464) |
| properties | content complex |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:howpublished**](#_bookmark435) [**bib:note**](#_bookmark442) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element misc dla zapisu bibliograficznego typu zasób internetowy. |
| source | <xs:element name="misc" type="bib:miscType">  <xs:annotation>  <xs:documentation>Element misc dla zapisu bibliograficznego typu zasób internetowy.</xs:documentation>  </xs:annotation>  </xs:element> |

element **note**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://bibtexml.sf.net/> | | |
| type | [**bib:dateType**](#_bookmark467) | | |
| properties | content | simple | |
| used by | complexType | | [**miscType**](#_bookmark464) |
| facets | Kind | Value | Annotation |
| pattern | ([0-2]?\d|3[01])/(0?\d|1[0-2])/[12]\d\d\d | |
| annotation | documentation | |  |
| Element dla daty sprawdzenia ostatniego dostępu dla zapisu typu źródło internetowe. | | |
| source | <xs:element name="note" type="bib:dateType">  <xs:annotation>  <xs:documentation>Element dla daty sprawdzenia ostatniego dostępu dla zapisu typu źródło internetowe.</xs:documentation>  </xs:annotation>  </xs:element> | | |

element **number**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:positiveInteger** |
| properties | content simple |
| used by | complexType [**articleType**](#_bookmark451) |
| annotation | documentation  Element numer wydania w zapisie bibliograficznym typu artykuł. |
| source | <xs:element name="number" type="xs:positiveInteger">  <xs:annotation>  <xs:documentation>Element numer wydania w zapisie bibliograficznym typu artykuł.</xs:documentation>  </xs:annotation>  </xs:element> |

element **organization**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexType [**manualType**](#_bookmark463) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element dla typu aktu prawnego w zapisie typu ustawa. |
| source | <xs:element name="organization" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element dla typu aktu prawnego w zapisie typu ustawa.</xs:documentation>  </xs:annotation>  </xs:element> |

element **pages**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexTypes [**incollectionFreeType**](#_bookmark455) [**incollectionType**](#_bookmark460) |
| facets | Kind Value Annotation  pattern [1-9]\d\* ?- ?[1-9]\d\* |
| annotation | documentation  Element dla numerów stron w zapisie typu fragment książki. UWAGA: należy zwrócić uwagę, czy początek zakresu jest mniejszy lub równy końcowi. UWAGA: jeżeli występuje bib:title (tytuł fragmentu książki), wtedy ten element jest wymagany. |
| source | <xs:element name="pages">  <xs:annotation>  <xs:documentation>Element dla numerów stron w zapisie typu fragment książki. UWAGA: należy zwrócić uwagę, czy początek zakresu jest mniejszy lub równy końcowi. UWAGA: jeżeli występuje bib:title (tytuł fragmentu książki), wtedy ten element jest wymagany.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="[1-9]\d\* ?- ?[1-9]\d\*"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

element **publisher**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |

|  |  |
| --- | --- |
| used by | complexTypes [**incollectionFreeType**](#_bookmark455) [**incollectionType**](#_bookmark460) |
| annotation | documentation  Element wydawca książki. |
| source | <xs:element name="publisher" type="xs:string">  <xs:annotation>  <xs:documentation>Element wydawca książki.</xs:documentation>  </xs:annotation>  </xs:element> |

element **series**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexTypes [**incollectionFreeType**](#_bookmark455) [**incollectionType**](#_bookmark460) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element dla serii wydawniczej w zapisie bibliograficznym typu książka oraz fragment książki. |
| source | <xs:element name="series" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element dla serii wydawniczej w zapisie bibliograficznym typu książka oraz fragment książki.</xs:documentation>  </xs:annotation>  </xs:element> |

element **title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:nonEmptyString**](#_bookmark468) |
| properties | content simple |
| used by | complexTypes [**articleType**](#_bookmark451) [**manualType**](#_bookmark463)[**miscType**](#_bookmark464)[**unpublishedType**](#_bookmark465) |
| facets | Kind Value Annotation  minLength 1 |
| annotation | documentation  Element tytuł. |
| source | <xs:element name="title" type="bib:nonEmptyString">  <xs:annotation>  <xs:documentation>Element tytuł.</xs:documentation> |

|  |  |
| --- | --- |
|  | </xs:annotation>  </xs:element> |

element **unpublished**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | [**bib:unpublishedType**](#_bookmark465) |
| properties | content complex |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:note**](#_bookmark466) [**bib:year**](#_bookmark450) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | complexType [**entryType**](#_bookmark452) |
| annotation | documentation  Element dla zapisu bibliograficznego typu sprawozdanie. |
| source | <xs:element name="unpublished" type="bib:unpublishedType">  <xs:annotation>  <xs:documentation>Element dla zapisu bibliograficznego typu sprawozdanie.</xs:documentation>  </xs:annotation>  </xs:element> |

element **year**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | content simple |
| used by | complexTypes [**articleType**](#_bookmark451) [**incollectionFreeType**](#_bookmark455)[**incollectionType**](#_bookmark460)[**unpublishedType**](#_bookmark465) |
| facets | Kind Value Annotation  pattern [12]\d\d\d |
| annotation | documentation  Element rok wydania w zapisie bibliograficznym typu artykuł, książka, fragment książki. |
| source | <xs:element name="year">  <xs:annotation>  <xs:documentation>Element rok wydania w zapisie bibliograficznym typu artykuł, książka, fragment książki.</xs:documentation>  </xs:annotation>  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="[12]\d\d\d"/>  </xs:restriction>  </xs:simpleType>  </xs:element> |

complexType **articleType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:journal**](#_bookmark438) [**bib:year**](#_bookmark450) [**bib:number**](#_bookmark443) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**article**](#_bookmark428) |
| annotation | documentation  Typ dla zapisu bibliograficznego typu artykuł. |
| source | <xs:complexType name="articleType">  <xs:annotation>  <xs:documentation>Typ dla zapisu bibliograficznego typu artykuł.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="bib:author"/>  <xs:element ref="bib:title"/>  <xs:element ref="bib:journal"/>  <xs:element ref="bib:year"/>  <xs:element ref="bib:number" minOccurs="0"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **entryType**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | | | | |
| namespace | <http://bibtexml.sf.net/> | | | | | | | | | |
| children | [**bib:misc**](#_bookmark441) [**bib:article**](#_bookmark428) [**bib:incollection**](#_bookmark436) [**bib:incollectionFree**](#_bookmark437) [**bib:manual**](#_bookmark440) [**bib:unpublished**](#_bookmark449) | | | | | | | | | |
| used by | element | [**entry**](#_bookmark433) | |  |  | |  |  | |  |
| attributes | Name |  | | Type | Use | | Default | Fixed | | Annotation |
| [id](#_bookmark453) |  | | [**idType**](#_bookmark491) | required | |  |  | |  |
| [ep:target-name](#_bookmark380) | | | **xs:string** | required | |  |  | | documentation Nazwa dla referencji np.  do wykorzystania |
|  |  | |  | | |  | | | jako indeks, | |
| który pojawi | |
| się w | |
| formatach | |
| statycznych. | |
| [ep:show-in](#_bookmark382) | | **derived by: xs:string** | | | optional | | | documentation Pozwala określić, czy | |
|  | |  | | |  | | | zapis | |
|  | |  | | |  | | | bibliograficzny | |
|  | |  | | |  | | | ma się pojawić | |
|  | |  | | |  | | | również w | |
|  | |  | | |  | | | module, w | |
|  | |  | | |  | | | którym jest | |
|  | |  | | |  | | | zdefiniowany, | |
|  | |  | | |  | | | czy tylko w | |
|  | |  | | |  | | | bibliografi | |
|  | |  | | |  | | | zbiorczej | |
|  | |  | | |  | | | (domyslnie | |
|  | |  | | |  | | | bibliography- | |
|  | |  | | |  | | | and-module). | |
| annotation | documentation | |  | | |  | | |  | |
| Typ entry odpowiadający pojedynczemu zapisowi bibliograficznemu | | | | | | | |  | |
| source | <xs:complexType name="entryType">  <xs:annotation>  <xs:documentation>Typ entry odpowiadający pojedynczemu zapisowi bibliograficznemu</xs:documentation>  </xs:annotation>  <xs:choice minOccurs="0">  <xs:element ref="bib:misc"/>  <xs:element ref="bib:article"/>  <xs:element ref="bib:incollection"/>  <xs:element ref="bib:incollectionFree"/>  <xs:element ref="bib:manual"/>  <xs:element ref="bib:unpublished"/>  </xs:choice>  <xs:attribute name="id" type="bib:idType" use="required"/>  <xs:attributeGroup ref="ep:bibtexmlEntryAttributesGroup"/>  </xs:complexType> | | | | | | | | | |

attribute **entryType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark491) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="bib:idType" use="required"/> | |

complexType **fileType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:entry**](#_bookmark433) |
| used by | element [**file**](#_bookmark434) |
| annotation | documentation  Typ file zawierający wszystkie zapisy bibliograficzne z modułu |
| source | <xs:complexType name="fileType">  <xs:annotation>  <xs:documentation>Typ file zawierający wszystkie zapisy bibliograficzne z modułu</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="bib:entry" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **incollectionFreeType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark456)[**bib:edition**](#_bookmark457)[**bib:booktitle**](#_bookmark458)[**bib:publisher**](#_bookmark446)[**bib:year**](#_bookmark450)[**bib:editor**](#_bookmark432)[**bib:series**](#_bookmark447)[**bib:pages**](#_bookmark445)[**bib:address**](#_bookmark459)[**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**incollectionFree**](#_bookmark437) |
| annotation | documentation  Typ dla zapisu bibliograficznego bez ograniczeń |
| source | <xs:complexType name="incollectionFreeType">  <xs:annotation>  <xs:documentation>Typ dla zapisu bibliograficznego bez ograniczeń</xs:documentation> |
|  | </xs:annotation>  <xs:sequence>  <xs:element ref="bib:author"/>  <xs:element name="title" type="xs:string">  <xs:annotation>  <xs:documentation>Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="edition" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Redakcja książki</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="booktitle" type="xs:string"/>  <xs:element ref="bib:publisher"/>  <xs:element ref="bib:year" minOccurs="0"/>  <xs:element ref="bib:editor" minOccurs="0"/>  <xs:element ref="bib:series" minOccurs="0"/>  <xs:element ref="bib:pages" minOccurs="0"/>  <xs:element name="address" type="xs:string"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

element **incollectionFreeType/title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexTypes [**articleType**](#_bookmark451) [**manualType**](#_bookmark463)[**miscType**](#_bookmark464)[**unpublishedType**](#_bookmark465) |
| annotation | documentation  Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty. |
| source | <xs:element name="title" type="xs:string">  <xs:annotation>  <xs:documentation>Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty.</xs:documentation>  </xs:annotation>  </xs:element> |

element **incollectionFreeType/edition**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | minOcc 0  maxOcc 1 content simple |
| used by | complexType [**manualType**](#_bookmark463) |
| annotation | documentation  Redakcja książki |
| source | <xs:element name="edition" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Redakcja książki</xs:documentation>  </xs:annotation>  </xs:element> |

element **incollectionFreeType/booktitle**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**incollectionType**](#_bookmark460) |
| source | <xs:element name="booktitle" type="xs:string"/> |

element **incollectionFreeType/address**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexType [**incollectionType**](#_bookmark460) |
| source | <xs:element name="address" type="xs:string"/> |

complexType **incollectionType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark461)[**bib:edition**](#_bookmark462)[**bib:booktitle**](#_bookmark430)[**bib:publisher**](#_bookmark446)[**bib:year**](#_bookmark450)[**bib:editor**](#_bookmark432)[**bib:series**](#_bookmark447)[**bib:pages**](#_bookmark445)[**bib:address**](#_bookmark427)[**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**incollection**](#_bookmark436) |
| annotation | documentation  Typ dla zapisu bibliograficznego książka oraz fragment książki. |
| source | <xs:complexType name="incollectionType">  <xs:annotation>  <xs:documentation>Typ dla zapisu bibliograficznego książka oraz fragment książki.</xs:documentation> |
|  | </xs:annotation>  <xs:sequence>  <xs:element ref="bib:author"/>  <xs:element name="title" type="xs:string">  <xs:annotation>  <xs:documentation>Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element name="edition" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Redakcja książki</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="bib:booktitle"/>  <xs:element ref="bib:publisher"/>  <xs:element ref="bib:year"/>  <xs:element ref="bib:editor" minOccurs="0"/>  <xs:element ref="bib:series" minOccurs="0"/>  <xs:element ref="bib:pages" minOccurs="0"/>  <xs:element ref="bib:address"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

element **incollectionType/title**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | content simple |
| used by | complexTypes [**articleType**](#_bookmark451) [**manualType**](#_bookmark463)[**miscType**](#_bookmark464)[**unpublishedType**](#_bookmark465) |
| annotation | documentation  Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty. |
| source | <xs:element name="title" type="xs:string">  <xs:annotation>  <xs:documentation>Tytuł fragmentu książki. UWAGA: W tym miejscu nie ma referencji do title, ponieważ ten element może być pusty.</xs:documentation>  </xs:annotation>  </xs:element> |

element **incollectionType/edition**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| type | **xs:string** |
| properties | minOcc 0  maxOcc 1 content simple |
| used by | complexType [**manualType**](#_bookmark463) |
| annotation | documentation  Redakcja książki |
| source | <xs:element name="edition" type="xs:string" minOccurs="0">  <xs:annotation>  <xs:documentation>Redakcja książki</xs:documentation>  </xs:annotation>  </xs:element> |

complexType **manualType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:title**](#_bookmark448) [**bib:organization**](#_bookmark444) [**bib:edition**](#_bookmark431) [**bib:key**](#_bookmark439) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**manual**](#_bookmark440) |
| annotation | documentation  Typ dla zapisu bibliograficznego typu ustawa. |
| source | <xs:complexType name="manualType">  <xs:annotation>  <xs:documentation>Typ dla zapisu bibliograficznego typu ustawa.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="bib:title"/>  <xs:element ref="bib:organization"/>  <xs:element ref="bib:edition"/> |

|  |  |
| --- | --- |
|  | <xs:element ref="bib:key"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **miscType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:howpublished**](#_bookmark435) [**bib:note**](#_bookmark442) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**misc**](#_bookmark441) |
| annotation | documentation  Typ misc dla zapisu bibliograficznego typu zasób internetowy. |
| source | <xs:complexType name="miscType">  <xs:annotation>  <xs:documentation>Typ misc dla zapisu bibliograficznego typu zasób internetowy.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="bib:author" minOccurs="0"/>  <xs:element ref="bib:title"/>  <xs:element ref="bib:howpublished"/>  <xs:element ref="bib:note"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

complexType **unpublishedType**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| children | [**bib:author**](#_bookmark429) [**bib:title**](#_bookmark448) [**bib:note**](#_bookmark466) [**bib:year**](#_bookmark450) [**ep:bibliographyPattern**](#_bookmark135) |
| used by | element [**unpublished**](#_bookmark449) |
| annotation | documentation  Typ dla zapisu bibliograficznego typu sprawozdanie. |
| source | <xs:complexType name="unpublishedType">  <xs:annotation>  <xs:documentation>Typ dla zapisu bibliograficznego typu sprawozdanie.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="bib:author"/>  <xs:element ref="bib:title"/>  <xs:element name="note">  <xs:annotation>  <xs:documentation>UWAGA: element występuje ze względu na kompatybilność z bibTexXML, ale jest pusty i nie ma znaczenia w tym typie zapisu.</xs:documentation>  </xs:annotation>  </xs:element>  <xs:element ref="bib:year" minOccurs="0"/>  <xs:element ref="ep:bibliographyPattern" minOccurs="0"/>  </xs:sequence>  </xs:complexType> |

element **unpublishedType/note**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://bibtexml.sf.net/> |
| used by | complexType [**miscType**](#_bookmark464) |
| annotation | documentation  UWAGA: element występuje ze względu na kompatybilność z bibTexXML, ale jest pusty i nie ma znaczenia w tym typie zapisu. |
| source | <xs:element name="note">  <xs:annotation>  <xs:documentation>UWAGA: element występuje ze względu na kompatybilność z bibTexXML, ale jest pusty i nie ma znaczenia w tym typie zapisu.</xs:documentation>  </xs:annotation>  </xs:element> |

simpleType **dateType**

|  |  |
| --- | --- |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | elements [**edition**](#_bookmark431) [**note**](#_bookmark442) |
| facets | Kind Value Annotation  pattern ([0-2]?\d|3[01])/(0?\d|1[0-2])/[12]\d\d\d |
| annotation | documentation  Typ prosty dla daty wykorzystywanej w ostatnim dostępie do źródła internetowego, czy też dacie ustawy. |
| source | <xs:simpleType name="dateType">  <xs:annotation>  <xs:documentation>Typ prosty dla daty wykorzystywanej w ostatnim dostępie do źródła internetowego, czy też dacie ustawy.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="([0-2]?\d|3[01])/(0?\d|1[0-2])/[12]\d\d\d"/>  </xs:restriction>  </xs:simpleType> |

simpleType **nonEmptyString**

|  |  |
| --- | --- |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | elements [**address**](#_bookmark427) [**booktitle**](#_bookmark430)[**journal**](#_bookmark438)[**organization**](#_bookmark444)[**series**](#_bookmark447)[**title**](#_bookmark448) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:simpleType name="nonEmptyString">  <xs:restriction base="xs:string"> |
|  | <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

element **answer**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | [**q:answerType**](#_bookmark479) |
| properties | content complex |
| children | [**q:response**](#_bookmark478) [**q:hint**](#_bookmark471) |
| used by | complexType [**itemType**](#_bookmark481) |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark480) [**idType**](#_bookmark494)required  [ep:in-set](#_bookmark389) **xs:positiveInteger** |
| annotation | documentation  Element odpowiedź w quizie (EPQ Odpowiedź - poprawna, EPQ Odpowiedź - błędna) |
| source | <xs:element name="answer" type="q:answerType">  <xs:annotation>  <xs:documentation>Element odpowiedź w quizie (EPQ Odpowiedź - poprawna, EPQ Odpowiedź  - błędna)</xs:documentation>  </xs:annotation>  </xs:element> |

element **feedback**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | extension of [**cnxml:qmlSectionContainerType**](#_bookmark100) |
| properties | content complex |
| children | [**cnxml:section**](#_bookmark101) |
| used by | complexType [**itemType**](#_bookmark481) |
| annotation | documentation  Element wyjaśnienie (EPQ Wyjaśnienie). |
| source | <xs:element name="feedback">  <xs:annotation>  <xs:documentation>Element wyjaśnienie (EPQ Wyjaśnienie).</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:qmlSectionContainerType"/>  </xs:complexContent>  </xs:complexType>  </xs:element> |

element **hint**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | [**cnxml:qmlSectionContainerType**](#_bookmark100) |
| properties | content complex |
| children | [**cnxml:section**](#_bookmark101) |
| used by | complexTypes [**answerType**](#_bookmark479) [**itemType**](#_bookmark481) |
| annotation | documentation  Element wskazówka. Może być zastosowany zarówno w stosunku do całego pytania quizowego (EPQ Wskazówka) jak i błędnej odpowiedzi, ale tylko w zadaniu z losową odpowiedzią (exercise/@ep:interactivity='random\_quiz') i to w pytaniu z jednokrotną odpowiedzią (q:item/@type='single-response') (EPQ Podpowiedź) |
| source | <xs:element name="hint" type="cnxml:qmlSectionContainerType">  <xs:annotation>  <xs:documentation>Element wskazówka. Może być zastosowany zarówno w stosunku do całego pytania quizowego (EPQ Wskazówka) jak i błędnej odpowiedzi, ale tylko w zadaniu z |
|  | losową odpowiedzią (exercise/@ep:interactivity='random\_quiz') i to w pytaniu z jednokrotną odpowiedzią (q:item/@type='single-response') (EPQ Podpowiedź)</xs:documentation>  </xs:annotation>  </xs:element> |

element **item**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/qml/1.0> | |
| type | extension of [**q:itemType**](#_bookmark481) | |
| properties | content | complex |
| children | [**q:question**](#_bookmark477) [**q:answer**](#_bookmark469) [**q:hint**](#_bookmark471) [**q:feedback**](#_bookmark470) [**q:key**](#_bookmark473) | |
| used by | complexTypes [**alternativeType**](#_bookmark238) [**exerciseType**](#_bookmark74) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark482) [**idType**](#_bookmark494)required  [type](#_bookmark483) [**q:typeType**](#_bookmark484)required | |
| annotation | documentation  Element pytanie quizowe | |
| source | <xs:element name="item">  <xs:annotation>  <xs:documentation>Element pytanie quizowe</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:complexContent>  <xs:extension base="q:itemType"/>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **key**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/qml/1.0> | |
| properties | content | complex |
| children | [**q:feedback**](#_bookmark475) | |
| used by | complexType [**itemType**](#_bookmark481) | |
| attributes | Name Type Use Default Fixed Annotation [answer](#_bookmark474) **xs:string** required documentation  UWAGA: atrybut ten zawiera oddzielone przecinkiem (bez dodatkowych spacji) identyfikatory  poprawnych | |

|  |  |
| --- | --- |
|  | odpowiedzi (q:answer). Dla zadania na kolejność odpowiedzi q:item/@type='ordered- response' kolejność identyfikatorów w tym atrybucie to poprawna  kolejność odpowiedzi. |
| annotation | documentation  UWAGA: Dopuszczalne jest zawarcie w q:key dwóch elementów q:feedback (jeden z correct ustawionym na yes, drugi na no). Taki zabieg może być zastosowany tylko i wyłącznie w przypadku zadań z losowaniem odpowiedzi (exercise/@ep:interactivity='random\_quiz') |
| source | <xs:element name="key">  <xs:annotation>  <xs:documentation>UWAGA: Dopuszczalne jest zawarcie w q:key dwóch elementów q:feedback (jeden z correct ustawionym na yes, drugi na no). Taki zabieg może być zastosowany tylko i wyłącznie w przypadku zadań z losowaniem odpowiedzi (exercise/@ep:interactivity='random\_quiz')</xs:documentation>  </xs:annotation>  <xs:complexType>  <xs:sequence>  <xs:element name="feedback" minOccurs="0" maxOccurs="2">  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:qmlSectionContainerType">  <xs:attribute name="correct" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="yes"/>  <xs:enumeration value="no"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element>  </xs:sequence>  <xs:attribute name="answer" type="xs:string" use="required">  <xs:annotation>  <xs:documentation>UWAGA: atrybut ten zawiera oddzielone przecinkiem (bez dodatkowych spacji) identyfikatory poprawnych odpowiedzi (q:answer). Dla zadania na kolejność odpowiedzi q:item/@type='ordered-response' kolejność identyfikatorów w tym atrybucie to poprawna kolejność odpowiedzi.</xs:documentation>  </xs:annotation>  </xs:attribute>  </xs:complexType>  </xs:element> |

attribute **key/@ answer**

|  |  |
| --- | --- |
| type | **xs:string** |
| properties | use required |
| annotation | documentation  UWAGA: atrybut ten zawiera oddzielone przecinkiem (bez dodatkowych spacji) identyfikatory poprawnych odpowiedzi (q:answer). Dla zadania na kolejność odpowiedzi q:item/@type='ordered-response' kolejność identyfikatorów w tym atrybucie to poprawna kolejność odpowiedzi. |

|  |  |
| --- | --- |
| source | <xs:attribute name="answer" type="xs:string" use="required">  <xs:annotation>  <xs:documentation>UWAGA: atrybut ten zawiera oddzielone przecinkiem (bez dodatkowych spacji) identyfikatory poprawnych odpowiedzi (q:answer). Dla zadania na kolejność odpowiedzi q:item/@type='ordered-response' kolejność identyfikatorów w tym atrybucie to poprawna kolejność odpowiedzi.</xs:documentation>  </xs:annotation>  </xs:attribute> |

element **key/feedback**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://cnx.rice.edu/qml/1.0> | |
| type | extension of [**cnxml:qmlSectionContainerType**](#_bookmark100) | |
| properties | minOcc | 0 |
| maxOcc | 2 |
| content | complex |
| children | [**cnxml:section**](#_bookmark101) | |
| used by | complexType [**itemType**](#_bookmark481) | |
| attributes | Name Type Use Default Fixed Annotation [correct](#_bookmark476) **derived by:** required  **xs:string** | |
| source | <xs:element name="feedback" minOccurs="0" maxOccurs="2">  <xs:complexType>  <xs:complexContent>  <xs:extension base="cnxml:qmlSectionContainerType">  <xs:attribute name="correct" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="yes"/>  <xs:enumeration value="no"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

attribute **key/feedback/@ correct**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |

|  |  |  |
| --- | --- | --- |
| properties | use | required |
| facets | Kind Value Annotation enumeration yes  enumeration no | |
| source | <xs:attribute name="correct" use="required">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:enumeration value="yes"/>  <xs:enumeration value="no"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

element **question**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | [**cnxml:qmlSectionContainerType**](#_bookmark100) |
| properties | content complex |
| children | [**cnxml:section**](#_bookmark101) |
| used by | complexType [**itemType**](#_bookmark481) |
| annotation | documentation  Element pytanie w quizie (EPQ Pytanie). |
| source | <xs:element name="question" type="cnxml:qmlSectionContainerType">  <xs:annotation>  <xs:documentation>Element pytanie w quizie (EPQ Pytanie).</xs:documentation>  </xs:annotation>  </xs:element> |

element **response**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | [**cnxml:qmlSectionContainerType**](#_bookmark100) |
| properties | content complex |
| children | [**cnxml:section**](#_bookmark101) |
| used by | complexType [**answerType**](#_bookmark479) |
| annotation | documentation  Element zawierający treść odpowiedzi |

|  |  |
| --- | --- |
| source | <xs:element name="response" type="cnxml:qmlSectionContainerType">  <xs:annotation>  <xs:documentation>Element zawierający treść odpowiedzi</xs:documentation>  </xs:annotation>  </xs:element> |

complexType **answerType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://cnx.rice.edu/qml/1.0> | | | | | |
| children | [**q:response**](#_bookmark478) [**q:hint**](#_bookmark471) | | | | | |
| used by | element | [**answer**](#_bookmark469) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark480) | [**idType**](#_bookmark494) | required |  |  |  |
| [ep:in-set](#_bookmark389) | **xs:positiveInteger** | |  |  |  |
| annotation | documentation | |  |  |  |  |
| Typ dla odpowiedź w quizie. | |  |  |  |  |
| source | <xs:complexType name="answerType">  <xs:annotation>  <xs:documentation>Typ dla odpowiedź w quizie.</xs:documentation>  </xs:annotation>  <xs:sequence>  <xs:element ref="q:response"/>  <xs:element ref="q:hint" minOccurs="0">  <xs:annotation>  <xs:documentation>Element wskazówka. Może być zastosowany zarówno w stosunku do całego pytania quizowego (EPQ Wskazówka) jak i błędnej odpowiedzi (wewnątrz q:answer), ale tylko w zadaniu z losową odpowiedzią (exercise/@ep:interactivity='random\_quiz') i to w pytaniu z jednokrotną odpowiedzią (q:item/@type='single-response') (EPQ Podpowiedź)</xs:documentation>  </xs:annotation> | | | | | |

|  |  |
| --- | --- |
|  | </xs:element>  </xs:sequence>  <xs:attribute name="id" type="q:idType" use="required"/>  <xs:attributeGroup ref="ep:qmlAnswerAttributesGroup"/>  </xs:complexType> |

attribute **answerType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark494) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="q:idType" use="required"/> | |

complexType **itemType**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://cnx.rice.edu/qml/1.0> | | | | | |
| children | [**q:question**](#_bookmark477) [**q:answer**](#_bookmark469) [**q:hint**](#_bookmark471) [**q:feedback**](#_bookmark470) [**q:key**](#_bookmark473) | | | | | |
| used by | element | [**item**](#_bookmark472) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark482) | [**idType**](#_bookmark494) | required |  |  |  |
| [type](#_bookmark483) | [**q:typeType**](#_bookmark484) | required |  |  |  |
| annotation | documentation | |  |  |  |  |
| Typ pytanie quizowe | |  |  |  |  |
| source | <xs:complexType name="itemType">  <xs:annotation>  <xs:documentation>Typ pytanie quizowe</xs:documentation> | | | | | |
|  | </xs:annotation>  <xs:sequence>  <xs:element ref="q:question"/>  <xs:choice>  <xs:element ref="q:answer" minOccurs="2" maxOccurs="unbounded"/>  </xs:choice>  <xs:element ref="q:hint" minOccurs="0" maxOccurs="unbounded"/>  <xs:element ref="q:feedback" minOccurs="0"/>  <xs:element ref="q:key"/>  </xs:sequence>  <xs:attribute name="id" type="q:idType" use="required"/>  <xs:attribute name="type" type="q:typeType" use="required"/>  </xs:complexType> | | | | | |

attribute **itemType/@ id**

|  |  |  |
| --- | --- | --- |
| type | [**idType**](#_bookmark494) | |
| properties | use | required |
| facets | Kind Value Annotation  pattern i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- documentation  9]+)? Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.  pattern [a-zA-Z0-9\_]+ documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. | |
| source | <xs:attribute name="id" type="q:idType" use="required"/> | |

attribute **itemType/@ type**

|  |  |  |
| --- | --- | --- |
| type | [**q:typeType**](#_bookmark484) | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration single-response enumeration multiple-response enumeration ordered-response | |
| source | <xs:attribute name="type" type="q:typeType" use="required"/> | |

simpleType **typeType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/qml/1.0> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attribute | [**itemType/@ type**](#_bookmark483) | |  |
| facets | Kind |  | Value | Annotation |
| enumeration | | single-response | |
| enumeration | | multiple-response | |
| enumeration | | ordered-response | |
| annotation | documentation | | |  |
| Typ quizu | |  |  |
| source | <xs:simpleType name="typeType">  <xs:annotation>  <xs:documentation>Typ quizu</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:enumeration value="single-response"/>  <xs:enumeration value="multiple-response"/>  <xs:enumeration value="ordered-response"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **idType**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | | |
| type | restriction of **xs:string** | | | |
| properties | base | xs:string | |  |
| used by | attributes | | [**collection-id**](#_bookmark370) [**disabled-alternative-reference/@ id**](#_bookmark164) [**bookmark/@id**](#_bookmark140) [**fold-point/@id**](#_bookmark176) [**zebra-point/@ id**](#_bookmark229)  [**source/bibliography-reference/@ id**](#_bookmark212) [**contentType/@ id**](#_bookmark269) [**galleryType/@ id**](#_bookmark310) [**play-and-**](#_bookmark332)[**learnType/reference/@ id**](#_bookmark332) [**externalType/reference/@ id**](#_bookmark305) [**paraContainerWithIdType/@ id**](#_bookmark329)[**baseGlossaryReferenceType/@ id**](#_bookmark241) [**commandType/@ id**](#_bookmark265) [**procedure-instructionsType/@ id**](#_bookmark335)[**tooltipType/@ id**](#_bookmark349) [**student-workType/@**](#_bookmark346) **id** [**biographyType/@**](#_bookmark261) **id** [**eventType/@**](#_bookmark296) **id** [**experimentType/@**](#_bookmark300) **id** [**observationType/@ id**](#_bookmark325) [**alternativeType/@ id**](#_bookmark239) [**referenceType/@ instance -id**](#_bookmark341) [**exerciseType/@ id**](#_bookmark75)[**quoteType/@ id**](#_bookmark104) [**codeType/@**](#_bookmark51) **id** | |
| facets | Kind | Value | | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | | |  |
| Identyfikator | | |  |
| source | <xs:simpleType name="idType">  <xs:annotation>  <xs:documentation>Identyfikator</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-9]+)?">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  <xs:pattern value="[a-zA-Z0-9\_]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **titleType**

|  |  |
| --- | --- |
| namespace | <http://epodreczniki.pl/> |

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:string** | |
| properties | base | xs:string |
| facets | Kind Value Annotation  minLength 1  maxLength 140 | |
| annotation | documentation  Tytuł modułu, sekcji, kodu etc. | |
| source | <xs:simpleType name="titleType">  <xs:annotation>  <xs:documentation>Tytuł modułu, sekcji, kodu etc.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:maxLength value="140"/>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> | |

simpleType **WOMIidType**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://epodreczniki.pl/> | | |
| type | restriction of **xs:string** | | |
| properties | base | xs:string |  |
| used by | attribute | [**referenceType/@ id**](#_bookmark340) | |
| facets | Kind | Value | Annotation |
| pattern | [0-9a-zA-Z\_]+ | documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. |
| annotation | documentation | |  |
| Identyfikator WOMI | | |
| source | <xs:simpleType name="WOMIidType">  <xs:annotation>  <xs:documentation>Identyfikator WOMI</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="[0-9]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora WOMI.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | |

simpleType **idType**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/mdml> | | |
| type | restriction of **xs:string** | | |
| properties | base | xs:string |  |
| used by | element | [**content-id**](#_bookmark392) |  |
| attribute | [**personType/@ userid**](#_bookmark416) |  |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- | documentation |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 9]+)? | Wyrażenie regularne pasujące do identyfikatora wytworzonego przez  konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |
| Identyfikator | |  |
| source | <xs:simpleType name="idType">  <xs:annotation>  <xs:documentation>Identyfikator</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-9]+)?">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  <xs:pattern value="[a-zA-Z0-9\_]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | |

simpleType **titleType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/mdml> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | element [**title**](#_bookmark408) |
| facets | Kind Value Annotation  minLength 1  maxLength 140 |
| annotation | documentation  Tytuł modułu, sekcji, kodu etc. |
| source | <xs:simpleType name="titleType">  <xs:annotation>  <xs:documentation>Tytuł modułu, sekcji, kodu etc.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:maxLength value="140"/>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **WOMIidType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/mdml> |
| type | restriction of **xs:string** |

|  |  |  |
| --- | --- | --- |
| properties | base | xs:string |
| facets | Kind Value Annotation pattern [0-9a-zA-Z\_]+ documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. | |
| annotation | documentation Identyfikator WOMI | |
| source | <xs:simpleType name="WOMIidType">  <xs:annotation>  <xs:documentation>Identyfikator WOMI</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="[0-9]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora WOMI.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | |

simpleType **idType**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://bibtexml.sf.net/> | | |
| type | restriction of **xs:string** | | |
| properties | base | xs:string |  |
| used by | attribute | [**entryType/@ id**](#_bookmark453) |  |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-  9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |
| Identyfikator | |  |
| source | <xs:simpleType name="idType">  <xs:annotation>  <xs:documentation>Identyfikator</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-9]+)?">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  <xs:pattern value="[a-zA-Z0-9\_]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | |

simpleType **titleType**

|  |  |
| --- | --- |
| namespace | <http://bibtexml.sf.net/> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| facets | Kind Value Annotation  minLength 1  maxLength 140 |
| annotation | documentation  Tytuł modułu, sekcji, kodu etc. |
| source | <xs:simpleType name="titleType">  <xs:annotation>  <xs:documentation>Tytuł modułu, sekcji, kodu etc.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:maxLength value="140"/>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **WOMIidType**

|  |  |  |
| --- | --- | --- |
| namespace | <http://bibtexml.sf.net/> | |
| type | restriction of **xs:string** | |
| properties | base | xs:string |
| facets | Kind Value Annotation  pattern [0-9a-zA-Z\_]+ documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. | |
| annotation | documentation  Identyfikator WOMI | |
| source | <xs:simpleType name="WOMIidType">  <xs:annotation>  <xs:documentation>Identyfikator WOMI</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="[0-9]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora WOMI.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | |

simpleType **idType**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace | <http://cnx.rice.edu/qml/1.0> | | |
| type | restriction of **xs:string** | | |
| properties | base xs:string | | |
| used by | attributes | [**answerType/@ id**](#_bookmark480) [**itemType/@ id**](#_bookmark482) | |
| facets | Kind | Value | Annotation |
| pattern | i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0- 9]+)? | documentation  Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter. |
| pattern | [a-zA-Z0-9\_]+ | documentation  Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter. |
| annotation | documentation | |  |
| Identyfikator | |  |
| source | <xs:simpleType name="idType">  <xs:annotation>  <xs:documentation>Identyfikator</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="i[a-zA-Z0-9]{9}(\_[\_a-zA-Z0-9]+)?">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora wytworzonego przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  <xs:pattern value="[a-zA-Z0-9\_]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne na potrzeby identyfikatorów nie wytworzonych przez konwerter.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | | |

simpleType **titleType**

|  |  |
| --- | --- |
| namespace | <http://cnx.rice.edu/qml/1.0> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| facets | Kind Value Annotation  minLength 1  maxLength 140 |
| annotation | documentation  Tytuł modułu, sekcji, kodu etc. |
| source | <xs:simpleType name="titleType">  <xs:annotation>  <xs:documentation>Tytuł modułu, sekcji, kodu etc.</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:maxLength value="140"/>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **WOMIidType**

|  |  |  |
| --- | --- | --- |
| namespace | <http://cnx.rice.edu/qml/1.0> | |
| type | restriction of **xs:string** | |
| properties | base | xs:string |
| facets | Kind Value Annotation pattern [0-9a-zA-Z\_]+ documentation  Wyrażenie regularne pasujące do identyfikatora WOMI. | |
| annotation | documentation  Identyfikator WOMI | |
| source | <xs:simpleType name="WOMIidType">  <xs:annotation>  <xs:documentation>Identyfikator WOMI</xs:documentation>  </xs:annotation>  <xs:restriction base="xs:string">  <xs:pattern value="[0-9]+">  <xs:annotation>  <xs:documentation>Wyrażenie regularne pasujące do identyfikatora WOMI.</xs:documentation>  </xs:annotation>  </xs:pattern>  </xs:restriction>  </xs:simpleType> | |

element **abs**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| used by | group [**unary-arith.class**](#_bookmark682) |

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="abs">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **and**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-logical.class**](#_bookmark609) |
| source | <xs:element name="and" substitutionGroup="m:nary-logical.class"/> |

element **approx**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:binary-reln.class**](#_bookmark515) | |
| properties | content | complex |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="approx" substitutionGroup="m:binary-reln.class">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **arccos**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccos" substitutionGroup="m:unary-elementary.class"/> |

element **arccosh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccosh" substitutionGroup="m:unary-elementary.class"/> |

element **arccot**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccot" substitutionGroup="m:unary-elementary.class"/> |

element **arccoth**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccoth" substitutionGroup="m:unary-elementary.class"/> |

element **arccsc**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccsc" substitutionGroup="m:unary-elementary.class"/> |

element **arccsch**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arccsch" substitutionGroup="m:unary-elementary.class"/> |

element **arcsec**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arcsec" substitutionGroup="m:unary-elementary.class"/> |

element **arcsech**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arcsech" substitutionGroup="m:unary-elementary.class"/> |

element **arcsin**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arcsin" substitutionGroup="m:unary-elementary.class"/> |

element **arcsinh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arcsinh" substitutionGroup="m:unary-elementary.class"/> |

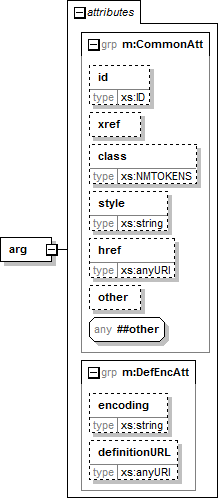
element **arctan**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arctan" substitutionGroup="m:unary-elementary.class"/> |

element **arctanh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="arctanh" substitutionGroup="m:unary-elementary.class"/> |

element **arg**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="arg">

<xs:complexType>

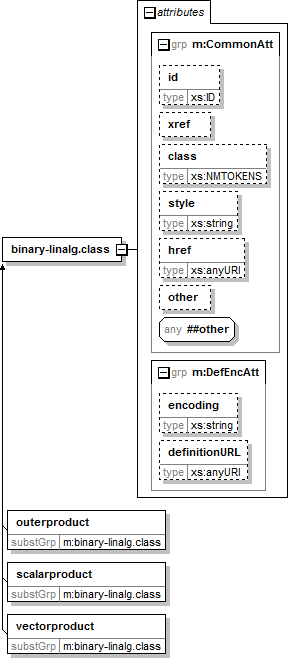
<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **binary-linalg.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="binary-linalg.class" abstract="true">

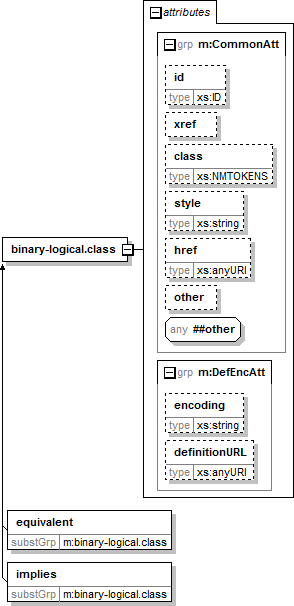
<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

|  |  |
| --- | --- |
|  | </xs:complexType>  </xs:element> |

element **binary-logical.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="binary-logical.class" abstract="true">

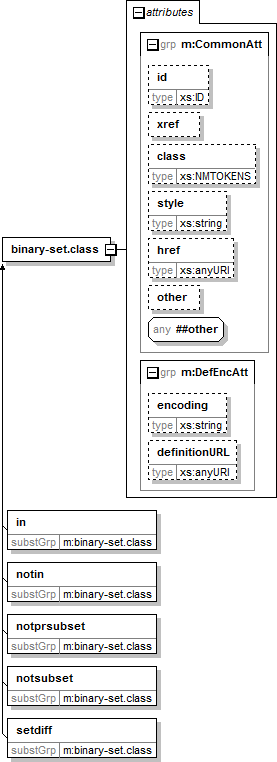
<xs:complexType>

|  |  |
| --- | --- |
|  | <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **binary-reln.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | abstract true |
| used by | group [**ContExp**](#_bookmark1089) |
| source | <xs:element name="binary-reln.class" abstract="true"/> |

element **binary-set.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

|  |  |
| --- | --- |
|  | [definitionURL](#_bookmark1068) **xs:anyURI** |
| source | <xs:element name="binary-set.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **bvar**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:ci**](#_bookmark1083) [**m:semantics**](#_bookmark1092) [**m:degree**](#_bookmark540) | |
| used by | group [**BvarQ**](#_bookmark1088) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065) | |
| source | <xs:element name="bvar">  <xs:complexType> | |

|  |  |
| --- | --- |
|  | <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:choice>  <xs:element ref="m:ci"/>  <xs:group ref="m:semantics-ci"/>  </xs:choice>  <xs:element ref="m:degree"/>  </xs:choice>  <xs:attributeGroup ref="m:CommonAtt"/>  </xs:complexType>  </xs:element> |

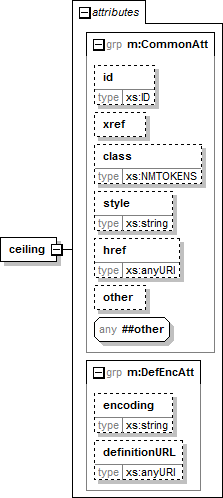
element **card**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-set.class**](#_bookmark671) |
| source | <xs:element name="card" substitutionGroup="m:unary-set.class"/> |

element **cartesianproduct**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-set.class**](#_bookmark613) |
| source | <xs:element name="cartesianproduct" substitutionGroup="m:nary-set.class"/> |

element **ceiling**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="ceiling">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **codomain**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="codomain" substitutionGroup="m:unary-functional.class"/> |

element **complexes**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="complexes" substitutionGroup="m:constant-set.class"/> |

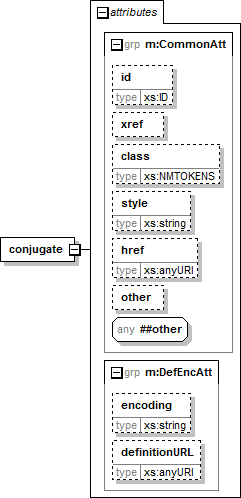
element **compose**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-functional.class**](#_bookmark607) |
| source | <xs:element name="compose" substitutionGroup="m:nary-functional.class"/> |

element **condition**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**DomainQ**](#_bookmark680) |
| source | <xs:element name="condition">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **conjugate**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="conjugate">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

|  |  |
| --- | --- |
|  | <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **constant-arith.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex  abstract true |
| used by | group [**ContExp**](#_bookmark1089) |

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="constant-arith.class" abstract="true">

<xs:complexType>

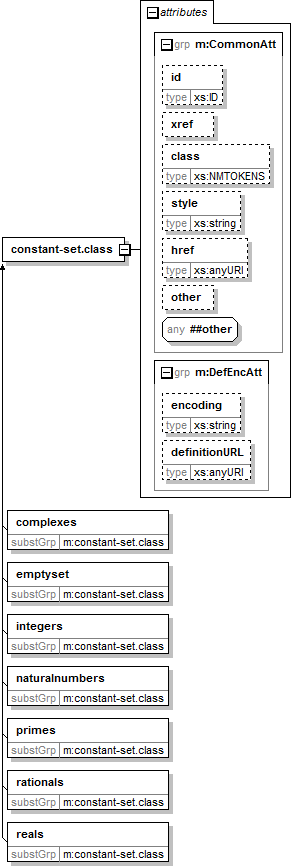
<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **constant-set.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

|  |  |  |
| --- | --- | --- |
|  | [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="constant-set.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **cos**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="cos" substitutionGroup="m:unary-elementary.class"/> |

element **cosh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="cosh" substitutionGroup="m:unary-elementary.class"/> |

element **cot**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="cot" substitutionGroup="m:unary-elementary.class"/> |

element **coth**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="coth" substitutionGroup="m:unary-elementary.class"/> |

element **csc**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="csc" substitutionGroup="m:unary-elementary.class"/> |

element **csch**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="csch" substitutionGroup="m:unary-elementary.class"/> |

element **curl**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-veccalc.class**](#_bookmark672) |
| source | <xs:element name="curl" substitutionGroup="m:unary-veccalc.class"/> |

element **declare**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:DeprecatedContExp**](#_bookmark541) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)  [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659)[**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587)[**m:unary-elementary.class**](#_bookmark667)[**m:nary-stats.class**](#_bookmark615)[**m:nary-**](#_bookmark606) |

[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526)

attributes Name Type Use Default Fixed Annotation [type](#_bookmark536) **xs:string**

[scope](#_bookmark537) **xs:string**

[nargs](#_bookmark538) **xs:nonNegativeInteger** [occurrence](#_bookmark539) **derived by: xs:token** [encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="declare" substitutionGroup="m:DeprecatedContExp">

<xs:complexType>

<xs:group ref="m:ContExp" maxOccurs="unbounded"/>

<xs:attribute name="type" type="xs:string"/>

<xs:attribute name="scope" type="xs:string"/>

<xs:attribute name="nargs" type="xs:nonNegativeInteger"/>

<xs:attribute name="occurrence">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="prefix"/>

<xs:enumeration value="infix"/>

<xs:enumeration value="function-model"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

attribute **declare/@ type**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="type" type="xs:string"/> |

attribute **declare/@ scope**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="scope" type="xs:string"/> |

attribute **declare/@ nargs**

|  |  |
| --- | --- |
| type | **xs:nonNegativeInteger** |
| source | <xs:attribute name="nargs" type="xs:nonNegativeInteger"/> |

attribute **declare/@ occurrence**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | prefix |  |
|  | enumeration | infix | |
| enumeration | function-model | |
| source | <xs:attribute name="occurrence">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="prefix"/>  <xs:enumeration value="infix"/>  <xs:enumeration value="function-model"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

element **degree**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content complex | |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) | |
| used by | element | [**bvar**](#_bookmark517) |
| group | [**Qualifier**](#_bookmark681) |
| source | <xs:element name="degree">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> | |

element **DeprecatedContExp**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | abstract true |
| used by | group [**ContExp**](#_bookmark1089) |
| source | <xs:element name="DeprecatedContExp" abstract="true"/> |

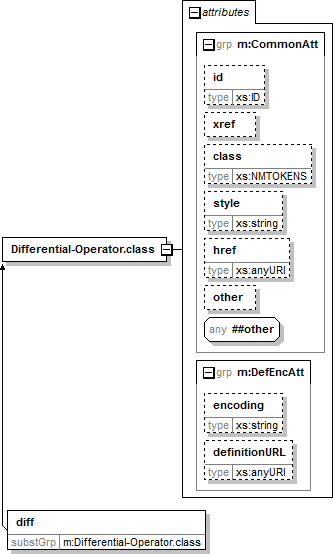
element **determinant**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-linalg.class**](#_bookmark669) |
| source | <xs:element name="determinant" substitutionGroup="m:unary-linalg.class"/> |

element **diff**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:Differential-Operator.class**](#_bookmark544) |
| source | <xs:element name="diff" substitutionGroup="m:Differential-Operator.class"/> |

element **Differential-Operator.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="Differential-Operator.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

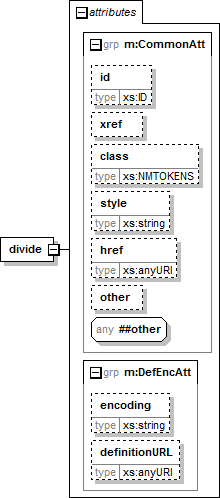
</xs:complexType>

</xs:element>

element **divergence**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-veccalc.class**](#_bookmark672) |
| source | <xs:element name="divergence" substitutionGroup="m:unary-veccalc.class"/> |

element **divide**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**binary-arith.class**](#_bookmark679)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

|  |  |
| --- | --- |
| source | <xs:element name="divide">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **domain**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="domain" substitutionGroup="m:unary-functional.class"/> |

element **domainofapplication**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**DomainQ**](#_bookmark680) |
| source | <xs:element name="domainofapplication">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **emptyset**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="emptyset" substitutionGroup="m:constant-set.class"/> |

element **eq**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-reln.class**](#_bookmark611) |
| source | <xs:element name="eq" substitutionGroup="m:nary-reln.class"/> |

element **equivalent**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-logical.class**](#_bookmark514) |
| source | <xs:element name="equivalent" substitutionGroup="m:binary-logical.class"/> |

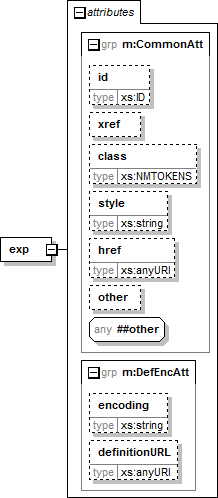
element **eulergamma**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="eulergamma" substitutionGroup="m:constant-arith.class"/> |

element **exists**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:quantifier.class**](#_bookmark638) |
| source | <xs:element name="exists" substitutionGroup="m:quantifier.class"/> |

element **exp**



diagram

namespace properties

used by

contentcomplex

group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

|  |  |  |
| --- | --- | --- |
|  | [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="exp">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **exponentiale**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="exponentiale" substitutionGroup="m:constant-arith.class"/> |

element **factorial**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |

properties

used by

contentcomplex

group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="factorial">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **factorof**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-reln.class**](#_bookmark515) |
| properties | content complex |

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="factorof" substitutionGroup="m:binary-reln.class">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

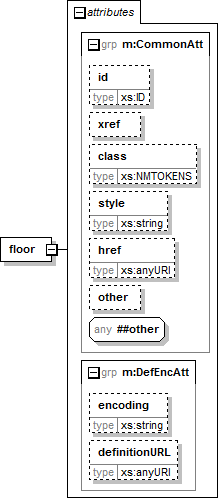
</xs:complexType>

</xs:element>

element **false**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="false" substitutionGroup="m:constant-arith.class"/> |

element **floor**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="floor">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **fn**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:DeprecatedContExp**](#_bookmark541) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |
|  | [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| source | <xs:element name="fn" substitutionGroup="m:DeprecatedContExp">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **forall**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:quantifier.class**](#_bookmark638) |
| source | <xs:element name="forall" substitutionGroup="m:quantifier.class"/> |

element **gcd**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-arith.class**](#_bookmark605) |
| source | <xs:element name="gcd" substitutionGroup="m:nary-arith.class"/> |

element **geq**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-reln.class**](#_bookmark611) |
| source | <xs:element name="geq" substitutionGroup="m:nary-reln.class"/> |

element **grad**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution | [**m:unary-veccalc.class**](#_bookmark672) |
| group |  |
| source | <xs:element name="grad" substitutionGroup="m:unary-veccalc.class"/> |

element **gt**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-reln.class**](#_bookmark611) |
| source | <xs:element name="gt" substitutionGroup="m:nary-reln.class"/> |

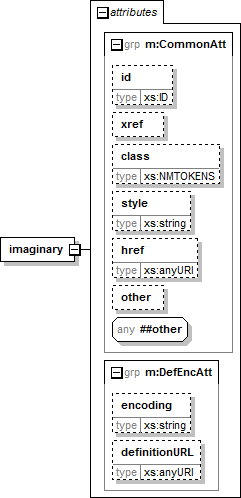
element **ident**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="ident" substitutionGroup="m:unary-functional.class"/> |

element **image**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="image" substitutionGroup="m:unary-functional.class"/> |

element **imaginary**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="imaginary">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **imaginaryi**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="imaginaryi" substitutionGroup="m:constant-arith.class"/> |

element **implies**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-logical.class**](#_bookmark514) |
| source | <xs:element name="implies" substitutionGroup="m:binary-logical.class"/> |

element **in**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-set.class**](#_bookmark516) |
| source | <xs:element name="in" substitutionGroup="m:binary-set.class"/> |

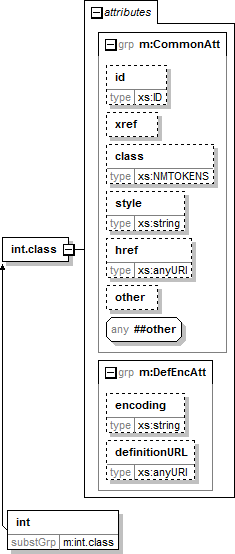
element **infinity**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="infinity" substitutionGroup="m:constant-arith.class"/> |

element **int**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:int.class**](#_bookmark574) |
| source | <xs:element name="int" substitutionGroup="m:int.class"/> |

element **int.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="int.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

|  |  |
| --- | --- |
|  | <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **integers**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="integers" substitutionGroup="m:constant-set.class"/> |

element **intersect**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-set.class**](#_bookmark613) |
| source | <xs:element name="intersect" substitutionGroup="m:nary-set.class"/> |

element **interval**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:interval.class**](#_bookmark578) |
| source | <xs:element name="interval" substitutionGroup="m:interval.class"/> |

element **interval.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex  abstract true |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |

used by

attributes

group

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="interval.class" abstract="true">

<xs:complexType>

<xs:sequence>

<xs:group ref="m:ContExp"/>

<xs:group ref="m:ContExp"/>

</xs:sequence>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

<xs:attribute name="closure"/>

</xs:complexType>

</xs:element>

attribute **interval.class/@ closure**

|  |  |
| --- | --- |
| source | <xs:attribute name="closure"/> |

element **inverse**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="inverse" substitutionGroup="m:unary-functional.class"/> |

element **lambda**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:lambda.class**](#_bookmark582) |
| source | <xs:element name="lambda" substitutionGroup="m:lambda.class"/> |

element **lambda.class**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| abstract | true |
| children | [**m:bvar**](#_bookmark517) [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541) [**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601) [**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-**](#_bookmark609)[**logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514) [**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515)[**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627) [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-**](#_bookmark608)[**linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-arith.class**](#_bookmark526) | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="lambda.class" abstract="true">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:BvarQ"/>  <xs:group ref="m:DomainQ"/>  <xs:group ref="m:ContExp"/>  </xs:sequence>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **laplacian**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-veccalc.class**](#_bookmark672) |
| source | <xs:element name="laplacian" substitutionGroup="m:unary-veccalc.class"/> |

element **lcm**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |

|  |  |
| --- | --- |
| substitution  group | [**m:nary-arith.class**](#_bookmark605) |
| source | <xs:element name="lcm" substitutionGroup="m:nary-arith.class"/> |

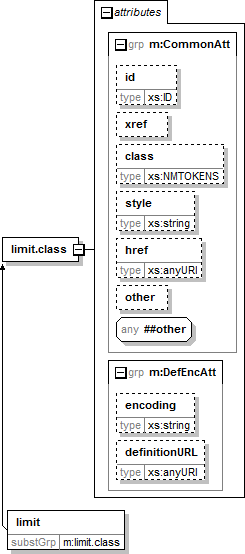
element **leq**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-reln.class**](#_bookmark611) |
| source | <xs:element name="leq" substitutionGroup="m:nary-reln.class"/> |

element **limit**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:limit.class**](#_bookmark587) |
| source | <xs:element name="limit" substitutionGroup="m:limit.class"/> |

element **limit.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="limit.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **list**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:nary-setlist-constructor.class**](#_bookmark614) | |
| properties | content | complex |
| children | [**m:bvar**](#_bookmark517) [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541) [**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601) [**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-**](#_bookmark609)[**logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514) [**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515)[**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627) [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-**](#_bookmark608)[**linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-arith.class**](#_bookmark526) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [order](#_bookmark589) **derived by: xs:token** | |
| source | <xs:element name="list" substitutionGroup="m:nary-setlist-constructor.class">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:BvarQ" minOccurs="0" maxOccurs="unbounded"/>  <xs:group ref="m:DomainQ" minOccurs="0" maxOccurs="unbounded"/>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  <xs:attribute name="order">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="numeric"/>  <xs:enumeration value="lexicographic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType>  </xs:element> | |

attribute **list/@ order**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | numeric |  |
| enumeration | lexicographic | |
| source | <xs:attribute name="order">  <xs:simpleType> | | |

|  |  |
| --- | --- |
|  | <xs:restriction base="xs:token">  <xs:enumeration value="numeric"/>  <xs:enumeration value="lexicographic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

element **ln**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="ln" substitutionGroup="m:unary-functional.class"/> |

element **log**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="log" substitutionGroup="m:unary-functional.class"/> |

element **logbase**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**Qualifier**](#_bookmark681) |
| source | <xs:element name="logbase">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **lowlimit**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**DomainQ**](#_bookmark680) |
| source | <xs:element name="lowlimit">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **lt**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-reln.class**](#_bookmark611) |
| source | <xs:element name="lt" substitutionGroup="m:nary-reln.class"/> |

element **matrix**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-constructor.class**](#_bookmark606) |
| source | <xs:element name="matrix" substitutionGroup="m:nary-constructor.class"/> |

element **matrixrow**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-constructor.class**](#_bookmark606) |
| source | <xs:element name="matrixrow" substitutionGroup="m:nary-constructor.class"/> |

element **max**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-minmax.class**](#_bookmark610) |
| source | <xs:element name="max" substitutionGroup="m:nary-minmax.class"/> |

element **mean**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-stats.class**](#_bookmark615) |
| source | <xs:element name="mean" substitutionGroup="m:nary-stats.class"/> |

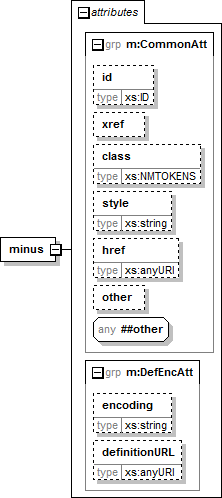
element **median**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-stats.class**](#_bookmark615) |
| source | <xs:element name="median" substitutionGroup="m:nary-stats.class"/> |

element **min**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-minmax.class**](#_bookmark610) |
| source | <xs:element name="min" substitutionGroup="m:nary-minmax.class"/> |

element **minus**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**binary-arith.class**](#_bookmark679)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="minus">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **mode**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-stats.class**](#_bookmark615) |
| source | <xs:element name="mode" substitutionGroup="m:nary-stats.class"/> |

element **moment**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-functional.class**](#_bookmark668) |
| source | <xs:element name="moment" substitutionGroup="m:unary-functional.class"/> |

element **momentabout**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**Qualifier**](#_bookmark681) |
| source | <xs:element name="momentabout">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **nary-arith.class**

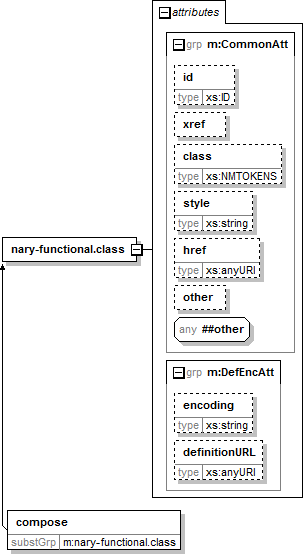
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | |
| properties | content | complex | |  |  |  |  |
| abstract | true | |  |  |  |  |
| used by | group | [**ContExp**](#_bookmark1089) | |  |  |  |  |
| attributes | Name | Type | | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** | |  |  |  |  |
|  | [xref](#_bookmark1060) | |  | | | | | |
| [class](#_bookmark1061) | | **xs:NMTOKENS** | | | | | |
| [style](#_bookmark1062) | | **xs:string** | | | | | |
| [href](#_bookmark1063) | | **xs:anyURI** | | | | | |
| [other](#_bookmark1065) | |  | | | | | |
| [encoding](#_bookmark1067) | | **xs:string** | | | | | |
| [definitionURL](#_bookmark1068) | | **xs:anyURI** | | | | | |
| source | <xs:element name="nary-arith.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | | | | | | | |

element **nary-constructor.class**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| abstract | true |
| children | [**m:bvar**](#_bookmark517) [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541) [**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601) [**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-**](#_bookmark609)[**logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514) [**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515)[**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627) [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-**](#_bookmark608)[**linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-arith.class**](#_bookmark526) | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="nary-constructor.class" abstract="true">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:BvarQ"/>  <xs:group ref="m:DomainQ"/>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **nary-functional.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="nary-functional.class" abstract="true">

<xs:complexType>

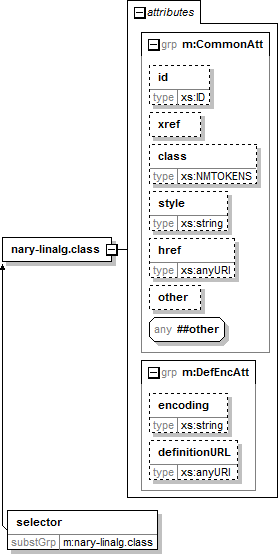
<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **nary-linalg.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="nary-linalg.class" abstract="true">

<xs:complexType>

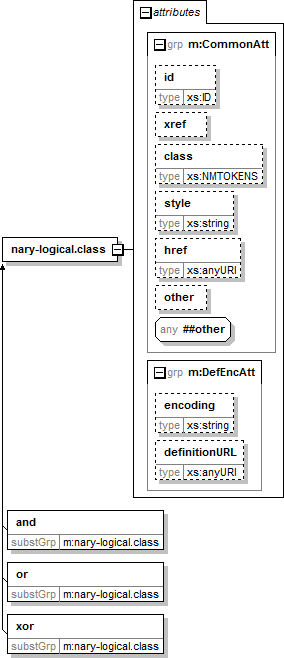
<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **nary-logical.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="nary-logical.class" abstract="true">

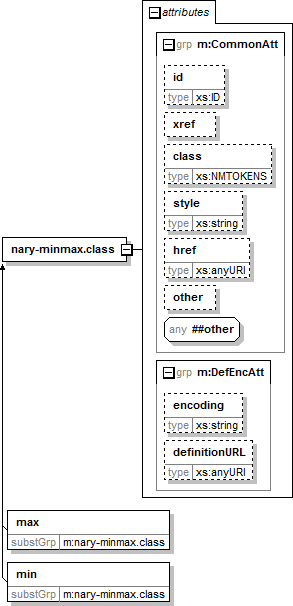
<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

|  |  |
| --- | --- |
|  | </xs:complexType>  </xs:element> |

element **nary-minmax.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="nary-minmax.class" abstract="true">

<xs:complexType>

|  |  |
| --- | --- |
|  | <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **nary-reln.class**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| properties | content | complex |  |  |  |  |
| abstract | true |  |  |  |  |
| used by | group | [**ContExp**](#_bookmark1089) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | [xref](#_bookmark1060) |  |
| [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="nary-reln.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **nary-set-reln.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex  abstract true |
| used by | group [**ContExp**](#_bookmark1089) |

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="nary-set-reln.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **nary-set.class**

|  |  |
| --- | --- |
| diagram |  |

namespace properties

used by

contentcomplex abstracttrue group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="nary-set.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

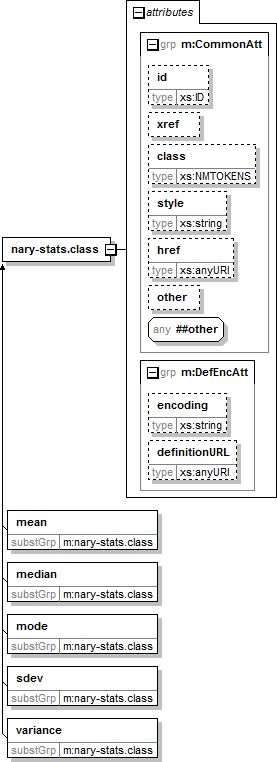
</xs:complexType>

</xs:element>

element **nary-setlist-constructor.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | abstract true |
| used by | group [**ContExp**](#_bookmark1089) |
| source | <xs:element name="nary-setlist-constructor.class" abstract="true"/> |

element **nary-stats.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

|  |  |
| --- | --- |
|  | [definitionURL](#_bookmark1068) **xs:anyURI** |
| source | <xs:element name="nary-stats.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **naturalnumbers**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="naturalnumbers" substitutionGroup="m:constant-set.class"/> |

element **neq**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-reln.class**](#_bookmark515) |

|  |  |  |
| --- | --- | --- |
| properties | content | complex |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="neq" substitutionGroup="m:binary-reln.class">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **not**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-logical.class**](#_bookmark670) |
| source | <xs:element name="not" substitutionGroup="m:unary-logical.class"/> |

element **notanumber**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="notanumber" substitutionGroup="m:constant-arith.class"/> |

element **notin**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-set.class**](#_bookmark516) |
| source | <xs:element name="notin" substitutionGroup="m:binary-set.class"/> |

element **notprsubset**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-set.class**](#_bookmark516) |
| source | <xs:element name="notprsubset" substitutionGroup="m:binary-set.class"/> |

element **notsubset**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-set.class**](#_bookmark516) |
| source | <xs:element name="notsubset" substitutionGroup="m:binary-set.class"/> |

element **or**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-logical.class**](#_bookmark609) |
| source | <xs:element name="or" substitutionGroup="m:nary-logical.class"/> |

element **otherwise**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) | |
| used by | element [**piecewise**](#_bookmark630) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="otherwise">  <xs:complexType>  <xs:group ref="m:ContExp"/>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

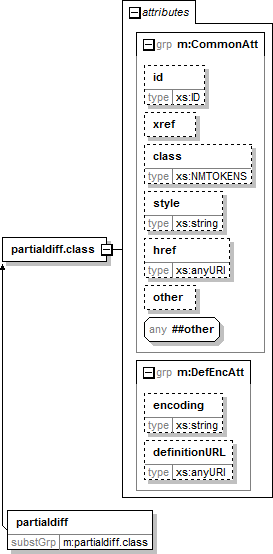
element **outerproduct**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-linalg.class**](#_bookmark513) |
| source | <xs:element name="outerproduct" substitutionGroup="m:binary-linalg.class"/> |

element **partialdiff**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:partialdiff.class**](#_bookmark627) |
| source | <xs:element name="partialdiff" substitutionGroup="m:partialdiff.class"/> |

element **partialdiff.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="partialdiff.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **pi**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="pi" substitutionGroup="m:constant-arith.class"/> |

element **piece**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="piece">

<xs:complexType>

<xs:sequence>

<xs:group ref="m:ContExp"/>

<xs:group ref="m:ContExp"/>

</xs:sequence>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

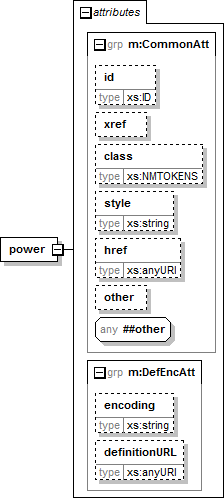
</xs:element>

element **piecewise**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:piece**](#_bookmark629) [**m:otherwise**](#_bookmark624) | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI** | |
| source | <xs:element name="piecewise">  <xs:complexType>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:piece"/>  <xs:element ref="m:otherwise"/>  </xs:choice>  <xs:attributeGroup ref="m:CommonAtt"/> | |
|  | <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **plus**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-arith.class**](#_bookmark605) |
| source | <xs:element name="plus" substitutionGroup="m:nary-arith.class"/> |

element **power**

diagram

namespace

properties

contentcomplex

used by

attributes

group

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

|  |  |  |
| --- | --- | --- |
|  | [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="power">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **PresentationExpression**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | abstract true |
| used by | complexTypes [**ci.content**](#_bookmark685) [**cn.content**](#_bookmark686)[**csymbol.content**](#_bookmark687)  group [**MathExpression**](#_bookmark1090) |
| source | <xs:element name="PresentationExpression" abstract="true"/> |

element **primes**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="primes" substitutionGroup="m:constant-set.class"/> |

element **product**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:product.class**](#_bookmark636) |
| source | <xs:element name="product" substitutionGroup="m:product.class"/> |

element **product.class**

|  |  |
| --- | --- |
| diagram |  |

namespace properties

used by

contentcomplex abstracttrue group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="product.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

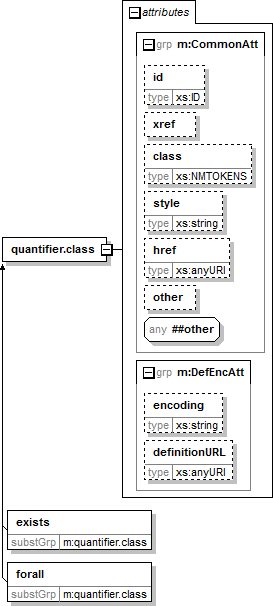
</xs:complexType>

</xs:element>

element **prsubset**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-set-reln.class**](#_bookmark612) |
| source | <xs:element name="prsubset" substitutionGroup="m:nary-set-reln.class"/> |

element **quantifier.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="quantifier.class" abstract="true">

<xs:complexType>

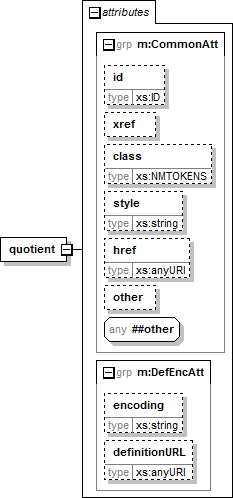
<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **quotient**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**binary-arith.class**](#_bookmark679)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="quotient">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

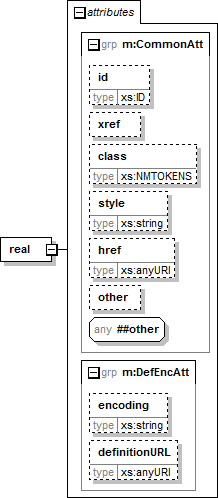
</xs:complexType>

</xs:element>

element **rationals**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="rationals" substitutionGroup="m:constant-set.class"/> |

element **real**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**unary-arith.class**](#_bookmark682)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

|  |  |
| --- | --- |
| source | <xs:element name="real">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

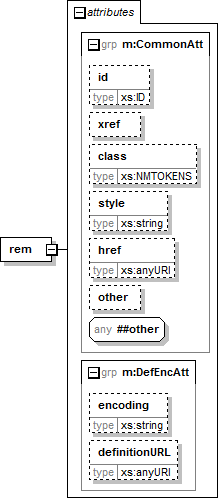
element **reals**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-set.class**](#_bookmark527) |
| source | <xs:element name="reals" substitutionGroup="m:constant-set.class"/> |

element **reln**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:DeprecatedContExp**](#_bookmark541) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |
|  | [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| source | <xs:element name="reln" substitutionGroup="m:DeprecatedContExp">  <xs:complexType>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:complexType>  </xs:element> |

element **rem**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**binary-arith.class**](#_bookmark679)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="rem">

|  |  |
| --- | --- |
|  | <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> |

element **root**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**binary-arith.class**](#_bookmark679)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="root">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

|  |  |
| --- | --- |
|  | </xs:complexType>  </xs:element> |

element **scalarproduct**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-linalg.class**](#_bookmark513) |
| source | <xs:element name="scalarproduct" substitutionGroup="m:binary-linalg.class"/> |

element **sdev**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-stats.class**](#_bookmark615) |
| source | <xs:element name="sdev" substitutionGroup="m:nary-stats.class"/> |

element **sec**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="sec" substitutionGroup="m:unary-elementary.class"/> |

element **sech**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="sech" substitutionGroup="m:unary-elementary.class"/> |

element **selector**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-linalg.class**](#_bookmark608) |
| source | <xs:element name="selector" substitutionGroup="m:nary-linalg.class"/> |

element **sep**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| used by | complexType [**cn.content**](#_bookmark686) |
| source | <xs:element name="sep">  <xs:complexType/>  </xs:element> |

element **set**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:nary-setlist-constructor.class**](#_bookmark614) | |
| properties | content | complex |
| children | [**m:bvar**](#_bookmark517) [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541) [**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601) [**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-**](#_bookmark609)[**logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514) [**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515)[**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627) [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-**](#_bookmark608)[**linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-arith.class**](#_bookmark526) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [type](#_bookmark653) | |
| source | <xs:element name="set" substitutionGroup="m:nary-setlist-constructor.class">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:BvarQ" minOccurs="0" maxOccurs="unbounded"/>  <xs:group ref="m:DomainQ" minOccurs="0" maxOccurs="unbounded"/>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  <xs:attribute name="type"/>  </xs:complexType>  </xs:element> | |

attribute **set/@ type**

|  |  |
| --- | --- |
| source | <xs:attribute name="type"/> |

element **setdiff**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-set.class**](#_bookmark516) |
| source | <xs:element name="setdiff" substitutionGroup="m:binary-set.class"/> |

element **sin**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="sin" substitutionGroup="m:unary-elementary.class"/> |

element **sinh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="sinh" substitutionGroup="m:unary-elementary.class"/> |

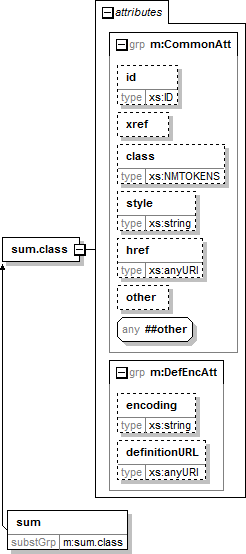
element **subset**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-set-reln.class**](#_bookmark612) |
| source | <xs:element name="subset" substitutionGroup="m:nary-set-reln.class"/> |

element **sum**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:sum.class**](#_bookmark659) |
| source | <xs:element name="sum" substitutionGroup="m:sum.class"/> |

element **sum.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="sum.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **tan**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="tan" substitutionGroup="m:unary-elementary.class"/> |

element **tanh**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-elementary.class**](#_bookmark667) |
| source | <xs:element name="tanh" substitutionGroup="m:unary-elementary.class"/> |

element **tendsto**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:binary-reln.class**](#_bookmark515) | |
| properties | content | complex |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [type](#_bookmark663) | |
| source | <xs:element name="tendsto" substitutionGroup="m:binary-reln.class">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  <xs:attribute name="type"/>  </xs:complexType>  </xs:element> | |

attribute **tendsto/@ type**

|  |  |
| --- | --- |
| source | <xs:attribute name="type"/> |

element **times**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-arith.class**](#_bookmark605) |
| source | <xs:element name="times" substitutionGroup="m:nary-arith.class"/> |

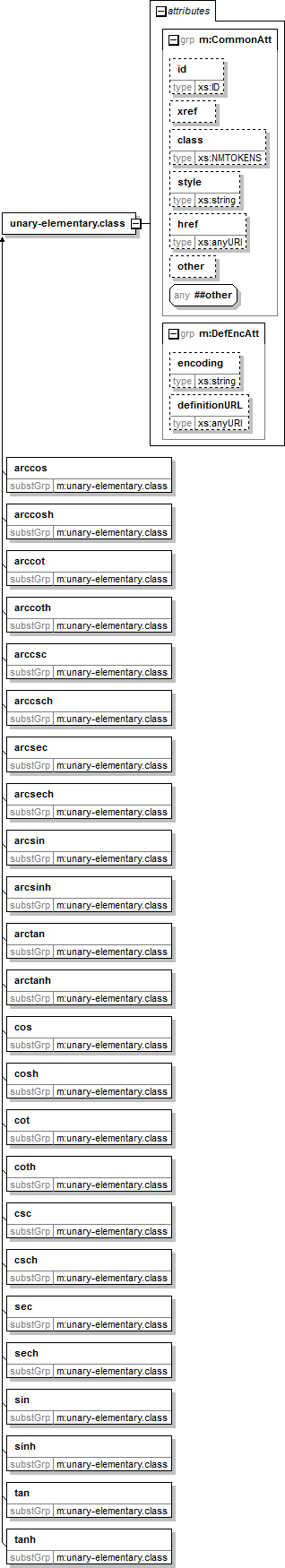
element **transpose**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:unary-linalg.class**](#_bookmark669) |
| source | <xs:element name="transpose" substitutionGroup="m:unary-linalg.class"/> |

element **true**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:constant-arith.class**](#_bookmark526) |
| source | <xs:element name="true" substitutionGroup="m:constant-arith.class"/> |

element **unary-elementary.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

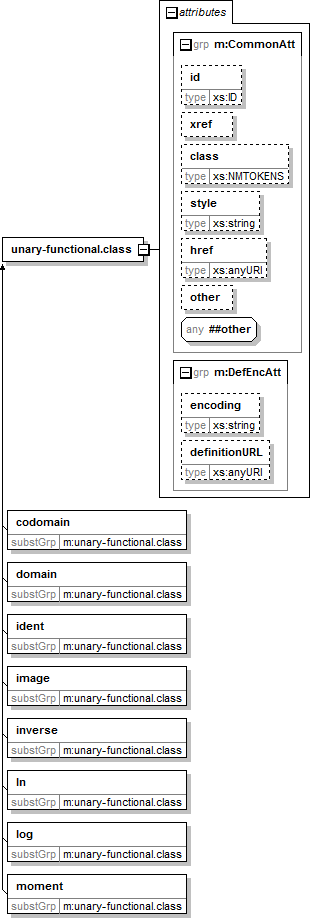
[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

|  |  |  |
| --- | --- | --- |
|  | [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="unary-elementary.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **unary-functional.class**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

abstract true

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

|  |  |  |
| --- | --- | --- |
|  | [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="unary-functional.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **unary-linalg.class**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| properties | content | complex |  |  |  |  |
| abstract | true |  |  |  |  |
| used by | group | [**ContExp**](#_bookmark1089) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** |  |  |  |  |
| [xref](#_bookmark1060) |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="unary-linalg.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **unary-logical.class**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| properties | content | complex |  |  |  |  |
| abstract | true |  |  |  |  |
| used by | group | [**ContExp**](#_bookmark1089) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** |  |  |  |  |
| [xref](#_bookmark1060) |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="unary-logical.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **unary-set.class**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| diagram |  | | | | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| properties | content | complex |  |  |  |  |
| abstract | true |  |  |  |  |
| used by | group | [**ContExp**](#_bookmark1089) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** |  |  |  |  |
| [xref](#_bookmark1060) |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="unary-set.class" abstract="true">  <xs:complexType>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:complexType>  </xs:element> | |

element **unary-veccalc.class**

|  |  |
| --- | --- |
| diagram |  |

namespace properties

used by

contentcomplex abstracttrue group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:element name="unary-veccalc.class" abstract="true">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:complexType>

</xs:element>

element **union**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-set.class**](#_bookmark613) |
| source | <xs:element name="union" substitutionGroup="m:nary-set.class"/> |

element **uplimit**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | group [**DomainQ**](#_bookmark680) |
| source | <xs:element name="uplimit">  <xs:complexType>  <xs:group ref="m:ContExp"/>  </xs:complexType>  </xs:element> |

element **variance**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-stats.class**](#_bookmark615) |
| source | <xs:element name="variance" substitutionGroup="m:nary-stats.class"/> |

element **vector**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-constructor.class**](#_bookmark606) |
| source | <xs:element name="vector" substitutionGroup="m:nary-constructor.class"/> |

element **vectorproduct**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:binary-linalg.class**](#_bookmark513) |
| source | <xs:element name="vectorproduct" substitutionGroup="m:binary-linalg.class"/> |

element **xor**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:nary-logical.class**](#_bookmark609) |
| source | <xs:element name="xor" substitutionGroup="m:nary-logical.class"/> |

group **binary-arith.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601) [**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) |
| used by | group [**ContExp**](#_bookmark1089) |
| source | <xs:group name="binary-arith.class">  <xs:choice>  <xs:element ref="m:quotient"/>  <xs:element ref="m:divide"/>  <xs:element ref="m:minus"/>  <xs:element ref="m:power"/>  <xs:element ref="m:rem"/>  <xs:element ref="m:root"/>  </xs:choice>  </xs:group> |

group **DomainQ**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) |
| used by | elements [**lambda.class**](#_bookmark582) [**list**](#_bookmark588)[**nary-constructor.class**](#_bookmark606)[**set**](#_bookmark652)  group [**Qualifier**](#_bookmark681) |
| source | <xs:group name="DomainQ">  <xs:sequence>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:domainofapplication"/>  <xs:element ref="m:condition"/>  <!--Ambiguous content model altered (interval)--> |

|  |  |
| --- | --- |
|  | <xs:sequence>  <xs:element ref="m:lowlimit"/>  <xs:element ref="m:uplimit" minOccurs="0"/>  </xs:sequence>  </xs:choice>  </xs:sequence>  </xs:group> |

group **Qualifier**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:domainofapplication**](#_bookmark548) [**m:condition**](#_bookmark524) [**m:lowlimit**](#_bookmark593) [**m:uplimit**](#_bookmark674) [**m:degree**](#_bookmark540) [**m:momentabout**](#_bookmark604) [**m:logbase**](#_bookmark592) |
| used by | complexType [**apply.content**](#_bookmark683) |
| source | <xs:group name="Qualifier">  <xs:choice>  <xs:group ref="m:DomainQ"/>  <xs:element ref="m:degree"/>  <xs:element ref="m:momentabout"/>  <xs:element ref="m:logbase"/>  </xs:choice>  </xs:group> |

group **unary-arith.class**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) |
| used by | group [**ContExp**](#_bookmark1089) |
| source | <xs:group name="unary-arith.class">  <xs:choice>  <xs:element ref="m:factorial"/>  <!--Ambiguous content model altered (minus)-->  <!--Ambiguous content model altered (root)-->  <xs:element ref="m:abs"/>  <xs:element ref="m:conjugate"/>  <xs:element ref="m:arg"/>  <xs:element ref="m:real"/>  <xs:element ref="m:imaginary"/>  <xs:element ref="m:floor"/>  <xs:element ref="m:ceiling"/>  <xs:element ref="m:exp"/>  </xs:choice>  </xs:group> |

complexType **apply.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:bvar**](#_bookmark517)[**m:domainofapplication**](#_bookmark548)[**m:condition**](#_bookmark524)[**m:lowlimit**](#_bookmark593)[**m:uplimit**](#_bookmark674)[**m:degree**](#_bookmark540)[**m:momentabout**](#_bookmark604)[**m:logbase**](#_bookmark592) |
| used by | element [**apply**](#_bookmark1079)  complexType [**bind.content**](#_bookmark684) |
| source | <xs:complexType name="apply.content">  <xs:sequence>  <xs:group ref="m:ContExp"/>  <xs:group ref="m:BvarQ"/>  <xs:group ref="m:Qualifier" minOccurs="0" maxOccurs="unbounded"/>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:complexType> |

complexType **bind.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:apply.content**](#_bookmark683) |
| properties | base m:apply.content |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:bvar**](#_bookmark517)[**m:domainofapplication**](#_bookmark548)[**m:condition**](#_bookmark524)[**m:lowlimit**](#_bookmark593)[**m:uplimit**](#_bookmark674)[**m:degree**](#_bookmark540)[**m:momentabout**](#_bookmark604)[**m:logbase**](#_bookmark592) |
| used by | element [**bind**](#_bookmark1080) |
| source | <xs:complexType name="bind.content">  <xs:complexContent>  <xs:extension base="m:apply.content"/>  </xs:complexContent>  </xs:complexType> |

complexType **ci.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | mixed true |
| children | [**m:mglyph**](#_bookmark716) [**m:PresentationExpression**](#_bookmark633) |
| used by | element [**ci**](#_bookmark1083) |
| source | <xs:complexType name="ci.content" mixed="true">  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:mglyph"/>  <xs:element ref="m:PresentationExpression"/>  </xs:choice> |
|  | </xs:complexType> |

complexType **cn.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | mixed true |
| children | [**m:mglyph**](#_bookmark716) [**m:sep**](#_bookmark651) [**m:PresentationExpression**](#_bookmark633) |
| used by | element [**cn**](#_bookmark1084) |
| source | <xs:complexType name="cn.content" mixed="true"> |
|  | <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:mglyph"/>  <xs:element ref="m:sep"/>  <xs:element ref="m:PresentationExpression"/>  </xs:choice>  </xs:complexType> |

complexType **csymbol.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |

|  |  |
| --- | --- |
| properties | mixed true |
| children | [**m:mglyph**](#_bookmark716) [**m:PresentationExpression**](#_bookmark633) |
| used by | element [**csymbol**](#_bookmark1086) |
| source | <xs:complexType name="csymbol.content" mixed="true">  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:mglyph"/>  <xs:element ref="m:PresentationExpression"/>  </xs:choice>  </xs:complexType> |

attributeGroup **base**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [base](#_bookmark689) |  | required |  |  |  |
| source | <xs:attributeGroup name="base">  <xs:attribute name="base" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **base/@ base**

|  |  |
| --- | --- |
| properties | use required |
| source | <xs:attribute name="base" use="required"/> |

attributeGroup **cbytes.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:attributeGroup name="cbytes.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

</xs:attributeGroup>

attributeGroup **ci.attributes**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:attributeGroup name="ci.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

<xs:attribute name="type"/>

</xs:attributeGroup>

attribute **ci.attributes/@ type**

|  |  |
| --- | --- |
| source | <xs:attribute name="type"/> |

attributeGroup **ci.type**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [type](#_bookmark694) |  | required |  |  |  |
| source | <xs:attributeGroup name="ci.type">  <xs:attribute name="type" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **ci.type/@ type**

|  |  |
| --- | --- |
| properties | use required |
| source | <xs:attribute name="type" use="required"/> |

attributeGroup **closure**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [closure](#_bookmark696) |  | required |  |  |  |
| source | <xs:attributeGroup name="closure">  <xs:attribute name="closure" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **closure/@ closure**

|  |  |
| --- | --- |
| properties | use required |
| source | <xs:attribute name="closure" use="required"/> |

attributeGroup **cn.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

source

<xs:attributeGroup name="cn.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

<xs:attribute name="type"/>

<xs:attribute name="base"/>

</xs:attributeGroup>

attribute **cn.attributes/@ type**

|  |  |
| --- | --- |
| source | <xs:attribute name="type"/> |

attribute **cn.attributes/@ base**

|  |  |
| --- | --- |
| source | <xs:attribute name="base"/> |

attributeGroup **cs.attributes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace <http://www.w3.org/1998/Math/MathML> used by element [**cs**](#_bookmark1085) | | | | | | |
| attributes | Name  [id](#_bookmark1059) | Type  **xs:ID** | Use | Default | Fixed | Annotation |
|  | [xref](#_bookmark1060) |  |  | | | |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |
|  | [style](#_bookmark1062) | **xs:string** |
|  | [href](#_bookmark1063) | **xs:anyURI** |
|  | [other](#_bookmark1065) |  |
|  | [encoding](#_bookmark1067) | **xs:string** |
|  | [definitionURL](#_bookmark1068) **xs:anyURI** | | | | | |
| source | <xs:attributeGroup name="cs.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  </xs:attributeGroup> | | | | | |

attributeGroup **csymbol.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:string xs:anyURI**

**xs:NCName**

source

<xs:attributeGroup name="csymbol.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:DefEncAtt"/>

<xs:attribute name="type"/>

<xs:attribute name="cd" type="xs:NCName"/>

</xs:attributeGroup>

attribute **csymbol.attributes/@ type**

|  |  |
| --- | --- |
| source | <xs:attribute name="type"/> |

attribute **csymbol.attributes/@ cd**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| source | <xs:attribute name="cd" type="xs:NCName"/> |

attributeGroup **order**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | | |
| attributes | Name | | Type | Use | Default | Fixed | Annotation | |
| [order](#_bookmark705) | | **derived by:**  **xs:token** | required |  |  |  | |
| source | <xs:attributeGroup name="order">  <xs:attribute name="order" use="required">  <xs:simpleType>  <xs:restriction base="xs:token"> | | | | | | | |
|  | | <xs:enumeration value="numeric"/>  <xs:enumeration value="lexicographic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> | | | | | |

attribute **order/@ order**

|  |  |  |
| --- | --- | --- |
| type | restriction of **xs:token** | |
| properties | use | required |
| facets | Kind Value Annotation  enumeration numeric enumeration lexicographic | |
| source | <xs:attribute name="order" use="required">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="numeric"/>  <xs:enumeration value="lexicographic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | |

attributeGroup **type**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [type](#_bookmark707) |  | required |  |  |  |
| source | <xs:attributeGroup name="type">  <xs:attribute name="type" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **type/@ type**

|  |  |
| --- | --- |
| properties | use required |
| source | <xs:attribute name="type" use="required"/> |

element **maction**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [actiontype](#_bookmark782) required  [selection](#_bookmark783) [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) | |
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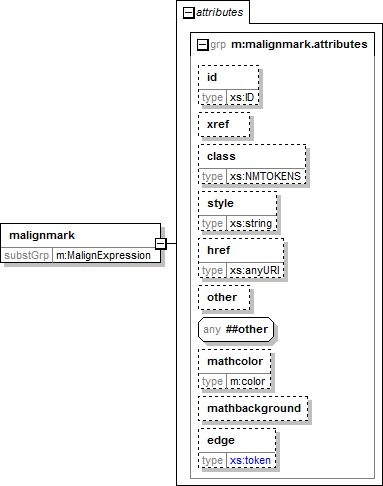
element **MalignExpression**

|  |  |
| --- | --- |
| diagram |  |
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| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
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element **maligngroup**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:MalignExpression**](#_bookmark709) | |
| properties | content | complex |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [groupalign](#_bookmark785) **derived by: xs:token** | |
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element **malignmark**

diagram

namespace <http://www.w3.org/1998/Math/MathML>

substitution

group

[**m:MalignExpression**](#_bookmark709)

properties content complex used by group [**token.content**](#_bookmark755)

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[other](#_bookmark1065)

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element **menclose**

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| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
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| type | extension of [**m:ImpliedMrow**](#_bookmark756) | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [notation](#_bookmark799) | |
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element **merror**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758) | |
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element **mfenced**

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| diagram |  |

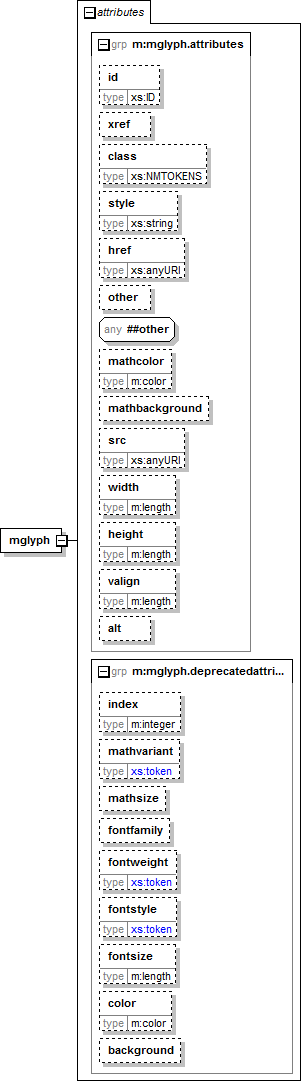
|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [open](#_bookmark802) [close](#_bookmark803)  [separators](#_bookmark804) | |
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element **mfrac**

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| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
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| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [linethickness](#_bookmark806) **derived by:** [**m:length**](#_bookmark1052)  [numalign](#_bookmark807) **derived by: xs:token**  [denomalign](#_bookmark808) **derived by: xs:token**  [bevelled](#_bookmark809) **derived by:**  **xs:token** | |
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element **mglyph**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by complexTypes [**ci.content**](#_bookmark685) [**cn.content**](#_bookmark686)[**csymbol.content**](#_bookmark687)

group [**token.content**](#_bookmark755)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

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|  | [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [mathcolor](#_bookmark772) | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | **derived by:** [**m:color**](#_bookmark758) |
| [src](#_bookmark811) | **xs:anyURI** |
| [width](#_bookmark812) | [**m:length**](#_bookmark1052) |
| [height](#_bookmark813) | [**m:length**](#_bookmark1052) |
| [valign](#_bookmark814) | [**m:length**](#_bookmark1052) |
| [alt](#_bookmark815) |  |
| [index](#_bookmark817) | [**m:integer**](#_bookmark763) |
| [mathvariant](#_bookmark818) | **derived by: xs:token** |
| [mathsize](#_bookmark819) | **derived by:**  [**m:length**](#_bookmark1052) |
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element **mi**

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| --- | --- | --- | --- |
| diagram |  | | |
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| substitution  group | [**m:TokenExpression**](#_bookmark751) | | |
| properties | content | complex | |
| mixed | true | |
| children | [**m:mglyph**](#_bookmark716) [**m:malignmark**](#_bookmark711) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060) | | |
|  | [class](#_bookmark1061) | | **xs:NMTOKENS** |
| [style](#_bookmark1062) | | **xs:string** |
| [href](#_bookmark1063) | | **xs:anyURI** |
| [other](#_bookmark1065) | |  |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) |
| [mathvariant](#_bookmark1042) | | **derived by:**  **xs:token** |
| [mathsize](#_bookmark1043) | | **derived by:** [**m:length**](#_bookmark1052) |
| [dir](#_bookmark1044) | | **derived by:**  **xs:token** |
| [fontfamily](#_bookmark775) | |  |
| [fontweight](#_bookmark776) | | **derived by: xs:token** |
| [fontstyle](#_bookmark777) | | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | | **derived by:** [**m:color**](#_bookmark758) |
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element **mlabeledtr**

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| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | |
| substitution  group | [**m:TableRowExpression**](#_bookmark750) | | |
| properties | content | complex | |
| children | [**m:TableCellExpression**](#_bookmark749) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758) | | |
|  | [mathbackground](#_bookmark773) | | **derived by:**  [**m:color**](#_bookmark758) |
| [rowalign](#_bookmark1030) | | **derived by: xs:token** |
| [columnalign](#_bookmark1031) | | **derived by:**  **xs:list** |
| [groupalign](#_bookmark1032) | | [**m:group-**](#_bookmark762)  [**alignment-list-**](#_bookmark762)[**list**](#_bookmark762) |
| source | <xs:element name="mlabeledtr" substitutionGroup="m:TableRowExpression">  <xs:complexType>  <xs:sequence>  <xs:element ref="m:TableCellExpression" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:mlabeledtr.attributes"/>  </xs:complexType>  </xs:element> | | |

element **mlongdiv**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |

[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050) [**m:mscarries**](#_bookmark730) [**m:msline**](#_bookmark733) [**m:msrow**](#_bookmark736) [**m:msgroup**](#_bookmark732)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[position](#_bookmark876) [**m:integer**](#_bookmark763)

[shift](#_bookmark877) [**m:integer**](#_bookmark763)

[longdivstyle](#_bookmark823) **derived by: xs:token**

source <xs:element name="mlongdiv" substitutionGroup="m:PresentationExpression">

<xs:complexType>

<xs:sequence>

<xs:group ref="m:MstackExpression"/>

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</xs:sequence>

<xs:attributeGroup ref="m:mlongdiv.attributes"/>

</xs:complexType>

</xs:element>

element **mmultiscripts**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606) |

[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050) [**m:none**](#_bookmark748) [**m:mprescripts**](#_bookmark726)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[subscriptshift](#_bookmark999) [**m:length**](#_bookmark1052)

[superscriptshift](#_bookmark1000) [**m:length**](#_bookmark1052)

source <xs:element name="mmultiscripts" substitutionGroup="m:PresentationExpression">

<xs:complexType>

<xs:sequence>

<xs:group ref="m:MathExpression"/>

<xs:group ref="m:MultiScriptExpression" minOccurs="0" maxOccurs="unbounded"/>

<xs:sequence minOccurs="0">

<xs:element ref="m:mprescripts"/>

<xs:group ref="m:MultiScriptExpression" minOccurs="0" maxOccurs="unbounded"/>

</xs:sequence>

</xs:sequence>

<xs:attributeGroup ref="m:mmultiscripts.attributes"/>

</xs:complexType>

</xs:element>

element **mn**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | |
| substitution  group | [**m:TokenExpression**](#_bookmark751) | | |
| properties | content | complex | |
| mixed | true | |
| children | [**m:mglyph**](#_bookmark716) [**m:malignmark**](#_bookmark711) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060) | | |
|  | [class](#_bookmark1061) | | **xs:NMTOKENS** |
| [style](#_bookmark1062) | | **xs:string** |
| [href](#_bookmark1063) | | **xs:anyURI** |
| [other](#_bookmark1065) | |  |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) |
| [mathvariant](#_bookmark1042) | | **derived by:**  **xs:token** |
| [mathsize](#_bookmark1043) | | **derived by:** [**m:length**](#_bookmark1052) |
| [dir](#_bookmark1044) | | **derived by:**  **xs:token** |
| [fontfamily](#_bookmark775) | |  |
| [fontweight](#_bookmark776) | | **derived by: xs:token** |
| [fontstyle](#_bookmark777) | | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | | **derived by:** [**m:color**](#_bookmark758) |
| source | <xs:element name="mn" substitutionGroup="m:TokenExpression">  <xs:complexType mixed="true">  <xs:group ref="m:token.content" minOccurs="0" maxOccurs="unbounded"/>  <xs:attributeGroup ref="m:mn.attributes"/>  </xs:complexType>  </xs:element> | | |

element **mo**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | |
| substitution  group | [**m:TokenExpression**](#_bookmark751) | | |
| properties | content | complex | |
| mixed | true | |
| children | [**m:mglyph**](#_bookmark716) [**m:malignmark**](#_bookmark711) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS** | | |
|  | [style](#_bookmark1062) | | **xs:string** |
| [href](#_bookmark1063) | | **xs:anyURI** |
| [other](#_bookmark1065) | |  |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) |
| [mathvariant](#_bookmark1042) | | **derived by:**  **xs:token** |
| [mathsize](#_bookmark1043) | | **derived by:** [**m:length**](#_bookmark1052) |
| [dir](#_bookmark1044) | | **derived by:**  **xs:token** |
| [fontfamily](#_bookmark775) | |  |
| [fontweight](#_bookmark776) | | **derived by: xs:token** |
| [fontstyle](#_bookmark777) | | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | | **derived by:** [**m:color**](#_bookmark758) |
| [form](#_bookmark827) | | **derived by:**  **xs:token** |
| [fence](#_bookmark828) | | **derived by: xs:token** |
| [separator](#_bookmark829) | | **derived by:**  **xs:token** |
| [lspace](#_bookmark830) | | [**m:length**](#_bookmark1052) |
| [rspace](#_bookmark831) | | [**m:length**](#_bookmark1052) |
| [stretchy](#_bookmark832) | | **derived by: xs:token** |
| [symmetric](#_bookmark833) | | **derived by:**  **xs:token** |
| [maxsize](#_bookmark834) | | **derived by:** [**m:length**](#_bookmark1052) |
| [minsize](#_bookmark835) | | [**m:length**](#_bookmark1052) |
| [largeop](#_bookmark836) | | **derived by: xs:token** |
| [movablelimits](#_bookmark837) | | **derived by:**  **xs:token** |
| [accent](#_bookmark838) | | **derived by: xs:token** |
| [linebreak](#_bookmark839) | | **derived by:**  **xs:token** |
| [lineleading](#_bookmark840) | | [**m:length**](#_bookmark1052) |
| [linebreakstyle](#_bookmark841) | | **derived by: xs:token** |
| [linebreakmultchar](#_bookmark842) | |  |
| [indentalign](#_bookmark843) | | **derived by: xs:token** |
| [indentshift](#_bookmark844) | | [**m:length**](#_bookmark1052) |
| [indenttarget](#_bookmark845) | |  |
| [indentalignfirst](#_bookmark846) | | **derived by: xs:token** |
| [indentshiftfirst](#_bookmark847) | | **derived by:**  [**m:length**](#_bookmark1052) |
| [indentalignlast](#_bookmark848) | | **derived by: xs:token** |
| [indentshiftlast](#_bookmark849) | | **derived by:**  [**m:length**](#_bookmark1052) |
| source | <xs:element name="mo" substitutionGroup="m:TokenExpression">  <xs:complexType mixed="true"> | | |
|  | <xs:group ref="m:token.content" minOccurs="0" maxOccurs="unbounded"/>  <xs:attributeGroup ref="m:mo.attributes"/>  </xs:complexType>  </xs:element> | | |

element **mover**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [accent](#_bookmark851) **derived by: xs:token**  [align](#_bookmark852) **derived by:**  **xs:token** | |
| source | <xs:element name="mover" substitutionGroup="m:PresentationExpression">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:MathExpression"/>  <xs:group ref="m:MathExpression"/>  </xs:sequence>  <xs:attributeGroup ref="m:mover.attributes"/>  </xs:complexType>  </xs:element> | |

element **mpadded**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582)[**m:nary-functional.class**](#_bookmark607)[**m:quotient**](#_bookmark639)[**m:divide**](#_bookmark546)[**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)  [**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514) |

[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[height](#_bookmark854) [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765)

[depth](#_bookmark855) [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765)

[width](#_bookmark856) [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765)

[lspace](#_bookmark857) [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765)

[voffset](#_bookmark858) [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765)

source <xs:element name="mpadded" substitutionGroup="m:PresentationExpression">

<xs:complexType>

<xs:complexContent>

<xs:extension base="m:ImpliedMrow">

<xs:attributeGroup ref="m:mpadded.attributes"/>

</xs:extension>

</xs:complexContent>

</xs:complexType>

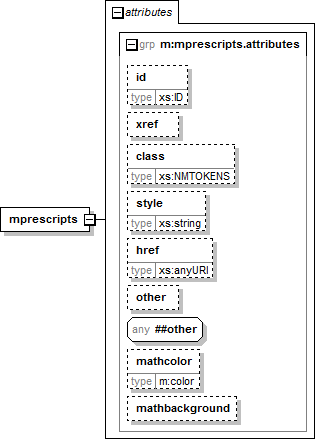
</xs:element>

element **mphantom**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
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diagram

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element **mroot**

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| diagram |  |

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| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
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| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758) | |
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element **mrow**

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| diagram |  |

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| --- | --- | --- |
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| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
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element **mscarry**

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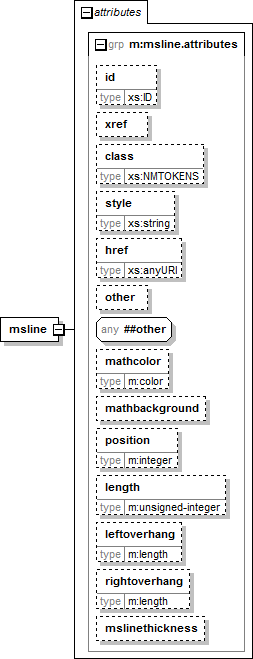
|  |  |  |
| --- | --- | --- |
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| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:none**](#_bookmark748) | |
| used by | element [**mscarries**](#_bookmark730) | |
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element **msgroup**

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| diagram |  |

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| properties | content | complex |
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element **msline**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

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[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[position](#_bookmark879) [**m:integer**](#_bookmark763)

[length](#_bookmark880) [**m:unsigned-**](#_bookmark769)[**integer**](#_bookmark769)

[leftoverhang](#_bookmark881) [**m:length**](#_bookmark1052)

|  |  |  |
| --- | --- | --- |
|  | [rightoverhang](#_bookmark882) | [**m:length**](#_bookmark1052) |
| [mslinethickness](#_bookmark883) | **derived by:** [**m:length**](#_bookmark1052) |
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element **mspace**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:TokenExpression**](#_bookmark751) | |
| properties | content | complex |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [mathvariant](#_bookmark1042) **derived by: xs:token**  [mathsize](#_bookmark1043) **derived by:** [**m:length**](#_bookmark1052)  [dir](#_bookmark1044) **derived by:**  **xs:token**  [fontfamily](#_bookmark775)  [fontweight](#_bookmark776) **derived by: xs:token**  [fontstyle](#_bookmark777) **derived by: xs:token**  [fontsize](#_bookmark778) [**m:length**](#_bookmark1052)  [color](#_bookmark779) [**m:color**](#_bookmark758)  [background](#_bookmark780) **derived by:** [**m:color**](#_bookmark758)  [width](#_bookmark885) [**m:length**](#_bookmark1052)  [height](#_bookmark886) [**m:length**](#_bookmark1052)  [depth](#_bookmark887) [**m:length**](#_bookmark1052)  [linebreak](#_bookmark888) **derived by: xs:token**  [indentalign](#_bookmark889) **derived by: xs:token**  [indentshift](#_bookmark890) [**m:length**](#_bookmark1052)  [indenttarget](#_bookmark891)  [indentalignfirst](#_bookmark892) **derived by:**  **xs:token**  [indentshiftfirst](#_bookmark893) **derived by:** [**m:length**](#_bookmark1052)  [indentalignlast](#_bookmark894) **derived by:**  **xs:token**  [indentshiftlast](#_bookmark895) **derived by:** [**m:length**](#_bookmark1052) | |
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element **msqrt**

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| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758) | |
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element **msrow**

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| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:none**](#_bookmark748) | |
| used by | group [**MstackExpression**](#_bookmark753) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [position](#_bookmark898) [**m:integer**](#_bookmark763) | |
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element **mstack**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |

[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050) [**m:mscarries**](#_bookmark730) [**m:msline**](#_bookmark733) [**m:msrow**](#_bookmark736) [**m:msgroup**](#_bookmark732)

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[**m:color**](#_bookmark758)

[align](#_bookmark900) **derived by: xs:string**

[stackalign](#_bookmark901) **derived by: xs:token**

[charalign](#_bookmark902) **derived by: xs:token**

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element **mstyle**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668)[**m:lambda.class**](#_bookmark582)[**m:nary-functional.class**](#_bookmark607)[**m:quotient**](#_bookmark639)[**m:divide**](#_bookmark546)[**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)  [**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627) |

[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

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[other](#_bookmark1065)

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[displaystyle](#_bookmark991) **derived by: xs:token**

[scriptsizemultiplier](#_bookmark992) [**m:number**](#_bookmark767)

[scriptminsize](#_bookmark993) [**m:length**](#_bookmark1052)

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**xs:token**

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**xs:token**

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[columnalign](#_bookmark922) **derived by: xs:list**

[columnlines](#_bookmark923) **derived by: xs:list**

[columnspacing](#_bookmark924) **derived by: xs:list**

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[crossout](#_bookmark927) **derived by: xs:token**

[denomalign](#_bookmark928) **derived by: xs:token**

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[dir](#_bookmark930) **derived by:**

**xs:token**

[edge](#_bookmark931) **derived by:**

**xs:token**

[equalcolumns](#_bookmark932) **derived by: xs:token**

[equalrows](#_bookmark933) **derived by: xs:token**

[fence](#_bookmark934) **derived by:**

**xs:token**

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| --- | --- | --- |
|  | [form](#_bookmark935) | **derived by:**  **xs:token** |
| [frame](#_bookmark936) | [**m:linestyle**](#_bookmark764) |
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| [groupalign](#_bookmark938) | [**m:group-**](#_bookmark762)[**alignment-list-**](#_bookmark762)  [**list**](#_bookmark762) |
| [height](#_bookmark939) | [**m:length**](#_bookmark1052) |
| [indentalign](#_bookmark940) | **derived by: xs:token** |
| [indentalignfirst](#_bookmark941) | **derived by:**  **xs:token** |
| [indentalignlast](#_bookmark942) | **derived by: xs:token** |
| [indentshift](#_bookmark943) | [**m:length**](#_bookmark1052) |
| [indentshiftfirst](#_bookmark944) | **derived by:** [**m:length**](#_bookmark1052) |
| [indentshiftlast](#_bookmark945) | **derived by:**  [**m:length**](#_bookmark1052) |
| [indenttarget](#_bookmark946) |  |
| [largeop](#_bookmark947) | **derived by: xs:token** |
| [leftoverhang](#_bookmark948) | [**m:length**](#_bookmark1052) |
| [length](#_bookmark949) | [**m:unsigned-**](#_bookmark769)[**integer**](#_bookmark769) |
| [linebreak](#_bookmark950) | **derived by:**  **xs:token** |
| [linebreakmultchar](#_bookmark951) |  |
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| [lineleading](#_bookmark953) | [**m:length**](#_bookmark1052) |
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| [location](#_bookmark955) | **derived by:**  **xs:token** |
| [longdivstyle](#_bookmark956) | **derived by: xs:token** |
| [lquote](#_bookmark957) |  |
| [lspace](#_bookmark958) | [**m:length**](#_bookmark1052) |
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| [mathvariant](#_bookmark960) | **derived by:**  **xs:token** |
| [maxsize](#_bookmark961) | **derived by:** [**m:length**](#_bookmark1052) |
| [minlabelspacing](#_bookmark962) | [**m:length**](#_bookmark1052) |
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| [mslinethickness](#_bookmark965) | **derived by:**  [**m:length**](#_bookmark1052) |
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| [numalign](#_bookmark967) | **derived by: xs:token** |
| [open](#_bookmark968) |  |
| [position](#_bookmark969) | [**m:integer**](#_bookmark763) |
| [rightoverhang](#_bookmark970) | [**m:length**](#_bookmark1052) |
| [rowalign](#_bookmark971) | **derived by: xs:list** |
| [rowlines](#_bookmark972) | **derived by:**  **xs:list** |

|  |  |  |
| --- | --- | --- |
|  | [rowspacing](#_bookmark973) | **derived by:**  **xs:list** |
| [rowspan](#_bookmark974) | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) |
| [rquote](#_bookmark975) |  |
| [rspace](#_bookmark976) | [**m:length**](#_bookmark1052) |
| [selection](#_bookmark977) | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) |
| [separator](#_bookmark978) | **derived by:**  **xs:token** |
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| [shift](#_bookmark980) | [**m:integer**](#_bookmark763) |
| [side](#_bookmark981) | **derived by: xs:token** |
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| [fontstyle](#_bookmark777) | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | **derived by:** [**m:color**](#_bookmark758) |
| [veryverythinmathspace](#_bookmark906) | [**m:length**](#_bookmark1052) |
| [verythinmathspace](#_bookmark907) | [**m:length**](#_bookmark1052) |
| [thinmathspace](#_bookmark908) | [**m:length**](#_bookmark1052) |
| [mediummathspace](#_bookmark909) | [**m:length**](#_bookmark1052) |
| [thickmathspace](#_bookmark910) | [**m:length**](#_bookmark1052) |
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| [veryverythickmathspace](#_bookmark912) | [**m:length**](#_bookmark1052) |
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element **msub**

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| --- | --- |
| diagram |  |

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| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [subscriptshift](#_bookmark997) [**m:length**](#_bookmark1052) | |
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element **msubsup**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)  [**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |

[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[subscriptshift](#_bookmark999) [**m:length**](#_bookmark1052)

[superscriptshift](#_bookmark1000) [**m:length**](#_bookmark1052)

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</xs:element>

element **msup**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [superscriptshift](#_bookmark1002) [**m:length**](#_bookmark1052) | |
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element **mtable**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content complex | |
| children | [**m:TableRowExpression**](#_bookmark750) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060) | |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [mathcolor](#_bookmark772) | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | **derived by:** [**m:color**](#_bookmark758) |
| [align](#_bookmark1004) | **derived by:**  **xs:string** |
| [rowalign](#_bookmark1005) | **derived by: xs:list** |
| [columnalign](#_bookmark1006) | **derived by:**  **xs:list** |
| [groupalign](#_bookmark1007) | [**m:group-**](#_bookmark762)  [**alignment-list-**](#_bookmark762)[**list**](#_bookmark762) |
| [alignmentscope](#_bookmark1008) | **derived by:**  **xs:token** |
| [columnwidth](#_bookmark1009) | **derived by:** [**m:length**](#_bookmark1052) |
| [width](#_bookmark1010) | **derived by:**  [**m:length**](#_bookmark1052) |
| [rowspacing](#_bookmark1011) | **derived by: xs:list** |
| [columnspacing](#_bookmark1012) | **derived by:**  **xs:list** |
| [rowlines](#_bookmark1013) | **derived by: xs:list** |
| [columnlines](#_bookmark1014) | **derived by:**  **xs:list** |
| [frame](#_bookmark1015) | [**m:linestyle**](#_bookmark764) |
| [framespacing](#_bookmark1016) | **derived by:** [**m:length**](#_bookmark1052) |
| [equalrows](#_bookmark1017) | **derived by:**  **xs:token** |
| [equalcolumns](#_bookmark1018) | **derived by: xs:token** |
| [displaystyle](#_bookmark1019) | **derived by:**  **xs:token** |
| [side](#_bookmark1020) | **derived by: xs:token** |
| [minlabelspacing](#_bookmark1021) | [**m:length**](#_bookmark1052) |
| source | <xs:element name="mtable" substitutionGroup="m:PresentationExpression">  <xs:complexType>  <xs:sequence>  <xs:element ref="m:TableRowExpression" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:mtable.attributes"/>  </xs:complexType>  </xs:element> | |

element **mtd**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:TableCellExpression**](#_bookmark749) |
| source | <xs:element name="mtd" substitutionGroup="m:TableCellExpression"/> |

element **mtext**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:TokenExpression**](#_bookmark751) |
| properties | content complex  mixed true |

children

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token**

**derived by:**

source

<xs:element name="mtext" substitutionGroup="m:TokenExpression">

<xs:complexType mixed="true">

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</xs:complexType>

</xs:element>

element **mtr**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | |
| substitution  group | [**m:TableRowExpression**](#_bookmark750) | | |
| properties | content | complex | |
| children | [**m:TableCellExpression**](#_bookmark749) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758) | | |
|  | [mathbackground](#_bookmark773) | | **derived by:**  [**m:color**](#_bookmark758) |
| [rowalign](#_bookmark1030) | | **derived by: xs:token** |
| [columnalign](#_bookmark1031) | | **derived by:**  **xs:list** |
| [groupalign](#_bookmark1032) | | [**m:group-**](#_bookmark762)  [**alignment-list-**](#_bookmark762)[**list**](#_bookmark762) |
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element **munder**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)  [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758)  [accentunder](#_bookmark1034) **derived by: xs:token**  [align](#_bookmark1035) **derived by:**  **xs:token** | |
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element **munderover**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)  [**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612) |

[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[accent](#_bookmark1037) **derived by: xs:token**

[accentunder](#_bookmark1038) **derived by: xs:token**

[align](#_bookmark1039) **derived by: xs:token**

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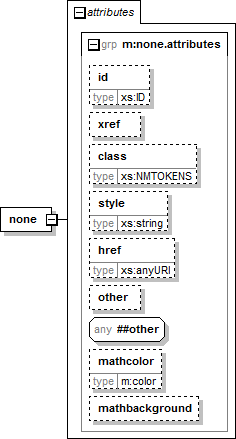
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element **none**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by groups [**MsrowExpression**](#_bookmark752) [**MultiScriptExpression**](#_bookmark754)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

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[style](#_bookmark1062) **xs:string**

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[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

source <xs:element name="none">

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</xs:complexType>

</xs:element>

element **TableCellExpression**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:ImpliedMrow**](#_bookmark756) |
| properties | content complex  abstract true |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)  [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659)[**m:product.class**](#_bookmark636)[**m:limit.class**](#_bookmark587)[**m:unary-elementary.class**](#_bookmark667)[**m:nary-stats.class**](#_bookmark615)[**m:nary-**](#_bookmark606) |

used by

elements

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

**derived by: xs:token**

source

<xs:element name="TableCellExpression" abstract="true">

<xs:complexType>

<xs:complexContent>

<xs:extension base="m:ImpliedMrow">

<xs:attributeGroup ref="m:mtd.attributes"/>

</xs:extension>

</xs:complexContent>

</xs:complexType>

</xs:element>

element **TableRowExpression**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | abstract true |
| used by | element [**mtable**](#_bookmark742) |
| source | <xs:element name="TableRowExpression" abstract="true"/> |

element **TokenExpression**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| substitution  group | [**m:PresentationExpression**](#_bookmark633) |
| properties | abstract true |
| source | <xs:element name="TokenExpression" abstract="true" substitutionGroup="m:PresentationExpression"/> |

group **MsrowExpression**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:none**](#_bookmark748) |
| used by | elements [**mscarries**](#_bookmark730) [**mscarry**](#_bookmark731)[**msrow**](#_bookmark736) |
| source | <xs:group name="MsrowExpression">  <xs:choice>  <xs:group ref="m:MathExpression"/>  <xs:element ref="m:none"/>  </xs:choice>  </xs:group> |

group **MstackExpression**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:mscarries**](#_bookmark730)[**m:msline**](#_bookmark733)[**m:msrow**](#_bookmark736)[**m:msgroup**](#_bookmark732) |
| used by | elements [**mlongdiv**](#_bookmark719) [**msgroup**](#_bookmark732)[**mstack**](#_bookmark737) |
| source | <xs:group name="MstackExpression">  <xs:choice>  <xs:group ref="m:MathExpression"/>  <xs:element ref="m:mscarries"/>  <xs:element ref="m:msline"/>  <xs:element ref="m:msrow"/>  <xs:element ref="m:msgroup"/>  </xs:choice>  </xs:group> |

group **MultiScriptExpression**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:none**](#_bookmark748) |
| used by | element [**mmultiscripts**](#_bookmark720) |
| source | <xs:group name="MultiScriptExpression">  <xs:sequence>  <xs:choice>  <xs:group ref="m:MathExpression"/>  <xs:element ref="m:none"/>  </xs:choice>  <xs:choice>  <xs:group ref="m:MathExpression"/>  <xs:element ref="m:none"/>  </xs:choice>  </xs:sequence>  </xs:group> |

group **token.content**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:mglyph**](#_bookmark716) [**m:malignmark**](#_bookmark711) |
| used by | elements [**mi**](#_bookmark717) [**mn**](#_bookmark721)[**mo**](#_bookmark722)[**ms**](#_bookmark729)[**mtext**](#_bookmark744) |
| source | <xs:group name="token.content">  <xs:sequence>  <xs:choice minOccurs="0">  <xs:element ref="m:mglyph"/>  <xs:element ref="m:malignmark"/>  </xs:choice>  </xs:sequence>  </xs:group> |

complexType **ImpliedMrow**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) |
| used by | elements [**menclose**](#_bookmark712) [**merror**](#_bookmark713)[**mpadded**](#_bookmark724)[**mphantom**](#_bookmark725)[**msqrt**](#_bookmark735)[**mstyle**](#_bookmark738)[**TableCellExpression**](#_bookmark749) |
| source | <xs:complexType name="ImpliedMrow">  <xs:group ref="m:MathExpression" minOccurs="0" maxOccurs="unbounded"/>  </xs:complexType> |

simpleType **character**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | attribute [**mstyle.specificattributes/@ decimalpoint**](#_bookmark995) |
| facets | Kind Value Annotation  pattern \s\*\S\s\* |
| source | <xs:simpleType name="character">  <xs:restriction base="xs:string">  <xs:pattern value="\s\*\S\s\*"/>  </xs:restriction>  </xs:simpleType> |

simpleType **color**

|  |  |
| --- | --- |
| na me spa ce | <http://www.w3.org/1998/Math/MathML> |
| typ e | restriction of **xs:string** |
| pro per ties | base xs:string |
| use d by | attributes [**DeprecatedTokenAtt/@ background**](#_bookmark780) [**DeprecatedTokenAtt/@ color**](#_bookmark779) [**CommonPresAtt/@ mathbackground**](#_bookmark773)[**CommonPresAtt/@ mathcolor**](#_bookmark772) |
| fac ets | Ki Value An  nd not  atio n  pa \s\*((#[0-9a-fA-F]{3}([0-9a-fA-  tte F]{3})?)|[aA][qQ][uU][aA]|[bB][lL][aA][cC][kK]|[bB][lL][uU][eE]|[fF][uU][cC][hH][sS][iI][aA]|[gG][rR][aA][yY]|[gG][rR][eE][  rn eE][nN]|[lL][iI][mM][eE]|[mM][aA][rR][oO][oO][nN]|[nN][aA][vV][yY]|[oO][lL][iI][vV][eE]|[pP][uU][rR][pP][lL][eE]|[rR][eE][  dD]|[sS][iI][lL][vV][eE][rR]|[tT][eE][aA][lL]|[wW][hH][iI][tT][eE]|[yY][eE][lL][lL][oO][wW])\s\* |
| sou | <xs:simpleType name="color"> |

|  |  |
| --- | --- |
| rce | <xs:restriction base="xs:string">  <xs:pattern value="\s\*((#[0-9a-fA-F]{3}([0-9a-fA- F]{3})?)|[aA][qQ][uU][aA]|[bB][lL][aA][cC][kK]|[bB][lL][uU][eE]|[fF][uU][cC][hH][sS][iI][aA]|[gG][rR][aA][yY]|[g  G][rR][eE][eE][nN]|[lL][iI][mM][eE]|[mM][aA][rR][oO][oO][nN]|[nN][aA][vV][yY]|[oO][lL][iI][vV][eE]|[pP][uU][rR  ][pP][lL][eE]|[rR][eE][dD]|[sS][iI][lL][vV][eE][rR]|[tT][eE][aA][lL]|[wW][hH][iI][tT][eE]|[yY][eE][lL][lL][oO][wW])\  s\*"/>  </xs:restriction>  </xs:simpleType> |

simpleType **columnalignstyle**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | |
| type | restriction of **xs:token** | | | |
| properties | base | xs:token | |  |
| used by | attributes | | [**mstyle.generalattributes/@ columnalign**](#_bookmark922) [**mtable.attributes/@**](#_bookmark1006) **columnalign** [**mtr.attributes/@**](#_bookmark1031) **columnalign**  [**mtd.attributes/@ columnalign**](#_bookmark1026) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | left |  |
| enumeration | | center |  |
| enumeration | | right |  |
| source | <xs:simpleType name="columnalignstyle">  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **group-alignment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | |
| type | restriction of **xs:token** | | | |
| properties | base | xs:token | |  |
| used by | simpleType | | [**group-alignment-list**](#_bookmark761) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | left |  |
| enumeration | | center |  |
| enumeration | | right |  |
| enumeration | | decimalpoint | |
| source | <xs:simpleType name="group-alignment">  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType> | | | |

simpleType **group-alignment-list**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | restriction of (list of [**m:group-alignment**)](#_bookmark760) |
| used by | attribute [**mtd.attributes/@ groupalign**](#_bookmark1027) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:simpleType name="group-alignment-list">  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:group-alignment"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |

simpleType **group-alignment-list-list**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | attributes [**mstyle.generalattributes/@ groupalign**](#_bookmark938) [**mtable.attributes/@groupalign**](#_bookmark1007)[**mtr.attributes/@**](#_bookmark1032) **gr oupalign** |
| facets | Kind Value Annotation  pattern (\s\*\{\s\*(left|center|right|decimalpoint)(\s+(left|center|right|decimalpoint))\*\})\*\s\* |
| source | <xs:simpleType name="group-alignment-list-list">  <xs:restriction base="xs:string">  <xs:pattern value="(\s\*\{\s\*(left|center|right|decimalpoint)(\s+(left|center|right|decimalpoint))\*\})\*\s\*"/>  </xs:restriction>  </xs:simpleType> |

simpleType **integer**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:integer** |
| properties | base xs:integer |
| used by | attributes [**mglyph.deprecatedattributes/@index**](#_bookmark817) [**msline.attributes/@**](#_bookmark879) **position** [**mstyle.generalattributes/@**](#_bookmark969) **position**  [**msgroup.attributes/@ position**](#_bookmark876) [**msrow.attributes/@position**](#_bookmark898) [**mscarries.attributes/@ position**](#_bookmark868)[**mstyle.specificattributes/@ scriptlevel**](#_bookmark990) [**mstyle.generalattributes/@ shift**](#_bookmark980) [**msgroup.attributes/@ shift**](#_bookmark877) |
| source | <xs:simpleType name="integer">  <xs:restriction base="xs:integer"/>  </xs:simpleType> |

simpleType **linestyle**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | |
| type | restriction of **xs:token** | | | | |
| properties | base | xs:token | |  | |
| used by | attributes | | [**mstyle.generalattributes/@ columnlines**](#_bookmark923) [**mtable.attributes/@ columnlines**](#_bookmark1014)[**mstyle.generalattributes/@ frame**](#_bookmark936) [**mtable.attributes/@ frame**](#_bookmark1015) [**mstyle.generalattributes/@ rowlines**](#_bookmark972)  [**mtable.attributes/@ rowlines**](#_bookmark1013) | | |
| facets | Kind |  | Value | | Annotation |
| enumeration | | none | |  |
| enumeration | | solid | |  |
| enumeration | | dashed | |  |
| source | <xs:simpleType name="linestyle">  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="solid"/>  <xs:enumeration value="dashed"/>  </xs:restriction>  </xs:simpleType> | | | | |

simpleType **mpadded-length**

|  |  |
| --- | --- |
| namespa  ce | <http://www.w3.org/1998/Math/MathML> |
| type | restriction of **xs:string** |
| propertie  s | base xs:string |
| used by | attributes [**mpadded.attributes/@ depth**](#_bookmark855) [**mpadded.attributes/@**](#_bookmark854) **height** [**mpadded.attributes/@**](#_bookmark857) **lspace**  [**mpadded.attributes/@ voffset**](#_bookmark858) [**mpadded.attributes/@width**](#_bookmark856) |
| facets | Kind Value Annotati  on  patter \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  n 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)m athspace))?)\s\* |
| source | <xs:simpleType name="mpadded-length">  <xs:restriction base="xs:string">  <xs:pattern value="\s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)m athspace))?)\s\*"/>  </xs:restriction>  </xs:simpleType> |

simpleType **notationstyle**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | |
| type | restriction of **xs:token** | | | |
| properties | base | xs:token | | |
| facets | Kind Value Annotation  enumeration longdiv enumeration actuarial enumeration radical enumeration box enumeration roundedbox enumeration circle enumeration left | | | |
|  | enumeration | | right |
| enumeration | | top |
| enumeration | | bottom |
| enumeration | | updiagonalstrike |
| enumeration | | downdiagonalstrike |
| enumeration | | verticalstrike |
| enumeration | | horizontalstrike |
| enumeration | | madruwb |
| source | <xs:simpleType name="notationstyle">  <xs:restriction base="xs:token">  <xs:enumeration value="longdiv"/>  <xs:enumeration value="actuarial"/>  <xs:enumeration value="radical"/>  <xs:enumeration value="box"/>  <xs:enumeration value="roundedbox"/>  <xs:enumeration value="circle"/>  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="top"/>  <xs:enumeration value="bottom"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  <xs:enumeration value="madruwb"/>  </xs:restriction>  </xs:simpleType> | | |

simpleType **number**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:decimal** |
| properties | base xs:decimal |
| used by | attributes [**mstyle.specificattributes/@ scriptsizemultiplier**](#_bookmark992) [**mscarries.attributes/@**](#_bookmark871) **scriptsizemultiplier** |
| source | <xs:simpleType name="number">  <xs:restriction base="xs:decimal"/>  </xs:simpleType> |

simpleType **positive-integer**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:positiveInteger** |
| properties | base xs:positiveInteger |
| used by | attributes [**mstyle.generalattributes/@ columnspan**](#_bookmark925) [**mtd.attributes/@**](#_bookmark1024) **columnspan**  [**mstyle.generalattributes/@ rowspan**](#_bookmark974) [**mtd.attributes/@ rowspan**](#_bookmark1023) [**mstyle.generalattributes/@ selection**](#_bookmark977)[**maction.attributes/@ selection**](#_bookmark783) |
| source | <xs:simpleType name="positive-integer">  <xs:restriction base="xs:positiveInteger"/> |

|  |  |
| --- | --- |
|  | </xs:simpleType> |

simpleType **unsigned-integer**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:unsignedLong** |
| properties | base xs:unsignedLong |
| used by | attributes [**msline.attributes/@ length**](#_bookmark880) [**mstyle.generalattributes/@**](#_bookmark949) **length** |
| source | <xs:simpleType name="unsigned-integer">  <xs:restriction base="xs:unsignedLong"/>  </xs:simpleType> |

simpleType **verticalalign**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | |
| type | restriction of **xs:token** | | | |
| properties | base | xs:token | |  |
| used by | attributes | | [**mstyle.generalattributes/@ rowalign**](#_bookmark971) [**mtable.attributes/@ rowalign**](#_bookmark1005) | |
| facets | Kind |  | Value | Annotation |
| enumeration | | top |  |
| enumeration | | bottom |  |
| enumeration | | center |  |
| enumeration | | baseline |  |
| enumeration | | axis |  |
| source | <xs:simpleType name="verticalalign">  <xs:restriction base="xs:token">  <xs:enumeration value="top"/>  <xs:enumeration value="bottom"/>  <xs:enumeration value="center"/>  <xs:enumeration value="baseline"/>  <xs:enumeration value="axis"/>  </xs:restriction>  </xs:simpleType> | | | |

attributeGroup **CommonPresAtt**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | attributeGroups | [**maction.attributes**](#_bookmark781) [**maligngroup.attributes**](#_bookmark784) [**malignmark.attributes**](#_bookmark786) [**math.attributes**](#_bookmark788)  [**menclose.attributes**](#_bookmark798) [**merror.attributes**](#_bookmark800) [**mfenced.attributes**](#_bookmark801) [**mfrac.attributes**](#_bookmark805) [**mglyph.attributes**](#_bookmark810)[**mi.attributes**](#_bookmark820) [**mn.attributes**](#_bookmark825) [**mo.attributes**](#_bookmark826) [**mover.attributes**](#_bookmark850) [**mpadded.attributes**](#_bookmark853)[**mphantom.attributes**](#_bookmark859) [**mprescripts.attributes**](#_bookmark860) [**mroot.attributes**](#_bookmark861) [**mrow.attributes**](#_bookmark862) [**ms.attributes**](#_bookmark864)[**mscarries.attributes**](#_bookmark867) [**mscarry.attributes**](#_bookmark872) [**msgroup.attributes**](#_bookmark875) [**msline.attributes**](#_bookmark878) [**mspace.attributes**](#_bookmark884)[**msqrt.attributes**](#_bookmark896) [**msrow.attributes**](#_bookmark897) [**mstack.attributes**](#_bookmark899) [**mstyle.attributes**](#_bookmark904) [**msub.attributes**](#_bookmark996)  [**msubsup.attributes**](#_bookmark998) [**msup.attributes**](#_bookmark1001) [**mtable.attributes**](#_bookmark1003) [**mtd.attributes**](#_bookmark1022) [**mtext.attributes**](#_bookmark1028)[**mtr.attributes**](#_bookmark1029) [**munder.attributes**](#_bookmark1033) [**munderover.attributes**](#_bookmark1036) [**none.attributes**](#_bookmark1040) | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [mathcolor](#_bookmark772) | [**m:color**](#_bookmark758) |  |  |  |  |
| [mathbackground](#_bookmark773) | **derived by:** [**m:color**](#_bookmark758) |  |  |  |  |

|  |  |
| --- | --- |
| source | <xs:attributeGroup name="CommonPresAtt">  <xs:attribute name="mathcolor" type="m:color"/>  <xs:attribute name="mathbackground">  <xs:simpleType>  <xs:union memberTypes="m:color">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="transparent"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **CommonPresAtt/@ mathcolor**

|  |  |
| --- | --- |
| ty pe | [**m:color**](#_bookmark758) |
| fa ce ts | Ki Value An  nd not  atio n  pa \s\*((#[0-9a-fA-F]{3}([0-9a-fA-  tte F]{3})?)|[aA][qQ][uU][aA]|[bB][lL][aA][cC][kK]|[bB][lL][uU][eE]|[fF][uU][cC][hH][sS][iI][aA]|[gG][rR][aA][yY]|[gG][rR][eE][e  rn E][nN]|[lL][iI][mM][eE]|[mM][aA][rR][oO][oO][nN]|[nN][aA][vV][yY]|[oO][lL][iI][vV][eE]|[pP][uU][rR][pP][lL][eE]|[rR][eE][dD  ]|[sS][iI][lL][vV][eE][rR]|[tT][eE][aA][lL]|[wW][hH][iI][tT][eE]|[yY][eE][lL][lL][oO][wW])\s\* |
| so ur ce | <xs:attribute name="mathcolor" type="m:color"/> |

attribute **CommonPresAtt/@ mathbackground**

|  |  |
| --- | --- |
| type | union of [(**m:color**,](#_bookmark758) restriction of **xs:token**) |
| source | <xs:attribute name="mathbackground">  <xs:simpleType>  <xs:union memberTypes="m:color">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="transparent"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **DeprecatedTokenAtt**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | attributeGroups | [**mglyph.deprecatedattributes**](#_bookmark816) [**mstyle.deprecatedattributes**](#_bookmark905) [**TokenAtt**](#_bookmark1041) | | | |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [fontfamily](#_bookmark775) |  |  |  |  |  |
| [fontweight](#_bookmark776) | **derived by:** |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  | **xs:token** |
| [fontstyle](#_bookmark777) | **derived by: xs:token** |
| [fontsize](#_bookmark778) | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | **derived by:** [**m:color**](#_bookmark758) |
| source | <xs:attributeGroup name="DeprecatedTokenAtt">  <xs:attribute name="fontfamily"/>  <xs:attribute name="fontweight">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="fontstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="italic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="fontsize" type="m:length"/>  <xs:attribute name="color" type="m:color"/>  <xs:attribute name="background">  <xs:simpleType>  <xs:union memberTypes="m:color">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="transparent"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> | |

attribute **DeprecatedTokenAtt/@ fontfamily**

|  |  |
| --- | --- |
| source | <xs:attribute name="fontfamily"/> |

attribute **DeprecatedTokenAtt/@ fontweight**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | normal |  |
| enumeration | bold |  |
| source | <xs:attribute name="fontweight">  <xs:simpleType>  <xs:restriction base="xs:token"> | | |

|  |  |
| --- | --- |
|  | <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **DeprecatedTokenAtt/@ fontstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | normal |  |
| enumeration | italic |  |
| source | <xs:attribute name="fontstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="italic"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **DeprecatedTokenAtt/@ fontsize**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="fontsize" type="m:length"/> |

attribute **DeprecatedTokenAtt/@ color**

|  |  |
| --- | --- |
| ty pe | [**m:color**](#_bookmark758) |
| fa ce ts | Ki Value An  nd not  atio n  pa \s\*((#[0-9a-fA-F]{3}([0-9a-fA-  tte F]{3})?)|[aA][qQ][uU][aA]|[bB][lL][aA][cC][kK]|[bB][lL][uU][eE]|[fF][uU][cC][hH][sS][iI][aA]|[gG][rR][aA][yY]|[gG][rR][eE][e  rn E][nN]|[lL][iI][mM][eE]|[mM][aA][rR][oO][oO][nN]|[nN][aA][vV][yY]|[oO][lL][iI][vV][eE]|[pP][uU][rR][pP][lL][eE]|[rR][eE][dD  ]|[sS][iI][lL][vV][eE][rR]|[tT][eE][aA][lL]|[wW][hH][iI][tT][eE]|[yY][eE][lL][lL][oO][wW])\s\* |
| so ur ce | <xs:attribute name="color" type="m:color"/> |

attribute **DeprecatedTokenAtt/@ background**

|  |  |
| --- | --- |
| type | union of [(**m:color**,](#_bookmark758) restriction of **xs:token**) |
| source | <xs:attribute name="background">  <xs:simpleType>  <xs:union memberTypes="m:color">  <xs:simpleType> |

|  |  |
| --- | --- |
|  | <xs:restriction base="xs:token">  <xs:enumeration value="transparent"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **maction.attributes**

|  |  |  |  |
| --- | --- | --- | --- |
| namespace <http://www.w3.org/1998/Math/MathML> used by element [**maction**](#_bookmark708) | | | |
| attributes | Name [id](#_bookmark1059) | Type  **xs:ID** | Use Default Fixed Annotation |
|  | [xref](#_bookmark1060) |  |  |
|  | [class](#_bookmark1061) | **xs:NMTOKENS** |  |
|  | [style](#_bookmark1062) | **xs:string** |  |
|  | [href](#_bookmark1063) | **xs:anyURI** |  |
|  | [other](#_bookmark1065) |  |  |
|  | [mathcolor](#_bookmark772) | [**m:color**](#_bookmark758) |  |
|  | [mathbackground](#_bookmark773)  [actiontype](#_bookmark782) | **derived by:** | required |
|  | [selection](#_bookmark783) | [**m:positive-**](#_bookmark768) |  |
| source <xs:attributeGroup name="maction.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="actiontype" use="required"/>  <xs:attribute name="selection" type="m:positive-integer"/>  </xs:attributeGroup> | | | |

[**m:color**](#_bookmark758)[**integer**](#_bookmark768)

attribute **maction.attributes/@ actiontype**

|  |  |
| --- | --- |
| properties | use required |
| source | <xs:attribute name="actiontype" use="required"/> |

attribute **maction.attributes/@ selection**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="selection" type="m:positive-integer"/> |

attributeGroup **maligngroup.attributes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | element | [**maligngroup**](#_bookmark710) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | [xref](#_bookmark1060) |  |
| [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [mathcolor](#_bookmark772) | [**m:color**](#_bookmark758) |
| [mathbackground](#_bookmark773) | **derived by:** [**m:color**](#_bookmark758) |
| [groupalign](#_bookmark785) | **derived by:**  **xs:token** |
| source | <xs:attributeGroup name="maligngroup.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="groupalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> | |

attribute **maligngroup.attributes/@ groupalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | decimalpoint | |
| source | <xs:attribute name="groupalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **malignmark.attributes**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | |
| used by | element | [**malignmark**](#_bookmark711) | |  |  |  |  |
| attributes | Name | Type | | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** | |  |  |  |  |
| [xref](#_bookmark1060) |  | |  |  |  |  |
|  | [class](#_bookmark1061) | | **xs:NMTOKENS** | | | | |
| [style](#_bookmark1062) | | **xs:string** | | | | |
| [href](#_bookmark1063) | | **xs:anyURI** | | | | |
| [other](#_bookmark1065) | |  | | | | |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) | | | | |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) | | | | |
| [edge](#_bookmark787) | | **derived by:**  **xs:token** | | | | |
| source | <xs:attributeGroup name="malignmark.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="edge">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> | | | | | | |

attribute **malignmark.attributes/@ edge**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| source | <xs:attribute name="edge">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **math.attributes**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | | <http://www.w3.org/1998/Math/MathML> | | | | | | | | | |
| used by | | element | [**math**](#_bookmark1047) | | | |  |  |  |  |  |
| attributes | | Name |  | | | | Type | Use | Default | Fixed | Annotation |
| [mathcolor](#_bookmark772) |  | | | | [**m:color**](#_bookmark758) |  |  |  |  |
| [mathbackground](#_bookmark773) | | | | | **derived by:** [**m:color**](#_bookmark758) |  |  |  |  |
| [scriptlevel](#_bookmark990) |  | | | | [**m:integer**](#_bookmark763) |  |  |  |  |
| [displaystyle](#_bookmark991) |  | | | | **derived by: xs:token** |  |  |  |  |
| [scriptsizemultiplier](#_bookmark992) | | | | | [**m:number**](#_bookmark767) |  |  |  |  |
| [scriptminsize](#_bookmark993) | | | | | [**m:length**](#_bookmark1052) |  |  |  |  |
| [infixlinebreakstyle](#_bookmark994) | | | | | **derived by: xs:token** |  |  |  |  |
|  | | [decimalpoint](#_bookmark995) | | | [**m:character**](#_bookmark757) | | | | | | |
| [accent](#_bookmark914) | | | **derived by: xs:token** | | | | | | |
| [accentunder](#_bookmark915) | | | **derived by:**  **xs:token** | | | | | | |
| [align](#_bookmark916) | | | **derived by: xs:token** | | | | | | |
| [alignmentscope](#_bookmark917) | | | **derived by:**  **xs:token** | | | | | | |
| [bevelled](#_bookmark918) | | | **derived by: xs:token** | | | | | | |
| [charalign](#_bookmark919) | | | **derived by:**  **xs:token** | | | | | | |
| [charspacing](#_bookmark920) | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | | |
| [close](#_bookmark921) | | |  | | | | | | |
| [columnalign](#_bookmark922) | | | **derived by: xs:list** | | | | | | |
| [columnlines](#_bookmark923) | | | **derived by:**  **xs:list** | | | | | | |
| [columnspacing](#_bookmark924) | | | **derived by: xs:list** | | | | | | |
| [columnspan](#_bookmark925) | | | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) | | | | | | |
| [columnwidth](#_bookmark926) | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | | |
| [crossout](#_bookmark927) | | | **derived by:**  **xs:token** | | | | | | |
| [denomalign](#_bookmark928) | | | **derived by: xs:token** | | | | | | |
| [depth](#_bookmark929) | | | [**m:length**](#_bookmark1052) | | | | | | |
| [dir](#_bookmark930) | | | **derived by: xs:token** | | | | | | |
| [edge](#_bookmark931) | | | **derived by:**  **xs:token** | | | | | | |
| [equalcolumns](#_bookmark932) | | | **derived by: xs:token** | | | | | | |
| [equalrows](#_bookmark933) | | | **derived by:**  **xs:token** | | | | | | |
| [fence](#_bookmark934) | | | **derived by: xs:token** | | | | | | |
| [form](#_bookmark935) | | | **derived by:**  **xs:token** | | | | | | |
| [frame](#_bookmark936) | | | [**m:linestyle**](#_bookmark764) | | | | | | |
| [framespacing](#_bookmark937) | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | | |
| [groupalign](#_bookmark938) | | | [**m:group-**](#_bookmark762)  [**alignment-list-**](#_bookmark762)[**list**](#_bookmark762) | | | | | | |
| [height](#_bookmark939) | | | [**m:length**](#_bookmark1052) | | | | | | |
| [indentalign](#_bookmark940) | | | **derived by: xs:token** | | | | | | |
| [indentalignfirst](#_bookmark941) | | | **derived by:**  **xs:token** | | | | | | |
| [indentalignlast](#_bookmark942) | | | **derived by: xs:token** | | | | | | |
| [indentshift](#_bookmark943) | | | [**m:length**](#_bookmark1052) | | | | | | |
| [indentshiftfirst](#_bookmark944) | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | | |
| [indentshiftlast](#_bookmark945) | | | **derived by:**  [**m:length**](#_bookmark1052) | | | | | | |
| [indenttarget](#_bookmark946) | | |  | | | | | | |
| [largeop](#_bookmark947) | | | **derived by: xs:token** | | | | | | |
| [leftoverhang](#_bookmark948) | | | [**m:length**](#_bookmark1052) | | | | | | |
|  | | [length](#_bookmark949) | | | | [**m:unsigned-**](#_bookmark769)  [**integer**](#_bookmark769) | | | | | |
| [linebreak](#_bookmark950) | | | | **derived by: xs:token** | | | | | |
| [linebreakmultchar](#_bookmark951) | | | |  | | | | | |
| [linebreakstyle](#_bookmark952) | | | | **derived by: xs:token** | | | | | |
| [lineleading](#_bookmark953) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [linethickness](#_bookmark954) | | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | |
| [location](#_bookmark955) | | | | **derived by:**  **xs:token** | | | | | |
| [longdivstyle](#_bookmark956) | | | | **derived by: xs:token** | | | | | |
| [lquote](#_bookmark957) | | | |  | | | | | |
| [lspace](#_bookmark958) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [mathsize](#_bookmark959) | | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | |
| [mathvariant](#_bookmark960) | | | | **derived by:**  **xs:token** | | | | | |
| [maxsize](#_bookmark961) | | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | |
| [minlabelspacing](#_bookmark962) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [minsize](#_bookmark963) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [movablelimits](#_bookmark964) | | | | **derived by: xs:token** | | | | | |
| [mslinethickness](#_bookmark965) | | | | **derived by:**  [**m:length**](#_bookmark1052) | | | | | |
| [notation](#_bookmark966) | | | |  | | | | | |
| [numalign](#_bookmark967) | | | | **derived by: xs:token** | | | | | |
| [open](#_bookmark968) | | | |  | | | | | |
| [position](#_bookmark969) | | | | [**m:integer**](#_bookmark763) | | | | | |
| [rightoverhang](#_bookmark970) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [rowalign](#_bookmark971) | | | | **derived by: xs:list** | | | | | |
| [rowlines](#_bookmark972) | | | | **derived by:**  **xs:list** | | | | | |
| [rowspacing](#_bookmark973) | | | | **derived by: xs:list** | | | | | |
| [rowspan](#_bookmark974) | | | | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) | | | | | |
| [rquote](#_bookmark975) | | | |  | | | | | |
| [rspace](#_bookmark976) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [selection](#_bookmark977) | | | | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) | | | | | |
| [separator](#_bookmark978) | | | | **derived by:**  **xs:token** | | | | | |
| [separators](#_bookmark979) | | | |  | | | | | |
| [shift](#_bookmark980) | | | | [**m:integer**](#_bookmark763) | | | | | |
| [side](#_bookmark981) | | | | **derived by: xs:token** | | | | | |
| [stackalign](#_bookmark982) | | | | **derived by:**  **xs:token** | | | | | |
| [stretchy](#_bookmark983) | | | | **derived by: xs:token** | | | | | |
| [subscriptshift](#_bookmark984) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [superscriptshift](#_bookmark985) | | | | [**m:length**](#_bookmark1052) | | | | | |
| [symmetric](#_bookmark986) | | | | **derived by: xs:token** | | | | | |
| [valign](#_bookmark987) | | | | [**m:length**](#_bookmark1052) | | | | | |
|  | [width](#_bookmark988) | | | [**m:length**](#_bookmark1052) | | | | | | | |
| [id](#_bookmark1059) | | | **xs:ID** | | | | | | | |
| [xref](#_bookmark1060) | | |  | | | | | | | |
| [class](#_bookmark1061) | | | **xs:NMTOKENS** | | | | | | | |
| [style](#_bookmark1062) | | | **xs:string** | | | | | | | |
| [href](#_bookmark1063) | | | **xs:anyURI** | | | | | | | |
| [other](#_bookmark1065) | | |  | | | | | | | |
| [display](#_bookmark789) | | | **derived by: xs:token** | | | | | | | |
| [maxwidth](#_bookmark790) | | | [**m:length**](#_bookmark1052) | | | | | | | |
| [overflow](#_bookmark791) | | | **derived by: xs:token** | | | | | | | |
| [altimg](#_bookmark792) | | | **xs:anyURI** | | | | | | | |
| [altimg-width](#_bookmark793) | | | [**m:length**](#_bookmark1052) | | | | | | | |
| [altimg-height](#_bookmark794) | | | [**m:length**](#_bookmark1052) | | | | | | | |
| [altimg-valign](#_bookmark795) | | | **derived by:** [**m:length**](#_bookmark1052) | | | | | | | |
| [alttext](#_bookmark796) | | |  | | | | | | | |
| [cdgroup](#_bookmark797) | | | **xs:anyURI** | | | | | | | |
| [mode](#_bookmark1070) | | | **xs:string** | | | | | | | |
| [macros](#_bookmark1071) | | | **xs:string** | | | | | | | |
| source | <xs:attributeGroup name="math.attributes">  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attributeGroup ref="m:mstyle.specificattributes"/>  <xs:attributeGroup ref="m:mstyle.generalattributes"/>  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attribute name="display">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="block"/>  <xs:enumeration value="inline"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="maxwidth" type="m:length"/>  <xs:attribute name="overflow">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="linebreak"/>  <xs:enumeration value="scroll"/>  <xs:enumeration value="elide"/>  <xs:enumeration value="truncate"/>  <xs:enumeration value="scale"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="altimg" type="xs:anyURI"/>  <xs:attribute name="altimg-width" type="m:length"/>  <xs:attribute name="altimg-height" type="m:length"/>  <xs:attribute name="altimg-valign">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token"> | | | | | | | | | | |
|  | | <xs:enumeration value="top"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="middle"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="bottom"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="alttext"/>  <xs:attribute name="cdgroup" type="xs:anyURI"/>  <xs:attributeGroup ref="m:math.deprecatedattributes"/>  </xs:attributeGroup> | | | | | | | | | |

attribute **math.attributes/@ display**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | block |  |
| enumeration | inline |  |
| source | <xs:attribute name="display">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="block"/>  <xs:enumeration value="inline"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **math.attributes/@ maxwidth**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="maxwidth" type="m:length"/> |

attribute **math.attributes/@ overflow**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | linebreak |  |
| enumeration | scroll |  |
| enumeration | elide |  |
|  | enumeration | truncate | |
| enumeration | scale | |
| source | <xs:attribute name="overflow">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="linebreak"/>  <xs:enumeration value="scroll"/>  <xs:enumeration value="elide"/>  <xs:enumeration value="truncate"/>  <xs:enumeration value="scale"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **math.attributes/@ altimg**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="altimg" type="xs:anyURI"/> |

attribute **math.attributes/@ altimg -width**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="altimg-width" type="m:length"/> |

attribute **math.attributes/@ altimg -height**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="altimg-height" type="m:length"/> |

attribute **math.attributes/@ altimg -valign**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="altimg-valign">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="top"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="middle"/>  </xs:restriction> |
|  | </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="bottom"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **math.attributes/@ alttext**

|  |  |
| --- | --- |
| source | <xs:attribute name="alttext"/> |

attribute **math.attributes/@ cdgroup**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="cdgroup" type="xs:anyURI"/> |

attributeGroup **menclose.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="menclose.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="notation"/>

</xs:attributeGroup>

attribute **menclose.attributes/@ notation**

|  |  |
| --- | --- |
| source | <xs:attribute name="notation"/> |

attributeGroup **merror.attributes**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="merror.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

</xs:attributeGroup>

attributeGroup **mfenced.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="mfenced.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="open"/>

<xs:attribute name="close"/>

<xs:attribute name="separators"/>

</xs:attributeGroup>

attribute **mfenced.attributes/@ open**

|  |  |
| --- | --- |
| source | <xs:attribute name="open"/> |

attribute **mfenced.attributes/@ close**

|  |  |
| --- | --- |
| source | <xs:attribute name="close"/> |

attribute **mfenced.attributes/@ separators**

|  |  |
| --- | --- |
| source | <xs:attribute name="separators"/> |

attributeGroup **mfrac.attributes**

namespace <http://www.w3.org/1998/Math/MathML> used by element [**mfrac**](#_bookmark715)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[linethickness](#_bookmark806) **derived by:** [**m:length**](#_bookmark1052)

[numalign](#_bookmark807) **derived by: xs:token**

[denomalign](#_bookmark808) **derived by: xs:token**

[bevelled](#_bookmark809) **derived by: xs:token**

source <xs:attributeGroup name="mfrac.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="linethickness">

<xs:simpleType>

<xs:union memberTypes="m:length">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="thin"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="medium"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="thick"/>

</xs:restriction>

</xs:simpleType>

</xs:union>

</xs:simpleType>

</xs:attribute>

<xs:attribute name="numalign">

<xs:simpleType>

<xs:restriction base="xs:token">

|  |  |
| --- | --- |
|  | <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="denomalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="bevelled">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **mfrac.attributes/@ linethickness**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="linethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mfrac.attributes/@ numalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="numalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mfrac.attributes/@ denomalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="denomalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mfrac.attributes/@ bevelled**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="bevelled">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **mglyph.attributes**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: xs:anyURI**

source

<xs:attributeGroup name="mglyph.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="src" type="xs:anyURI"/>

<xs:attribute name="width" type="m:length"/>

<xs:attribute name="height" type="m:length"/>

<xs:attribute name="valign" type="m:length"/>

<xs:attribute name="alt"/>

</xs:attributeGroup>

attribute **mglyph.attributes/@ src**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="src" type="xs:anyURI"/> |

attribute **mglyph.attributes/@ width**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="width" type="m:length"/> |

attribute **mglyph.attributes/@ height**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="height" type="m:length"/> |

attribute **mglyph.attributes/@ v align**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="valign" type="m:length"/> |

attribute **mglyph.attributes/@ alt**

|  |  |
| --- | --- |
| source | <xs:attribute name="alt"/> |

attributeGroup **mglyph.deprecatedattributes**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | | | | | | |
| used by | element | [**mglyph**](#_bookmark716) | | |  | |  | |  | |  | |
| attributes | Name |  | Type | | Use | | Default | | Fixed | | Annotation | |
| [index](#_bookmark817) |  | [**m:integer**](#_bookmark763) | |  | |  | |  | |  | |
| [mathvariant](#_bookmark818) | | | **derived by: xs:token** | |  | |  | |  | |  |
| [mathsize](#_bookmark819) |  | **derived by:** [**m:length**](#_bookmark1052) | |  | |  | |  | |  | |
| [fontfamily](#_bookmark775) |  |  | |  | |  | |  | |  | |
| [fontweight](#_bookmark776) |  | **derived by: xs:token** | |  | |  | |  | |  | |
| [fontstyle](#_bookmark777) |  | **derived by:**  **xs:token** | |  | |  | |  | |  | |
| [fontsize](#_bookmark778) |  | [**m:length**](#_bookmark1052) | |  | |  | |  | |  | |
| [color](#_bookmark779) |  | [**m:color**](#_bookmark758) | |  | |  | |  | |  | |
| [background](#_bookmark780) | | | **derived by:** [**m:color**](#_bookmark758) | |  | |  | |  | |  |
| source | <xs:attributeGroup name="mglyph.deprecatedattributes">  <xs:attribute name="index" type="m:integer"/>  <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/>  <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/>  </xs:restriction> | | | | | | | | | | | |
|  | </xs:simpleType>  </xs:attribute>  <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attributeGroup ref="m:DeprecatedTokenAtt"/>  </xs:attributeGroup> | | | | | | | | | | | |

attribute **mglyph.deprecatedattributes/@ index**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="index" type="m:integer"/> |

# attribute mglyph.deprecatedattributes/@ mathvariant

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | normal |  |
| enumeration | bold |  |
| enumeration | italic |  |
| enumeration | bold-italic |  |
| enumeration | double-struck |  |
| enumeration | bold-fraktur |  |
| enumeration | script |  |
| enumeration | bold-script |  |
| enumeration | fraktur |  |
| enumeration | sans-serif |  |
| enumeration | bold-sans-serif |  |
| enumeration | sans-serif-italic |  |
| enumeration | sans-serif-bold-italic | |
| enumeration | monospace |  |
| enumeration | initial |  |
|  | enumeration | tailed | |
| enumeration | looped | |
| enumeration | stretched | |
| source | <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/>  <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mglyph.deprecatedattributes/@ mathsize**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **mi.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token**

**derived by:**

source

<xs:attributeGroup name="mi.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attributeGroup ref="m:TokenAtt"/>

</xs:attributeGroup>

attributeGroup **mlabeledtr.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:list**

|  |  |
| --- | --- |
|  | [groupalign](#_bookmark1032) [**m:group-**](#_bookmark762)[**alignment-list-**](#_bookmark762)[**list**](#_bookmark762) |
| source | <xs:attributeGroup name="mlabeledtr.attributes">  <xs:attributeGroup ref="m:mtr.attributes"/>  </xs:attributeGroup> |

attributeGroup **mlongdiv.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

**derived by: xs:token**

source

<xs:attributeGroup name="mlongdiv.attributes">

<xs:attributeGroup ref="m:msgroup.attributes"/>

<xs:attribute name="longdivstyle">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="lefttop"/>

<xs:enumeration value="stackedrightright"/>

<xs:enumeration value="mediumstackedrightright"/>

<xs:enumeration value="shortstackedrightright"/>

<xs:enumeration value="righttop"/>

<xs:enumeration value="left/\right"/>

<xs:enumeration value="left)(right"/>

<xs:enumeration value=":right=right"/>

<xs:enumeration value="stackedleftleft"/>

<xs:enumeration value="stackedleftlinetop"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

</xs:attributeGroup>

attribute **mlongdiv.attributes/@ longd ivstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | lefttop |  |
| enumeration | stackedrightright |  |
|  | enumeration | mediumstackedrightright | |
| enumeration | shortstackedrightright | |
| enumeration | righttop | |
| enumeration | left/\right | |
| enumeration | left)(right | |
| enumeration | :right=right | |
| enumeration | stackedleftleft | |
| enumeration | stackedleftlinetop | |
| source | <xs:attribute name="longdivstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="lefttop"/>  <xs:enumeration value="stackedrightright"/>  <xs:enumeration value="mediumstackedrightright"/>  <xs:enumeration value="shortstackedrightright"/>  <xs:enumeration value="righttop"/>  <xs:enumeration value="left/\right"/>  <xs:enumeration value="left)(right"/>  <xs:enumeration value=":right=right"/>  <xs:enumeration value="stackedleftleft"/>  <xs:enumeration value="stackedleftlinetop"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **mmultiscripts.attributes**

namespace

used by attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="mmultiscripts.attributes">

<xs:attributeGroup ref="m:msubsup.attributes"/>

</xs:attributeGroup>

attributeGroup **mn.attributes**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| used by | element [**mn**](#_bookmark721) |

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token**

**derived by:**

source

<xs:attributeGroup name="mn.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attributeGroup ref="m:TokenAtt"/>

</xs:attributeGroup>

attributeGroup **mo.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token**

|  |  |  |
| --- | --- | --- |
|  | [fontsize](#_bookmark778) | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | **derived by:** [**m:color**](#_bookmark758) |
| [form](#_bookmark827) | **derived by:**  **xs:token** |
| [fence](#_bookmark828) | **derived by: xs:token** |
| [separator](#_bookmark829) | **derived by:**  **xs:token** |
| [lspace](#_bookmark830) | [**m:length**](#_bookmark1052) |
| [rspace](#_bookmark831) | [**m:length**](#_bookmark1052) |
| [stretchy](#_bookmark832) | **derived by: xs:token** |
| [symmetric](#_bookmark833) | **derived by:**  **xs:token** |
| [maxsize](#_bookmark834) | **derived by:** [**m:length**](#_bookmark1052) |
| [minsize](#_bookmark835) | [**m:length**](#_bookmark1052) |
| [largeop](#_bookmark836) | **derived by: xs:token** |
| [movablelimits](#_bookmark837) | **derived by:**  **xs:token** |
| [accent](#_bookmark838) | **derived by: xs:token** |
| [linebreak](#_bookmark839) | **derived by:**  **xs:token** |
| [lineleading](#_bookmark840) | [**m:length**](#_bookmark1052) |
| [linebreakstyle](#_bookmark841) | **derived by: xs:token** |
| [linebreakmultchar](#_bookmark842) |  |
| [indentalign](#_bookmark843) | **derived by: xs:token** |
| [indentshift](#_bookmark844) | [**m:length**](#_bookmark1052) |
| [indenttarget](#_bookmark845) |  |
| [indentalignfirst](#_bookmark846) | **derived by: xs:token** |
| [indentshiftfirst](#_bookmark847) | **derived by:**  [**m:length**](#_bookmark1052) |
| [indentalignlast](#_bookmark848) | **derived by: xs:token** |
| [indentshiftlast](#_bookmark849) | **derived by:**  [**m:length**](#_bookmark1052) |
| source | <xs:attributeGroup name="mo.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attributeGroup ref="m:TokenAtt"/>  <xs:attribute name="form">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="prefix"/>  <xs:enumeration value="infix"/>  <xs:enumeration value="postfix"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="fence">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/> | |
|  | <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="separator">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="lspace" type="m:length"/>  <xs:attribute name="rspace" type="m:length"/>  <xs:attribute name="stretchy">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="symmetric">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="maxsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="infinity"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="minsize" type="m:length"/>  <xs:attribute name="largeop">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="movablelimits">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction> | |
|  | </xs:simpleType>  </xs:attribute>  <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="lineleading" type="m:length"/>  <xs:attribute name="linebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  <xs:enumeration value="infixlinebreakstyle"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="linebreakmultchar"/>  <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshift" type="m:length"/>  <xs:attribute name="indenttarget"/>  <xs:attribute name="indentalignfirst">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction> | |
|  | </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> | |

attribute **mo.attributes/@ form**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | prefix |  |
| enumeration | infix |  |
| enumeration | postfix |  |
| source | <xs:attribute name="form">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="prefix"/>  <xs:enumeration value="infix"/>  <xs:enumeration value="postfix"/>  </xs:restriction>  </xs:simpleType> | | |
|  | </xs:attribute> | | |

attribute **mo.attributes/@ fence**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="fence">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ separator**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="separator">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ lspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="lspace" type="m:length"/> |

attribute **mo.attributes/@ rspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="rspace" type="m:length"/> |

attribute **mo.attributes/@ stretchy**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="stretchy">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ symmetric**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="symmetric">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ maxsize**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="maxsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="infinity"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mo.attributes/@ minsize**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:length**](#_bookmark1052) | | |
| facets | Kind | Value | Annotation |
| pattern | \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0-  9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* | |
| source | <xs:attribute name="minsize" type="m:length"/> | | |

attribute **mo.attributes/@ largeop**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="largeop">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ movablelimits**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="movablelimits">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ accent**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ linebreak**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | auto |  |
| enumeration | newline |  |
| enumeration | nobreak |  |
| enumeration | goodbreak | |
| enumeration | badbreak |  |
| source | <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ lineleading**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="lineleading" type="m:length"/> |

attribute **mo.attributes/@ linebreakstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | before |  |
| enumeration | after |  |
| enumeration | duplicate |  |
| enumeration | infixlinebreakstyle | |
| source | <xs:attribute name="linebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  <xs:enumeration value="infixlinebreakstyle"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ linebreakmultchar**

|  |  |
| --- | --- |
| source | <xs:attribute name="linebreakmultchar"/> |

attribute **mo.attributes/@ indentalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| source | <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ indentshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="indentshift" type="m:length"/> |

attribute **mo.attributes/@ indenttarget**

|  |  |
| --- | --- |
| source | <xs:attribute name="indenttarget"/> |

attribute **mo.attributes/@ indentalignfirst**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignfirst">  <xs:simpleType> | | |
|  | <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ indentshiftfirst**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mo.attributes/@ indentalignlast**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mo.attributes/@ indentshiftlast**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **mover.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:token**

source

<xs:attributeGroup name="mover.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="accent">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="true"/>

<xs:enumeration value="false"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

<xs:attribute name="align">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="left"/>

<xs:enumeration value="right"/>

<xs:enumeration value="center"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

|  |  |
| --- | --- |
|  | </xs:attributeGroup> |

attribute **mover.attributes/@ accent**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mover.attributes/@ align**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | center |  |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **mpadded.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

|  |  |  |
| --- | --- | --- |
|  | [depth](#_bookmark855) | [**m:mpadded-**](#_bookmark765)  [**length**](#_bookmark765) |
| [width](#_bookmark856) | [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765) |
| [lspace](#_bookmark857) | [**m:mpadded-**](#_bookmark765)  [**length**](#_bookmark765) |
| [voffset](#_bookmark858) | [**m:mpadded-**](#_bookmark765)[**length**](#_bookmark765) |
| source | <xs:attributeGroup name="mpadded.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="height" type="m:mpadded-length"/>  <xs:attribute name="depth" type="m:mpadded-length"/>  <xs:attribute name="width" type="m:mpadded-length"/>  <xs:attribute name="lspace" type="m:mpadded-length"/>  <xs:attribute name="voffset" type="m:mpadded-length"/>  </xs:attributeGroup> | |

attribute **mpadded.attributes/@ height**

|  |  |
| --- | --- |
| type | [**m:mpadded-length**](#_bookmark765) |
| facets | Kind Value Annotatio  n  patter \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  n 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)maths pace))?)\s\* |
| sourc  e | <xs:attribute name="height" type="m:mpadded-length"/> |

attribute **mpadded.attributes/@ depth**

|  |  |
| --- | --- |
| type | [**m:mpadded-length**](#_bookmark765) |
| facets | Kind Value Annotatio  n  patter \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  n 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)maths pace))?)\s\* |
| sourc  e | <xs:attribute name="depth" type="m:mpadded-length"/> |

attribute **mpadded.attributes/@ width**

|  |  |
| --- | --- |
| type | [**m:mpadded-length**](#_bookmark765) |
| facets | Kind Value Annotatio  n  patter \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  n 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)maths pace))?)\s\* |
| sourc  e | <xs:attribute name="width" type="m:mpadded-length"/> |

attribute **mpadded.attributes/@ lspace**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:mpadded-length**](#_bookmark765) | | |
| facets | Kind | Value | Annotatio  n |
| patter n | \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)maths pace))?)\s\* | |
| sourc  e | <xs:attribute name="lspace" type="m:mpadded-length"/> | | |

attribute **mpadded.attributes/@ voffset**

|  |  |
| --- | --- |
| type | [**m:mpadded-length**](#_bookmark765) |
| facets | Kind Value Annotatio  n  patter \s\*([\+\-]?[0-9]\*([0-9]\.?|\.[0-9])[0-  n 9]\*\s\*((%?\s\*(height|depth|width)?)|e[mx]|in|cm|mm|p[xtc]|((negative)?((very){0,2}thi(n|ck)|medium)maths pace))?)\s\* |
| sourc  e | <xs:attribute name="voffset" type="m:mpadded-length"/> |

attributeGroup **mphantom.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="mphantom.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

</xs:attributeGroup>

attributeGroup **mprescripts.attributes**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace <http://www.w3.org/1998/Math/MathML>  used by element [**mprescripts**](#_bookmark726) | | | | | | | |
| attributes | Name  [id](#_bookmark1059) | | Type  **xs:ID** | Use | Default | Fixed | Annotation |
|  | [xref](#_bookmark1060) | |  |  | | | |
|  | [class](#_bookmark1061) | | **xs:NMTOKENS** |
|  | [style](#_bookmark1062) | | **xs:string** |
|  | [href](#_bookmark1063) | | **xs:anyURI** |
|  | [other](#_bookmark1065) | |  |
|  | [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) |
|  | | [mathbackground](#_bookmark773) **derived by:**  [**m:color**](#_bookmark758) | | | | | |
| source | | <xs:attributeGroup name="mprescripts.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  </xs:attributeGroup> | | | | | |

attributeGroup **mroot.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="mroot.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

</xs:attributeGroup>

attributeGroup **mrow.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token**

source

<xs:attributeGroup name="mrow.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="dir">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="ltr"/>

<xs:enumeration value="rtl"/>

|  |  |
| --- | --- |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **mrow.attributes/@ dir**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | ltr |  |
| enumeration | rtl |  |
| source | <xs:attribute name="dir">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="ltr"/>  <xs:enumeration value="rtl"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **ms.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token**

**derived by:**

source

<xs:attributeGroup name="ms.attributes">

|  |  |
| --- | --- |
|  | <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attributeGroup ref="m:TokenAtt"/>  <xs:attribute name="lquote"/>  <xs:attribute name="rquote"/>  </xs:attributeGroup> |

attribute **ms.attributes/@ lquote**

|  |  |
| --- | --- |
| source | <xs:attribute name="lquote"/> |

attribute **ms.attributes/@ rquote**

|  |  |
| --- | --- |
| source | <xs:attribute name="rquote"/> |

attributeGroup **mscarries.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

**derived by: xs:token derived by: xs:token**

source

<xs:attributeGroup name="mscarries.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="position" type="m:integer"/>

<xs:attribute name="location">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="w"/>

<xs:enumeration value="nw"/>

<xs:enumeration value="n"/>

<xs:enumeration value="ne"/>

<xs:enumeration value="e"/>

<xs:enumeration value="se"/>

<xs:enumeration value="s"/>

<xs:enumeration value="sw"/>

</xs:restriction>

|  |  |
| --- | --- |
|  | </xs:simpleType>  </xs:attribute>  <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="scriptsizemultiplier" type="m:number"/>  </xs:attributeGroup> |

attribute **mscarries.attributes/@ position**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="position" type="m:integer"/> |

attribute **mscarries.attributes/@ location**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | w |  |
| enumeration | nw |  |
| enumeration | n |  |
| enumeration | ne |  |
| enumeration | e |  |
| enumeration | se |  |
| enumeration | s |  |
| enumeration | sw |  |
| source | <xs:attribute name="location">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="w"/>  <xs:enumeration value="nw"/>  <xs:enumeration value="n"/>  <xs:enumeration value="ne"/>  <xs:enumeration value="e"/>  <xs:enumeration value="se"/>  <xs:enumeration value="s"/>  <xs:enumeration value="sw"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mscarries.attributes/@ crossout**

|  |  |
| --- | --- |
| type | list of (restriction of **xs:token**) |
| source | <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute> |

# attribute mscarries.attributes/@ scriptsizemultiplier

|  |  |
| --- | --- |
| type | [**m:number**](#_bookmark767) |
| source | <xs:attribute name="scriptsizemultiplier" type="m:number"/> |

attributeGroup **mscarry.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:token**

source

<xs:attributeGroup name="mscarry.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="location">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="w"/>

<xs:enumeration value="nw"/>

|  |  |
| --- | --- |
|  | <xs:enumeration value="n"/>  <xs:enumeration value="ne"/>  <xs:enumeration value="e"/>  <xs:enumeration value="se"/>  <xs:enumeration value="s"/>  <xs:enumeration value="sw"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **mscarry.attributes/@ location**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | w |  |
| enumeration | nw |  |
| enumeration | n |  |
| enumeration | ne |  |
| enumeration | e |  |
| enumeration | se |  |
| enumeration | s |  |
| enumeration | sw |  |
| source | <xs:attribute name="location">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="w"/>  <xs:enumeration value="nw"/>  <xs:enumeration value="n"/>  <xs:enumeration value="ne"/>  <xs:enumeration value="e"/>  <xs:enumeration value="se"/>  <xs:enumeration value="s"/>  <xs:enumeration value="sw"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mscarry.attributes/@ crossout**

|  |  |
| --- | --- |
| type | list of (restriction of **xs:token**) |
| source | <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute> |

attributeGroup **msgroup.attributes**

namespace

used by

element

attributeGroup

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="msgroup.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="position" type="m:integer"/>

<xs:attribute name="shift" type="m:integer"/>

</xs:attributeGroup>

attribute **msgroup.attributes/@ position**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="position" type="m:integer"/> |

attribute **msgroup.attributes/@ shift**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="shift" type="m:integer"/> |

attributeGroup **msline.attributes**

namespace <http://www.w3.org/1998/Math/MathML> used by element [**msline**](#_bookmark733)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[position](#_bookmark879) [**m:integer**](#_bookmark763)

[length](#_bookmark880) [**m:unsigned-**](#_bookmark769)[**integer**](#_bookmark769)

[leftoverhang](#_bookmark881) [**m:length**](#_bookmark1052)

[rightoverhang](#_bookmark882) [**m:length**](#_bookmark1052)

[mslinethickness](#_bookmark883) **derived by:**

[**m:length**](#_bookmark1052)

source <xs:attributeGroup name="msline.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="position" type="m:integer"/>

<xs:attribute name="length" type="m:unsigned-integer"/>

<xs:attribute name="leftoverhang" type="m:length"/>

<xs:attribute name="rightoverhang" type="m:length"/>

<xs:attribute name="mslinethickness">

<xs:simpleType>

<xs:union memberTypes="m:length">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="thin"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="medium"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="thick"/>

</xs:restriction>

</xs:simpleType>

</xs:union>

</xs:simpleType>

|  |  |
| --- | --- |
|  | </xs:attribute>  </xs:attributeGroup> |

attribute **msline.attributes/@ position**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="position" type="m:integer"/> |

attribute **msline.attributes/@ length**

|  |  |
| --- | --- |
| type | [**m:unsigned-integer**](#_bookmark769) |
| source | <xs:attribute name="length" type="m:unsigned-integer"/> |

attribute **msline.attributes/@ leftoverhang**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="leftoverhang" type="m:length"/> |

attribute **msline.attributes/@ rightoverhang**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="rightoverhang" type="m:length"/> |

attribute **msline.attributes/@ mslinethickness**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="mslinethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction> |
|  | </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **mspace.attributes**

namespace <http://www.w3.org/1998/Math/MathML> used by element [**mspace**](#_bookmark734)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[mathvariant](#_bookmark1042) **derived by: xs:token**

[mathsize](#_bookmark1043) **derived by:** [**m:length**](#_bookmark1052)

[dir](#_bookmark1044) **derived by:**

**xs:token**

[fontfamily](#_bookmark775)

[fontweight](#_bookmark776) **derived by: xs:token**

[fontstyle](#_bookmark777) **derived by: xs:token**

[fontsize](#_bookmark778) [**m:length**](#_bookmark1052)

[color](#_bookmark779) [**m:color**](#_bookmark758)

[background](#_bookmark780) **derived by:** [**m:color**](#_bookmark758)

[width](#_bookmark885) [**m:length**](#_bookmark1052)

[height](#_bookmark886) [**m:length**](#_bookmark1052)

[depth](#_bookmark887) [**m:length**](#_bookmark1052)

[linebreak](#_bookmark888) **derived by: xs:token**

[indentalign](#_bookmark889) **derived by: xs:token**

[indentshift](#_bookmark890) [**m:length**](#_bookmark1052)

[indenttarget](#_bookmark891)

[indentalignfirst](#_bookmark892) **derived by:**

**xs:token**

[indentshiftfirst](#_bookmark893) **derived by:** [**m:length**](#_bookmark1052)

[indentalignlast](#_bookmark894) **derived by:**

**xs:token**

[indentshiftlast](#_bookmark895) **derived by:** [**m:length**](#_bookmark1052)

source <xs:attributeGroup name="mspace.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attributeGroup ref="m:TokenAtt"/>

<xs:attribute name="width" type="m:length"/>

|  |  |
| --- | --- |
|  | <xs:attribute name="height" type="m:length"/>  <xs:attribute name="depth" type="m:length"/>  <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  <xs:enumeration value="indentingnewline"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshift" type="m:length"/>  <xs:attribute name="indenttarget"/>  <xs:attribute name="indentalignfirst">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/> |
|  | <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **mspace.attributes/@ width**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="width" type="m:length"/> |

attribute **mspace.attributes/@ height**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="height" type="m:length"/> |

attribute **mspace.attributes/@ depth**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="depth" type="m:length"/> |

attribute **mspace.attributes/@ linebreak**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | auto |  |
| enumeration | newline |  |
| enumeration | nobreak |  |
| enumeration | goodbreak |  |
|  | enumeration | badbreak | |
| enumeration | indentingnewline | |
| source | <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  <xs:enumeration value="indentingnewline"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mspace.attributes/@ indentalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| source | <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mspace.attributes/@ indentshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="indentshift" type="m:length"/> |

attribute **mspace.attributes/@ indenttarget**

|  |  |
| --- | --- |
| source | <xs:attribute name="indenttarget"/> |

attribute **mspace.attributes/@ indent alignfirst**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignfirst">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mspace.attributes/@ indentshiftfirst**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mspace.attributes/@ indentalignlast**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token"> | | |
|  | <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mspace.attributes/@ indentshiftlast**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **msqrt.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="msqrt.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

</xs:attributeGroup>

attributeGroup **msrow.attributes**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | |
| used by | element | [**msrow**](#_bookmark736) | |  |  |  |  |
| attributes | Name | Type | | Use | Default | Fixed | Annotation |
|  | [id](#_bookmark1059) | | **xs:ID** | | | | |
| [xref](#_bookmark1060) | |  | | | | |
| [class](#_bookmark1061) | | **xs:NMTOKENS** | | | | |
| [style](#_bookmark1062) | | **xs:string** | | | | |
| [href](#_bookmark1063) | | **xs:anyURI** | | | | |
| [other](#_bookmark1065) | |  | | | | |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) | | | | |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) | | | | |
| [position](#_bookmark898) | | [**m:integer**](#_bookmark763) | | | | |
| source | <xs:attributeGroup name="msrow.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="position" type="m:integer"/>  </xs:attributeGroup> | | | | | | |

attribute **msrow.attributes/@ position**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="position" type="m:integer"/> |

attributeGroup **mstack.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:string derived by: xs:token derived by: xs:token derived by:**

source

<xs:attributeGroup name="mstack.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="align">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:pattern value="\s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\*"/>

</xs:restriction>

|  |  |
| --- | --- |
|  | </xs:simpleType>  </xs:attribute>  <xs:attribute name="stackalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="charalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="charspacing">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="loose"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="tight"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **mstack.attributes/@ align**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  pattern \s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\* |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="\s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\*"/>  </xs:restriction> |
|  | </xs:simpleType>  </xs:attribute> |

attribute **mstack.attributes/@ stackalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | decimalpoint | |
| source | <xs:attribute name="stackalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstack.attributes/@ charalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="charalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstack.attributes/@ charspacing**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="charspacing">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="loose"/>  </xs:restriction>  </xs:simpleType> |
|  | <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="tight"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attributeGroup **mstyle.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

**derived by: xs:token**

**derived by: xs:token**

**derived by: xs:token derived by: xs:token derived by: xs:token derived by: xs:token derived by: xs:token derived by: xs:token derived by:**

**derived by: xs:list**

**derived by: xs:list**

**derived by: xs:list**

|  |  |  |  |
| --- | --- | --- | --- |
|  | [columnspan](#_bookmark925) | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) | |
| [columnwidth](#_bookmark926) | **derived by:** [**m:length**](#_bookmark1052) | |
| [crossout](#_bookmark927) | **derived by:**  **xs:token** | |
| [denomalign](#_bookmark928) | **derived by: xs:token** | |
| [depth](#_bookmark929) | [**m:length**](#_bookmark1052) | |
| [dir](#_bookmark930) | **derived by: xs:token** | |
| [edge](#_bookmark931) | **derived by:**  **xs:token** | |
| [equalcolumns](#_bookmark932) | **derived by: xs:token** | |
| [equalrows](#_bookmark933) | **derived by:**  **xs:token** | |
| [fence](#_bookmark934) | **derived by: xs:token** | |
| [form](#_bookmark935) | **derived by:**  **xs:token** | |
| [frame](#_bookmark936) | [**m:linestyle**](#_bookmark764) | |
| [framespacing](#_bookmark937) | **derived by:** [**m:length**](#_bookmark1052) | |
| [groupalign](#_bookmark938) | [**m:group-**](#_bookmark762)[**alignment-list-**](#_bookmark762)  [**list**](#_bookmark762) | |
| [height](#_bookmark939) | [**m:length**](#_bookmark1052) | |
| [indentalign](#_bookmark940) | **derived by: xs:token** | |
| [indentalignfirst](#_bookmark941) | **derived by:**  **xs:token** | |
| [indentalignlast](#_bookmark942) | **derived by: xs:token** | |
| [indentshift](#_bookmark943) | [**m:length**](#_bookmark1052) | |
| [indentshiftfirst](#_bookmark944) | **derived by:** [**m:length**](#_bookmark1052) | |
| [indentshiftlast](#_bookmark945) | **derived by:**  [**m:length**](#_bookmark1052) | |
| [indenttarget](#_bookmark946) |  | |
| [largeop](#_bookmark947) | **derived by: xs:token** | |
| [leftoverhang](#_bookmark948) | [**m:length**](#_bookmark1052) | |
| [length](#_bookmark949) | [**m:unsigned-**](#_bookmark769)[**integer**](#_bookmark769) | |
| [linebreak](#_bookmark950) | **derived by:**  **xs:token** | |
| [linebreakmultchar](#_bookmark951) |  | |
| [linebreakstyle](#_bookmark952) | **derived by: xs:token** | |
| [lineleading](#_bookmark953) | [**m:length**](#_bookmark1052) | |
| [linethickness](#_bookmark954) | **derived by:** [**m:length**](#_bookmark1052) | |
| [location](#_bookmark955) | **derived by:**  **xs:token** | |
| [longdivstyle](#_bookmark956) | **derived by: xs:token** | |
| [lquote](#_bookmark957) |  | |
| [lspace](#_bookmark958) | [**m:length**](#_bookmark1052) | |
| [mathsize](#_bookmark959) | **derived by:** [**m:length**](#_bookmark1052) | |
| [mathvariant](#_bookmark960) | **derived by:**  **xs:token** | |
| [maxsize](#_bookmark961) | **derived by:** [**m:length**](#_bookmark1052) | |
|  | [minlabelspacing](#_bookmark962) | | [**m:length**](#_bookmark1052) |
| [minsize](#_bookmark963) | | [**m:length**](#_bookmark1052) |
| [movablelimits](#_bookmark964) | | **derived by: xs:token** |
| [mslinethickness](#_bookmark965) | | **derived by:**  [**m:length**](#_bookmark1052) |
| [notation](#_bookmark966) | |  |
| [numalign](#_bookmark967) | | **derived by: xs:token** |
| [open](#_bookmark968) | |  |
| [position](#_bookmark969) | | [**m:integer**](#_bookmark763) |
| [rightoverhang](#_bookmark970) | | [**m:length**](#_bookmark1052) |
| [rowalign](#_bookmark971) | | **derived by: xs:list** |
| [rowlines](#_bookmark972) | | **derived by:**  **xs:list** |
| [rowspacing](#_bookmark973) | | **derived by: xs:list** |
| [rowspan](#_bookmark974) | | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) |
| [rquote](#_bookmark975) | |  |
| [rspace](#_bookmark976) | | [**m:length**](#_bookmark1052) |
| [selection](#_bookmark977) | | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) |
| [separator](#_bookmark978) | | **derived by:**  **xs:token** |
| [separators](#_bookmark979) | |  |
| [shift](#_bookmark980) | | [**m:integer**](#_bookmark763) |
| [side](#_bookmark981) | | **derived by: xs:token** |
| [stackalign](#_bookmark982) | | **derived by:**  **xs:token** |
| [stretchy](#_bookmark983) | | **derived by: xs:token** |
| [subscriptshift](#_bookmark984) | | [**m:length**](#_bookmark1052) |
| [superscriptshift](#_bookmark985) | | [**m:length**](#_bookmark1052) |
| [symmetric](#_bookmark986) | | **derived by: xs:token** |
| [valign](#_bookmark987) | | [**m:length**](#_bookmark1052) |
| [width](#_bookmark988) | | [**m:length**](#_bookmark1052) |
| [fontfamily](#_bookmark775) | |  |
| [fontweight](#_bookmark776) | | **derived by: xs:token** |
| [fontstyle](#_bookmark777) | | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | | **derived by:** [**m:color**](#_bookmark758) |
| [veryverythinmathspace](#_bookmark906) | | [**m:length**](#_bookmark1052) |
| [verythinmathspace](#_bookmark907) | | [**m:length**](#_bookmark1052) |
| [thinmathspace](#_bookmark908) | | [**m:length**](#_bookmark1052) |
| [mediummathspace](#_bookmark909) | | [**m:length**](#_bookmark1052) |
| [thickmathspace](#_bookmark910) | | [**m:length**](#_bookmark1052) |
| [verythickmathspace](#_bookmark911) | | [**m:length**](#_bookmark1052) |
| [veryverythickmathspace](#_bookmark912) | | [**m:length**](#_bookmark1052) |
| source | <xs:attributeGroup name="mstyle.attributes"> | | |
|  | <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attributeGroup ref="m:mstyle.specificattributes"/>  <xs:attributeGroup ref="m:mstyle.generalattributes"/>  <xs:attributeGroup ref="m:mstyle.deprecatedattributes"/>  </xs:attributeGroup> | | |

attributeGroup **mstyle.deprecatedattributes**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | |
| used by | attributeGroup | [**mstyle.attributes**](#_bookmark904) | |  |  |  |  |
| attributes | Name |  | Type | Use | Default | Fixed | Annotation |
| [fontfamily](#_bookmark775) |  |  |  |  |  |  |
| [fontweight](#_bookmark776) |  | **derived by: xs:token** |  |  |  |  |
| [fontstyle](#_bookmark777) |  | **derived by:**  **xs:token** |  |  |  |  |
| [fontsize](#_bookmark778) |  | [**m:length**](#_bookmark1052) |  |  |  |  |
| [color](#_bookmark779) |  | [**m:color**](#_bookmark758) |  |  |  |  |
| [background](#_bookmark780) |  | **derived by:** [**m:color**](#_bookmark758) |  |  |  |  |
| [veryverythinmathspace](#_bookmark906) | | [**m:length**](#_bookmark1052) |  |  |  |  |
| [verythinmathspace](#_bookmark907) | | [**m:length**](#_bookmark1052) |  |  |  |  |
| [thinmathspace](#_bookmark908) |  | [**m:length**](#_bookmark1052) |  |  |  |  |
| [mediummathspace](#_bookmark909) | | [**m:length**](#_bookmark1052) |  |  |  |  |
| [thickmathspace](#_bookmark910) |  | [**m:length**](#_bookmark1052) |  |  |  |  |
| [verythickmathspace](#_bookmark911) | | [**m:length**](#_bookmark1052) |  |  |  |  |
| [veryverythickmathspace](#_bookmark912) | | [**m:length**](#_bookmark1052) |  |  |  |  |
| source | <xs:attributeGroup name="mstyle.deprecatedattributes">  <xs:attributeGroup ref="m:DeprecatedTokenAtt"/>  <xs:attribute name="veryverythinmathspace" type="m:length"/>  <xs:attribute name="verythinmathspace" type="m:length"/>  <xs:attribute name="thinmathspace" type="m:length"/>  <xs:attribute name="mediummathspace" type="m:length"/>  <xs:attribute name="thickmathspace" type="m:length"/>  <xs:attribute name="verythickmathspace" type="m:length"/>  <xs:attribute name="veryverythickmathspace" type="m:length"/>  </xs:attributeGroup> | | | | | | |

# attribute mstyle.deprecatedattributes/@ veryverythinmathspace

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="veryverythinmathspace" type="m:length"/> |

attribute **mstyle.deprecatedattributes/@ verythinmathspace**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:length**](#_bookmark1052) | | |
| facets | Kind | Value | Annotation |
| pattern | \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0-  9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* | |
| source | <xs:attribute name="verythinmathspace" type="m:length"/> | | |

attribute **mstyle.deprecatedattributes/@ thinmathspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="thinmathspace" type="m:length"/> |

attribute **mstyle.deprecatedattributes/@ mediummathspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="mediummathspace" type="m:length"/> |

attribute **mstyle.deprecatedattributes/@ thickmathspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="thickmathspace" type="m:length"/> |

attribute **mstyle.deprecatedattributes/@ verythickmathspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="verythickmathspace" type="m:length"/> |

attribute **mstyle.deprecatedattributes/@ veryverythickmathspa ce**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="veryverythickmathspace" type="m:length"/> |

attributeGroup **mstyle.generalattributes**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| used by | attributeGroups [**math.attributes**](#_bookmark788) [**mstyle.attributes**](#_bookmark904) |

attributes Name Type Use Default Fixed Annotation [accent](#_bookmark914) **derived by:**

**xs:token**

[accentunder](#_bookmark915) **derived by: xs:token**

[align](#_bookmark916) **derived by: xs:token**

[alignmentscope](#_bookmark917) **derived by:**

**xs:token**

[bevelled](#_bookmark918) **derived by: xs:token**

[charalign](#_bookmark919) **derived by: xs:token**

[charspacing](#_bookmark920) **derived by:** [**m:length**](#_bookmark1052)

[close](#_bookmark921)

[columnalign](#_bookmark922) **derived by: xs:list**

[columnlines](#_bookmark923) **derived by: xs:list**

[columnspacing](#_bookmark924) **derived by:**

**xs:list**

[columnspan](#_bookmark925) [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768)

[columnwidth](#_bookmark926) **derived by:** [**m:length**](#_bookmark1052)

[crossout](#_bookmark927) **derived by: xs:token**

[denomalign](#_bookmark928) **derived by: xs:token**

[depth](#_bookmark929) [**m:length**](#_bookmark1052)

[dir](#_bookmark930) **derived by:**

**xs:token**

[edge](#_bookmark931) **derived by: xs:token**

[equalcolumns](#_bookmark932) **derived by: xs:token**

[equalrows](#_bookmark933) **derived by: xs:token**

[fence](#_bookmark934) **derived by: xs:token**

[form](#_bookmark935) **derived by: xs:token**

[frame](#_bookmark936) [**m:linestyle**](#_bookmark764)

[framespacing](#_bookmark937) **derived by:** [**m:length**](#_bookmark1052)

[groupalign](#_bookmark938) [**m:group-**](#_bookmark762)[**alignment-list-**](#_bookmark762)[**list**](#_bookmark762)

[height](#_bookmark939) [**m:length**](#_bookmark1052)

[indentalign](#_bookmark940) **derived by: xs:token**

[indentalignfirst](#_bookmark941) **derived by:**

**xs:token**

[indentalignlast](#_bookmark942) **derived by:**

**xs:token**

[indentshift](#_bookmark943) [**m:length**](#_bookmark1052)

[indentshiftfirst](#_bookmark944) **derived by:** [**m:length**](#_bookmark1052)

[indentshiftlast](#_bookmark945) **derived by:** [**m:length**](#_bookmark1052)

[indenttarget](#_bookmark946)

[largeop](#_bookmark947) **derived by: xs:token**

[leftoverhang](#_bookmark948) [**m:length**](#_bookmark1052)

[length](#_bookmark949) [**m:unsigned-**](#_bookmark769)

|  |  |  |
| --- | --- | --- |
|  |  | [**integer**](#_bookmark769) |
| [linebreak](#_bookmark950) | **derived by: xs:token** |
| [linebreakmultchar](#_bookmark951) |  |
| [linebreakstyle](#_bookmark952) | **derived by: xs:token** |
| [lineleading](#_bookmark953) | [**m:length**](#_bookmark1052) |
| [linethickness](#_bookmark954) | **derived by:** [**m:length**](#_bookmark1052) |
| [location](#_bookmark955) | **derived by: xs:token** |
| [longdivstyle](#_bookmark956) | **derived by: xs:token** |
| [lquote](#_bookmark957) |  |
| [lspace](#_bookmark958) | [**m:length**](#_bookmark1052) |
| [mathsize](#_bookmark959) | **derived by:** [**m:length**](#_bookmark1052) |
| [mathvariant](#_bookmark960) | **derived by: xs:token** |
| [maxsize](#_bookmark961) | **derived by:** [**m:length**](#_bookmark1052) |
| [minlabelspacing](#_bookmark962) | [**m:length**](#_bookmark1052) |
| [minsize](#_bookmark963) | [**m:length**](#_bookmark1052) |
| [movablelimits](#_bookmark964) | **derived by: xs:token** |
| [mslinethickness](#_bookmark965) | **derived by:** [**m:length**](#_bookmark1052) |
| [notation](#_bookmark966) |  |
| [numalign](#_bookmark967) | **derived by: xs:token** |
| [open](#_bookmark968) |  |
| [position](#_bookmark969) | [**m:integer**](#_bookmark763) |
| [rightoverhang](#_bookmark970) | [**m:length**](#_bookmark1052) |
| [rowalign](#_bookmark971) | **derived by: xs:list** |
| [rowlines](#_bookmark972) | **derived by: xs:list** |
| [rowspacing](#_bookmark973) | **derived by: xs:list** |
| [rowspan](#_bookmark974) | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) |
| [rquote](#_bookmark975) |  |
| [rspace](#_bookmark976) | [**m:length**](#_bookmark1052) |
| [selection](#_bookmark977) | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) |
| [separator](#_bookmark978) | **derived by: xs:token** |
| [separators](#_bookmark979) |  |
| [shift](#_bookmark980) | [**m:integer**](#_bookmark763) |
| [side](#_bookmark981) | **derived by: xs:token** |
| [stackalign](#_bookmark982) | **derived by: xs:token** |
| [stretchy](#_bookmark983) | **derived by: xs:token** |
| [subscriptshift](#_bookmark984) | [**m:length**](#_bookmark1052) |
| [superscriptshift](#_bookmark985) | [**m:length**](#_bookmark1052) |
| [symmetric](#_bookmark986) | **derived by: xs:token** |
| [valign](#_bookmark987) | [**m:length**](#_bookmark1052) |
| [width](#_bookmark988) | [**m:length**](#_bookmark1052) |

|  |  |
| --- | --- |
| source | <xs:attributeGroup name="mstyle.generalattributes">  <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="accentunder">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="alignmentscope">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="bevelled">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="charalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/> |
|  | <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="charspacing">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="loose"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="tight"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="close"/>  <xs:attribute name="columnalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |
|  | </xs:attribute>  <xs:attribute name="columnspan" type="m:positive-integer"/>  <xs:attribute name="columnwidth">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="fit"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="denomalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="depth" type="m:length"/>  <xs:attribute name="dir">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="ltr"/> |
|  | <xs:enumeration value="rtl"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="edge">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="equalcolumns">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="equalrows">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="fence">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="form">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="prefix"/>  <xs:enumeration value="infix"/>  <xs:enumeration value="postfix"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="frame" type="m:linestyle"/>  <xs:attribute name="framespacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length m:length"/>  </xs:simpleType>  </xs:list>  </xs:simpleType> |
|  | <xs:length value="2"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="groupalign" type="m:group-alignment-list-list"/>  <xs:attribute name="height" type="m:length"/>  <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentalignfirst">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshift" type="m:length"/>  <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length"> |
|  | <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="indenttarget"/>  <xs:attribute name="largeop">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="leftoverhang" type="m:length"/>  <xs:attribute name="length" type="m:unsigned-integer"/>  <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="linebreakmultchar"/>  <xs:attribute name="linebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  <xs:enumeration value="infixlinebreakstyle"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="lineleading" type="m:length"/>  <xs:attribute name="linethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType> |
|  | <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="location">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="w"/>  <xs:enumeration value="nw"/>  <xs:enumeration value="n"/>  <xs:enumeration value="ne"/>  <xs:enumeration value="e"/>  <xs:enumeration value="se"/>  <xs:enumeration value="s"/>  <xs:enumeration value="sw"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="longdivstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="lefttop"/>  <xs:enumeration value="stackedrightright"/>  <xs:enumeration value="mediumstackedrightright"/>  <xs:enumeration value="shortstackedrightright"/>  <xs:enumeration value="righttop"/>  <xs:enumeration value="left/\right"/>  <xs:enumeration value="left)(right"/>  <xs:enumeration value=":right=right"/>  <xs:enumeration value="stackedleftleft"/>  <xs:enumeration value="stackedleftlinetop"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="lquote"/>  <xs:attribute name="lspace" type="m:length"/>  <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction> |
|  | </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/>  <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="maxsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="infinity"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="minlabelspacing" type="m:length"/>  <xs:attribute name="minsize" type="m:length"/>  <xs:attribute name="movablelimits">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="mslinethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction> |
|  | </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="notation"/>  <xs:attribute name="numalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="open"/>  <xs:attribute name="position" type="m:integer"/>  <xs:attribute name="rightoverhang" type="m:length"/>  <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:verticalalign"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="rowlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="rowspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType> |
|  | </xs:attribute>  <xs:attribute name="rowspan" type="m:positive-integer"/>  <xs:attribute name="rquote"/>  <xs:attribute name="rspace" type="m:length"/>  <xs:attribute name="selection" type="m:positive-integer"/>  <xs:attribute name="separator">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="separators"/>  <xs:attribute name="shift" type="m:integer"/>  <xs:attribute name="side">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="leftoverlap"/>  <xs:enumeration value="rightoverlap"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="stackalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="stretchy">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="subscriptshift" type="m:length"/>  <xs:attribute name="superscriptshift" type="m:length"/>  <xs:attribute name="symmetric">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="valign" type="m:length"/>  <xs:attribute name="width" type="m:length"/> |
|  | </xs:attributeGroup> |

attribute **mstyle.generalattributes/@ accent**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ accentunder**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accentunder">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ align**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | center |  |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

# attribute mstyle.generalattributes/@ alignmentscope

|  |  |
| --- | --- |
| type | restriction of (list of (restriction of **xs:token**)) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="alignmentscope">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ bevelled**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="bevelled">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ charalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="charalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/> | | |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ charspacing**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="charspacing">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="loose"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="tight"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ close**

|  |  |
| --- | --- |
| source | <xs:attribute name="close"/> |

attribute **mstyle.generalattributes/@ columnalign**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:columnalignstyle**)](#_bookmark759) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ columnlines**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:linestyle**)](#_bookmark764) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

# attribute mstyle.generalattributes/@ columnspacing

|  |  |
| --- | --- |
| type | restriction of (list of [**m:length**)](#_bookmark1052) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ columnspan**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="columnspan" type="m:positive-integer"/> |

attribute **mstyle.generalattributes/@ columnwidth**

|  |  |
| --- | --- |
| type | restriction of (list of (union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**))) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnwidth">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token"> |
|  | <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="fit"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ crossout**

|  |  |
| --- | --- |
| type | list of (restriction of **xs:token**) |
| source | <xs:attribute name="crossout">  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="none"/>  <xs:enumeration value="updiagonalstrike"/>  <xs:enumeration value="downdiagonalstrike"/>  <xs:enumeration value="verticalstrike"/>  <xs:enumeration value="horizontalstrike"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ denomalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="denomalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ depth**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="depth" type="m:length"/> |

attribute **mstyle.generalattributes/@ dir**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | ltr |  |
| enumeration | rtl |  |
| source | <xs:attribute name="dir">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="ltr"/>  <xs:enumeration value="rtl"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ edge**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| source | <xs:attribute name="edge">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ equalcolumns**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="equalcolumns">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/> | | |
|  | <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ equalrows**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="equalrows">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ fence**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="fence">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ form**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | prefix |  |
| enumeration | infix |  |
| enumeration | postfix |  |
| source | <xs:attribute name="form">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="prefix"/>  <xs:enumeration value="infix"/>  <xs:enumeration value="postfix"/>  </xs:restriction>  </xs:simpleType> | | |
|  | </xs:attribute> | | |

attribute **mstyle.generalattributes/@ frame**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:linestyle**](#_bookmark764) | | |
| facets | Kind | Value | Annotation |
| enumeration | none |  |
| enumeration | solid |  |
| enumeration | dashed |  |
| source | <xs:attribute name="frame" type="m:linestyle"/> | | |

attribute **mstyle.generalattributes/@ framespacing**

|  |  |
| --- | --- |
| type | restriction of (list of (union of [(**m:length**, **m:length**](#_bookmark1052)))) |
| facets | Kind Value Annotation  length 2 |
| source | <xs:attribute name="framespacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length m:length"/>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:length value="2"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ groupalign**

|  |  |
| --- | --- |
| type | [**m:group-alignment-list-list**](#_bookmark762) |
| facets | Kind Value Annotation  pattern (\s\*\{\s\*(left|center|right|decimalpoint)(\s+(left|center|right|decimalpoint))\*\})\*\s\* |
| source | <xs:attribute name="groupalign" type="m:group-alignment-list-list"/> |

attribute **mstyle.generalattributes/@ height**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="height" type="m:length"/> |

attribute **mstyle.generalattributes/@ indentalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| source | <xs:attribute name="indentalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ indentalignfirst**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | auto |  |
| enumeration | id |  |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignfirst">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ indentalignlast**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
|  | enumeration | auto | |
| enumeration | id | |
| enumeration | indentalign | |
| source | <xs:attribute name="indentalignlast">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="auto"/>  <xs:enumeration value="id"/>  <xs:enumeration value="indentalign"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ indentshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="indentshift" type="m:length"/> |

# attribute mstyle.generalattributes/@ indents hiftfirst

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftfirst">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ indentshiftlast**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="indentshiftlast">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="indentshift"/>  </xs:restriction>  </xs:simpleType> |
|  | </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ indenttarget**

|  |  |
| --- | --- |
| source | <xs:attribute name="indenttarget"/> |

attribute **mstyle.generalattributes/@ largeop**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="largeop">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ leftoverhang**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="leftoverhang" type="m:length"/> |

attribute **mstyle.generalattributes/@ length**

|  |  |
| --- | --- |
| type | [**m:unsigned-integer**](#_bookmark769) |
| source | <xs:attribute name="length" type="m:unsigned-integer"/> |

attribute **mstyle.generalattributes/@ linebreak**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | auto |  |
| enumeration | newline |  |
| enumeration | nobreak |  |
| enumeration | goodbreak | |
| enumeration | badbreak |  |
| source | <xs:attribute name="linebreak">  <xs:simpleType>  <xs:restriction base="xs:token"> | | |
|  | <xs:enumeration value="auto"/>  <xs:enumeration value="newline"/>  <xs:enumeration value="nobreak"/>  <xs:enumeration value="goodbreak"/>  <xs:enumeration value="badbreak"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

# attribute mstyle.generalattributes/@ linebreakmultchar

|  |  |
| --- | --- |
| source | <xs:attribute name="linebreakmultchar"/> |

attribute **mstyle.generalattributes/@ linebreakstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | before |  |
| enumeration | after |  |
| enumeration | duplicate |  |
| enumeration | infixlinebreakstyle | |
| source | <xs:attribute name="linebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  <xs:enumeration value="infixlinebreakstyle"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ lineleading**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="lineleading" type="m:length"/> |

# attribute mstyle.generalattributes/@ linethickness

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="linethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction> |
|  | </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ location**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | w |  |
| enumeration | nw |  |
| enumeration | n |  |
| enumeration | ne |  |
| enumeration | e |  |
| enumeration | se |  |
| enumeration | s |  |
| enumeration | sw |  |
| source | <xs:attribute name="location">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="w"/>  <xs:enumeration value="nw"/>  <xs:enumeration value="n"/>  <xs:enumeration value="ne"/>  <xs:enumeration value="e"/>  <xs:enumeration value="se"/>  <xs:enumeration value="s"/>  <xs:enumeration value="sw"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ longdivstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | lefttop |  |
| enumeration | stackedrightright |  |
| enumeration | mediumstackedrightright | |
| enumeration | shortstackedrightright | |
| enumeration | righttop |  |
|  | enumeration | left/\right | |
| enumeration | left)(right | |
| enumeration | :right=right | |
| enumeration | stackedleftleft | |
| enumeration | stackedleftlinetop | |
| source | <xs:attribute name="longdivstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="lefttop"/>  <xs:enumeration value="stackedrightright"/>  <xs:enumeration value="mediumstackedrightright"/>  <xs:enumeration value="shortstackedrightright"/>  <xs:enumeration value="righttop"/>  <xs:enumeration value="left/\right"/>  <xs:enumeration value="left)(right"/>  <xs:enumeration value=":right=right"/>  <xs:enumeration value="stackedleftleft"/>  <xs:enumeration value="stackedleftlinetop"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ lquote**

|  |  |
| --- | --- |
| source | <xs:attribute name="lquote"/> |

attribute **mstyle.generalattributes/@ lspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="lspace" type="m:length"/> |

attribute **mstyle.generalattributes/@ mathsize**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType> |
|  | <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ mathvariant**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | normal |  |
| enumeration | bold |  |
| enumeration | italic |  |
| enumeration | bold-italic |  |
| enumeration | double-struck |  |
| enumeration | bold-fraktur |  |
| enumeration | script |  |
| enumeration | bold-script |  |
| enumeration | fraktur |  |
| enumeration | sans-serif |  |
| enumeration | bold-sans-serif |  |
| enumeration | sans-serif-italic |  |
| enumeration | sans-serif-bold-italic | |
| enumeration | monospace |  |
| enumeration | initial |  |
| enumeration | tailed |  |
| enumeration | looped |  |
| enumeration | stretched |  |
| source | <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/>  <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/> | | |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ maxsize**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="maxsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="infinity"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

# attribute mstyle.generalattributes/@ minlabelspacing

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="minlabelspacing" type="m:length"/> |

attribute **mstyle.generalattributes/@ minsize**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="minsize" type="m:length"/> |

# attribute mstyle.generalattributes/@ movablelimits

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="movablelimits">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ mslinethickness**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="mslinethickness">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thin"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="medium"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="thick"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ notation**

|  |  |
| --- | --- |
| source | <xs:attribute name="notation"/> |

attribute **mstyle.generalattributes/@ numalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="numalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ open**

|  |  |
| --- | --- |
| source | <xs:attribute name="open"/> |

attribute **mstyle.generalattributes/@ position**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="position" type="m:integer"/> |

# attribute mstyle.generalattributes/@ rightoverhang

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="rightoverhang" type="m:length"/> |

attribute **mstyle.generalattributes/@ rowalign**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:verticalalign**)](#_bookmark770) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:verticalalign"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ rowlines**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:linestyle**)](#_bookmark764) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="rowlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ rowspacing**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:length**)](#_bookmark1052) |
| facets | Kind Value Annotation |
|  | minLength 1 |
| source | <xs:attribute name="rowspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mstyle.generalattributes/@ rowspan**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="rowspan" type="m:positive-integer"/> |

attribute **mstyle.generalattributes/@ rquote**

|  |  |
| --- | --- |
| source | <xs:attribute name="rquote"/> |

attribute **mstyle.generalattributes/@ rspace**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="rspace" type="m:length"/> |

attribute **mstyle.generalattributes/@ selection**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="selection" type="m:positive-integer"/> |

attribute **mstyle.generalattributes/@ separator**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="separator">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType> | | |
|  | </xs:attribute> | | |

attribute **mstyle.generalattributes/@ separators**

|  |  |
| --- | --- |
| source | <xs:attribute name="separators"/> |

attribute **mstyle.generalattributes/@ shift**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="shift" type="m:integer"/> |

attribute **mstyle.generalattributes/@ side**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | leftoverlap |  |
| enumeration | rightoverlap | |
| source | <xs:attribute name="side">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="leftoverlap"/>  <xs:enumeration value="rightoverlap"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ stackalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| enumeration | decimalpoint | |
| source | <xs:attribute name="stackalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="center"/>  <xs:enumeration value="right"/>  <xs:enumeration value="decimalpoint"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ stretchy**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="stretchy">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

# attribute mstyle.generalattributes/@ subscriptshift

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="subscriptshift" type="m:length"/> |

attribute **mstyle.generalattributes/@ superscriptshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="superscriptshift" type="m:length"/> |

attribute **mstyle.generalattributes/@ symmetric**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="symmetric">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.generalattributes/@ valign**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="valign" type="m:length"/> |

attribute **mstyle.generalattributes/@ width**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="width" type="m:length"/> |

attributeGroup **mstyle.specificattributes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | attributeGroups | [**math.attributes**](#_bookmark788) [**mstyle.attributes**](#_bookmark904) | |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [scriptlevel](#_bookmark990) | [**m:integer**](#_bookmark763) |  |  |  |  |
| [displaystyle](#_bookmark991) | **derived by: xs:token** |  |  |  |  |
| [scriptsizemultiplier](#_bookmark992) | [**m:number**](#_bookmark767) |  |  |  |  |
| [scriptminsize](#_bookmark993) | [**m:length**](#_bookmark1052) |  |  |  |  |
| [infixlinebreakstyle](#_bookmark994) | **derived by: xs:token** |  |  |  |  |
| [decimalpoint](#_bookmark995) | [**m:character**](#_bookmark757) |  |  |  |  |
| source | <xs:attributeGroup name="mstyle.specificattributes">  <xs:attribute name="scriptlevel" type="m:integer"/>  <xs:attribute name="displaystyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="scriptsizemultiplier" type="m:number"/>  <xs:attribute name="scriptminsize" type="m:length"/>  <xs:attribute name="infixlinebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="decimalpoint" type="m:character"/>  </xs:attributeGroup> | | | | | |

attribute **mstyle.specificattributes/@ scriptlevel**

|  |  |
| --- | --- |
| type | [**m:integer**](#_bookmark763) |
| source | <xs:attribute name="scriptlevel" type="m:integer"/> |

# attribute mstyle.specificattributes/@ displaystyle

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="displaystyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mstyle.specificattributes/@ scriptsizemultiplier**

|  |  |
| --- | --- |
| type | [**m:number**](#_bookmark767) |
| source | <xs:attribute name="scriptsizemultiplier" type="m:number"/> |

attribute **mstyle.specificattributes/@ scriptminsize**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="scriptminsize" type="m:length"/> |

attribute **mstyle.specificattributes/@ infixlinebreakstyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | before |  |
| enumeration | after |  |
| enumeration | duplicate |  |
| source | <xs:attribute name="infixlinebreakstyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="before"/>  <xs:enumeration value="after"/>  <xs:enumeration value="duplicate"/>  </xs:restriction>  </xs:simpleType> | | |
|  | </xs:attribute> | | |

attribute **mstyle.specificattributes/@ decimalpoint**

|  |  |
| --- | --- |
| type | [**m:character**](#_bookmark757) |
| facets | Kind Value Annotation  pattern \s\*\S\s\* |
| source | <xs:attribute name="decimalpoint" type="m:character"/> |

attributeGroup **msub.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="msub.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="subscriptshift" type="m:length"/>

</xs:attributeGroup>

attribute **msub.attributes/@ subscriptshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="subscriptshift" type="m:length"/> |

attributeGroup **msubsup.attributes**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace <http://www.w3.org/1998/Math/MathML> used by element [**msubsup**](#_bookmark740)  attributeGroup [**mmultiscripts.attributes**](#_bookmark824) | | | | | | | | |
| attributes | Name [id](#_bookmark1059) | | Type  **xs:ID** | | Use | Default | Fixed | Annotation |
|  | [xref](#_bookmark1060) | |  | |  | | | |
|  | [class](#_bookmark1061) | | **xs:NMTOKENS** | |
|  | [style](#_bookmark1062) | | **xs:string** | |
|  | | [href](#_bookmark1063) | | **xs:anyURI** | | | | |
| [other](#_bookmark1065) | |  | | | | |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) | | | | |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) | | | | |
| [subscriptshift](#_bookmark999) | | [**m:length**](#_bookmark1052) | | | | |
| [superscriptshift](#_bookmark1000) | | [**m:length**](#_bookmark1052) | | | | |
| source | | <xs:attributeGroup name="msubsup.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="subscriptshift" type="m:length"/>  <xs:attribute name="superscriptshift" type="m:length"/>  </xs:attributeGroup> | | | | | | |

attribute **msubsup.attributes/@ subscriptshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="subscriptshift" type="m:length"/> |

attribute **msubsup.attributes/@ s uperscriptshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="superscriptshift" type="m:length"/> |

attributeGroup **msup.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="msup.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="superscriptshift" type="m:length"/>

|  |  |
| --- | --- |
|  | </xs:attributeGroup> |

attribute **msup.attributes/@ superscriptshift**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="superscriptshift" type="m:length"/> |

attributeGroup **mtable.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:string derived by: xs:list derived by: xs:list**

**derived by: xs:token derived by: derived by: derived by: xs:list derived by: xs:list derived by: xs:list derived by: xs:list**

**derived by: derived by: xs:token derived by: xs:token derived by: xs:token derived by: xs:token**

|  |  |
| --- | --- |
|  | [minlabelspacing](#_bookmark1021) [**m:length**](#_bookmark1052) |
| source | <xs:attributeGroup name="mtable.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="\s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\*"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:verticalalign"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="groupalign" type="m:group-alignment-list-list"/>  <xs:attribute name="alignmentscope">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnwidth">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType> |
|  | <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="fit"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="width">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="rowspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="rowlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType> |
|  | <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="frame" type="m:linestyle"/>  <xs:attribute name="framespacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length m:length"/>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:length value="2"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="equalrows">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="equalcolumns">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="displaystyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="side">  <xs:simpleType>  <xs:restriction base="xs:token"> |
|  | <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="leftoverlap"/>  <xs:enumeration value="rightoverlap"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="minlabelspacing" type="m:length"/>  </xs:attributeGroup> |

attribute **mtable.attributes/@ align**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | Kind Value Annotation  pattern \s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\* |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:string">  <xs:pattern value="\s\*(top|bottom|center|baseline|axis)(\s+-?[0-9]+)?\s\*"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ rowalign**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:verticalalign**)](#_bookmark770) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:verticalalign"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ columnalign**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:columnalignstyle**)](#_bookmark759) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/> |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ groupalign**

|  |  |
| --- | --- |
| type | [**m:group-alignment-list-list**](#_bookmark762) |
| facets | Kind Value Annotation  pattern (\s\*\{\s\*(left|center|right|decimalpoint)(\s+(left|center|right|decimalpoint))\*\})\*\s\* |
| source | <xs:attribute name="groupalign" type="m:group-alignment-list-list"/> |

attribute **mtable.attributes/@ alignmentscope**

|  |  |
| --- | --- |
| type | restriction of (list of (restriction of **xs:token**)) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="alignmentscope">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ columnwidth**

|  |  |
| --- | --- |
| type | restriction of (list of (union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**))) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnwidth">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType> |
|  | <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="fit"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ width**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**) |
| source | <xs:attribute name="width">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="auto"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ rowspacing**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:length**)](#_bookmark1052) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="rowspacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ columnspacing**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:length**)](#_bookmark1052) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnspacing"> |
|  | <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:length"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ rowlines**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:linestyle**)](#_bookmark764) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="rowlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ columnlines**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:linestyle**)](#_bookmark764) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnlines">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:linestyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ frame**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:linestyle**](#_bookmark764) | | |
| facets | Kind | Value | Annotation |
| enumeration | none |  |
| enumeration | solid |  |
| enumeration | dashed |  |
| source | <xs:attribute name="frame" type="m:linestyle"/> | | |

attribute **mtable.attributes/@ framespacing**

|  |  |
| --- | --- |
| type | restriction of (list of (union of [(**m:length**, **m:length**](#_bookmark1052)))) |
| facets | Kind Value Annotation  length 2 |
| source | <xs:attribute name="framespacing">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list>  <xs:simpleType>  <xs:union memberTypes="m:length m:length"/>  </xs:simpleType>  </xs:list>  </xs:simpleType>  <xs:length value="2"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtable.attributes/@ equalrows**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="equalrows">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtable.attributes/@ equalcolumns**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="equalcolumns">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtable.attributes/@ displaystyle**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="displaystyle">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtable.attributes/@ side**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | leftoverlap |  |
| enumeration | rightoverlap | |
| source | <xs:attribute name="side">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="leftoverlap"/>  <xs:enumeration value="rightoverlap"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtable.attributes/@ minlabelspacing**

|  |  |
| --- | --- |
| type | [**m:length**](#_bookmark1052) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:attribute name="minlabelspacing" type="m:length"/> |

attributeGroup **mtd.attributes**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | |
| used by | element | [**TableCellExpression**](#_bookmark749) | |  |  |  |  |
| attributes | Name | Type | | Use | Default | Fixed | Annotation |
| [id](#_bookmark1059) | **xs:ID** | |  |  |  |  |
|  | [xref](#_bookmark1060) | |  | | | | |
| [class](#_bookmark1061) | | **xs:NMTOKENS** | | | | |
| [style](#_bookmark1062) | | **xs:string** | | | | |
| [href](#_bookmark1063) | | **xs:anyURI** | | | | |
| [other](#_bookmark1065) | |  | | | | |
| [mathcolor](#_bookmark772) | | [**m:color**](#_bookmark758) | | | | |
| [mathbackground](#_bookmark773) | | **derived by:** [**m:color**](#_bookmark758) | | | | |
| [rowspan](#_bookmark1023) | | [**m:positive-integer**](#_bookmark768) | | | | |
| [columnspan](#_bookmark1024) | | [**m:positive-integer**](#_bookmark768) | | | | |
| [rowalign](#_bookmark1025) | | **derived by: xs:token** | | | | |
| [columnalign](#_bookmark1026) | | [**m:columnalignstyle**](#_bookmark759) | | | | |
| [groupalign](#_bookmark1027) | | [**m:group-**](#_bookmark761)[**alignment-list**](#_bookmark761) | | | | |
| source | <xs:attributeGroup name="mtd.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attribute name="rowspan" type="m:positive-integer"/>  <xs:attribute name="columnspan" type="m:positive-integer"/>  <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="top"/>  <xs:enumeration value="bottom"/>  <xs:enumeration value="center"/>  <xs:enumeration value="baseline"/>  <xs:enumeration value="axis"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="columnalign" type="m:columnalignstyle"/>  <xs:attribute name="groupalign" type="m:group-alignment-list"/>  </xs:attributeGroup> | | | | | | |

attribute **mtd.attributes/@ rowspan**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="rowspan" type="m:positive-integer"/> |

attribute **mtd.attributes/@ columnspan**

|  |  |
| --- | --- |
| type | [**m:positive-integer**](#_bookmark768) |
| source | <xs:attribute name="columnspan" type="m:positive-integer"/> |

attribute **mtd.attributes/@ rowalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | top |  |
|  | enumeration | bottom | |
| enumeration | center | |
| enumeration | baseline | |
| enumeration | axis | |
| source | <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="top"/>  <xs:enumeration value="bottom"/>  <xs:enumeration value="center"/>  <xs:enumeration value="baseline"/>  <xs:enumeration value="axis"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtd.attributes/@ columnalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | [**m:columnalignstyle**](#_bookmark759) | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | center |  |
| enumeration | right |  |
| source | <xs:attribute name="columnalign" type="m:columnalignstyle"/> | | |

attribute **mtd.attributes/@ groupalign**

|  |  |
| --- | --- |
| type | [**m:group-alignment-list**](#_bookmark761) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="groupalign" type="m:group-alignment-list"/> |

attributeGroup **mtext.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token**

|  |  |  |
| --- | --- | --- |
|  | [mathsize](#_bookmark1043) | **derived by:**  [**m:length**](#_bookmark1052) |
| [dir](#_bookmark1044) | **derived by: xs:token** |
| [fontfamily](#_bookmark775) |  |
| [fontweight](#_bookmark776) | **derived by: xs:token** |
| [fontstyle](#_bookmark777) | **derived by:**  **xs:token** |
| [fontsize](#_bookmark778) | [**m:length**](#_bookmark1052) |
| [color](#_bookmark779) | [**m:color**](#_bookmark758) |
| [background](#_bookmark780) | **derived by:** [**m:color**](#_bookmark758) |
| source | <xs:attributeGroup name="mtext.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:CommonPresAtt"/>  <xs:attributeGroup ref="m:TokenAtt"/>  </xs:attributeGroup> | |

attributeGroup **mtr.attributes**

namespace

used by

element

attributeGroup

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:list**

source

<xs:attributeGroup name="mtr.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="rowalign">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="top"/>

<xs:enumeration value="bottom"/>

<xs:enumeration value="center"/>

<xs:enumeration value="baseline"/>

<xs:enumeration value="axis"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

<xs:attribute name="columnalign">

|  |  |
| --- | --- |
|  | <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="groupalign" type="m:group-alignment-list-list"/>  </xs:attributeGroup> |

attribute **mtr.attributes/@ rowalign**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | top |  |
| enumeration | bottom |  |
| enumeration | center |  |
| enumeration | baseline |  |
| enumeration | axis |  |
| source | <xs:attribute name="rowalign">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="top"/>  <xs:enumeration value="bottom"/>  <xs:enumeration value="center"/>  <xs:enumeration value="baseline"/>  <xs:enumeration value="axis"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **mtr.attributes/@ columnalign**

|  |  |
| --- | --- |
| type | restriction of (list of [**m:columnalignstyle**)](#_bookmark759) |
| facets | Kind Value Annotation  minLength 1 |
| source | <xs:attribute name="columnalign">  <xs:simpleType>  <xs:restriction>  <xs:simpleType>  <xs:list itemType="m:columnalignstyle"/>  </xs:simpleType>  <xs:minLength value="1"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> |

attribute **mtr.attributes/@ groupalign**

|  |  |
| --- | --- |
| type | [**m:group-alignment-list-list**](#_bookmark762) |
| facets | Kind Value Annotation  pattern (\s\*\{\s\*(left|center|right|decimalpoint)(\s+(left|center|right|decimalpoint))\*\})\*\s\* |
| source | <xs:attribute name="groupalign" type="m:group-alignment-list-list"/> |

attributeGroup **munder.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:token**

source

<xs:attributeGroup name="munder.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="accentunder">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="true"/>

<xs:enumeration value="false"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

<xs:attribute name="align">

<xs:simpleType>

<xs:restriction base="xs:token">

<xs:enumeration value="left"/>

<xs:enumeration value="right"/>

<xs:enumeration value="center"/>

</xs:restriction>

</xs:simpleType>

</xs:attribute>

</xs:attributeGroup>

attribute **munder.attributes/@ accentunder**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
|  | enumeration false | | |
| source | <xs:attribute name="accentunder">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **munder.attributes/@ align**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | center |  |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **munderover.attributes**

namespace

used by

element

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by: derived by: xs:token derived by: xs:token derived by: xs:token**

source

<xs:attributeGroup name="munderover.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

<xs:attribute name="accent">

|  |  |
| --- | --- |
|  | <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="accentunder">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:attributeGroup> |

attribute **munderover.attributes/@ accent**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accent">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **munderover.attributes/@ accentunder**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | true |  |
| enumeration | false |  |
| source | <xs:attribute name="accentunder">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="true"/>  <xs:enumeration value="false"/> | | |
|  | </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attribute **munderover.attributes/@ align**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | left |  |
| enumeration | right |  |
| enumeration | center |  |
| source | <xs:attribute name="align">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="left"/>  <xs:enumeration value="right"/>  <xs:enumeration value="center"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

attributeGroup **none.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**derived by:**

source

<xs:attributeGroup name="none.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:CommonPresAtt"/>

</xs:attributeGroup>

attributeGroup **TokenAtt**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | | |
| used by | attributeGroups | | | [**mi.attributes**](#_bookmark820) [**mn.attributes**](#_bookmark825) [**mo.attributes**](#_bookmark826) [**ms.attributes**](#_bookmark864) [**mspace.attributes**](#_bookmark884) [**mtext.attributes**](#_bookmark1028) | | | | |
| attributes | Name | | | Type | Use | Default | Fixed | Annotation |
| [mathvariant](#_bookmark1042) | | | **derived by:**  **xs:token** |  |  |  |  |
| [mathsize](#_bookmark1043) | | | **derived by:**  [**m:length**](#_bookmark1052) |  |  |  |  |
| [dir](#_bookmark1044) | | | **derived by:** |  |  |  |  |
|  | |  | **xs:token** | | | | | |
| [fontfamily](#_bookmark775) |  | | | | | |
| [fontweight](#_bookmark776) | **derived by: xs:token** | | | | | |
| [fontstyle](#_bookmark777) | **derived by:**  **xs:token** | | | | | |
| [fontsize](#_bookmark778) | [**m:length**](#_bookmark1052) | | | | | |
| [color](#_bookmark779) | [**m:color**](#_bookmark758) | | | | | |
| [background](#_bookmark780) | **derived by:** [**m:color**](#_bookmark758) | | | | | |
| source | | <xs:attributeGroup name="TokenAtt">  <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/>  <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> | | | | | | |
|  | | <xs:attribute name="dir">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="ltr"/>  <xs:enumeration value="rtl"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute>  <xs:attributeGroup ref="m:DeprecatedTokenAtt"/>  </xs:attributeGroup> | | | | | | |

attribute **TokenAtt/@ mathvariant**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | normal |  |
| enumeration | bold |  |
| enumeration | italic |  |
| enumeration | bold-italic |  |
| enumeration | double-struck |  |
| enumeration | bold-fraktur |  |
| enumeration | script |  |
| enumeration | bold-script |  |
| enumeration | fraktur |  |
| enumeration | sans-serif |  |
| enumeration | bold-sans-serif |  |
| enumeration | sans-serif-italic |  |
| enumeration | sans-serif-bold-italic | |
| enumeration | monospace |  |
| enumeration | initial |  |
| enumeration | tailed |  |
| enumeration | looped |  |
| enumeration | stretched |  |
| source | <xs:attribute name="mathvariant">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  <xs:enumeration value="bold"/>  <xs:enumeration value="italic"/>  <xs:enumeration value="bold-italic"/>  <xs:enumeration value="double-struck"/>  <xs:enumeration value="bold-fraktur"/>  <xs:enumeration value="script"/>  <xs:enumeration value="bold-script"/>  <xs:enumeration value="fraktur"/>  <xs:enumeration value="sans-serif"/>  <xs:enumeration value="bold-sans-serif"/>  <xs:enumeration value="sans-serif-italic"/>  <xs:enumeration value="sans-serif-bold-italic"/>  <xs:enumeration value="monospace"/>  <xs:enumeration value="initial"/> | | |
|  | <xs:enumeration value="tailed"/>  <xs:enumeration value="looped"/>  <xs:enumeration value="stretched"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

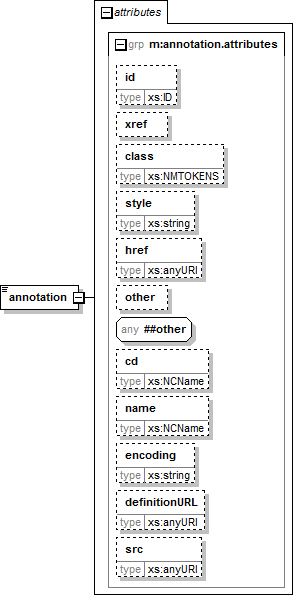
attribute **TokenAtt/@ mathsize**

|  |  |
| --- | --- |
| type | union of [(**m:length**,](#_bookmark1052) restriction of **xs:token**, restriction of **xs:token**, restriction of **xs:token**) |
| source | <xs:attribute name="mathsize">  <xs:simpleType>  <xs:union memberTypes="m:length">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="small"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="normal"/>  </xs:restriction>  </xs:simpleType>  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="big"/>  </xs:restriction>  </xs:simpleType>  </xs:union>  </xs:simpleType>  </xs:attribute> |

attribute **TokenAtt/@ dir**

|  |  |  |  |
| --- | --- | --- | --- |
| type | restriction of **xs:token** | | |
| facets | Kind | Value | Annotation |
| enumeration | ltr |  |
| enumeration | rtl |  |
| source | <xs:attribute name="dir">  <xs:simpleType>  <xs:restriction base="xs:token">  <xs:enumeration value="ltr"/>  <xs:enumeration value="rtl"/>  </xs:restriction>  </xs:simpleType>  </xs:attribute> | | |

element **annotation**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

mixed true

used by elements [**semantics-ci/semantics**](#_bookmark1092) [**semantics-contexp/semantics**](#_bookmark1094)[**semantics/semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[cd](#_bookmark1054) **xs:NCName**

[name](#_bookmark1055) **xs:NCName**

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

[src](#_bookmark1078) **xs:anyURI**

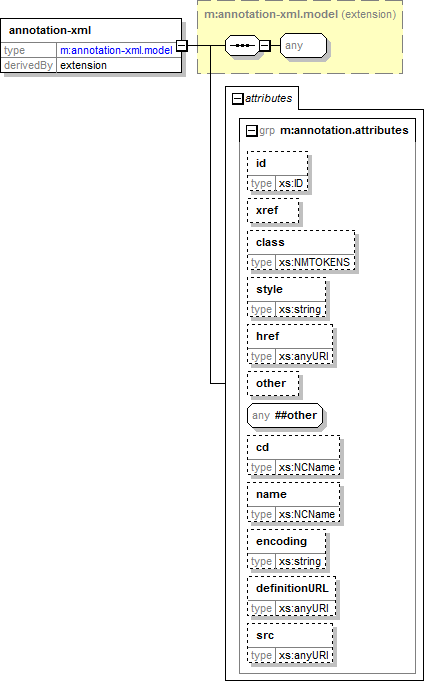
source <xs:element name="annotation">

<xs:complexType mixed="true">

<xs:attributeGroup ref="m:annotation.attributes"/>

|  |  |
| --- | --- |
|  | </xs:complexType>  </xs:element> |

element **annotation-xml**

diagram

namespace <http://www.w3.org/1998/Math/MathML> type extension of [**m:annotation-xml.model**](#_bookmark1051)

properties content complex

used by elements [**semantics-ci/semantics**](#_bookmark1092) [**semantics-contexp/semantics**](#_bookmark1094)[**semantics/semantics**](#_bookmark1050)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

|  |  |  |
| --- | --- | --- |
|  | [other](#_bookmark1065) |  |
| [cd](#_bookmark1054) | **xs:NCName** |
| [name](#_bookmark1055) | **xs:NCName** |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| [src](#_bookmark1078) | **xs:anyURI** |
| source | <xs:element name="annotation-xml">  <xs:complexType>  <xs:complexContent>  <xs:extension base="m:annotation-xml.model">  <xs:attributeGroup ref="m:annotation.attributes"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **math**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)  [**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526) |

[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633) [**m:semantics**](#_bookmark1050)

used by complexTypes [**abstractType**](#_bookmark411) [**contentType**](#_bookmark268)[**core-curriculum-abilityType**](#_bookmark271)[**equationType**](#_bookmark72)

group [**linkInlineContentGroup**](#_bookmark44)

attributes Name Type Use Default Fixed Annotation [mathcolor](#_bookmark772) [**m:color**](#_bookmark758)

[mathbackground](#_bookmark773) **derived by:**

[**m:color**](#_bookmark758)

[scriptlevel](#_bookmark990) [**m:integer**](#_bookmark763)

[displaystyle](#_bookmark991) **derived by: xs:token**

[scriptsizemultiplier](#_bookmark992) [**m:number**](#_bookmark767)

[scriptminsize](#_bookmark993) [**m:length**](#_bookmark1052)

[infixlinebreakstyle](#_bookmark994) **derived by:**

**xs:token**

[decimalpoint](#_bookmark995) [**m:character**](#_bookmark757)

[accent](#_bookmark914) **derived by: xs:token**

[accentunder](#_bookmark915) **derived by: xs:token**

[align](#_bookmark916) **derived by: xs:token**

[alignmentscope](#_bookmark917) **derived by:**

**xs:token**

[bevelled](#_bookmark918) **derived by: xs:token**

[charalign](#_bookmark919) **derived by: xs:token**

[charspacing](#_bookmark920) **derived by:** [**m:length**](#_bookmark1052)

[close](#_bookmark921)

[columnalign](#_bookmark922) **derived by: xs:list**

[columnlines](#_bookmark923) **derived by: xs:list**

[columnspacing](#_bookmark924) **derived by:**

**xs:list**

[columnspan](#_bookmark925) [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768)

[columnwidth](#_bookmark926) **derived by:** [**m:length**](#_bookmark1052)

[crossout](#_bookmark927) **derived by: xs:token**

[denomalign](#_bookmark928) **derived by: xs:token**

[depth](#_bookmark929) [**m:length**](#_bookmark1052)

[dir](#_bookmark930) **derived by:**

**xs:token**

[edge](#_bookmark931) **derived by: xs:token**

[equalcolumns](#_bookmark932) **derived by: xs:token**

[equalrows](#_bookmark933) **derived by: xs:token**

[fence](#_bookmark934) **derived by: xs:token**

[form](#_bookmark935) **derived by:**

**xs:token**

[frame](#_bookmark936) [**m:linestyle**](#_bookmark764)

[framespacing](#_bookmark937) **derived by:** [**m:length**](#_bookmark1052)

[groupalign](#_bookmark938) [**m:group-**](#_bookmark762)[**alignment-list-**](#_bookmark762)[**list**](#_bookmark762)

[height](#_bookmark939) [**m:length**](#_bookmark1052)

|  |  |  |  |
| --- | --- | --- | --- |
|  | [indentalign](#_bookmark940) | | **derived by:**  **xs:token** |
| [indentalignfirst](#_bookmark941) | | **derived by: xs:token** |
| [indentalignlast](#_bookmark942) | | **derived by:**  **xs:token** |
| [indentshift](#_bookmark943) | | [**m:length**](#_bookmark1052) |
| [indentshiftfirst](#_bookmark944) | | **derived by:** [**m:length**](#_bookmark1052) |
| [indentshiftlast](#_bookmark945) | | **derived by:**  [**m:length**](#_bookmark1052) |
| [indenttarget](#_bookmark946) | |  |
| [largeop](#_bookmark947) | | **derived by: xs:token** |
| [leftoverhang](#_bookmark948) | | [**m:length**](#_bookmark1052) |
| [length](#_bookmark949) | | [**m:unsigned-**](#_bookmark769)[**integer**](#_bookmark769) |
| [linebreak](#_bookmark950) | | **derived by:**  **xs:token** |
| [linebreakmultchar](#_bookmark951) | |  |
| [linebreakstyle](#_bookmark952) | | **derived by: xs:token** |
| [lineleading](#_bookmark953) | | [**m:length**](#_bookmark1052) |
| [linethickness](#_bookmark954) | | **derived by:** [**m:length**](#_bookmark1052) |
| [location](#_bookmark955) | | **derived by:**  **xs:token** |
| [longdivstyle](#_bookmark956) | | **derived by: xs:token** |
| [lquote](#_bookmark957) | |  |
| [lspace](#_bookmark958) | | [**m:length**](#_bookmark1052) |
| [mathsize](#_bookmark959) | | **derived by:** [**m:length**](#_bookmark1052) |
| [mathvariant](#_bookmark960) | | **derived by:**  **xs:token** |
| [maxsize](#_bookmark961) | | **derived by:** [**m:length**](#_bookmark1052) |
| [minlabelspacing](#_bookmark962) | | [**m:length**](#_bookmark1052) |
| [minsize](#_bookmark963) | | [**m:length**](#_bookmark1052) |
| [movablelimits](#_bookmark964) | | **derived by: xs:token** |
| [mslinethickness](#_bookmark965) | | **derived by:**  [**m:length**](#_bookmark1052) |
| [notation](#_bookmark966) | |  |
| [numalign](#_bookmark967) | | **derived by: xs:token** |
| [open](#_bookmark968) | |  |
| [position](#_bookmark969) | | [**m:integer**](#_bookmark763) |
| [rightoverhang](#_bookmark970) | | [**m:length**](#_bookmark1052) |
| [rowalign](#_bookmark971) | | **derived by: xs:list** |
| [rowlines](#_bookmark972) | | **derived by:**  **xs:list** |
| [rowspacing](#_bookmark973) | | **derived by: xs:list** |
| [rowspan](#_bookmark974) | | [**m:positive-**](#_bookmark768)  [**integer**](#_bookmark768) |
| [rquote](#_bookmark975) | |  |
| [rspace](#_bookmark976) | | [**m:length**](#_bookmark1052) |
| [selection](#_bookmark977) | | [**m:positive-**](#_bookmark768)[**integer**](#_bookmark768) |
| [separator](#_bookmark978) | | **derived by:** |
|  |  | **xs:token** | |
| [separators](#_bookmark979) |  | |
| [shift](#_bookmark980) | [**m:integer**](#_bookmark763) | |
| [side](#_bookmark981) | **derived by: xs:token** | |
| [stackalign](#_bookmark982) | **derived by:**  **xs:token** | |
| [stretchy](#_bookmark983) | **derived by: xs:token** | |
| [subscriptshift](#_bookmark984) | [**m:length**](#_bookmark1052) | |
| [superscriptshift](#_bookmark985) | [**m:length**](#_bookmark1052) | |
| [symmetric](#_bookmark986) | **derived by: xs:token** | |
| [valign](#_bookmark987) | [**m:length**](#_bookmark1052) | |
| [width](#_bookmark988) | [**m:length**](#_bookmark1052) | |
| [id](#_bookmark1059) | **xs:ID** | |
| [xref](#_bookmark1060) |  | |
| [class](#_bookmark1061) | **xs:NMTOKENS** | |
| [style](#_bookmark1062) | **xs:string** | |
| [href](#_bookmark1063) | **xs:anyURI** | |
| [other](#_bookmark1065) |  | |
| [display](#_bookmark789) | **derived by: xs:token** | |
| [maxwidth](#_bookmark790) | [**m:length**](#_bookmark1052) | |
| [overflow](#_bookmark791) | **derived by: xs:token** | |
| [altimg](#_bookmark792) | **xs:anyURI** | |
| [altimg-width](#_bookmark793) | [**m:length**](#_bookmark1052) | |
| [altimg-height](#_bookmark794) | [**m:length**](#_bookmark1052) | |
| [altimg-valign](#_bookmark795) | **derived by:** [**m:length**](#_bookmark1052) | |
| [alttext](#_bookmark796) |  | |
| [cdgroup](#_bookmark797) | **xs:anyURI** | |
| [mode](#_bookmark1070) | **xs:string** | |
| [macros](#_bookmark1071) | **xs:string** | |
| source | <xs:element name="math">  <xs:complexType>  <xs:group ref="m:MathExpression" minOccurs="0" maxOccurs="unbounded"/>  <xs:attributeGroup ref="m:math.attributes"/>  </xs:complexType>  </xs:element> | | |

group **anyElement**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| source | <xs:group name="anyElement">  <xs:choice>  <xs:any namespace="##other" processContents="skip"/> |
|  | <xs:any namespace="##local" processContents="skip"/>  </xs:choice>  </xs:group> |

group **semantics**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:semantics**](#_bookmark1050) |
| used by | group [**MathExpression**](#_bookmark1090) |
| source | <xs:group name="semantics">  <xs:sequence>  <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:MathExpression"/>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:group> |

element **semantics/semantics**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050)[**m:annotation**](#_bookmark1045)[**m:annotation-xml**](#_bookmark1046) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [cd](#_bookmark1075) **xs:NCName**  [name](#_bookmark1076) **xs:NCName** | |
| source | <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:MathExpression"/>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element> | |

complexType **annotation-xml.model**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| used by | element [**annotation-xml**](#_bookmark1046) |
| source | <xs:complexType name="annotation-xml.model">  <xs:sequence>  <xs:any processContents="lax"/>  </xs:sequence>  <!--content model altered for libxml (annotation-xml)-->  </xs:complexType> |

simpleType **length**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | restriction of **xs:string** |
| properties | base xs:string |
| used by | attributes [**math.attributes/@ altimg -height**](#_bookmark794) [**math.attributes/@ altimg -valign**](#_bookmark795) [**math.attributes/@ altimg -width**](#_bookmark793)[**mstack.attributes/@ charspacing**](#_bookmark903) [**mstyle.generalattributes/@ charspacing**](#_bookmark920) [**mtable.attributes/@ columnspacing**](#_bookmark1012) [**mstyle.generalattributes/@ columnspacing**](#_bookmark924)**mtable.attributes/@ columnwidth** [**mstyle.generalattributes/@ columnwidth**](#_bookmark926) [**mspace.attributes/@dept h**](#_bookmark887)[**mstyle.generalattributes/@ depth**](#_bookmark929) [**DeprecatedTokenAtt/@ fontsize**](#_bookmark778) [**mtable.attributes/@ framespacing**](#_bookmark1016)[**mstyle.generalattributes/@ framespacing**](#_bookmark937) [**mspace.attributes/@height**](#_bookmark886)**mstyle.generalattributes/@ height** [**mglyph.attributes/@ height**](#_bookmark813) [**mstyle.generalattributes/@indentshift**](#_bookmark943)[**mo.attributes/@indent shift**](#_bookmark844) [**mspace.attributes/@ indentshift**](#_bookmark890) [**mstyle.generalattributes/@indentshiftfirst**](#_bookmark944)[**mo.attributes/@indentshiftfirst**](#_bookmark847) [**mspace.attributes/@**](#_bookmark893) **indentshiftfirst** [**mo.attributes/@**](#_bookmark849) **indentshiftlast** [**mstyle.generalattributes/@ indentshiftlast**](#_bookmark945) [**mspace.attributes/@**](#_bookmark895) **indentshiftlast**  [**msline.attributes/@ leftoverhang**](#_bookmark881) [**mstyle.generalattributes/@leftoverhang**](#_bookmark948) [**mo.attributes/@lineleading**](#_bookmark840)[**mstyle.generalattributes/@ lineleading**](#_bookmark953) [**mstyle.generalattributes/@ linethickness**](#_bookmark954) [**mfrac.attributes/@ linethickness**](#_bookmark806) [**mstyle.generalattributes/@lspace**](#_bookmark958) [**mo.attributes/@ lspace**](#_bookmark830)[**mstyle.generalattributes/@mathsize**](#_bookmark959) [**TokenAtt/@ mathsize**](#_bookmark1043) [**mglyph.deprecatedattributes/@ mathsize**](#_bookmark819)[**mo.attributes/@maxsize**](#_bookmark834) [**mstyle.generalattributes/@ maxsize**](#_bookmark961) [**math.attributes/@maxwidth**](#_bookmark790)[**mstyle.deprecatedattributes/@ mediummathspace**](#_bookmark909) [**mstyle.generalattributes/@minlabelspacing**](#_bookmark962)[**mtable.attributes/@minlabelspacing**](#_bookmark1021) [**mo.attributes/@ minsize**](#_bookmark835) [**mstyle.generalattributes/@minsize**](#_bookmark963)[**mstyle.generalattributes/@mslinethickness**](#_bookmark965) [**msline.attributes/@mslinethickness**](#_bookmark883) [**msline.attributes/@ rightoverhang**](#_bookmark882) [**mstyle.generalattributes/@ rig htoverhang**](#_bookmark970)[**mstyle.generalattributes/@ rowspacing**](#_bookmark973) [**mtable.attributes/@ rowspacing**](#_bookmark1011) [**mo.attributes/@ rspace**](#_bookmark831)[**mstyle.generalattributes/@ rspace**](#_bookmark976) [**mstyle.specificattributes/@ scriptminsize**](#_bookmark993) [**msub.attributes/@ subscriptshift**](#_bookmark997) [**mstyle.generalattributes/@ subscriptshift**](#_bookmark984) [**msubsup.attributes/@ subscriptshift**](#_bookmark999) [**msup.attributes/@ superscriptshift**](#_bookmark1002) [**msubsup.attributes/@ superscriptshift**](#_bookmark1000) [**mstyle.generalattributes/@ superscriptshift**](#_bookmark985)[**mstyle.deprecatedattributes/@ thickmathspace**](#_bookmark910) [**mstyle.deprecatedattributes/@ thinmathspace**](#_bookmark908)[**mglyph.attributes/@ valign**](#_bookmark814) [**mstyle.generalattributes/@ valign**](#_bookmark987) [**mstyle.deprecatedattributes/@ verythickmathspace**](#_bookmark911) [**mstyle.deprecatedattributes/@ verythinmathspace**](#_bookmark907) [**mstyle.deprecatedattributes/@ veryverythickmathspace**](#_bookmark912) [**mstyle.deprecatedattributes/@ veryverythinmathspace**](#_bookmark906) [**mglyph.attributes/@w idth**](#_bookmark812)  [**mspace.attributes/@width**](#_bookmark885) [**mtable.attributes/@width**](#_bookmark1010) [**mstyle.generalattributes/@width**](#_bookmark988) |
| facets | Kind Value Annotation  pattern \s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\* |
| source | <xs:simpleType name="length">  <xs:restriction base="xs:string">  <xs:pattern value="\s\*((-?[0-9]\*([0-9]\.?|\.[0-9])[0- 9]\*(e[mx]|in|cm|mm|p[xtc]|%)?)|(negative)?((very){0,2}thi(n|ck)|medium)mathspace)\s\*"/>  </xs:restriction>  </xs:simpleType> |

attributeGroup **annotation.attributes**

namespace

used by

attributes

elements

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

**xs:NCName**

|  |  |  |
| --- | --- | --- |
|  | [name](#_bookmark1055) | **xs:NCName** |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| [src](#_bookmark1078) | **xs:anyURI** |
| source | <xs:attributeGroup name="annotation.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attribute name="cd" type="xs:NCName"/>  <xs:attribute name="name" type="xs:NCName"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  <xs:attributeGroup ref="m:src"/>  </xs:attributeGroup> | |

attribute **annotation.attributes/@ cd**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| source | <xs:attribute name="cd" type="xs:NCName"/> |

attribute **annotation.attributes/@ name**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| source | <xs:attribute name="name" type="xs:NCName"/> |

attributeGroup **cd**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [cd](#_bookmark1057) | **xs:NCName** | required |  |  |  |
| source | <xs:attributeGroup name="cd">  <xs:attribute name="cd" type="xs:NCName" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **cd/@ cd**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| properties | use required |
| source | <xs:attribute name="cd" type="xs:NCName" use="required"/> |

attributeGroup **CommonAtt**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| used by | elements [**abs**](#_bookmark497) [**apply**](#_bookmark1079)[**approx**](#_bookmark499)[**arg**](#_bookmark512)[**binary-linalg.class**](#_bookmark513)[**binary-logical.class**](#_bookmark514)[**binary-set.class**](#_bookmark516)[**bind**](#_bookmark1080)[**bvar**](#_bookmark517)[**ceiling**](#_bookmark520)[**conjugate**](#_bookmark525) [**constant-arith.class**](#_bookmark526) [**constant-set.class**](#_bookmark527) [**Differential-Operator.class**](#_bookmark544) [**divide**](#_bookmark546) [**exp**](#_bookmark554)[**factorial**](#_bookmark556) [**factorof**](#_bookmark557)[**floor**](#_bookmark559)[**imaginary**](#_bookmark568)[**int.class**](#_bookmark574)[**interval.class**](#_bookmark578)[**lambda.class**](#_bookmark582)[**limit.class**](#_bookmark587)[**list**](#_bookmark588)[**minus**](#_bookmark601)[**nary-arith.class**](#_bookmark605) [**nary-constructor.class**](#_bookmark606) [**nary-functional.class**](#_bookmark607) [**nary-linalg.class**](#_bookmark608) [**nary-**](#_bookmark609)[**logical.class**](#_bookmark609) [**nary-minmax.class**](#_bookmark610)[**nary-reln.class**](#_bookmark611)[**nary-set-reln.class**](#_bookmark612)[**nary-set.class**](#_bookmark613)[**nary-**](#_bookmark615)  [**stats.class**](#_bookmark615) [**neq**](#_bookmark617) [**otherwise**](#_bookmark624) [**partialdiff.class**](#_bookmark627) [**piece**](#_bookmark629) [**piecewise**](#_bookmark630) [**power**](#_bookmark632) [**product.class**](#_bookmark636) [**quantifier.class**](#_bookmark638)[**quotient**](#_bookmark639) [**real**](#_bookmark641) [**rem**](#_bookmark644) [**root**](#_bookmark645) [**set**](#_bookmark652) [**share**](#_bookmark1087) [**sum.class**](#_bookmark659) [**tendsto**](#_bookmark662) [**unary-elementary.class**](#_bookmark667) [**unary-**](#_bookmark668)[**functional.class**](#_bookmark668) [**unary-linalg.class**](#_bookmark669) [**unary-logical.class**](#_bookmark670) [**unary-set.class**](#_bookmark671) [**unary-veccalc.class**](#_bookmark672) |

attributeGroups [**annotation.attributes**](#_bookmark1053) [**cbytes.attributes**](#_bookmark690) [**cerror.attributes**](#_bookmark1097) [**ci.attributes**](#_bookmark691) [**cn.attributes**](#_bookmark697) [**cs.attributes**](#_bookmark700)[**csymbol.attributes**](#_bookmark701) [**maction.attributes**](#_bookmark781) [**maligngroup.attributes**](#_bookmark784) [**malignmark.attributes**](#_bookmark786)[**math.attributes**](#_bookmark788) [**menclose.attributes**](#_bookmark798) [**merror.attributes**](#_bookmark800) [**mfenced.attributes**](#_bookmark801) [**mfrac.attributes**](#_bookmark805)[**mglyph.attributes**](#_bookmark810) [**mi.attributes**](#_bookmark820) [**mn.attributes**](#_bookmark825) [**mo.attributes**](#_bookmark826) [**mover.attributes**](#_bookmark850)[**mpadded.attributes**](#_bookmark853) [**mphantom.attributes**](#_bookmark859) [**mprescripts.attributes**](#_bookmark860) [**mroot.attributes**](#_bookmark861)[**mrow.attributes**](#_bookmark862) [**ms.attributes**](#_bookmark864) [**mscarries.attributes**](#_bookmark867) [**mscarry.attributes**](#_bookmark872) [**msgroup.attributes**](#_bookmark875)[**msline.attributes**](#_bookmark878) [**mspace.attributes**](#_bookmark884) [**msqrt.attributes**](#_bookmark896) [**msrow.attributes**](#_bookmark897) [**mstack.attributes**](#_bookmark899)[**mstyle.attributes**](#_bookmark904) [**msub.attributes**](#_bookmark996) [**msubsup.attributes**](#_bookmark998) [**msup.attributes**](#_bookmark1001) [**mtable.attributes**](#_bookmark1003)[**mtd.attributes**](#_bookmark1022) [**mtext.attributes**](#_bookmark1028) [**mtr.attributes**](#_bookmark1029) [**munder.attributes**](#_bookmark1033) [**munderover.attributes**](#_bookmark1036)[**none.attributes**](#_bookmark1040) [**semantics.attributes**](#_bookmark1074)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

source <xs:attributeGroup name="CommonAtt">

<xs:attribute name="id" type="xs:ID"/>

<xs:attribute name="xref"/>

<xs:attribute name="class" type="xs:NMTOKENS"/>

<xs:attribute name="style" type="xs:string"/>

<xs:attribute name="href" type="xs:anyURI"/>

<xs:attributeGroup ref="m:CommonDeprecatedAtt"/>

<xs:anyAttribute namespace="##other" processContents="skip"/>

</xs:attributeGroup>

attribute **CommonAtt/@ id**

|  |  |
| --- | --- |
| type | **xs:ID** |
| source | <xs:attribute name="id" type="xs:ID"/> |

attribute **CommonAtt/@ xref**

|  |  |
| --- | --- |
| source | <xs:attribute name="xref"/> |

attribute **CommonAtt/@ class**

|  |  |
| --- | --- |
| type | **xs:NMTOKENS** |
| source | <xs:attribute name="class" type="xs:NMTOKENS"/> |

attribute **CommonAtt/@ style**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="style" type="xs:string"/> |

attribute **CommonAtt/@ href**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="href" type="xs:anyURI"/> |

attributeGroup **CommonDeprecatedAtt**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | attributeGroup | [**CommonAtt**](#_bookmark1058) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [other](#_bookmark1065) |  |  |  |  |  |
| source | <xs:attributeGroup name="CommonDeprecatedAtt">  <xs:attribute name="other"/>  </xs:attributeGroup> | | | | | |

attribute **CommonDeprecatedAtt/@ other**

|  |  |
| --- | --- |
| source | <xs:attribute name="other"/> |

attributeGroup **DefEncAtt**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | elements | [**abs**](#_bookmark497) [**approx**](#_bookmark499) [**arg**](#_bookmark512) [**binary-linalg.class**](#_bookmark513) [**binary-logical.class**](#_bookmark514) [**binary-set.class**](#_bookmark516) [**ceiling**](#_bookmark520) [**conjugate**](#_bookmark525)  [**constant-arith.class**](#_bookmark526) [**constant-set.class**](#_bookmark527) [**declare**](#_bookmark535) [**Differential-Operator.class**](#_bookmark544) [**divide**](#_bookmark546) [**exp**](#_bookmark554) [**factorial**](#_bookmark556)[**factorof**](#_bookmark557) [**floor**](#_bookmark559) [**imaginary**](#_bookmark568) [**int.class**](#_bookmark574) [**interval.class**](#_bookmark578) [**lambda.class**](#_bookmark582) [**limit.class**](#_bookmark587) [**list**](#_bookmark588) [**minus**](#_bookmark601) [**nary-**](#_bookmark605)[**arith.class**](#_bookmark605) [**nary-constructor.class**](#_bookmark606) [**nary-functional.class**](#_bookmark607) [**nary-linalg.class**](#_bookmark608) [**nary-logical.class**](#_bookmark609)[**nary-minmax.class**](#_bookmark610) [**nary-reln.class**](#_bookmark611) [**nary-set-reln.class**](#_bookmark612) [**nary-set.class**](#_bookmark613) [**nary-stats.class**](#_bookmark615) [**neq**](#_bookmark617)[**otherwise**](#_bookmark624) [**partialdiff.class**](#_bookmark627) [**piece**](#_bookmark629) [**piecewise**](#_bookmark630) [**power**](#_bookmark632) [**product.class**](#_bookmark636) [**quantifier.class**](#_bookmark638) [**quotient**](#_bookmark639) [**real**](#_bookmark641)[**rem**](#_bookmark644) [**root**](#_bookmark645) [**set**](#_bookmark652) [**sum.class**](#_bookmark659) [**tendsto**](#_bookmark662) [**unary-elementary.class**](#_bookmark667) [**unary-functional.class**](#_bookmark668) [**unary-**](#_bookmark669)  [**linalg.class**](#_bookmark669) [**unary-logical.class**](#_bookmark670) [**unary-set.class**](#_bookmark671) [**unary-veccalc.class**](#_bookmark672) | | | | |
| attributeGroups | [**annotation.attributes**](#_bookmark1053) [**cbytes.attributes**](#_bookmark690) [**ci.attributes**](#_bookmark691) [**cn.attributes**](#_bookmark697) [**cs.attributes**](#_bookmark700)[**csymbol.attributes**](#_bookmark701) [**semantics.attributes**](#_bookmark1074) | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [encoding](#_bookmark1067) | **xs:string** |  |  |  |  |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |  |  |  |  |
| source | <xs:attributeGroup name="DefEncAtt">  <xs:attribute name="encoding" type="xs:string"/>  <xs:attribute name="definitionURL" type="xs:anyURI"/>  </xs:attributeGroup> | | | | | |

attribute **DefEncAtt/@ encoding**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="encoding" type="xs:string"/> |

attribute **DefEncAtt/@ definitionURL**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="definitionURL" type="xs:anyURI"/> |

attributeGroup **math.deprecatedattributes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| used by | attributeGroup | [**math.attributes**](#_bookmark788) |  |  |  |  |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [mode](#_bookmark1070) | **xs:string** |  |  |  |  |
| [macros](#_bookmark1071) | **xs:string** |  |  |  |  |
| source | <xs:attributeGroup name="math.deprecatedattributes">  <xs:attribute name="mode" type="xs:string"/>  <xs:attribute name="macros" type="xs:string"/>  </xs:attributeGroup> | | | | | |

attribute **math.deprecatedattributes/@ mode**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="mode" type="xs:string"/> |

attribute **math.deprecatedattributes/@ macros**

|  |  |
| --- | --- |
| type | **xs:string** |
| source | <xs:attribute name="macros" type="xs:string"/> |

attributeGroup **name**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | |
| attributes | Name | Type | Use | Default | Fixed | Annotation |
| [name](#_bookmark1073) | **xs:NCName** | required |  |  |  |
| source | <xs:attributeGroup name="name">  <xs:attribute name="name" type="xs:NCName" use="required"/>  </xs:attributeGroup> | | | | | |

attribute **name/@ name**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| properties | use required |
| source | <xs:attribute name="name" type="xs:NCName" use="required"/> |

attributeGroup **semantics.attributes**

namespace

used by

elements

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string**

|  |  |  |
| --- | --- | --- |
|  | [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| [cd](#_bookmark1075) | **xs:NCName** |
| [name](#_bookmark1076) | **xs:NCName** |
| source | <xs:attributeGroup name="semantics.attributes">  <xs:attributeGroup ref="m:CommonAtt"/>  <xs:attributeGroup ref="m:DefEncAtt"/>  <xs:attribute name="cd" type="xs:NCName"/>  <xs:attribute name="name" type="xs:NCName"/>  </xs:attributeGroup> | |

attribute **semantics.attributes/@ cd**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| source | <xs:attribute name="cd" type="xs:NCName"/> |

attribute **semantics.attributes/@ name**

|  |  |
| --- | --- |
| type | **xs:NCName** |
| source | <xs:attribute name="name" type="xs:NCName"/> |

attributeGroup **src**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | | | | | | | | |
| used by | element | [**share**](#_bookmark1087) |  | |  | |  | |  |
| attributeGroup | [**annotation.attributes**](#_bookmark1053) | |  | |  | |  | |
| attributes | Name | Type | Use | | Default | | Fixed | | Annotation |
| [src](#_bookmark1078) | **xs:anyURI** |  | |  | |  | |  |
| source | <xs:attributeGroup name="src">  <xs:attribute name="src" type="xs:anyURI"/>  </xs:attributeGroup> | | | | | | | | |

attribute **src/@ src**

|  |  |
| --- | --- |
| type | **xs:anyURI** |
| source | <xs:attribute name="src" type="xs:anyURI"/> |

element **apply**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:apply.content**](#_bookmark683) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)  [**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526) |

used by

group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

source

<xs:element name="apply">

<xs:complexType>

<xs:complexContent>

<xs:extension base="m:apply.content">

<xs:attributeGroup ref="m:CommonAtt"/>

</xs:extension>

</xs:complexContent>

</xs:complexType>

</xs:element>

element **bind**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | extension of [**m:bind.content**](#_bookmark684) |
| properties | content complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080) [**m:ci**](#_bookmark1083) [**m:cn**](#_bookmark1084) [**m:csymbol**](#_bookmark1086) [**m:cbytes**](#_bookmark1081) [**m:cerror**](#_bookmark1082) [**m:cs**](#_bookmark1085) [**m:share**](#_bookmark1087) [**m:piecewise**](#_bookmark630) [**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644) [**m:root**](#_bookmark645) [**m:factorial**](#_bookmark556) [**m:abs**](#_bookmark497) [**m:conjugate**](#_bookmark525) [**m:arg**](#_bookmark512) [**m:real**](#_bookmark641) [**m:imaginary**](#_bookmark568) [**m:floor**](#_bookmark559) [**m:ceiling**](#_bookmark520) [**m:exp**](#_bookmark554) [**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614) [**m:nary-set.class**](#_bookmark613) [**m:binary-set.class**](#_bookmark516) [**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)  [**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669) [**m:nary-linalg.class**](#_bookmark608) [**m:binary-linalg.class**](#_bookmark513) [**m:constant-set.class**](#_bookmark527) [**m:constant-**](#_bookmark526) |

used by

group

attributes

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

source

<xs:element name="bind">

<xs:complexType>

<xs:complexContent>

<xs:extension base="m:bind.content">

<xs:attributeGroup ref="m:CommonAtt"/>

</xs:extension>

</xs:complexContent>

</xs:complexType>

</xs:element>

element **cbytes**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:base64**](#_bookmark1095) | |
| properties | content complex | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation | |
|  | [id](#_bookmark1059) | **xs:ID** |
| [xref](#_bookmark1060) |  |
| [class](#_bookmark1061) | **xs:NMTOKENS** |
| [style](#_bookmark1062) | **xs:string** |
| [href](#_bookmark1063) | **xs:anyURI** |
| [other](#_bookmark1065) |  |
| [encoding](#_bookmark1067) | **xs:string** |
| [definitionURL](#_bookmark1068) | **xs:anyURI** |
| source | <xs:element name="cbytes">  <xs:complexType>  <xs:simpleContent>  <xs:extension base="m:base64">  <xs:attributeGroup ref="m:cbytes.attributes"/>  </xs:extension>  </xs:simpleContent>  </xs:complexType>  </xs:element> | |

element **cerror**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:csymbol**](#_bookmark1086) [**m:apply**](#_bookmark1079)[**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065) | |
| source | <xs:element name="cerror">  <xs:complexType>  <xs:sequence>  <xs:element ref="m:csymbol"/>  <xs:group ref="m:ContExp" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  <xs:attributeGroup ref="m:cerror.attributes"/>  </xs:complexType>  </xs:element> | |

element **ci**

|  |  |
| --- | --- |
| diagram |  |

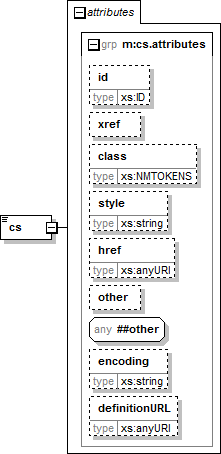
|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:ci.content**](#_bookmark685) | |
| properties | content | complex |
| children | [**m:mglyph**](#_bookmark716) [**m:PresentationExpression**](#_bookmark633) | |
| used by | elements [**bvar**](#_bookmark517) [**semantics-ci/semantics**](#_bookmark1092)  group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [type](#_bookmark692) | |
| source | <xs:element name="ci">  <xs:complexType>  <xs:complexContent>  <xs:extension base="m:ci.content">  <xs:attributeGroup ref="m:ci.attributes"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **cn**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:cn.content**](#_bookmark686) | |
| properties | content | complex |
| children | [**m:mglyph**](#_bookmark716) [**m:sep**](#_bookmark651) [**m:PresentationExpression**](#_bookmark633) | |
| used by | group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [type](#_bookmark698) [base](#_bookmark699) | |
| source | <xs:element name="cn">  <xs:complexType>  <xs:complexContent>  <xs:extension base="m:cn.content">  <xs:attributeGroup ref="m:cn.attributes"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **cs**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

mixed true used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[encoding](#_bookmark1067) **xs:string**

[definitionURL](#_bookmark1068) **xs:anyURI**

source <xs:element name="cs">

<xs:complexType mixed="true">

<xs:attributeGroup ref="m:cs.attributes"/>

</xs:complexType>

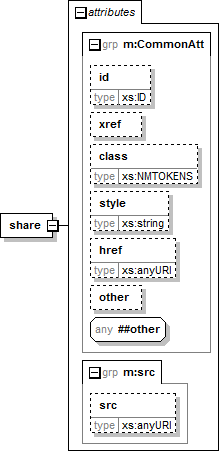
</xs:element>

element **csymbol**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| type | extension of [**m:csymbol.content**](#_bookmark687) | |
| properties | content | complex |
| children | [**m:mglyph**](#_bookmark716) [**m:PresentationExpression**](#_bookmark633) | |
| used by | element [**cerror**](#_bookmark1082)  group [**ContExp**](#_bookmark1089) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [type](#_bookmark702)  [cd](#_bookmark703) **xs:NCName** | |
| source | <xs:element name="csymbol">  <xs:complexType>  <xs:complexContent>  <xs:extension base="m:csymbol.content">  <xs:attributeGroup ref="m:csymbol.attributes"/>  </xs:extension>  </xs:complexContent>  </xs:complexType>  </xs:element> | |

element **share**

diagram

namespace <http://www.w3.org/1998/Math/MathML> properties content complex

used by group [**ContExp**](#_bookmark1089)

attributes Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**

[xref](#_bookmark1060)

[class](#_bookmark1061) **xs:NMTOKENS**

[style](#_bookmark1062) **xs:string**

[href](#_bookmark1063) **xs:anyURI**

[other](#_bookmark1065)

[src](#_bookmark1078) **xs:anyURI**

source <xs:element name="share">

<xs:complexType>

<xs:attributeGroup ref="m:CommonAtt"/>

<xs:attributeGroup ref="m:src"/>

</xs:complexType>

</xs:element>

group **BvarQ**

|  |  |  |
| --- | --- | --- |
| diagram |  | |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| children | [**m:bvar**](#_bookmark517) | |
| used by | elements | [**lambda.class**](#_bookmark582) [**list**](#_bookmark588) [**nary-constructor.class**](#_bookmark606) [**set**](#_bookmark652) |
| complexType | [**apply.content**](#_bookmark683) |
| source | <xs:group name="BvarQ">  <xs:sequence>  <xs:element ref="m:bvar" minOccurs="0" maxOccurs="unbounded"/>  </xs:sequence>  </xs:group> | |

group **ContExp**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) |
| used by | elements [**cerror**](#_bookmark1082) [**condition**](#_bookmark524)[**declare**](#_bookmark535)[**degree**](#_bookmark540)[**domainofapplication**](#_bookmark548)[**fn**](#_bookmark560)[**interval.class**](#_bookmark578)[**lambda.class**](#_bookmark582)[**list**](#_bookmark588)[**logbase**](#_bookmark592)[**lowlimit**](#_bookmark593) [**semantics-contexp/semantics**](#_bookmark1094) [**momentabout**](#_bookmark604) [**nary-constructor.class**](#_bookmark606) [**otherwise**](#_bookmark624) [**piece**](#_bookmark629) [**reln**](#_bookmark643)[**set**](#_bookmark652) [**uplimit**](#_bookmark674)  complexType [**apply.content**](#_bookmark683)  group [**MathExpression**](#_bookmark1090) |
| source | <xs:group name="ContExp">  <xs:choice>  <!--Ambiguous content model altered (ContExp)-->  <xs:element ref="m:apply"/>  <xs:element ref="m:bind"/>  <xs:element ref="m:ci"/>  <xs:element ref="m:cn"/>  <xs:element ref="m:csymbol"/>  <xs:element ref="m:cbytes"/>  <xs:element ref="m:cerror"/>  <xs:element ref="m:cs"/>  <xs:element ref="m:share"/>  <xs:element ref="m:piecewise"/>  <xs:element ref="m:DeprecatedContExp"/>  <xs:element ref="m:interval.class"/>  <xs:element ref="m:unary-functional.class"/>  <xs:element ref="m:lambda.class"/>  <xs:element ref="m:nary-functional.class"/>  <xs:group ref="m:binary-arith.class"/>  <xs:group ref="m:unary-arith.class"/>  <xs:element ref="m:nary-minmax.class"/>  <xs:element ref="m:nary-arith.class"/>  <xs:element ref="m:nary-logical.class"/>  <xs:element ref="m:unary-logical.class"/>  <xs:element ref="m:binary-logical.class"/>  <xs:element ref="m:quantifier.class"/>  <xs:element ref="m:nary-reln.class"/>  <xs:element ref="m:binary-reln.class"/>  <xs:element ref="m:int.class"/>  <xs:element ref="m:Differential-Operator.class"/>  <xs:element ref="m:partialdiff.class"/>  <xs:element ref="m:unary-veccalc.class"/>  <xs:element ref="m:nary-setlist-constructor.class"/>  <xs:element ref="m:nary-set.class"/>  <xs:element ref="m:binary-set.class"/>  <xs:element ref="m:nary-set-reln.class"/>  <xs:element ref="m:unary-set.class"/>  <xs:element ref="m:sum.class"/>  <xs:element ref="m:product.class"/>  <xs:element ref="m:limit.class"/>  <xs:element ref="m:unary-elementary.class"/>  <xs:element ref="m:nary-stats.class"/> |
|  | <xs:element ref="m:nary-constructor.class"/>  <xs:element ref="m:unary-linalg.class"/>  <xs:element ref="m:nary-linalg.class"/>  <xs:element ref="m:binary-linalg.class"/>  <xs:element ref="m:constant-set.class"/>  <xs:element ref="m:constant-arith.class"/>  </xs:choice>  </xs:group> |

group **MathExpression**

|  |  |
| --- | --- |
| diagram |  |

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:PresentationExpression**](#_bookmark633)[**m:semantics**](#_bookmark1050) |
| used by | elements [**semantics/semantics**](#_bookmark1050) [**maction**](#_bookmark708)[**math**](#_bookmark1047)[**mfenced**](#_bookmark714)[**mfrac**](#_bookmark715)[**mmultiscripts**](#_bookmark720)[**mover**](#_bookmark723)[**mroot**](#_bookmark727)[**mrow**](#_bookmark728)[**msub**](#_bookmark739)[**msubsup**](#_bookmark740) [**msup**](#_bookmark741) [**munder**](#_bookmark746)[**munderover**](#_bookmark747)  complexType [**ImpliedMrow**](#_bookmark756)  groups [**MsrowExpression**](#_bookmark752) [**MstackExpression**](#_bookmark753)[**MultiScriptExpression**](#_bookmark754) |
| source | <xs:group name="MathExpression">  <xs:choice>  <xs:group ref="m:ContExp"/>  <xs:element ref="m:PresentationExpression"/>  <xs:group ref="m:semantics"/>  </xs:choice>  </xs:group> |

group **semantics-ci**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:semantics**](#_bookmark1092) |
| used by | elements [**bvar**](#_bookmark517) [**semantics-ci/semantics**](#_bookmark1092) |
| source | <xs:group name="semantics-ci">  <xs:sequence>  <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:choice>  <xs:element ref="m:ci"/>  <xs:group ref="m:semantics-ci"/>  </xs:choice>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:group> |

element **semantics-ci/semantics**

|  |  |  |  |
| --- | --- | --- | --- |
| diagram |  | | |
| namespace | <http://www.w3.org/1998/Math/MathML> | | |
| properties | content | complex | |
| children | [**m:ci**](#_bookmark1083) [**m:semantics**](#_bookmark1092) [**m:annotation**](#_bookmark1045) [**m:annotation-xml**](#_bookmark1046) | | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string** | | |
|  | [definitionURL](#_bookmark1068) | | **xs:anyURI** |
| [cd](#_bookmark1075) | | **xs:NCName** |
| [name](#_bookmark1076) | | **xs:NCName** |
| source | <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:choice>  <xs:element ref="m:ci"/>  <xs:group ref="m:semantics-ci"/>  </xs:choice>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element> | | |

group **semantics-contexp**

|  |  |
| --- | --- |
| diagram |  |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| children | [**m:semantics**](#_bookmark1094) |
| source | <xs:group name="semantics-contexp">  <xs:sequence>  <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:ContExp"/>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element>  </xs:sequence>  </xs:group> |

element **semantics-contexp/semantics**

|  |  |
| --- | --- |
| diagram |  |

|  |  |  |
| --- | --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> | |
| properties | content | complex |
| children | [**m:apply**](#_bookmark1079) [**m:bind**](#_bookmark1080)[**m:ci**](#_bookmark1083)[**m:cn**](#_bookmark1084)[**m:csymbol**](#_bookmark1086)[**m:cbytes**](#_bookmark1081)[**m:cerror**](#_bookmark1082)[**m:cs**](#_bookmark1085)[**m:share**](#_bookmark1087)[**m:piecewise**](#_bookmark630)[**m:DeprecatedContExp**](#_bookmark541)[**m:interval.class**](#_bookmark578) [**m:unary-functional.class**](#_bookmark668) [**m:lambda.class**](#_bookmark582) [**m:nary-functional.class**](#_bookmark607) [**m:quotient**](#_bookmark639) [**m:divide**](#_bookmark546) [**m:minus**](#_bookmark601)[**m:power**](#_bookmark632) [**m:rem**](#_bookmark644)[**m:root**](#_bookmark645)[**m:factorial**](#_bookmark556)[**m:abs**](#_bookmark497)[**m:conjugate**](#_bookmark525)[**m:arg**](#_bookmark512)[**m:real**](#_bookmark641)[**m:imaginary**](#_bookmark568)[**m:floor**](#_bookmark559)[**m:ceiling**](#_bookmark520)[**m:exp**](#_bookmark554)[**m:nary-**](#_bookmark610)[**minmax.class**](#_bookmark610) [**m:nary-arith.class**](#_bookmark605) [**m:nary-logical.class**](#_bookmark609) [**m:unary-logical.class**](#_bookmark670) [**m:binary-logical.class**](#_bookmark514)[**m:quantifier.class**](#_bookmark638) [**m:nary-reln.class**](#_bookmark611) [**m:binary-reln.class**](#_bookmark515) [**m:int.class**](#_bookmark574) [**m:Differential-Operator.class**](#_bookmark544) [**m:partialdiff.class**](#_bookmark627)[**m:unary-veccalc.class**](#_bookmark672) [**m:nary-setlist-constructor.class**](#_bookmark614)[**m:nary-set.class**](#_bookmark613)[**m:binary-set.class**](#_bookmark516)[**m:nary-set-reln.class**](#_bookmark612)[**m:unary-set.class**](#_bookmark671) [**m:sum.class**](#_bookmark659) [**m:product.class**](#_bookmark636) [**m:limit.class**](#_bookmark587) [**m:unary-elementary.class**](#_bookmark667) [**m:nary-stats.class**](#_bookmark615) [**m:nary-**](#_bookmark606)[**constructor.class**](#_bookmark606) [**m:unary-linalg.class**](#_bookmark669)[**m:nary-linalg.class**](#_bookmark608)[**m:binary-linalg.class**](#_bookmark513)[**m:constant-set.class**](#_bookmark527)[**m:constant-**](#_bookmark526)[**arith.class**](#_bookmark526) [**m:annotation**](#_bookmark1045)[**m:annotation-xml**](#_bookmark1046) | |
| attributes | Name Type Use Default Fixed Annotation [id](#_bookmark1059) **xs:ID**  [xref](#_bookmark1060)  [class](#_bookmark1061) **xs:NMTOKENS**  [style](#_bookmark1062) **xs:string**  [href](#_bookmark1063) **xs:anyURI**  [other](#_bookmark1065)  [encoding](#_bookmark1067) **xs:string**  [definitionURL](#_bookmark1068) **xs:anyURI**  [cd](#_bookmark1075) **xs:NCName**  [name](#_bookmark1076) **xs:NCName** | |
| source | <xs:element name="semantics">  <xs:complexType>  <xs:sequence>  <xs:group ref="m:ContExp"/>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element ref="m:annotation"/>  <xs:element ref="m:annotation-xml"/>  </xs:choice>  </xs:sequence>  <xs:attributeGroup ref="m:semantics.attributes"/>  </xs:complexType>  </xs:element> | |

simpleType **base64**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:base64Binary** |
| properties | base xs:base64Binary |
| used by | element [**cbytes**](#_bookmark1081) |
| source | <xs:simpleType name="base64">  <xs:restriction base="xs:base64Binary"/>  </xs:simpleType> |

simpleType **SymbolName**

|  |  |
| --- | --- |
| namespace | <http://www.w3.org/1998/Math/MathML> |
| type | **xs:NCName** |
| properties | base xs:NCName |
| source | <xs:simpleType name="SymbolName">  <xs:restriction base="xs:NCName"/>  </xs:simpleType> |

attributeGroup **cerror.attributes**

namespace

used by

attributes

element

Name

Type

**xs:ID**

Use

Default

Fixed

Annotation

**xs:NMTOKENS**

**xs:string xs:anyURI**

source

<xs:attributeGroup name="cerror.attributes">

<xs:attributeGroup ref="m:CommonAtt"/>

</xs:attributeGroup>