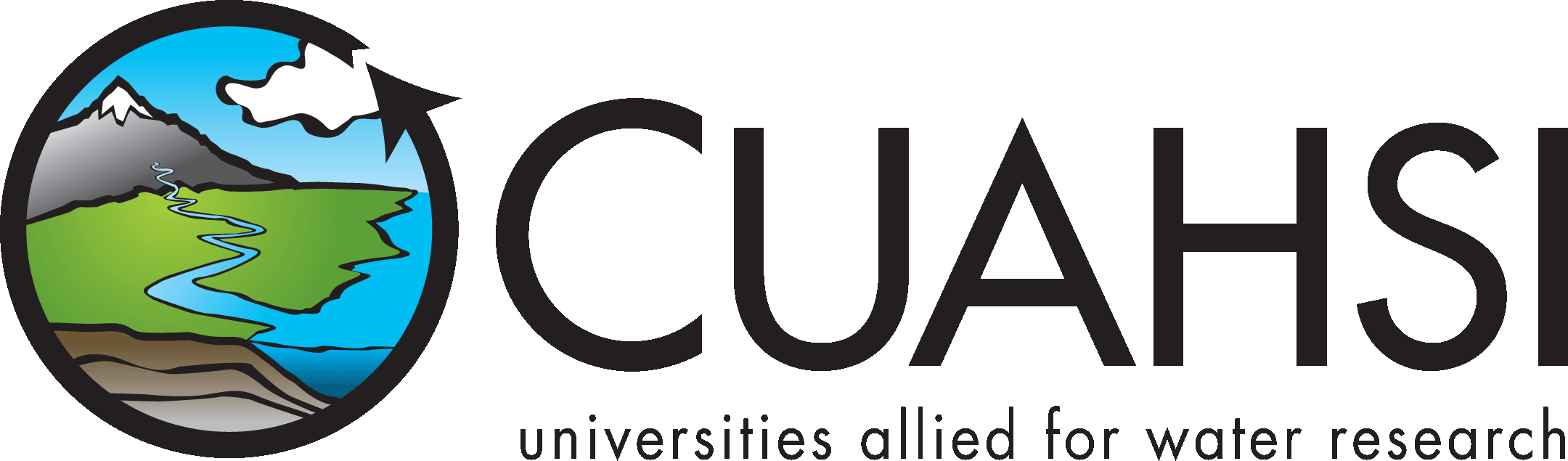
****

CUAHSI WaterML 1.1

Draft Specification

**Part 3: WaterML 1.1 Schema Description**

by:

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Distribution

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We would also like to thank partner agency personnel from USGS (Water Resource Division), EPA (the STORET team), and NCDC, as well as data managers and personnel of hydrologic observatory testbeds for cooperation, discussions and insightful feedback. We are especially grateful to the USGS and NCDC teams, and other partners who implemented WaterML-compliant web services over their repositories.

Scope

Water Markup Language (WaterML) specification defines an information exchange schema, which has been used in water data services within the Hydrologic Information System (HIS) project supported by the U.S. National Science Foundation, and has been adopted by several federal agencies as a format for serving hydrologic data. The goal of the first version of WaterML was to encode the semantics of hydrologic observation discovery and retrieval and implement water data services in a way that is both generic and unambiguous across different data providers, thus creating the least barriers for adoption by the hydrologic research community. Now in version 1.1, WaterML is evolving to reflect the deployment experience at hydrologic observatory testbeds around the U.S., and U.S. federal and state agency practices of serving observational data on the web. Data sources that can be queried via WaterML-compliant water data services include many national and international repositories of water data, and a growing number of academic observation networks registered by researchers associated with the hydrologic observatories.

WaterML 1.0 specification was published as an OGC discussion paper in 2007, and is available at the OGC web site. WaterML 1.1 is an updated version developed during 2008-2009, based on the feedback from HIS 1.0 deployment.

The WaterML 1.1 specification consists of three parts. The first part is a high-level description of WaterML scope, rationale, context and design drivers, main trade-offs in WaterML development, the evolution of WaterML, and the core WaterML constructs. This first part follows a paper by Valentine, Zaslavsky and Whiteaker “CUAHSI WaterML: Design Drivers and Evolution Towards OGC Standards” (2009), currently in review. The second part reviews changes in WaterML 1.1 compared to the previous published specification. The third part (this document) is a detailed technical description of WaterML 1.1 schema.

Support and questions

Contact Dr. David Valentine, SDSC, valentin@sdsc.edu

# Introduction

This schema documentation is exported from the published WaterML 1.1 schema using a DocFlex/XML XSDDoc. An online HTML version of the WaterML 1.1 documentation is found at: <http://water.sdsc.edu/doc/waterMldoc/v11/default.html>.

The starting point for using the WaterML schema is to examine the three response elements, and their complexType definitions:

|  |  |  |
| --- | --- | --- |
|  | Element | ComplexType |
| Site | siteResponse | SiteResponseType |
| Variable | variablesResponse | VariablesResponseType |
| Time Series | timeSeriesResponse | TimeSeriesResponseType |

XML Schema Documentation

Jun 11, 2009 11:43:09 AM

Namespace Summary

|  |  |
| --- | --- |
| [**http://www.cuahsi.org/waterML/1.1/**](#r6) | **Page** |
| Targeting Schemas (1):  [cuahsiTimeSeries\_v1\_1.xsd](#r7)  Targeting Components:  6 [global elements](#r2), 157 [local elements](#r2), 36 [complexTypes](#r3), 31 [simpleTypes](#r4), 5 [global attributes](#r5) | 2 |

|  |  |  |
| --- | --- | --- |
| **Schema Summary** | | **Page** |
| [**cuahsiTimeSeries\_v1\_1.xsd**](#r7) | Target Namespace:  [http://www.cuahsi.org/waterML/1.1/](#r6)  Version:  1  Defined Components:  6 global elements, 137 local elements, 36 complexTypes, 31 simpleTypes, 5 global attributes  Default Namespace-Qualified Form:  Local Elements: qualified; Local Attributes: unqualified  Schema Location:  [https://svn.sdsc.edu/repo/WATER/CUAHSI/WebServices/BaseWofServic e/WofSchemas/cuahsiTimeSeries\_v1\_1.xsd](https://svn.sdsc.edu/repo/WATER/CUAHSI/WebServices/BaseWofService/WofSchemas/cuahsiTimeSeries_v1_1.xsd) | 18 |

Namespace *"http://www.cuahsi.org/waterML/1.1/"*

Targeting Schemas (1):

[cuahsiTimeSeries\_v1\_1.xsd](#r7)

Targeting Components:

6 [global elements](#r2), 157 [local elements](#r2), 36 [complexTypes](#r3), 31 [simpleTypes](#r4), 5 [global attributes](#r5)

|  |  |  |
| --- | --- | --- |
| **All Element Summary** | | **Page** |
| [**Abstract**](#r9) (in [metadata](#r153)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r511) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r8) [18] | | 18 |
| [**address**](#r11) (in [contactInformation](#r40)) | |  |  | | --- | --- | | Type: | xsi:anyType | | Content: | any | | Defined: | [locally](#r441) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r10) [18] | | 18 |
| [**altname**](#r13) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r614) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r12) [19] | | 19 |
| [**beginDateTime**](#r15) (in [timeParam](#r324)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r321) within element [timeParam](#r324) [75] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r14) [19] | | 19 |
| [**beginDateTime**](#r17) (in [variableTimeInterval](#r418)) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r651) within complexType [TimePeriodType](#r656) [128] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r16) [20] | | 19 |
| [**beginDateTimeUTC**](#r19) (in [variableTimeInterval](#r418)) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r652) within complexType [TimePeriodType](#r656) [128] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r18) [20] | | 20 |
| [**categories**](#r23) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [element](#r22) | | Defined: | [locally](#r734) within complexType [VariableInfoType](#r752) [140] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r20) [20] | | Includes: | definition of 1 [element](#r22) | | 20 |
| [**category**](#r30) (in [categories](#r23)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r26), 2 [elements](#r29) | | Defined: | [locally](#r21) within element [categories](#r23) [21] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r24) [21] | | Includes: | definitions of 1 [attribute](#r26) and 2 [elements](#r29) | | 21 |
| [**censorCode**](#r34) (in [censorCode](#r32) in [values](#r385)) | |  |  | | --- | --- | | Type: | [CensorCodeCodeList](#r761) [143] | | Content: | simple | | Defined: | [locally](#r435) within complexType [CensorCodeType](#r438) [96] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r33) [22] | | 22 |
| [**censorCode**](#r32) (in [values](#r385)) | |  |  | | --- | --- | | Type: | [CensorCodeType](#r438) [95] | | Content: | complex, 1 attribute, 2 elements | | Defined: | [locally](#r684) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r31) [22] | | 22 |
| [**censorCodeDescription**](#r36) (in [censorCode](#r32) in [values](#r385)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r436) within complexType [CensorCodeType](#r438) [96] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r35) [23] | | 23 |
| [**citation**](#r38) (type xsi:string) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r634) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r37) [23] | | 23 |
| [**contactInformation**](#r40) (type [ContactInformationType](#r447)) | |  |  | | --- | --- | | Type: | [ContactInformationType](#r447) [96] | | Content: | complex, 5 elements | | Defined: | [locally](#r635) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r39) [24] | | 23 |
| [**contactName**](#r42) (in [contactInformation](#r40)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r442) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r41) [24] | | 24 |
| [**coordLatLong**](#r44) (type [CoordType](#r454)) | |  |  | | --- | --- | | Type: | [CoordType](#r454) [97] | | Content: | complex, 3 elements | | Defined: | [locally](#r501) within complexType [latLonLineString](#r503) [106] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r43) [24] | | 24 |
| [**creationTime**](#r46) (in [queryInfo](#r233)) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r576) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r45) [25] | | 25 |
| [**criteria**](#r55) (in [queryInfo](#r233)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r49), 4 [elements](#r54) | | Defined: | [locally](#r577) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r47) [25] | | Includes: | definitions of 1 [attribute](#r49) and 4 [elements](#r54) | | 25 |
| [**dataSetDescription**](#r57) (type xsi:string) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r456) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r56) [26] | | 26 |
| [**dataSetIdentifier**](#r59) (type xsi:string) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r457) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r58) [27] | | 26 |
| [**dataSetLocation**](#r61) (type [*GeogLocationType*](#r476)) | |  |  | | --- | --- | | Type: | [*GeogLocationType*](#r476) [101] | | Content: | empty, 1 attribute | | Defined: | [locally](#r458) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r60) [27] | | 27 |
| [**dataSetProperty**](#r63) (type [PropertyType](#r553)) | |  |  | | --- | --- | | Type: | [PropertyType](#r553) [112] | | Content: | simple, 3 attributes | | Defined: | [locally](#r459) within complexType [DataSetInfoType](#r464) [100] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r62) [27] | | 27 |
| [**dataType**](#r67) (type [DataTypeCodeList](#r767)) | |  |  | | --- | --- | | Type: | [DataTypeCodeList](#r767) [145] | | Content: | simple | | Defined: | locally at 2 [locations](#r65) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 27 |
| [**dataValue**](#r69) (in [category](#r30)) | |  |  | | --- | --- | | Type: | xsi:decimal | | Content: | simple | | Defined: | [locally](#r27) within element [category](#r30) [22] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r68) [28] | | 28 |
| [**daylightSavingsTimeZone**](#r75) (in [timeZoneInfo](#r356) : anonymous) | |  |  | | --- | --- | | Type: | [anonymous](#r73) (extension of [TimeZoneType](#r681)) | | Content: | empty, 2 attributes | | Defined: | [locally](#r353) within element [timeZoneInfo](#r356) [80] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r74) [29] | | 29 |
| [**daylightSavingsTimeZone**](#r72) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | [anonymous](#r70) (extension of [TimeZoneType](#r681)) | | Content: | empty, 2 attributes | | Defined: | [locally](#r346) within element [timeZoneInfo](#r349) [79] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r71) [29] | | 28 |
| [**defaultTimeZone**](#r81) (in [timeZoneInfo](#r356) : anonymous) | |  |  | | --- | --- | | Type: | [anonymous](#r79) (extension of [TimeZoneType](#r681)) | | Content: | empty, 2 attributes | | Defined: | [locally](#r354) within element [timeZoneInfo](#r356) [81] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r80) [31] | | 30 |
| [**defaultTimeZone**](#r78) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | [anonymous](#r76) (extension of [TimeZoneType](#r681)) | | Content: | empty, 2 attributes | | Defined: | [locally](#r347) within element [timeZoneInfo](#r349) [79] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r77) [30] | | 30 |
| [**definition**](#r84) (in [qualityControlLevel](#r228)) | Definition of Quality Control Level.   |  |  | | --- | --- | | Type: | [anonymous](#r82) (restriction of xsi:string) | | Content: | simple | | Defined: | [locally](#r569) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r83) [32] | | 31 |
| [**description**](#r86) (in [category](#r30)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r28) within element [category](#r30) [22] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r85) [32] | | 32 |
| [**east**](#r88) (type [Longitude](#r787)) | |  |  | | --- | --- | | Type: | [Longitude](#r787) [150] | | Content: | simple | | Defined: | [locally](#r491) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r87) [32] | | 32 |
| [**elevation\_m**](#r90) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | xsi:double | | Content: | simple | | Defined: | [locally](#r615) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r89) [33] | | 32 |
| [**email**](#r92) (in [contactInformation](#r40)) | |  |  | | --- | --- | | Type: | xsi:normalizedString | | Content: | simple | | Defined: | [locally](#r443) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r91) [33] | | 33 |
| [**endDateTime**](#r94) (in [timeParam](#r324)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r322) within element [timeParam](#r324) [75] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r93) [34] | | 33 |
| [**endDateTime**](#r96) (in [variableTimeInterval](#r418)) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r653) within complexType [TimePeriodType](#r656) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r95) [34] | | 34 |
| [**endDateTimeUTC**](#r98) (in [variableTimeInterval](#r418)) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r654) within complexType [TimePeriodType](#r656) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r97) [34] | | 34 |
| [**explanation**](#r100) (in [qualityControlLevel](#r228)) | Explanation of Quality Control Level eg “Raw data is defined as unprocessed data and data products that have not undergone quality control.”   |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r570) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r99) [35] | | 34 |
| [**extension**](#r105) | |  |  | | --- | --- | | Type: | xsi:anyType | | Content: | any | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r104) [35] | | Used: | at 6 [locations](#r103) | | 35 |
| [**generalCategory**](#r109) (type [GeneralCategoryCodeList](#r778)) | |  |  | | --- | --- | | Type: | [GeneralCategoryCodeList](#r778) [148] | | Content: | simple | | Defined: | locally at 2 [locations](#r107) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 35 |
| [**geogLocation**](#r111) (in [geoLocation](#r116)) | |  |  | | --- | --- | | Type: | [*GeogLocationType*](#r476) [101] | | Content: | empty, 1 attribute | | Defined: | [locally](#r113) within element [geoLocation](#r116) [37] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r110) [36] | | 36 |
| [**geoLocation**](#r116) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 2 [elements](#r115) | | Defined: | [locally](#r617) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r112) [37] | | Includes: | definitions of 2 [elements](#r115) | | 36 |
| [**labCode**](#r118) (in [labMethod](#r120)) | The Abbrevation for the lab. e.g.   |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r481) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r117) [38] | | 37 |
| [**labMethod**](#r120) (in [sample](#r251)) | |  |  | | --- | --- | | Type: | [LabMethodType](#r489) [102] | | Content: | complex, 1 attribute, 7 elements | | Defined: | [locally](#r587) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r119) [38] | | 38 |
| [**labMethodDescription**](#r122) (in [labMethod](#r120)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r482) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r121) [39] | | 38 |
| [**labMethodLink**](#r124) (in [labMethod](#r120)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r483) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r123) [39] | | 39 |
| [**LabMethodName**](#r126) (in [labMethod](#r120)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r484) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r125) [39] | | 39 |
| [**labName**](#r128) (in [labMethod](#r120)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r485) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r127) [40] | | 39 |
| [**labOrganization**](#r130) (in [labMethod](#r120)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r486) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r129) [40] | | 40 |
| [**labSampleCode**](#r132) (in [sample](#r251)) | |  |  | | --- | --- | | Type: | xsi:normalizedString | | Content: | simple | | Defined: | [locally](#r588) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r131) [40] | | 40 |
| [**labSourceDetails**](#r134) (in [labMethod](#r120)) | This is the contact information for a laboratory   |  |  | | --- | --- | | Type: | [SourceType](#r642) [125] | | Content: | complex, 1 attribute, 7 elements | | Defined: | [locally](#r487) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r133) [41] | | 41 |
| [**latitude**](#r137) (in [coordLatLong](#r44)) | |  |  | | --- | --- | | Type: | [Latitude](#r784) [149] | | Content: | simple | | Defined: | locally at 2 [locations](#r135) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 41 |
| [**localSiteXY**](#r146) (in [geoLocation](#r116)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r140), 4 [elements](#r145) | | Defined: | [locally](#r114) within element [geoLocation](#r116) [37] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r138) [42] | | Includes: | definitions of 1 [attribute](#r140) and 4 [elements](#r145) | | 42 |
| [**locationParam**](#r148) (in [criteria](#r55)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r50) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r147) [43] | | 43 |
| [**longitude**](#r151) (in [coordLatLong](#r44)) | |  |  | | --- | --- | | Type: | [Longitude](#r787) [150] | | Content: | simple | | Defined: | locally at 2 [locations](#r149) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 43 |
| [**metadata**](#r153) (type [MetaDataType](#r517)) | |  |  | | --- | --- | | Type: | [MetaDataType](#r517) [107] | | Content: | complex, 5 elements | | Defined: | [locally](#r636) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r152) [44] | | 44 |
| [**MetadataLink**](#r155) (in [metadata](#r153)) | |  |  | | --- | --- | | Type: | xsi:anyURI | | Content: | simple | | Defined: | [locally](#r512) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r154) [45] | | 44 |
| [**method**](#r159) (type [MethodType](#r526)) | |  |  | | --- | --- | | Type: | [MethodType](#r526) [108] | | Content: | complex, 1 attribute, 3 elements | | Defined: | locally at 2 [locations](#r157) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 45 |
| [**methodCode**](#r161) (in [method](#r159)) | |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r522) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r160) [46] | | 46 |
| [**methodDescription**](#r163) (in [method](#r159)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r523) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r162) [46] | | 46 |
| [**methodLink**](#r165) (in [method](#r159)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r524) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r164) [47] | | 46 |
| [**noDataValue**](#r167) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | xsi:double | | Content: | simple | | Defined: | [locally](#r738) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r166) [47] | | 47 |
| [**north**](#r169) (type [Latitude](#r784)) | |  |  | | --- | --- | | Type: | [Latitude](#r784) [149] | | Content: | simple | | Defined: | [locally](#r492) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r168) [47] | | 47 |
| [**note**](#r173) (type [NoteType](#r534)) | |  |  | | --- | --- | | Type: | [NoteType](#r534) [109] | | Content: | simple, 4 attributes | | Defined: | locally at 6 [locations](#r171) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 47 |
| [**offset**](#r175) (in [values](#r385)) | |  |  | | --- | --- | | Type: | [OffsetType](#r546) [110] | | Content: | complex, 1 attribute, 6 elements | | Defined: | [locally](#r686) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r174) [49] | | 48 |
| [**offsetAzimuthDegrees**](#r177) (in [offset](#r175)) | |  |  | | --- | --- | | Type: | xsi:int | | Content: | simple | | Defined: | [locally](#r539) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r176) [49] | | 49 |
| [**offsetDescription**](#r179) (in [offset](#r175)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r540) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r178) [49] | | 49 |
| [**offsetIsVertical**](#r181) (in [offset](#r175)) | |  |  | | --- | --- | | Type: | xsi:boolean | | Content: | simple | | Defined: | [locally](#r541) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r180) [50] | | 49 |
| [**offsetTypeCode**](#r183) (in [offset](#r175)) | |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r542) within complexType [OffsetType](#r546) [112] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r182) [50] | | 50 |
| [**offsetValue**](#r185) (in [offset](#r175)) | |  |  | | --- | --- | | Type: | xsi:float | | Content: | simple | | Defined: | [locally](#r543) within complexType [OffsetType](#r546) [112] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r184) [51] | | 50 |
| [**option**](#r194) | Option elements are key-value pair elements that control how a variable maght be utilized in a service.   |  |  | | --- | --- | | Type: | [anonymous](#r188) (extension of xsi:string) | | Content: | simple, 3 [attributes](#r193) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r189) [51] | | Includes: | definitions of 3 [attributes](#r193) | | Used: | at 1 [location](#r187) | | 51 |
| [**options**](#r200) | A list of options.   |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [element](#r199) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r197) [52] | | Includes: | definition of 1 [element](#r199) | | Used: | at 1 [location](#r196) | | 52 |
| [**organization**](#r202) (type xsi:string) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r637) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r201) [53] | | 53 |
| [**parameter**](#r207) (in [criteria](#r55)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | empty, 2 [attributes](#r206) | | Defined: | [locally](#r51) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r203) [54] | | Includes: | definitions of 2 [attributes](#r206) | | 53 |
| [**parentCode**](#r214) (in [related](#r242)) | |  |  | | --- | --- | | Type: | [anonymous](#r208) (extension of xsi:string) | | Content: | simple, 3 [attributes](#r213) | | Defined: | [locally](#r239) within element [related](#r242) [60] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r209) [54] | | Includes: | definitions of 3 [attributes](#r213) | | 54 |
| [**phone**](#r216) (in [contactInformation](#r40)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r444) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r215) [55] | | 55 |
| [**ProfileVersion**](#r218) (in [metadata](#r153)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r513) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r217) [56] | | 55 |
| [**qualifier**](#r220) (in [values](#r385)) | |  |  | | --- | --- | | Type: | [QualifierType](#r564) [113] | | Content: | complex, 4 attributes, 2 elements | | Defined: | [locally](#r687) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r219) [56] | | 56 |
| [**qualifierCode**](#r222) (in [qualifier](#r220)) | |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r561) within complexType [QualifierType](#r564) [114] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r221) [57] | | 56 |
| [**qualifierDescription**](#r224) (in [qualifier](#r220)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r562) within complexType [QualifierType](#r564) [114] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r223) [57] | | 57 |
| [**qualityControlLevel**](#r228) (type [QualityControlLevelType](#r573)) | |  |  | | --- | --- | | Type: | [QualityControlLevelType](#r573) [114] | | Content: | complex, 1 attribute, 3 elements | | Defined: | locally at 2 [locations](#r226) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 57 |
| [**qualityControlLevelCode**](#r230) (in [qualityControlLevel](#r228)) | Code used to identify the level of quality control to which data values have been subjected.   |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r571) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r229) [58] | | 58 |
| [**queryInfo**](#r233) (type [QueryInfoType](#r582)) | |  |  | | --- | --- | | Type: | [QueryInfoType](#r582) [116] | | Content: | complex, 5 elements | | Defined: | locally at 3 [locations](#r231) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 58 |
| [**queryURL**](#r235) (in [queryInfo](#r233)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r580) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r234) [59] | | 59 |
| [**realTimeDataPeriod**](#r237) (type xsi:duration) | |  |  | | --- | --- | | Type: | xsi:duration | | Content: | simple | | Defined: | [locally](#r646) within complexType [TimePeriodRealTimeType](#r648) [127] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r236) [59] | | 59 |
| [**related**](#r242) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 2 [elements](#r241) | | Defined: | [locally](#r741) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r238) [60] | | Includes: | definitions of 2 [elements](#r241) | | 59 |
| [**relatedCode**](#r249) (in [related](#r242)) | |  |  | | --- | --- | | Type: | [anonymous](#r243) (extension of xsi:string) | | Content: | simple, 3 [attributes](#r248) | | Defined: | [locally](#r240) within element [related](#r242) [60] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r244) [61] | | Includes: | definitions of 3 [attributes](#r248) | | 60 |
| [**sample**](#r251) (in [values](#r385)) | |  |  | | --- | --- | | Type: | [SampleType](#r591) [117] | | Content: | complex, 1 attribute, 3 elements | | Defined: | [locally](#r689) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r250) [62] | | 61 |
| [**sampleMedium**](#r255) (type [SampleMediumCodeList](#r798)) | |  |  | | --- | --- | | Type: | [SampleMediumCodeList](#r798) [153] | | Content: | simple | | Defined: | locally at 2 [locations](#r253) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 62 |
| [**sampleType**](#r257) (in [sample](#r251)) | |  |  | | --- | --- | | Type: | [SampleTypeCodeList](#r804) [155] | | Content: | simple | | Defined: | [locally](#r589) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r256) [63] | | 62 |
| [**series**](#r271) (in [seriesCatalog](#r273)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 11 [elements](#r270) | | Defined: | [locally](#r599) within complexType [seriesCatalogType](#r602) [120] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r258) [63] | | Includes: | definitions of 11 [elements](#r270) | | 63 |
| [**seriesCatalog**](#r273) (in [site](#r283)) | |  |  | | --- | --- | | Type: | [seriesCatalogType](#r602) [118] | | Content: | complex, 2 attributes, 4 elements | | Defined: | [locally](#r280) within element [site](#r283) [67] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r272) [65] | | 65 |
| [**seriesCatalogProperty**](#r275) (in [seriesCatalog](#r273)) | |  |  | | --- | --- | | Type: | [PropertyType](#r553) [112] | | Content: | simple, 3 attributes | | Defined: | [locally](#r600) within complexType [seriesCatalogType](#r602) [120] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r274) [66] | | 66 |
| [**seriesProperty**](#r277) (in [series](#r271)) | |  |  | | --- | --- | | Type: | [PropertyType](#r553) [112] | | Content: | simple, 3 attributes | | Defined: | [locally](#r264) within element [series](#r271) [64] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r276) [66] | | 66 |
| [**site**](#r283) (in [sitesResponse](#r301)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 3 [elements](#r282) | | Defined: | [locally](#r606) within complexType [SiteInfoResponseType](#r608) [121] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r278) [67] | | Includes: | definitions of 3 [elements](#r282) | | 66 |
| [**siteCode**](#r293) (in [siteInfo](#r295)) | A siteID is an identifier that this site is referred to as.   |  |  | | --- | --- | | Type: | [anonymous](#r284) (extension of xsi:token) | | Content: | simple, 5 [attributes](#r292) | | Defined: | [locally](#r619) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r285) [68] | | Includes: | definitions of 5 [attributes](#r292) | | 67 |
| [**siteInfo**](#r295) (in [site](#r283)) | |  |  | | --- | --- | | Type: | [SiteInfoType](#r626) [121] | | Content: | complex, 2 attributes, 11 elements | | Defined: | [locally](#r281) within element [site](#r283) [67] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r294) [70] | | 69 |
| [**siteName**](#r297) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r620) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r296) [70] | | 70 |
| [**siteProperty**](#r299) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | [PropertyType](#r553) [112] | | Content: | simple, 3 attributes | | Defined: | [locally](#r621) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r298) [70] | | 70 |
| [**sitesResponse**](#r301) | |  |  | | --- | --- | | Type: | [SiteInfoResponseType](#r608) [120] | | Content: | complex, 2 elements | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r300) [71] | | Used: | never | | 71 |
| [**siteType**](#r303) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | [SiteTypeCodeList](#r810) [157] | | Content: | simple | | Defined: | [locally](#r622) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r302) [71] | | 71 |
| [**source**](#r307) (type [SourceType](#r642)) | |  |  | | --- | --- | | Type: | [SourceType](#r642) [125] | | Content: | complex, 1 attribute, 7 elements | | Defined: | locally at 2 [locations](#r305) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 71 |
| [**sourceCode**](#r309) (type xsi:token) | The abbreviation for the source. e.g.   |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r638) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r308) [72] | | 72 |
| [**sourceDescription**](#r311) (type xsi:string) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r639) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r310) [73] | | 72 |
| [**sourceInfo**](#r313) (in [timeSeries](#r334)) | |  |  | | --- | --- | | Type: | [SourceInfoType](#r629) [124] | | Content: | empty | | Defined: | [locally](#r667) within complexType [TimeSeriesType](#r671) [130] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r312) [73] | | 73 |
| [**sourceLink**](#r315) (type xsi:anyURI) | |  |  | | --- | --- | | Type: | xsi:anyURI | | Content: | simple | | Defined: | [locally](#r640) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r314) [74] | | 73 |
| [**south**](#r317) (type [Latitude](#r784)) | |  |  | | --- | --- | | Type: | [Latitude](#r784) [149] | | Content: | simple | | Defined: | [locally](#r493) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r316) [74] | | 74 |
| [**speciation**](#r319) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | [SpeciationCodeList](#r816) [158] | | Content: | simple | | Defined: | [locally](#r743) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r318) [74] | | 74 |
| [**timeParam**](#r324) (in [criteria](#r55)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 2 [elements](#r323) | | Defined: | [locally](#r52) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r320) [75] | | Includes: | definitions of 2 [elements](#r323) | | 74 |
| [**timeScale**](#r332) (in [variable](#r393)) | Element containing the time support (or temporal footprint) of the data values.   |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r327), 3 [elements](#r331) | | Nillable: | (can be declared as nil using xsi:nil attribute in instance XML documents) | | Defined: | [locally](#r744) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r325) [76] | | Includes: | definitions of 1 [attribute](#r327) and 3 [elements](#r331) | | 75 |
| [**timeSeries**](#r334) (in [timeSeriesResponse](#r336)) | |  |  | | --- | --- | | Type: | [TimeSeriesType](#r671) [129] | | Content: | complex, 1 attribute, 3 elements | | Defined: | [locally](#r660) within complexType [TimeSeriesResponseType](#r662) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r333) [77] | | 76 |
| [**timeSeriesResponse**](#r336) | |  |  | | --- | --- | | Type: | [TimeSeriesResponseType](#r662) [129] | | Content: | complex, 2 elements | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r335) [77] | | Used: | never | | 77 |
| [**timeSingle**](#r338) (type xsi:dateTime) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Content: | simple | | Defined: | [locally](#r673) within complexType [TimeSingleType](#r675) [131] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r337) [78] | | 77 |
| [**timeSpacing**](#r340) (in [timeScale](#r332)) | |  |  | | --- | --- | | Type: | xsi:float | | Content: | simple | | Defined: | [locally](#r328) within element [timeScale](#r332) [76] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r339) [78] | | 78 |
| [**timeSupport**](#r342) (in [timeScale](#r332)) | |  |  | | --- | --- | | Type: | xsi:float | | Content: | simple | | Defined: | [locally](#r329) within element [timeScale](#r332) [76] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r341) [78] | | 78 |
| [**timeZoneInfo**](#r349) (in [siteInfo](#r295)) | the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)   |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r345), 2 [elements](#r348) | | Defined: | [locally](#r623) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r343) [79] | | Includes: | definitions of 1 [attribute](#r345) and 2 [elements](#r348) | | 78 |
| [**timeZoneInfo**](#r356) (type anonymous) | the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)   |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [attribute](#r352), 2 [elements](#r355) | | Defined: | [locally](#r462) within complexType [DataSetInfoType](#r464) [100] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r350) [80] | | Includes: | definitions of 1 [attribute](#r352) and 2 [elements](#r355) | | 80 |
| [**Title**](#r358) (in [metadata](#r153)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r514) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r357) [81] | | 81 |
| [**TopicCategory**](#r360) (in [metadata](#r153)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r515) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r359) [81] | | 81 |
| [**typeOfContact**](#r362) (in [contactInformation](#r40)) | |  |  | | --- | --- | | Type: | xsi:normalizedString | | Content: | simple | | Defined: | [locally](#r445) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r361) [82] | | 81 |
| [**unit**](#r366) (type [UnitsType](#r704)) | |  |  | | --- | --- | | Type: | [UnitsType](#r704) [134] | | Content: | complex, 1 attribute, 5 elements | | Defined: | locally at 3 [locations](#r364) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 82 |
| [**unitAbbreviation**](#r368) (in [unit](#r366)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r698) within complexType [UnitsType](#r704) [134] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r367) [83] | | 83 |
| [**unitCode**](#r370) (in [unit](#r366)) | |  |  | | --- | --- | | Type: | xsi:token | | Content: | simple | | Defined: | [locally](#r699) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r369) [83] | | 83 |
| [**unitDescription**](#r372) (in [unit](#r366)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r700) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r371) [84] | | 83 |
| [**unitName**](#r374) (in [unit](#r366)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r701) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r373) [84] | | 84 |
| [**unitType**](#r376) (in [unit](#r366)) | |  |  | | --- | --- | | Type: | [UnitsTypeCodeList](#r830) [161] | | Content: | simple | | Defined: | [locally](#r702) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r375) [84] | | 84 |
| [**value**](#r378) (in [values](#r385)) | text   |  |  | | --- | --- | | Type: | [ValueSingleVariable](#r728) [135] | | Content: | simple, 20 attributes | | Defined: | [locally](#r691) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r377) [85] | | 84 |
| [**valueCount**](#r383) (in [series](#r271)) | |  |  | | --- | --- | | Type: | [anonymous](#r379) (extension of [positiveInt](#r790)) | | Content: | simple, 1 [attribute](#r382) | | Defined: | [locally](#r266) within element [series](#r271) [65] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r380) [86] | | Includes: | definition of 1 [attribute](#r382) | | 85 |
| [**values**](#r385) (in [timeSeries](#r334)) | |  |  | | --- | --- | | Type: | [TsValuesSingleVariableType](#r693) [132] | | Content: | complex, 8 elements | | Defined: | [locally](#r668) within complexType [TimeSeriesType](#r671) [130] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r384) [87] | | 86 |
| [**valueType**](#r389) (type [ValueTypeCodeList](#r836)) | |  |  | | --- | --- | | Type: | [ValueTypeCodeList](#r836) [163] | | Content: | simple | | Defined: | locally at 2 [locations](#r387) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 87 |
| [**variable**](#r393) (type [VariableInfoType](#r752)) | |  |  | | --- | --- | | Type: | [VariableInfoType](#r752) [138] | | Content: | complex, 2 attributes, 17 elements | | Defined: | locally at 3 [locations](#r391) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) | | 87 |
| [**variableCode**](#r402) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | [anonymous](#r394) (extension of xsi:token) | | Content: | simple, 4 [attributes](#r401) | | Defined: | [locally](#r747) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r395) [89] | | Includes: | definitions of 4 [attributes](#r401) | | 88 |
| [**variableDescription**](#r404) (in [variable](#r393)) | A detailed descriptn of the variable.   |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r748) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r403) [90] | | 89 |
| [**variableName**](#r406) (in [variable](#r393)) | A brief name of the variable that could be shown in a menu   |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r749) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r405) [90] | | 90 |
| [**variableParam**](#r408) (in [criteria](#r55)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r53) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r407) [91] | | 90 |
| [**variableProperty**](#r410) (in [variable](#r393)) | |  |  | | --- | --- | | Type: | [PropertyType](#r553) [112] | | Content: | simple, 3 attributes | | Defined: | [locally](#r750) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r409) [91] | | 91 |
| [**variables**](#r414) (in [variablesResponse](#r416)) | |  |  | | --- | --- | | Type: | anonymous complexType | | Content: | complex, 1 [element](#r413) | | Defined: | [locally](#r756) within complexType [VariablesResponseType](#r758) [143] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r411) [92] | | Includes: | definition of 1 [element](#r413) | | 91 |
| [**variablesResponse**](#r416) | |  |  | | --- | --- | | Type: | [VariablesResponseType](#r758) [142] | | Content: | complex, 2 elements | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r415) [92] | | Used: | never | | 92 |
| [**variableTimeInterval**](#r418) (in [series](#r271)) | |  |  | | --- | --- | | Type: | [TimePeriodType](#r656) [128] | | Content: | complex, 4 elements | | Defined: | [locally](#r269) within element [series](#r271) [65] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r417) [93] | | 92 |
| [**verticalDatum**](#r420) (in [siteInfo](#r295)) | |  |  | | --- | --- | | Type: | xsi:string | | Content: | simple | | Defined: | [locally](#r624) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r419) [93] | | 93 |
| [**west**](#r422) (type [Longitude](#r787)) | |  |  | | --- | --- | | Type: | [Longitude](#r787) [150] | | Content: | simple | | Defined: | [locally](#r494) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r421) [93] | | 93 |
| [**X**](#r424) (in [localSiteXY](#r146)) | |  |  | | --- | --- | | Type: | xsi:double | | Content: | simple | | Defined: | [locally](#r142) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r423) [94] | | 93 |
| [**Y**](#r426) (in [localSiteXY](#r146)) | |  |  | | --- | --- | | Type: | xsi:double | | Content: | simple | | Defined: | [locally](#r143) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r425) [94] | | 94 |
| [**Z**](#r430) (in [coordLatLong](#r44)) | |  |  | | --- | --- | | Type: | xsi:decimal | | Content: | simple | | Defined: | [locally](#r452) within complexType [CoordType](#r454) [98] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r429) [95] | | 95 |
| [**Z**](#r428) (in [localSiteXY](#r146)) | |  |  | | --- | --- | | Type: | xsi:double | | Content: | simple | | Defined: | [locally](#r144) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r427) [95] | | 94 |

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| --- | --- | --- |
| **Complex Type Summary** | | **Page** |
| [**CensorCodeType**](#r438) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r434), 2 [elements](#r437) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r432) [96] | | Includes: | definitions of 1 [attribute](#r434) and 2 [elements](#r437) | | Used: | at 1 [location](#r431) | | 95 |
| [**ContactInformationType**](#r447) | |  |  | | --- | --- | | Content: | complex, 5 [elements](#r446) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r440) [97] | | Includes: | definitions of 5 [elements](#r446) | | Used: | at 1 [location](#r439) | | 96 |
| [**CoordType**](#r454) | Represents a coordinate tuple in one, two, or three dimensions. ========================================================== ==== There are two ways to represent coordinates: (1) as a sequence of &lt;coord> elements that encapsulate tuples, or (2) using a single &lt;coordinates> string   |  |  | | --- | --- | | Content: | complex, 3 [elements](#r453) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r449) [98] | | Includes: | definitions of 3 [elements](#r453) | | Used: | at 1 [location](#r448) | | 97 |
| [**DataSetInfoType**](#r464) | |  |  | | --- | --- | | Content: | complex, 7 [elements](#r463) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r455) [99] | | Includes: | definitions of 7 [elements](#r463) | | Used: | never | | 98 |
| [**DocumentationType**](#r471) | |  |  | | --- | --- | | Content: | mixed, 4 [attributes](#r470) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r465) [100] | | Includes: | definitions of 4 [attributes](#r470) | | Used: | never | | 100 |
| [***GeogLocationType***](#r476) | |  |  | | --- | --- | | Content: | empty, 1 [attribute](#r475) | | Abstract: | (cannot be assigned directly to elements used in instance XML documents) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r473) [101] | | Includes: | definition of 1 [attribute](#r475) | | Used: | at 5 [locations](#r472) | | 101 |
| [**LabMethodType**](#r489) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r480), 7 [elements](#r488) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r478) [102] | | Includes: | definitions of 1 [attribute](#r480) and 7 [elements](#r488) | | Used: | at 1 [location](#r477) | | 102 |
| [**LatLonBoxType**](#r496) | |  |  | | --- | --- | | Content: | complex, 1 attribute, 4 [elements](#r495) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r490) [104] | | Includes: | definitions of 4 [elements](#r495) | | Used: | never | | 103 |
| [**latLonLineString**](#r503) | |  |  | | --- | --- | | Content: | complex, 2 [attributes](#r500), 1 [element](#r502) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r497) [105] | | Includes: | definitions of 1 [attribute](#r500) and 1 [element](#r502) | | Used: | never | | 105 |
| [**LatLonPointType**](#r508) | |  |  | | --- | --- | | Content: | complex, 1 attribute, 2 [elements](#r507) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r504) [106] | | Includes: | definitions of 2 [elements](#r507) | | Used: | never | | 106 |
| [**MetaDataType**](#r517) | |  |  | | --- | --- | | Content: | complex, 5 [elements](#r516) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r510) [107] | | Includes: | definitions of 5 [elements](#r516) | | Used: | at 1 [location](#r509) | | 107 |
| [**MethodType**](#r526) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r521), 3 [elements](#r525) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r519) [108] | | Includes: | definitions of 1 [attribute](#r521) and 3 [elements](#r525) | | Used: | at 1 [location](#r518) | | 108 |
| [**NoteType**](#r534) | |  |  | | --- | --- | | Content: | simple, 4 [attributes](#r533) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r528) [110] | | Includes: | definitions of 4 [attributes](#r533) | | Used: | at 1 [location](#r527) | | 109 |
| [**OffsetType**](#r546) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r538), 6 [elements](#r545) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r536) [111] | | Includes: | definitions of 1 [attribute](#r538) and 6 [elements](#r545) | | Used: | at 1 [location](#r535) | | 110 |
| [**PropertyType**](#r553) | |  |  | | --- | --- | | Content: | simple, 3 [attributes](#r552) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r548) [112] | | Includes: | definitions of 3 [attributes](#r552) | | Used: | at 5 [locations](#r547) | | 112 |
| [**QualifierType**](#r564) | |  |  | | --- | --- | | Content: | complex, 4 [attributes](#r560), 2 [elements](#r563) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r555) [113] | | Includes: | definitions of 4 [attributes](#r560) and 2 [elements](#r563) | | Used: | at 1 [location](#r554) | | 113 |
| [**QualityControlLevelType**](#r573) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r568), 3 [elements](#r572) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r566) [115] | | Includes: | definitions of 1 [attribute](#r568) and 3 [elements](#r572) | | Used: | at 1 [location](#r565) | | 114 |
| [**QueryInfoType**](#r582) | |  |  | | --- | --- | | Content: | complex, 5 [elements](#r581) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r575) [116] | | Includes: | definitions of 5 [elements](#r581) | | Used: | at 1 [location](#r574) | | 116 |
| [**SampleType**](#r591) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r586), 3 [elements](#r590) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r584) [118] | | Includes: | definitions of 1 [attribute](#r586) and 3 [elements](#r590) | | Used: | at 1 [location](#r583) | | 117 |
| [**seriesCatalogType**](#r602) | |  |  | | --- | --- | | Content: | complex, 2 [attributes](#r596), 4 [elements](#r601) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r593) [119] | | Includes: | definitions of 2 [attributes](#r596) and 4 [elements](#r601) | | Used: | at 1 [location](#r592) | | 118 |
| [**SiteInfoResponseType**](#r608) | |  |  | | --- | --- | | Content: | complex, 2 [elements](#r607) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r604) [120] | | Includes: | definitions of 2 [elements](#r607) | | Used: | at 1 [location](#r603) | | 120 |
| [**SiteInfoType**](#r626) | A sampling station is any place where data are collected.   |  |  | | --- | --- | | Content: | complex, 2 [attributes](#r613), 11 [elements](#r625) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r610) [122] | | Includes: | definitions of 2 [attributes](#r613) and 11 [elements](#r625) | | Used: | at 1 [location](#r609) | | 121 |
| [**SourceInfoType**](#r629) | |  |  | | --- | --- | | Content: | empty | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r628) [125] | | Used: | at 3 [locations](#r627) | | 124 |
| [**SourceType**](#r642) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r633), 7 [elements](#r641) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r631) [125] | | Includes: | definitions of 1 [attribute](#r633) and 7 [elements](#r641) | | Used: | at 2 [locations](#r630) | | 125 |
| [**TimeIntervalType**](#r644) | |  |  | | --- | --- | | Content: | complex, 4 elements | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r643) [127] | | Used: | never | | 126 |
| [**TimePeriodRealTimeType**](#r648) | |  |  | | --- | --- | | Content: | complex, 5 [elements](#r647) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r645) [127] | | Includes: | definition of 1 [element](#r647) | | Used: | never | | 127 |
| [**TimePeriodType**](#r656) | |  |  | | --- | --- | | Content: | complex, 4 [elements](#r655) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r650) [128] | | Includes: | definitions of 4 [elements](#r655) | | Used: | at 4 [locations](#r649) | | 128 |
| [**TimeSeriesResponseType**](#r662) | |  |  | | --- | --- | | Content: | complex, 2 [elements](#r661) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r658) [129] | | Includes: | definitions of 2 [elements](#r661) | | Used: | at 1 [location](#r657) | | 129 |
| [**TimeSeriesType**](#r671) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r666), 3 [elements](#r670) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r664) [130] | | Includes: | definitions of 1 [attribute](#r666) and 3 [elements](#r670) | | Used: | at 1 [location](#r663) | | 129 |
| [**TimeSingleType**](#r675) | |  |  | | --- | --- | | Content: | complex, 5 [elements](#r674) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r672) [131] | | Includes: | definition of 1 [element](#r674) | | Used: | never | | 131 |
| [**TimeZoneType**](#r681) | |  |  | | --- | --- | | Content: | empty, 2 [attributes](#r680) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r677) [132] | | Includes: | definitions of 2 [attributes](#r680) | | Used: | at 4 [locations](#r676) | | 131 |
| [**TsValuesSingleVariableType**](#r693) | |  |  | | --- | --- | | Content: | complex, 8 [elements](#r692) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r683) [133] | | Includes: | definitions of 8 [elements](#r692) | | Used: | at 1 [location](#r682) | | 132 |
| [**UnitsType**](#r704) | |  |  | | --- | --- | | Content: | complex, 1 [attribute](#r697), 5 [elements](#r703) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r695) [134] | | Includes: | definitions of 1 [attribute](#r697) and 5 [elements](#r703) | | Used: | at 1 [location](#r694) | | 134 |
| [**ValueSingleVariable**](#r728) | |  |  | | --- | --- | | Content: | simple, 20 [attributes](#r727) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r706) [136] | | Includes: | definitions of 20 [attributes](#r727) | | Used: | at 1 [location](#r705) | | 135 |
| [**VariableInfoType**](#r752) | |  |  | | --- | --- | | Content: | complex, 2 [attributes](#r733), 17 [elements](#r751) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r730) [139] | | Includes: | definitions of 2 [attributes](#r733) and 17 [elements](#r751) | | Used: | at 1 [location](#r729) | | 138 |
| [**VariablesResponseType**](#r758) | |  |  | | --- | --- | | Content: | complex, 2 [elements](#r757) | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r754) [143] | | Includes: | definitions of 2 [elements](#r757) | | Used: | at 1 [location](#r753) | | 142 |

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| **Simple Type Summary** | | **Page** |
| [**CensorCodeCodeList**](#r761) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r760) [144] | | Used: | at 2 [locations](#r759) | | 143 |
| [**CensorCodeEnum**](#r764) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r763) [145] | | Used: | at 1 [location](#r762) | | 144 |
| [**DataTypeCodeList**](#r767) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r766) [145] | | Used: | at 1 [location](#r765) | | 145 |
| [**dataTypeEnum**](#r770) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r769) [146] | | Used: | at 1 [location](#r768) | | 146 |
| [**DocumentationEnumTypes**](#r773) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r772) [147] | | Used: | at 1 [location](#r771) | | 147 |
| [**doubleList**](#r775) | XML List based on XML Schema double type.   |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r774) [148] | | Used: | never | | 147 |
| [**GeneralCategoryCodeList**](#r778) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r777) [148] | | Used: | at 1 [location](#r776) | | 148 |
| [**generalCategoryEnum**](#r781) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r780) [149] | | Used: | at 1 [location](#r779) | | 148 |
| [**Latitude**](#r784) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r783) [150] | | Used: | at 3 [locations](#r782) | | 149 |
| [**Longitude**](#r787) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r786) [151] | | Used: | at 3 [locations](#r785) | | 150 |
| [**positiveInt**](#r790) | .Net serializer work around.   |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r789) [152] | | Used: | at 7 [locations](#r788) | | 151 |
| [**QualityControlLevelCodeList**](#r792) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r791) [152] | | Used: | never | | 152 |
| [**QualityControlLevelEnum**](#r795) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r794) [153] | | Used: | at 1 [location](#r793) | | 153 |
| [**SampleMediumCodeList**](#r798) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r797) [154] | | Used: | at 1 [location](#r796) | | 153 |
| [**SampleMediumEnum**](#r801) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r800) [155] | | Used: | at 1 [location](#r799) | | 154 |
| [**SampleTypeCodeList**](#r804) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r803) [155] | | Used: | at 1 [location](#r802) | | 155 |
| [**sampleTypeEnum**](#r807) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r806) [156] | | Used: | at 1 [location](#r805) | | 156 |
| [**SiteTypeCodeList**](#r810) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r809) [157] | | Used: | at 1 [location](#r808) | | 157 |
| [**SiteTypeEnum**](#r813) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r812) [158] | | Used: | at 1 [location](#r811) | | 157 |
| [**SpeciationCodeList**](#r816) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r815) [158] | | Used: | at 1 [location](#r814) | | 158 |
| [**SpeciationEnum**](#r819) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r818) [159] | | Used: | at 1 [location](#r817) | | 159 |
| [**TimeOffsetType**](#r822) | This represents an offset for the time zone. [+/-]hh:mm   |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r821) [160] | | Used: | at 1 [location](#r820) | | 159 |
| [**TopicCategoryCodeList**](#r824) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r823) [160] | | Used: | never | | 160 |
| [**TopicCategoryEnum**](#r827) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r826) [161] | | Used: | at 1 [location](#r825) | | 161 |
| [**UnitsTypeCodeList**](#r830) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r829) [162] | | Used: | at 1 [location](#r828) | | 161 |
| [**UnitsTypeEnum**](#r833) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r832) [162] | | Used: | at 1 [location](#r831) | | 162 |
| [**ValueTypeCodeList**](#r836) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r835) [163] | | Used: | at 1 [location](#r834) | | 163 |
| [**valueTypeEnum**](#r839) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r838) [164] | | Used: | at 1 [location](#r837) | | 163 |
| [**VerticalDatumCodeList**](#r841) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r840) [165] | | Used: | never | | 164 |
| [**VerticalDatumEnum**](#r844) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r843) [165] | | Used: | at 1 [location](#r842) | | 165 |
| [**zDirectionEnum**](#r847) | |  |  | | --- | --- | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r846) [166] | | Used: | at 1 [location](#r845) | | 165 |

|  |  |  |
| --- | --- | --- |
| **Global Attribute Summary** | | **Page** |
| [**default**](#r851) | |  |  | | --- | --- | | Type: | xsi:boolean | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r850) [167] | | Used: | at 1 [location](#r849) | | 166 |
| [**metadataTime**](#r855) | |  |  | | --- | --- | | Type: | xsi:dateTime | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r854) [167] | | Used: | at 3 [locations](#r853) | | 167 |
| [**network**](#r859) | |  |  | | --- | --- | | Type: | xsi:NMTOKEN | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r858) [167] | | Used: | at 1 [location](#r857) | | 167 |
| [**oid**](#r863) | |  |  | | --- | --- | | Type: | xsi:normalizedString | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r862) [168] | | Used: | at 3 [locations](#r861) | | 167 |
| [**vocabulary**](#r867) | |  |  | | --- | --- | | Type: | xsi:NMTOKEN | | Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r866) [168] | | Used: | at 1 [location](#r865) | | 168 |

XML Schema *"cuahsiTimeSeries\_v1\_1.xsd"*

Target Namespace:

[http://www.cuahsi.org/waterML/1.1/](#r6)

Version:

1

Defined Components:

6 global elements, 137 local elements, 36 complexTypes, 31 simpleTypes, 5 global attributes

Default Namespace-Qualified Form:

Local Elements: qualified; Local Attributes: unqualified

Schema Location:

<https://svn.sdsc.edu/repo/WATER/CUAHSI/WebServices/BaseWofService/WofSchemas/cuahsiTimeSeries_v1_1.xsd>

element <Abstract>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r511) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r8) [18] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <Abstract | | |
|  | *Content:* | { xsi:string } |
| </Abstract> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**Abstract**](#r511)" type="xsi:string"/> |

element <address>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:anyType |
| Content: | any |
| Defined: | [locally](#r441) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r10) [18] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <address | | |
|  | *Content:* | { xsi:anyType } |
| </address> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**address**](#r441)" type="xsi:anyType"/> |

element <altname>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r614) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r12) [19] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <altname | | |
|  | *Content:* | { xsi:string } |
| </altname> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**altname**](#r614)" type="xsi:string"/> |

element <beginDateTime>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r321) within element [timeParam](#r324) [75] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r14) [19] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <beginDateTime | | |
|  | *Content:* | { xsi:string } |
| </beginDateTime> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeParam](#r324) (in [criteria](#r55)) [74] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTime**](#r321)" type="xsi:string"/> |

element <beginDateTime>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r651) within complexType [TimePeriodType](#r656) [128] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r16) [20] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <beginDateTime | | |
|  | *Content:* | { xsi:dateTime } |
| </beginDateTime> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**beginDateTime**](#r651)" type="xsi:dateTime"/> |

element <beginDateTimeUTC>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r652) within complexType [TimePeriodType](#r656) [128] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r18) [20] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <beginDateTimeUTC | | |
|  | *Content:* | { xsi:dateTime } |
| </beginDateTimeUTC> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTimeUTC**](#r652)" type="xsi:dateTime"/> |

element <categories>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [element](#r22) |
| Defined: | [locally](#r734) within complexType [VariableInfoType](#r752) [140] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r20) [20] |
| Includes: | definition of 1 [element](#r22) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <categories> | |
|  | |  |  | | --- | --- | | *Content:* | [category](#r21)\* | |
| </categories> | |

Content model elements (1):

|  |  |
| --- | --- |
| [category](#r30) (in [categories](#r23)) [21] |  |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**categories**](#r734)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**category**](#r21)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**dataValue**](#r27)" type="xsi:decimal"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**description**](#r28)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**categoryID**](#r25)" type="xsi:int"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r23) component only; 1/1)

[category](#r30) [21]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

element <category>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r26), 2 [elements](#r29) |
| Defined: | [locally](#r21) within element [categories](#r23) [21] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r24) [21] |
| Includes: | definitions of 1 [attribute](#r26) and 2 [elements](#r29) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <category | | | |
|  | [categoryID](#r25) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [dataValue](#r27), [description](#r28)? | | | |
| </category> | | | |

Content model elements (2):

|  |  |
| --- | --- |
| [dataValue](#r69) (in [category](#r30)) [28], | [description](#r86) (in [category](#r30)) [32] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [categories](#r23) (in [variable](#r393)) [20] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**category**](#r21)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**dataValue**](#r27)" type="xsi:decimal"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**description**](#r28)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**categoryID**](#r25)" type="xsi:int"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r30) component only; 1/1)

categoryID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r30) component only; 2/2)

[dataValue](#r69) [28]



|  |  |
| --- | --- |
| Type: | xsi:decimal, predefined, simple content |

[description](#r86) [32]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

element <censorCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [CensorCodeType](#r438) [95] |
| Content: | complex, 1 attribute, 2 elements |
| Defined: | [locally](#r684) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r31) [22] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <censorCode | | | |
|  | [censorCodeID](#r433) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [censorCode](#r435), [censorCodeDescription](#r436) | | | |
| </censorCode> | | | |

Content model elements (2):

|  |  |
| --- | --- |
| [censorCode](#r34) (in [censorCode](#r32) in [values](#r385)) [22], | [censorCodeDescription](#r36) (in [censorCode](#r32) in [values](#r385)) [23] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**censorCode**](#r684)" type="[**CensorCodeType**](#r438)"/> |

element <censorCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [CensorCodeCodeList](#r761) [143] |
| Content: | simple |
| Defined: | [locally](#r435) within complexType [CensorCodeType](#r438) [96] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r33) [22] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <censorCode | | |
|  | *Content:* | { ("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string } |
| </censorCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**censorCode**](#r435)" type="[**CensorCodeCodeList**](#r761)"/> |

element <censorCodeDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r436) within complexType [CensorCodeType](#r438) [96] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r35) [23] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <censorCodeDescription | | |
|  | *Content:* | { xsi:string } |
| </censorCodeDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**censorCodeDescription**](#r436)" type="xsi:string"/> |

element <citation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r634) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r37) [23] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <citation | | |
|  | *Content:* | { xsi:string } |
| </citation> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**citation**](#r634)" type="xsi:string"/> |

element <contactInformation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [ContactInformationType](#r447) [96] |
| Content: | complex, 5 elements |
| Defined: | [locally](#r635) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r39) [24] |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <contactInformation> | |
|  | |  |  | | --- | --- | | *Content:* | [contactName](#r442), [typeOfContact](#r445)?, [email](#r443)\*, [phone](#r444)\*, [address](#r441)\* | |
| </contactInformation> | |

Content model elements (5):

|  |  |
| --- | --- |
| [address](#r11) (in [contactInformation](#r40)) [18],  [contactName](#r42) (in [contactInformation](#r40)) [24],  [email](#r92) (in [contactInformation](#r40)) [33], | [phone](#r216) (in [contactInformation](#r40)) [55],  [typeOfContact](#r362) (in [contactInformation](#r40)) [81] |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**contactInformation**](#r635)" type="[**ContactInformationType**](#r447)"/> |

element <contactName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r442) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r41) [24] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <contactName | | |
|  | *Content:* | { xsi:string } |
| </contactName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="1" name="[**contactName**](#r442)" type="xsi:string"/> |

element <coordLatLong>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [CoordType](#r454) [97] |
| Content: | complex, 3 elements |
| Defined: | [locally](#r501) within complexType [latLonLineString](#r503) [106] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r43) [24] |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <coordLatLong> | |
|  | |  |  | | --- | --- | | *Content:* | [latitude](#r450), [longitude](#r451), [Z](#r452)? | |
| </coordLatLong> | |

Content model elements (3):

|  |  |
| --- | --- |
| [latitude](#r137) (in [coordLatLong](#r44)) [41],  [longitude](#r151) (in [coordLatLong](#r44)) [43], | [Z](#r430) (in [coordLatLong](#r44)) [95] |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="2" name="[**coordLatLong**](#r501)" type="[**CoordType**](#r454)"/> |

element <creationTime>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r576) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r45) [25] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <creationTime | | |
|  | *Content:* | { xsi:dateTime } |
| </creationTime> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58] |  |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**creationTime**](#r576)" type="xsi:dateTime"/> |

element <criteria>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r49), 4 [elements](#r54) |
| Defined: | [locally](#r577) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r47) [25] |
| Includes: | definitions of 1 [attribute](#r49) and 4 [elements](#r54) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <criteria | | | |
|  | [MethodCalled](#r48) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | ([locationParam](#r50)?, [variableParam](#r53)?, [timeParam](#r52)?, [parameter](#r51)\*)? | | | |
| </criteria> | | | |

Content model elements (4):

|  |  |
| --- | --- |
| [locationParam](#r148) (in [criteria](#r55)) [43],  [parameter](#r207) (in [criteria](#r55)) [53], | [timeParam](#r324) (in [criteria](#r55)) [74],  [variableParam](#r408) (in [criteria](#r55)) [90] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58] |  |

XML Source (w/o annotations (3))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**criteria**](#r577)">  <xsi:complexType>  <xsi:sequence minOccurs="0">  <xsi:element minOccurs="0" name="[**locationParam**](#r50)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**variableParam**](#r53)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**timeParam**](#r52)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTime**](#r321)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTime**](#r322)" type="xsi:string"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**parameter**](#r51)">  <xsi:complexType>  <xsi:attribute name="[**name**](#r204)" type="xsi:token"/>  <xsi:attribute name="[**value**](#r205)" type="xsi:string"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**MethodCalled**](#r48)" type="xsi:normalizedString"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r55) component only; 1/1)

MethodCalled



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r55) component only; 4/4)

[locationParam](#r148) [43]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[parameter](#r207) [53]



|  |  |
| --- | --- |
| Type: | anonymous, empty content |

[timeParam](#r324) [74]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[variableParam](#r408) [90]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

element <dataSetDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r456) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r56) [26] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <dataSetDescription | | |
|  | *Content:* | { xsi:string } |
| </dataSetDescription> | | |

XML Source

|  |
| --- |
| <xsi:element name="[**dataSetDescription**](#r456)" type="xsi:string"/> |

element <dataSetIdentifier>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r457) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r58) [27] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <dataSetIdentifier | | |
|  | *Content:* | { xsi:string } |
| </dataSetIdentifier> | | |

XML Source

|  |
| --- |
| <xsi:element name="[**dataSetIdentifier**](#r457)" type="xsi:string"/> |

element <dataSetLocation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [*GeogLocationType*](#r476) [101] |
| Content: | empty, 1 attribute |
| Defined: | [locally](#r458) within complexType [DataSetInfoType](#r464) [99] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r60) [27] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <dataSetLocation | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
| /> | | | |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**dataSetLocation**](#r458)" type="[**GeogLocationType**](#r476)"/> |

element <dataSetProperty>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [PropertyType](#r553) [112] |
| Content: | simple, 3 attributes |
| Defined: | [locally](#r459) within complexType [DataSetInfoType](#r464) [100] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r62) [27] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <dataSetProperty | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </dataSetProperty> | | | |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**dataSetProperty**](#r459)" type="[**PropertyType**](#r553)"/> |

element <dataType>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [DataTypeCodeList](#r767) [145] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r65) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <dataType | | |
|  | *Content:* | { ("Continuous" | "Instantaneous" | "Cumulative" | "Incremental" | "Average" | "Maximum" | "Minimum" | "Constant Over Interval" | "Categorical" | "Best Easy Systematic Estimator " | "Unknown" | "Variance" | "Median" | "Mode" | "Best Easy Systematic Estimator" | "Standard Deviation" | "Skewness" | "Equivalent Mean" | "Sporadic" | "Unknown") | xsi:string } |
| </dataType> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (1):

[VariableInfoType](#r752) [140]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [64]

element <dataValue>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:decimal |
| Content: | simple |
| Defined: | [locally](#r27) within element [category](#r30) [22] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r68) [28] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <dataValue | | |
|  | *Content:* | { xsi:decimal } |
| </dataValue> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [category](#r30) (in [categories](#r23)) [21] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**dataValue**](#r27)" type="xsi:decimal"/> |

element <daylightSavingsTimeZone>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r70) (extension of [TimeZoneType](#r681)) |
| Content: | empty, 2 attributes |
| Defined: | [locally](#r346) within element [timeZoneInfo](#r349) [79] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r71) [29] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <daylightSavingsTimeZone | | | |
|  | [zoneAbbreviation](#r678) | = | xsi:token |
|  | [zoneOffset](#r679) | = | xsi:normalizedString |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeZoneInfo](#r349) (in [siteInfo](#r295)) [78] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  [TimeZoneType](#r681) [131]  **complexType** (extension) |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r346)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element> |

element <daylightSavingsTimeZone>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r73) (extension of [TimeZoneType](#r681)) |
| Content: | empty, 2 attributes |
| Defined: | [locally](#r353) within element [timeZoneInfo](#r356) [80] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r74) [29] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <daylightSavingsTimeZone | | | |
|  | [zoneAbbreviation](#r678) | = | xsi:token |
|  | [zoneOffset](#r679) | = | xsi:normalizedString |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeZoneInfo](#r356) (type anonymous) [80] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  [TimeZoneType](#r681) [131]  **complexType** (extension) |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r353)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element> |

element <defaultTimeZone>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r76) (extension of [TimeZoneType](#r681)) |
| Content: | empty, 2 attributes |
| Defined: | [locally](#r347) within element [timeZoneInfo](#r349) [79] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r77) [30] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <defaultTimeZone | | | |
|  | [zoneAbbreviation](#r678) | = | xsi:token |
|  | [zoneOffset](#r679) | = | xsi:normalizedString |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeZoneInfo](#r349) (in [siteInfo](#r295)) [78] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  [TimeZoneType](#r681) [131]  **complexType** (extension) |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r347)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element> |

element <defaultTimeZone>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r79) (extension of [TimeZoneType](#r681)) |
| Content: | empty, 2 attributes |
| Defined: | [locally](#r354) within element [timeZoneInfo](#r356) [81] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r80) [31] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <defaultTimeZone | | | |
|  | [zoneAbbreviation](#r678) | = | xsi:token |
|  | [zoneOffset](#r679) | = | xsi:normalizedString |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeZoneInfo](#r356) (type anonymous) [80] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  [TimeZoneType](#r681) [131]  **complexType** (extension) |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r354)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element> |

element <definition>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r82) (restriction of xsi:string) |
| Content: | simple |
| Defined: | [locally](#r569) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r83) [32] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <definition | | |
|  | *Content:* | { xsi:string } |
| </definition> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxLength: | 255 |
| MinLength: | 0 |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57] |  |

Annotation

Definition of Quality Control Level. “Raw Data”, “Quality Controlled Data”

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **simpleType** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | maxLength: | 255 | | minLength: | 0 | |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**definition**](#r569)">  <xsi:simpleType>  <xsi:restriction base="xsi:string">  <xsi:maxLength value="255"/>  <xsi:minLength value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:element> |

element <description>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r28) within element [category](#r30) [22] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r85) [32] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <description | | |
|  | *Content:* | { xsi:string } |
| </description> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [category](#r30) (in [categories](#r23)) [21] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**description**](#r28)" type="xsi:string"/> |

element <east>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Longitude](#r787) [150] |
| Content: | simple |
| Defined: | [locally](#r491) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r87) [32] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <east | | |
|  | *Content:* | { xsi:double } |
| </east> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 180.00 |
| MinInclusive: | -180.00 |

XML Source

|  |
| --- |
| <xsi:element name="[**east**](#r491)" type="[**Longitude**](#r787)"/> |

element <elevation\_m>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:double |
| Content: | simple |
| Defined: | [locally](#r615) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r89) [33] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <elevation\_m | | |
|  | *Content:* | { xsi:double } |
| </elevation\_m> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**elevation\_m**](#r615)" type="xsi:double"/> |

element <email>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:normalizedString |
| Content: | simple |
| Defined: | [locally](#r443) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r91) [33] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <email | | |
|  | *Content:* | { xsi:normalizedString } |
| </email> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**email**](#r443)" type="xsi:normalizedString"/> |

element <endDateTime>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r322) within element [timeParam](#r324) [75] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r93) [34] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <endDateTime | | |
|  | *Content:* | { xsi:string } |
| </endDateTime> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeParam](#r324) (in [criteria](#r55)) [74] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTime**](#r322)" type="xsi:string"/> |

element <endDateTime>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r653) within complexType [TimePeriodType](#r656) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r95) [34] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <endDateTime | | |
|  | *Content:* | { xsi:dateTime } |
| </endDateTime> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**endDateTime**](#r653)" type="xsi:dateTime"/> |

element <endDateTimeUTC>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r654) within complexType [TimePeriodType](#r656) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r97) [34] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <endDateTimeUTC | | |
|  | *Content:* | { xsi:dateTime } |
| </endDateTimeUTC> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTimeUTC**](#r654)" type="xsi:dateTime"/> |

element <explanation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r570) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r99) [35] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <explanation | | |
|  | *Content:* | { xsi:string } |
| </explanation> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57] |  |

Annotation

Explanation of Quality Control Level eg “Raw data is defined as unprocessed data and data products that have not undergone quality control.”

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**explanation**](#r570)" type="xsi:string"/> |

element <extension>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:anyType |
| Content: | any |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r104) [35] |
| Used: | at 6 [locations](#r103) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <extension | | |
|  | *Content:* | { xsi:anyType } |
| </extension> | | |

Included in content model of elements (5):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58],  [seriesCatalog](#r273) (in [site](#r283)) [65],  [site](#r283) (in [sitesResponse](#r301)) [66], | [siteInfo](#r295) (in [site](#r283)) [69],  [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Known Usage Locations

* Within global complexTypes (5):

[DataSetInfoType](#r464) [100], [QueryInfoType](#r582) [117], [SiteInfoType](#r626) [123], [VariableInfoType](#r752) [141], [seriesCatalogType](#r602) [119]

* Within anonymous complexTypes of elements (1):

[site](#r283) (in [sitesResponse](#r301)) [67]

XML Source

|  |
| --- |
| <xsi:element name="[**extension**](#r105)" type="xsi:anyType"/> |

element <generalCategory>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [GeneralCategoryCodeList](#r778) [148] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r107) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <generalCategory | | |
|  | *Content:* | { ("Water Quality" | "Climate" | "Hydrology" | "Geology" | "Biota" | "Unknown" | "Instrumentation") | xsi:string } |
| </generalCategory> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (1):

[VariableInfoType](#r752) [141]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [64]

element <geogLocation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [*GeogLocationType*](#r476) [101] |
| Content: | empty, 1 attribute |
| Defined: | [locally](#r113) within element [geoLocation](#r116) [37] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r110) [36] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <geogLocation | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [geoLocation](#r116) (in [siteInfo](#r295)) [36] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**geogLocation**](#r113)" type="[**GeogLocationType**](#r476)"/> |

element <geoLocation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 2 [elements](#r115) |
| Defined: | [locally](#r617) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r112) [37] |
| Includes: | definitions of 2 [elements](#r115) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <geoLocation> | |
|  | |  |  | | --- | --- | | *Content:* | [geogLocation](#r113), [localSiteXY](#r114)\* | |
| </geoLocation> | |

Content model elements (2):

|  |  |
| --- | --- |
| [geogLocation](#r111) (in [geoLocation](#r116)) [36], | [localSiteXY](#r146) (in [geoLocation](#r116)) [42] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**geoLocation**](#r617)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**geogLocation**](#r113)" type="[**GeogLocationType**](#r476)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**localSiteXY**](#r114)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**X**](#r142)" type="xsi:double"/>  <xsi:element name="[**Y**](#r143)" type="xsi:double"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**Z**](#r144)" type="xsi:double"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r141)" type="[**NoteType**](#r534)"/>  </xsi:sequence>  <xsi:attribute name="[**projectionInformation**](#r139)" type="xsi:string"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r116) component only; 2/2)

[geogLocation](#r111) [36]



|  |  |
| --- | --- |
| Type: | [*GeogLocationType*](#r476) [101], empty content |

[localSiteXY](#r146) [42]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

element <labCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r481) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r117) [38] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labCode | | |
|  | *Content:* | { xsi:token } |
| </labCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

Annotation

The Abbrevation for the lab. e.g. BETA for Beta Analytical

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element name="[**labCode**](#r481)" type="xsi:token"/> |

element <labMethod>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [LabMethodType](#r489) [102] |
| Content: | complex, 1 attribute, 7 elements |
| Defined: | [locally](#r587) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r119) [38] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <labMethod | | | |
|  | [labMethodID](#r479) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [labCode](#r481), [labName](#r485)?, [labOrganization](#r486)?, [LabMethodName](#r484)?, [labMethodDescription](#r482)?, [labMethodLink](#r483)?, [labSourceDetails](#r487)? | | | |
| </labMethod> | | | |

Content model elements (7):

|  |  |
| --- | --- |
| [labCode](#r118) (in [labMethod](#r120)) [37],  [labMethodDescription](#r122) (in [labMethod](#r120)) [38],  [labMethodLink](#r124) (in [labMethod](#r120)) [39],  [LabMethodName](#r126) (in [labMethod](#r120)) [39], | [labName](#r128) (in [labMethod](#r120)) [39],  [labOrganization](#r130) (in [labMethod](#r120)) [40],  [labSourceDetails](#r134) (in [labMethod](#r120)) [41] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [sample](#r251) (in [values](#r385)) [61] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labMethod**](#r587)" type="[**LabMethodType**](#r489)"/> |

element <labMethodDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r482) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r121) [39] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labMethodDescription | | |
|  | *Content:* | { xsi:string } |
| </labMethodDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labMethodDescription**](#r482)" type="xsi:string"/> |

element <labMethodLink>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r483) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r123) [39] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labMethodLink | | |
|  | *Content:* | { xsi:string } |
| </labMethodLink> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labMethodLink**](#r483)" type="xsi:string"/> |

element <LabMethodName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r484) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r125) [39] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <LabMethodName | | |
|  | *Content:* | { xsi:string } |
| </LabMethodName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**LabMethodName**](#r484)" type="xsi:string"/> |

element <labName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r485) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r127) [40] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labName | | |
|  | *Content:* | { xsi:string } |
| </labName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labName**](#r485)" type="xsi:string"/> |

element <labOrganization>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r486) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r129) [40] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labOrganization | | |
|  | *Content:* | { xsi:string } |
| </labOrganization> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labOrganization**](#r486)" type="xsi:string"/> |

element <labSampleCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:normalizedString |
| Content: | simple |
| Defined: | [locally](#r588) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r131) [40] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <labSampleCode | | |
|  | *Content:* | { xsi:normalizedString } |
| </labSampleCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [sample](#r251) (in [values](#r385)) [61] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**labSampleCode**](#r588)" type="xsi:normalizedString"/> |

element <labSourceDetails>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SourceType](#r642) [125] |
| Content: | complex, 1 attribute, 7 elements |
| Defined: | [locally](#r487) within complexType [LabMethodType](#r489) [103] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r133) [41] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <labSourceDetails | | | |
|  | [sourceID](#r632) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [sourceCode](#r638)?, [organization](#r637)?, [sourceDescription](#r639)?, [metadata](#r636)?, [contactInformation](#r635)\*, [sourceLink](#r640)\*, [citation](#r634)? | | | |
| </labSourceDetails> | | | |

Content model elements (7):

|  |  |
| --- | --- |
| [citation](#r38) (type xsi:string) [23],  [contactInformation](#r40) (type [ContactInformationType](#r447)) [23],  [metadata](#r153) (type [MetaDataType](#r517)) [44],  [organization](#r202) (type xsi:string) [53], | [sourceCode](#r309) (type xsi:token) [72],  [sourceDescription](#r311) (type xsi:string) [72],  [sourceLink](#r315) (type xsi:anyURI) [73] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

Annotation

This is the contact information for a laboratory

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**labSourceDetails**](#r487)" type="[**SourceType**](#r642)"/> |

element <latitude>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Latitude](#r784) [149] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r135) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <latitude | | |
|  | *Content:* | { xsi:double } |
| </latitude> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 90.00 |
| MinInclusive: | -90.00 |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

Definition Locations

* Within global complexTypes (2):

[CoordType](#r454) [98], [LatLonPointType](#r508) [106]

Annotations (1) (by all definition locations)

**Location:**

within complexType [LatLonPointType](#r508) [106]

**Annotation:**

The latitude of the site in a decimal degrees as calculated in terms of the given datum.

element <localSiteXY>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r140), 4 [elements](#r145) |
| Defined: | [locally](#r114) within element [geoLocation](#r116) [37] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r138) [42] |
| Includes: | definitions of 1 [attribute](#r140) and 4 [elements](#r145) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <localSiteXY | | | |
|  | [projectionInformation](#r139) | = | xsi:string |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [X](#r142), [Y](#r143), [Z](#r144)?, [note](#r141)\* | | | |
| </localSiteXY> | | | |

Content model elements (4):

|  |  |
| --- | --- |
| [note](#r173) (type [NoteType](#r534)) [47],  [X](#r424) (in [localSiteXY](#r146)) [93], | [Y](#r426) (in [localSiteXY](#r146)) [94],  [Z](#r428) (in [localSiteXY](#r146)) [94] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [geoLocation](#r116) (in [siteInfo](#r295)) [36] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**localSiteXY**](#r114)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**X**](#r142)" type="xsi:double"/>  <xsi:element name="[**Y**](#r143)" type="xsi:double"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**Z**](#r144)" type="xsi:double"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r141)" type="[**NoteType**](#r534)"/>  </xsi:sequence>  <xsi:attribute name="[**projectionInformation**](#r139)" type="xsi:string"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r146) component only; 1/1)

projectionInformation



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r146) component only; 4/4)

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[X](#r424) [93]



|  |  |
| --- | --- |
| Type: | xsi:double, predefined, simple content |

[Y](#r426) [94]



|  |  |
| --- | --- |
| Type: | xsi:double, predefined, simple content |

[Z](#r428) [94]



|  |  |
| --- | --- |
| Type: | xsi:double, predefined, simple content |

element <locationParam>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r50) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r147) [43] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <locationParam | | |
|  | *Content:* | { xsi:string } |
| </locationParam> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [criteria](#r55) (in [queryInfo](#r233)) [25] |  |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**locationParam**](#r50)" type="xsi:string"/> |

element <longitude>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Longitude](#r787) [150] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r149) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <longitude | | |
|  | *Content:* | { xsi:double } |
| </longitude> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 180.00 |
| MinInclusive: | -180.00 |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

Definition Locations

* Within global complexTypes (2):

[CoordType](#r454) [98], [LatLonPointType](#r508) [107]

Annotations (1) (by all definition locations)

**Location:**

within complexType [LatLonPointType](#r508) [107]

**Annotation:**

The longitude of the site in a decimal degrees as calculated in terms of the given datum.

element <metadata>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [MetaDataType](#r517) [107] |
| Content: | complex, 5 elements |
| Defined: | [locally](#r636) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r152) [44] |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <metadata> | |
|  | |  |  | | --- | --- | | *Content:* | [TopicCategory](#r515)?, [Title](#r514)?, [Abstract](#r511)?, [ProfileVersion](#r513)?, [MetadataLink](#r512)? | |
| </metadata> | |

Content model elements (5):

|  |  |
| --- | --- |
| [Abstract](#r9) (in [metadata](#r153)) [18],  [MetadataLink](#r155) (in [metadata](#r153)) [44],  [ProfileVersion](#r218) (in [metadata](#r153)) [55], | [Title](#r358) (in [metadata](#r153)) [81],  [TopicCategory](#r360) (in [metadata](#r153)) [81] |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**metadata**](#r636)" type="[**MetaDataType**](#r517)"/> |

element <MetadataLink>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:anyURI |
| Content: | simple |
| Defined: | [locally](#r512) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r154) [45] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <MetadataLink | | |
|  | *Content:* | { xsi:anyURI } |
| </MetadataLink> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**MetadataLink**](#r512)" type="xsi:anyURI"/> |

element <method>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [MethodType](#r526) [108] |
| Content: | complex, 1 attribute, 3 elements |
| Defined: | locally at 2 [locations](#r157) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <method | | | |
|  | [methodID](#r520) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [methodCode](#r522)?, [methodDescription](#r523)?, [methodLink](#r524)? | | | |
| </method> | | | |

Content model elements (3):

|  |  |
| --- | --- |
| [methodCode](#r161) (in [method](#r159)) [46],  [methodDescription](#r163) (in [method](#r159)) [46], | [methodLink](#r165) (in [method](#r159)) [46] |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [values](#r385) (in [timeSeries](#r334)) [86] |

Definition Locations

* Within global complexTypes (1):

[TsValuesSingleVariableType](#r693) [133]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [64]

Annotations (1) (by all definition locations)

**Location:**

within complexType [TsValuesSingleVariableType](#r693) [133]

**Annotation:**

Multiple &lt;method&gt;s lists the methods used to collect the data and any additional information about the method. Different instruments should be represented as different methods, according to ODM best practices.

element <methodCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r522) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r160) [46] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <methodCode | | |
|  | *Content:* | { xsi:token } |
| </methodCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [method](#r159) (type [MethodType](#r526)) [45] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**methodCode**](#r522)" type="xsi:token"/> |

element <methodDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r523) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r162) [46] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <methodDescription | | |
|  | *Content:* | { xsi:string } |
| </methodDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [method](#r159) (type [MethodType](#r526)) [45] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**methodDescription**](#r523)" type="xsi:string"/> |

element <methodLink>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r524) within complexType [MethodType](#r526) [109] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r164) [47] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <methodLink | | |
|  | *Content:* | { xsi:string } |
| </methodLink> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [method](#r159) (type [MethodType](#r526)) [45] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**methodLink**](#r524)" type="xsi:string"/> |

element <noDataValue>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:double |
| Content: | simple |
| Defined: | [locally](#r738) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r166) [47] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <noDataValue | | |
|  | *Content:* | { xsi:double } |
| </noDataValue> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**noDataValue**](#r738)" type="xsi:double"/> |

element <north>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Latitude](#r784) [149] |
| Content: | simple |
| Defined: | [locally](#r492) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r168) [47] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <north | | |
|  | *Content:* | { xsi:double } |
| </north> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 90.00 |
| MinInclusive: | -90.00 |

XML Source

|  |
| --- |
| <xsi:element name="[**north**](#r492)" type="[**Latitude**](#r784)"/> |

element <note>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [NoteType](#r534) [109] |
| Content: | simple, 4 attributes |
| Defined: | locally at 6 [locations](#r171) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <note | | | |
|  | [href](#r529) | = | xsi:string |
|  | [show](#r530) | = | xsi:string |
|  | [title](#r531) | = | xsi:string |
|  | [type](#r532) | = | xsi:token |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </note> | | | |

Included in content model of elements (5):

|  |  |
| --- | --- |
| [localSiteXY](#r146) (in [geoLocation](#r116)) [42],  [queryInfo](#r233) (type [QueryInfoType](#r582)) [58],  [seriesCatalog](#r273) (in [site](#r283)) [65], | [siteInfo](#r295) (in [site](#r283)) [69],  [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (5):

[DataSetInfoType](#r464) [100], [QueryInfoType](#r582) [117], [SiteInfoType](#r626) [123], [VariableInfoType](#r752) [141], [seriesCatalogType](#r602) [120]

* Within anonymous complexTypes of elements (1):

[localSiteXY](#r146) (in [geoLocation](#r116)) [43]

element <offset>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [OffsetType](#r546) [110] |
| Content: | complex, 1 attribute, 6 elements |
| Defined: | [locally](#r686) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r174) [49] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <offset | | | |
|  | [offsetTypeID](#r537) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [offsetTypeCode](#r542)?, [offsetValue](#r543), [offsetDescription](#r540)?, [unit](#r544), [offsetIsVertical](#r541), [offsetAzimuthDegrees](#r539)? | | | |
| </offset> | | | |

Content model elements (6):

|  |  |
| --- | --- |
| [offsetAzimuthDegrees](#r177) (in [offset](#r175)) [49],  [offsetDescription](#r179) (in [offset](#r175)) [49],  [offsetIsVertical](#r181) (in [offset](#r175)) [49], | [offsetTypeCode](#r183) (in [offset](#r175)) [50],  [offsetValue](#r185) (in [offset](#r175)) [50],  [unit](#r366) (type [UnitsType](#r704)) [82] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**offset**](#r686)" type="[**OffsetType**](#r546)"/> |

element <offsetAzimuthDegrees>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:int |
| Content: | simple |
| Defined: | [locally](#r539) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r176) [49] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <offsetAzimuthDegrees | | |
|  | *Content:* | { xsi:int } |
| </offsetAzimuthDegrees> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetAzimuthDegrees**](#r539)" type="xsi:int"/> |

element <offsetDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r540) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r178) [49] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <offsetDescription | | |
|  | *Content:* | { xsi:string } |
| </offsetDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetDescription**](#r540)" type="xsi:string"/> |

element <offsetIsVertical>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:boolean |
| Content: | simple |
| Defined: | [locally](#r541) within complexType [OffsetType](#r546) [111] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r180) [50] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <offsetIsVertical | | |
|  | *Content:* | { xsi:boolean } |
| </offsetIsVertical> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| Default: | "true" |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:element default="true" name="[**offsetIsVertical**](#r541)" type="xsi:boolean"/> |

element <offsetTypeCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r542) within complexType [OffsetType](#r546) [112] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r182) [50] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <offsetTypeCode | | |
|  | *Content:* | { xsi:token } |
| </offsetTypeCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetTypeCode**](#r542)" type="xsi:token"/> |

element <offsetValue>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:float |
| Content: | simple |
| Defined: | [locally](#r543) within complexType [OffsetType](#r546) [112] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r184) [51] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <offsetValue | | |
|  | *Content:* | { xsi:float } |
| </offsetValue> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**offsetValue**](#r543)" type="xsi:float"/> |

element <option>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r188) (extension of xsi:string) |
| Content: | simple, 3 [attributes](#r193) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r189) [51] |
| Includes: | definitions of 3 [attributes](#r193) |
| Used: | at 1 [location](#r187) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <option | | | |
|  | [name](#r190) | = | xsi:normalizedString |
|  | [optionCode](#r191) | = | xsi:token |
|  | [optionID](#r192) | = | xsi:integer |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </option> | | | |

Included in content model of elements (1):

[options](#r200) [52]

Known Usage Locations

* Within anonymous complexTypes of elements (1):

[options](#r200) [53]

Annotation

Option elements are key-value pair elements that control how a variable maght be utilized in a service. Examples: MODIS web service. Information is aggreated over land or ocean or both. The plotarea option can include: plotarea=land, plotarea=land, plotarea=landocean USGS uses a statistic code, 0003, to repesent a value type of 'Average'. The USGS statistic codes also several options that do not fit the ODM data model.

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:string |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element name="[**option**](#r194)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**name**](#r190)" type="xsi:normalizedString"/>  <xsi:attribute name="[**optionID**](#r192)" type="xsi:integer"/>  <xsi:attribute name="[**optionCode**](#r191)" type="xsi:token"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r194) component only; 3/3)

name



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

optionCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

optionID



|  |  |
| --- | --- |
| Type: | xsi:integer, predefined |
| Use: | optional |

element <options>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [element](#r199) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r197) [52] |
| Includes: | definition of 1 [element](#r199) |
| Used: | at 1 [location](#r196) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <options> | |
|  | |  |  | | --- | --- | | *Content:* | [option](#r198)\* | |
| </options> | |

Content model elements (1):

[option](#r194) [51]

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Known Usage Locations

* Within global complexTypes (1):

[VariableInfoType](#r752) [141]

Annotation

A list of options. Option elements are key-value pair elements that control how a variable maght be utilized in a service. Examples: MODIS web service. Information is aggreated over land or ocean or both. The plotarea option can include: plotarea=land, plotarea=land, plotarea=landocean USGS uses a statistic code, 0003, to repesent a value type of 'Average'. The USGS statistic codes also several options that do not fit the ODM data model.

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:element name="[**options**](#r200)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" ref="[**option**](#r194)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r200) component only; 1/1)

[option](#r194) [51]



|  |  |
| --- | --- |
| Type: | [anonymous](#r188) (extension of xsi:string), simple content |

Option elements are key-value pair elements that control how a variable maght be utilized in a service. Examples: MODIS web service. Information is aggreated over land or ocean or both. The plotarea option can include: plotarea=land, plotarea=land, plotarea=landocean USGS uses a statistic code, 0003, to repesent a value type of 'Average'. The USGS statistic codes also several options that do not fit the ODM data model.

Simple Content

|  |
| --- |
| xsi:string |

element <organization>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r637) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r201) [53] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <organization | | |
|  | *Content:* | { xsi:string } |
| </organization> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**organization**](#r637)" type="xsi:string"/> |

element <parameter>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | empty, 2 [attributes](#r206) |
| Defined: | [locally](#r51) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r203) [54] |
| Includes: | definitions of 2 [attributes](#r206) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <parameter | | | |
|  | [name](#r204) | = | xsi:token |
|  | [value](#r205) | = | xsi:string |
| /> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [criteria](#r55) (in [queryInfo](#r233)) [25] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**parameter**](#r51)">  <xsi:complexType>  <xsi:attribute name="[**name**](#r204)" type="xsi:token"/>  <xsi:attribute name="[**value**](#r205)" type="xsi:string"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r207) component only; 2/2)

name



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

value



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

element <parentCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r208) (extension of xsi:string) |
| Content: | simple, 3 [attributes](#r213) |
| Defined: | [locally](#r239) within element [related](#r242) [60] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r209) [54] |
| Includes: | definitions of 3 [attributes](#r213) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <parentCode | | | |
|  | [default](#r210) | = | xsi:boolean |
|  | [network](#r211) | = | xsi:token |
|  | [vocabulary](#r212) | = | xsi:token |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </parentCode> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [related](#r242) (in [variable](#r393)) [59] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:string |

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:element name="[**parentCode**](#r239)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r211)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r212)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r210)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r214) component only; 3/3)

default



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

network



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

vocabulary



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

element <phone>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r444) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r215) [55] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <phone | | |
|  | *Content:* | { xsi:string } |
| </phone> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**phone**](#r444)" type="xsi:string"/> |

element <ProfileVersion>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r513) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r217) [56] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <ProfileVersion | | |
|  | *Content:* | { xsi:string } |
| </ProfileVersion> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**ProfileVersion**](#r513)" type="xsi:string"/> |

element <qualifier>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [QualifierType](#r564) [113] |
| Content: | complex, 4 attributes, 2 elements |
| Defined: | [locally](#r687) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r219) [56] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <qualifier | | | |
|  | [default](#r556) | = | xsi:boolean |
|  | [network](#r557) | = | xsi:NMTOKEN |
|  | [qualifierID](#r558) | = | xsi:int |
|  | [vocabulary](#r559) | = | xsi:NMTOKEN |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [qualifierCode](#r561), [qualifierDescription](#r562)? | | | |
| </qualifier> | | | |

Content model elements (2):

|  |  |
| --- | --- |
| [qualifierCode](#r222) (in [qualifier](#r220)) [56], | [qualifierDescription](#r224) (in [qualifier](#r220)) [57] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**qualifier**](#r687)" type="[**QualifierType**](#r564)"/> |

element <qualifierCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r561) within complexType [QualifierType](#r564) [114] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r221) [57] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <qualifierCode | | |
|  | *Content:* | { xsi:token } |
| </qualifierCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [qualifier](#r220) (in [values](#r385)) [56] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**qualifierCode**](#r561)" type="xsi:token"/> |

element <qualifierDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r562) within complexType [QualifierType](#r564) [114] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r223) [57] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <qualifierDescription | | |
|  | *Content:* | { xsi:string } |
| </qualifierDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [qualifier](#r220) (in [values](#r385)) [56] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**qualifierDescription**](#r562)" type="xsi:string"/> |

element <qualityControlLevel>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [QualityControlLevelType](#r573) [114] |
| Content: | complex, 1 attribute, 3 elements |
| Defined: | locally at 2 [locations](#r226) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <qualityControlLevel | | | |
|  | [qualityControlLevelID](#r567) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [qualityControlLevelCode](#r571)?, [definition](#r569)?, [explanation](#r570)? | | | |
| </qualityControlLevel> | | | |

Content model elements (3):

|  |  |
| --- | --- |
| [definition](#r84) (in [qualityControlLevel](#r228)) [31],  [explanation](#r100) (in [qualityControlLevel](#r228)) [34], | [qualityControlLevelCode](#r230) (in [qualityControlLevel](#r228)) [58] |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [values](#r385) (in [timeSeries](#r334)) [86] |

Definition Locations

* Within global complexTypes (1):

[TsValuesSingleVariableType](#r693) [133]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [64]

element <qualityControlLevelCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r571) within complexType [QualityControlLevelType](#r573) [115] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r229) [58] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <qualityControlLevelCode | | |
|  | *Content:* | { xsi:token } |
| </qualityControlLevelCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57] |  |

Annotation

Code used to identify the level of quality control to which data values have been subjected. This code is used to link a quality element (qualityControlLevelType) to a dataValue/@ququalityControlLevel “1”, “1.1”, “Raw”, “QCChecked” A quality control level code of -9999 is suggested for data whose quality control level is unknown

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**qualityControlLevelCode**](#r571)" type="xsi:token"/> |

element <queryInfo>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [QueryInfoType](#r582) [116] |
| Content: | complex, 5 elements |
| Defined: | locally at 3 [locations](#r231) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <queryInfo> | |
|  | |  |  | | --- | --- | | *Content:* | [creationTime](#r576)?, [queryURL](#r580)?, [criteria](#r577)?, [note](#r579)\*, [extension](#r578)? | |
| </queryInfo> | |

Content model elements (5):

|  |  |
| --- | --- |
| [creationTime](#r46) (in [queryInfo](#r233)) [25],  [criteria](#r55) (in [queryInfo](#r233)) [25],  [extension](#r105) [35], | [note](#r173) (type [NoteType](#r534)) [47],  [queryURL](#r235) (in [queryInfo](#r233)) [59] |

Included in content model of elements (3):

[sitesResponse](#r301) [71], [timeSeriesResponse](#r336) [77], [variablesResponse](#r416) [92]

Definition Locations

* Within global complexTypes (3):

[SiteInfoResponseType](#r608) [121], [TimeSeriesResponseType](#r662) [129], [VariablesResponseType](#r758) [143]

element <queryURL>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r580) within complexType [QueryInfoType](#r582) [117] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r234) [59] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <queryURL | | |
|  | *Content:* | { xsi:string } |
| </queryURL> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58] |  |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**queryURL**](#r580)" type="xsi:string"/> |

element <realTimeDataPeriod>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:duration |
| Content: | simple |
| Defined: | [locally](#r646) within complexType [TimePeriodRealTimeType](#r648) [127] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r236) [59] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <realTimeDataPeriod | | |
|  | *Content:* | { xsi:duration } |
| </realTimeDataPeriod> | | |

XML Source

|  |
| --- |
| <xsi:element name="[**realTimeDataPeriod**](#r646)" type="xsi:duration"/> |

element <related>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 2 [elements](#r241) |
| Defined: | [locally](#r741) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r238) [60] |
| Includes: | definitions of 2 [elements](#r241) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <related> | |
|  | |  |  | | --- | --- | | *Content:* | ([parentCode](#r239), [relatedCode](#r240))+ | |
| </related> | |

Content model elements (2):

|  |  |
| --- | --- |
| [parentCode](#r214) (in [related](#r242)) [54], | [relatedCode](#r249) (in [related](#r242)) [60] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source (w/o annotations (4))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**related**](#r741)">  <xsi:complexType>  <xsi:sequence maxOccurs="unbounded">  <xsi:element name="[**parentCode**](#r239)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r211)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r212)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r210)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**relatedCode**](#r240)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r246)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r247)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r245)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r242) component only; 2/2)

[parentCode](#r214) [54]



|  |  |
| --- | --- |
| Type: | [anonymous](#r208) (extension of xsi:string), simple content |

Simple Content

|  |
| --- |
| xsi:string |

[relatedCode](#r249) [60]



|  |  |
| --- | --- |
| Type: | [anonymous](#r243) (extension of xsi:string), simple content |

Simple Content

|  |
| --- |
| xsi:string |

element <relatedCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r243) (extension of xsi:string) |
| Content: | simple, 3 [attributes](#r248) |
| Defined: | [locally](#r240) within element [related](#r242) [60] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r244) [61] |
| Includes: | definitions of 3 [attributes](#r248) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <relatedCode | | | |
|  | [default](#r245) | = | xsi:boolean |
|  | [network](#r246) | = | xsi:token |
|  | [vocabulary](#r247) | = | xsi:token |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </relatedCode> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [related](#r242) (in [variable](#r393)) [59] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:string |

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:element name="[**relatedCode**](#r240)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r246)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r247)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r245)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r249) component only; 3/3)

default



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

network



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

vocabulary



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

element <sample>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SampleType](#r591) [117] |
| Content: | complex, 1 attribute, 3 elements |
| Defined: | [locally](#r689) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r250) [62] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <sample | | | |
|  | [sampleID](#r585) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [labSampleCode](#r588)?, [sampleType](#r589)?, [labMethod](#r587)? | | | |
| </sample> | | | |

Content model elements (3):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38],  [labSampleCode](#r132) (in [sample](#r251)) [40], | [sampleType](#r257) (in [sample](#r251)) [62] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**sample**](#r689)" type="[**SampleType**](#r591)"/> |

element <sampleMedium>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SampleMediumCodeList](#r798) [153] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r253) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <sampleMedium | | |
|  | *Content:* | { ("Surface Water" | "Ground Water" | "Sediment" | "Soil" | "Air" | "Tissue" | "Precipitation" | "Unknown" | "Other" | "Snow" | "Not Relevant") | xsi:string } |
| </sampleMedium> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (1):

[VariableInfoType](#r752) [141]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [64]

element <sampleType>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SampleTypeCodeList](#r804) [155] |
| Content: | simple |
| Defined: | [locally](#r589) within complexType [SampleType](#r591) [118] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r256) [63] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <sampleType | | |
|  | *Content:* | { ("FD" | "FF" | "FL" | "LF" | "GW" | "PB" | "PD" | "PE" | "PI" | "PW" | "RE" | "SE" | "SR" | "SS" | "SW" | "TE" | "TI" | "TW" | "VE" | "VI" | "VW" | "Grab" | "Unknown" | "No Sample") | xsi:string } |
| </sampleType> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [sample](#r251) (in [values](#r385)) [61] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**sampleType**](#r589)" type="[**SampleTypeCodeList**](#r804)"/> |

element <series>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 11 [elements](#r270) |
| Defined: | [locally](#r599) within complexType [seriesCatalogType](#r602) [120] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r258) [63] |
| Includes: | definitions of 11 [elements](#r270) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <series> | |
|  | |  |  | | --- | --- | | *Content:* | [dataType](#r259)?, [variable](#r268), [valueCount](#r266)?, [variableTimeInterval](#r269), [valueType](#r267)?, [generalCategory](#r260)?, [sampleMedium](#r263)?, [method](#r261)?, [source](#r265)?, [qualityControlLevel](#r262)?, [seriesProperty](#r264)\* | |
| </series> | |

Content model elements (11):

|  |  |
| --- | --- |
| [dataType](#r67) (type [DataTypeCodeList](#r767)) [27],  [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35],  [method](#r159) (type [MethodType](#r526)) [45],  [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57],  [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62],  [seriesProperty](#r277) (in [series](#r271)) [66], | [source](#r307) (type [SourceType](#r642)) [71],  [valueCount](#r383) (in [series](#r271)) [85],  [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87],  [variable](#r393) (type [VariableInfoType](#r752)) [87],  [variableTimeInterval](#r418) (in [series](#r271)) [92] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [seriesCatalog](#r273) (in [site](#r283)) [65] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**series**](#r599)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**dataType**](#r259)" type="[**DataTypeCodeList**](#r767)"/>  <xsi:element name="[**variable**](#r268)" type="[**VariableInfoType**](#r752)"/>  <xsi:element minOccurs="0" name="[**valueCount**](#r266)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="[**positiveInt**](#r790)">  <xsi:attribute name="[**countIsEstimated**](#r381)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**variableTimeInterval**](#r269)" type="[**TimePeriodType**](#r656)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**valueType**](#r267)" type="[**ValueTypeCodeList**](#r836)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**generalCategory**](#r260)" type="[**GeneralCategoryCodeList**](#r778)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**sampleMedium**](#r263)" type="[**SampleMediumCodeList**](#r798)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**method**](#r261)" type="[**MethodType**](#r526)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**source**](#r265)" type="[**SourceType**](#r642)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**qualityControlLevel**](#r262)" type="[**QualityControlLevelType**](#r573)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesProperty**](#r264)" type="[**PropertyType**](#r553)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r271) component only; 11/11)

[dataType](#r67) [27]



|  |  |
| --- | --- |
| Type: | [DataTypeCodeList](#r767) [145], simple content |

Simple Content

|  |
| --- |
| ("Continuous" | "Instantaneous" | "Cumulative" | "Incremental" | "Average" | "Maximum" | "Minimum" | "Constant Over Interval" | "Categorical" | "Best Easy Systematic Estimator " | "Unknown" | "Variance" | "Median" | "Mode" | "Best Easy Systematic Estimator" | "Standard Deviation" | "Skewness" | "Equivalent Mean" | "Sporadic" | "Unknown") | xsi:string |

[generalCategory](#r109) [35]



|  |  |
| --- | --- |
| Type: | [GeneralCategoryCodeList](#r778) [148], simple content |

Simple Content

|  |
| --- |
| ("Water Quality" | "Climate" | "Hydrology" | "Geology" | "Biota" | "Unknown" | "Instrumentation") | xsi:string |

[method](#r159) [45]



|  |  |
| --- | --- |
| Type: | [MethodType](#r526) [108], complex content |

[qualityControlLevel](#r228) [57]



|  |  |
| --- | --- |
| Type: | [QualityControlLevelType](#r573) [114], complex content |

[sampleMedium](#r255) [62]



|  |  |
| --- | --- |
| Type: | [SampleMediumCodeList](#r798) [153], simple content |

Simple Content

|  |
| --- |
| ("Surface Water" | "Ground Water" | "Sediment" | "Soil" | "Air" | "Tissue" | "Precipitation" | "Unknown" | "Other" | "Snow" | "Not Relevant") | xsi:string |

[seriesProperty](#r277) [66]



|  |  |
| --- | --- |
| Type: | [PropertyType](#r553) [112], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[source](#r307) [71]



|  |  |
| --- | --- |
| Type: | [SourceType](#r642) [125], complex content |

[valueCount](#r383) [85]



|  |  |
| --- | --- |
| Type: | [anonymous](#r379) (extension of [positiveInt](#r790)), simple content |

Simple Content

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| minInclusive: | 0 |

[valueType](#r389) [87]



|  |  |
| --- | --- |
| Type: | [ValueTypeCodeList](#r836) [163], simple content |

Simple Content

|  |
| --- |
| xsi:string | ("Field Observation" | "Sample" | "Model Simulation Result" | "Derived Value" | "Unknown") |

[variable](#r393) [87]



|  |  |
| --- | --- |
| Type: | [VariableInfoType](#r752) [138], complex content |

[variableTimeInterval](#r418) [92]



|  |  |
| --- | --- |
| Type: | [TimePeriodType](#r656) [128], complex content |

element <seriesCatalog>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [seriesCatalogType](#r602) [118] |
| Content: | complex, 2 attributes, 4 elements |
| Defined: | [locally](#r280) within element [site](#r283) [67] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r272) [65] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <seriesCatalog | | | |
|  | [menuGroupName](#r594) | = | xsi:normalizedString |
|  | [serviceWsdl](#r595) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [note](#r598)\*, [series](#r599)\*, [seriesCatalogProperty](#r600)\*, [extension](#r597)? | | | |
| </seriesCatalog> | | | |

Content model elements (4):

|  |  |
| --- | --- |
| [extension](#r105) [35],  [note](#r173) (type [NoteType](#r534)) [47], | [series](#r271) (in [seriesCatalog](#r273)) [63],  [seriesCatalogProperty](#r275) (in [seriesCatalog](#r273)) [66] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [site](#r283) (in [sitesResponse](#r301)) [66] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesCatalog**](#r280)" type="[**seriesCatalogType**](#r602)"/> |

element <seriesCatalogProperty>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [PropertyType](#r553) [112] |
| Content: | simple, 3 attributes |
| Defined: | [locally](#r600) within complexType [seriesCatalogType](#r602) [120] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r274) [66] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <seriesCatalogProperty | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </seriesCatalogProperty> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [seriesCatalog](#r273) (in [site](#r283)) [65] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesCatalogProperty**](#r600)" type="[**PropertyType**](#r553)"/> |

element <seriesProperty>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [PropertyType](#r553) [112] |
| Content: | simple, 3 attributes |
| Defined: | [locally](#r264) within element [series](#r271) [64] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r276) [66] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <seriesProperty | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </seriesProperty> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesProperty**](#r264)" type="[**PropertyType**](#r553)"/> |

element <site>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 3 [elements](#r282) |
| Defined: | [locally](#r606) within complexType [SiteInfoResponseType](#r608) [121] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r278) [67] |
| Includes: | definitions of 3 [elements](#r282) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <site> | |
|  | |  |  | | --- | --- | | *Content:* | [siteInfo](#r281), [seriesCatalog](#r280)\*, [extension](#r279)\* | |
| </site> | |

Content model elements (3):

|  |  |
| --- | --- |
| [extension](#r105) [35],  [seriesCatalog](#r273) (in [site](#r283)) [65], | [siteInfo](#r295) (in [site](#r283)) [69] |

Included in content model of elements (1):

[sitesResponse](#r301) [71]

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**site**](#r606)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="1" name="[**siteInfo**](#r281)" type="[**SiteInfoType**](#r626)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesCatalog**](#r280)" type="[**seriesCatalogType**](#r602)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" ref="[**extension**](#r105)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r283) component only; 3/3)

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[seriesCatalog](#r273) [65]



|  |  |
| --- | --- |
| Type: | [seriesCatalogType](#r602) [118], complex content |

[siteInfo](#r295) [69]



|  |  |
| --- | --- |
| Type: | [SiteInfoType](#r626) [121], complex content |

element <siteCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r284) (extension of xsi:token) |
| Content: | simple, 5 [attributes](#r292) |
| Defined: | [locally](#r619) within complexType [SiteInfoType](#r626) [123] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r285) [68] |
| Includes: | definitions of 5 [attributes](#r292) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <siteCode | | | |
|  | [agencyCode](#r286) | = | xsi:normalizedString |
|  | [agencyName](#r287) | = | xsi:normalizedString |
|  | [default](#r288) | = | xsi:boolean |
|  | [network](#r289) | = | xsi:token |
|  | [siteID](#r291) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:token } | | | |
| </siteCode> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

Annotation

A siteID is an identifier that this site is referred to as. There may be multiple siteID elements. Only one should be labeled as the defaultID (set attribute defaultID=true) Multiple siteID elements are allowed because site identifiers may change, and different observation networks may refer to the same site with different identifiers.

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:token  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:token |

XML Source (w/o annotations (4))

|  |
| --- |
| <xsi:element maxOccurs="unbounded" name="[**siteCode**](#r619)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:token">  <xsi:attribute name="[**default**](#r288)" type="xsi:boolean"/>  <xsi:attribute name="[**network**](#r289)" type="xsi:token" use="required"/>  <xsi:attribute name="[**siteID**](#r291)">  <xsi:simpleType>  <xsi:restriction base="[**positiveInt**](#r790)">  <xsi:minInclusive value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:attribute>  <xsi:attribute name="[**agencyCode**](#r286)" type="xsi:normalizedString"/>  <xsi:attribute name="[**agencyName**](#r287)" type="xsi:normalizedString"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r293) component only; 5/5)

agencyCode



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

agencyName



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

default



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

True if this is the main identifier that this service uses to access this site. default value is false.

network



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | required |

The name of the observation network that this site identification is use for.

siteID



|  |  |
| --- | --- |
| Type: | [anonymous](#r290) (restriction of [positiveInt](#r790)) |
| Use: | optional |

An identifier of the site, the type of identifier must be specified.

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Anonymous simpleType

|  |
| --- |
| Type Derivation Tree  xsi:int  [positiveInt](#r790) [151] (restriction)  **simpleType** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of [positiveInt](#r790) |
| Facets: | |  |  | | --- | --- | | minInclusive: | 0 | |

element <siteInfo>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SiteInfoType](#r626) [121] |
| Content: | complex, 2 attributes, 11 elements |
| Defined: | [locally](#r281) within element [site](#r283) [67] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r294) [70] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <siteInfo | | | |
|  | [metadataTime](#r611) | = | xsi:dateTime |
|  | [oid](#r612) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [siteName](#r620), [siteCode](#r619)+, [timeZoneInfo](#r623)?, [geoLocation](#r617), [elevation\_m](#r615)?, [verticalDatum](#r624)?, [note](#r618)\*, [extension](#r616)?, [altname](#r614)?, [siteType](#r622)\*, [siteProperty](#r621)\* | | | |
| </siteInfo> | | | |

Content model elements (11):

|  |  |
| --- | --- |
| [altname](#r13) (in [siteInfo](#r295)) [19],  [elevation\_m](#r90) (in [siteInfo](#r295)) [32],  [extension](#r105) [35],  [geoLocation](#r116) (in [siteInfo](#r295)) [36],  [note](#r173) (type [NoteType](#r534)) [47],  [siteCode](#r293) (in [siteInfo](#r295)) [67], | [siteName](#r297) (in [siteInfo](#r295)) [70],  [siteProperty](#r299) (in [siteInfo](#r295)) [70],  [siteType](#r303) (in [siteInfo](#r295)) [71],  [timeZoneInfo](#r349) (in [siteInfo](#r295)) [78],  [verticalDatum](#r420) (in [siteInfo](#r295)) [93] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [site](#r283) (in [sitesResponse](#r301)) [66] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="1" name="[**siteInfo**](#r281)" type="[**SiteInfoType**](#r626)"/> |

element <siteName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r620) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r296) [70] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <siteName | | |
|  | *Content:* | { xsi:string } |
| </siteName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**siteName**](#r620)" type="xsi:string"/> |

element <siteProperty>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [PropertyType](#r553) [112] |
| Content: | simple, 3 attributes |
| Defined: | [locally](#r621) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r298) [70] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <siteProperty | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </siteProperty> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**siteProperty**](#r621)" type="[**PropertyType**](#r553)"/> |

element <sitesResponse>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SiteInfoResponseType](#r608) [120] |
| Content: | complex, 2 elements |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r300) [71] |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <sitesResponse> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r605)?, [site](#r606)\* | |
| </sitesResponse> | |

Content model elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [site](#r283) (in [sitesResponse](#r301)) [66] |

XML Source

|  |
| --- |
| <xsi:element name="[**sitesResponse**](#r301)" type="[**SiteInfoResponseType**](#r608)"/> |

element <siteType>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SiteTypeCodeList](#r810) [157] |
| Content: | simple |
| Defined: | [locally](#r622) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r302) [71] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <siteType | | |
|  | *Content:* | { xsi:string | xsi:string } |
| </siteType> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**siteType**](#r622)" type="[**SiteTypeCodeList**](#r810)"/> |

element <source>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SourceType](#r642) [125] |
| Content: | complex, 1 attribute, 7 elements |
| Defined: | locally at 2 [locations](#r305) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <source | | | |
|  | [sourceID](#r632) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [sourceCode](#r638)?, [organization](#r637)?, [sourceDescription](#r639)?, [metadata](#r636)?, [contactInformation](#r635)\*, [sourceLink](#r640)\*, [citation](#r634)? | | | |
| </source> | | | |

Content model elements (7):

|  |  |
| --- | --- |
| [citation](#r38) (type xsi:string) [23],  [contactInformation](#r40) (type [ContactInformationType](#r447)) [23],  [metadata](#r153) (type [MetaDataType](#r517)) [44],  [organization](#r202) (type xsi:string) [53], | [sourceCode](#r309) (type xsi:token) [72],  [sourceDescription](#r311) (type xsi:string) [72],  [sourceLink](#r315) (type xsi:anyURI) [73] |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [values](#r385) (in [timeSeries](#r334)) [86] |

Definition Locations

* Within global complexTypes (1):

[TsValuesSingleVariableType](#r693) [133]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [65]

element <sourceCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r638) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r308) [72] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <sourceCode | | |
|  | *Content:* | { xsi:token } |
| </sourceCode> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

Annotation

The abbreviation for the source. e.g. USGS for US Geological Survey.

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**sourceCode**](#r638)" type="xsi:token"/> |

element <sourceDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r639) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r310) [73] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <sourceDescription | | |
|  | *Content:* | { xsi:string } |
| </sourceDescription> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**sourceDescription**](#r639)" type="xsi:string"/> |

element <sourceInfo>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SourceInfoType](#r629) [124] |
| Content: | empty |
| Defined: | [locally](#r667) within complexType [TimeSeriesType](#r671) [130] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r312) [73] |

|  |
| --- |
| XML Representation Summary |
| <sourceInfo/> |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**sourceInfo**](#r667)" type="[**SourceInfoType**](#r629)"/> |

element <sourceLink>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:anyURI |
| Content: | simple |
| Defined: | [locally](#r640) within complexType [SourceType](#r642) [126] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r314) [74] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <sourceLink | | |
|  | *Content:* | { xsi:anyURI } |
| </sourceLink> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**sourceLink**](#r640)" type="xsi:anyURI"/> |

element <south>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Latitude](#r784) [149] |
| Content: | simple |
| Defined: | [locally](#r493) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r316) [74] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <south | | |
|  | *Content:* | { xsi:double } |
| </south> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 90.00 |
| MinInclusive: | -90.00 |

XML Source

|  |
| --- |
| <xsi:element name="[**south**](#r493)" type="[**Latitude**](#r784)"/> |

element <speciation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [SpeciationCodeList](#r816) [158] |
| Content: | simple |
| Defined: | [locally](#r743) within complexType [VariableInfoType](#r752) [141] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r318) [74] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <speciation | | |
|  | *Content:* | { xsi:string | xsi:string } |
| </speciation> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**speciation**](#r743)" type="[**SpeciationCodeList**](#r816)"/> |

element <timeParam>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 2 [elements](#r323) |
| Defined: | [locally](#r52) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r320) [75] |
| Includes: | definitions of 2 [elements](#r323) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <timeParam> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r321)?, [endDateTime](#r322)? | |
| </timeParam> | |

Content model elements (2):

|  |  |
| --- | --- |
| [beginDateTime](#r15) (in [timeParam](#r324)) [19], | [endDateTime](#r94) (in [timeParam](#r324)) [33] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [criteria](#r55) (in [queryInfo](#r233)) [25] |  |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**timeParam**](#r52)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTime**](#r321)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTime**](#r322)" type="xsi:string"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r324) component only; 2/2)

[beginDateTime](#r15) [19]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[endDateTime](#r94) [33]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

element <timeScale>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r327), 3 [elements](#r331) |
| Nillable: | (can be declared as nil using xsi:nil attribute in instance XML documents) |
| Defined: | [locally](#r744) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r325) [76] |
| Includes: | definitions of 1 [attribute](#r327) and 3 [elements](#r331) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <timeScale | | | |
|  | [isRegular](#r326) | = | xsi:boolean : "false" |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [unit](#r330)?, [timeSpacing](#r328)?, [timeSupport](#r329)? | | | |
| </timeScale> | | | |

Content model elements (3):

|  |  |
| --- | --- |
| [timeSpacing](#r340) (in [timeScale](#r332)) [78],  [timeSupport](#r342) (in [timeScale](#r332)) [78], | [unit](#r366) (type [UnitsType](#r704)) [82] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Annotation

Element containing the time support (or temporal footprint) of the data values. @isRegular indicates if the spacing is regular. the timeInterval is the spacing between the observations, with the units being the units of the spacing. This basically communicates the precision of the observation. If timeSupport isReqgular, and has units of 1 day, then clients should reformat output to spreadsheets and applications to day values. In waterML 1.0, there is a divergence of mean between ODM, and WaterML. WaterML only communcates the regularity, and the spacing of the observations (timeInterval). Whereas timesupport in the ODM is associated with the dataType, and time support. This will be addressed in 1.1

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**timeScale**](#r744)" nillable="true">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**unit**](#r330)" type="[**UnitsType**](#r704)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSpacing**](#r328)" type="xsi:float"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSupport**](#r329)" type="xsi:float"/>  </xsi:sequence>  <xsi:attribute default="false" name="[**isRegular**](#r326)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r332) component only; 1/1)

isRegular



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

Attribute Value

|  |  |
| --- | --- |
| Default: | "false" |

Content Element Detail (defined in [this](#r332) component only; 3/3)

[timeSpacing](#r340) [78]



|  |  |
| --- | --- |
| Type: | xsi:float, predefined, simple content |

[timeSupport](#r342) [78]



|  |  |
| --- | --- |
| Type: | xsi:float, predefined, simple content |

[unit](#r366) [82]



|  |  |
| --- | --- |
| Type: | [UnitsType](#r704) [134], complex content |

element <timeSeries>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [TimeSeriesType](#r671) [129] |
| Content: | complex, 1 attribute, 3 elements |
| Defined: | [locally](#r660) within complexType [TimeSeriesResponseType](#r662) [129] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r333) [77] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <timeSeries | | | |
|  | [name](#r665) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [sourceInfo](#r667), [variable](#r669), [values](#r668)+ | | | |
| </timeSeries> | | | |

Content model elements (3):

|  |  |
| --- | --- |
| [sourceInfo](#r313) (in [timeSeries](#r334)) [73],  [values](#r385) (in [timeSeries](#r334)) [86], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Included in content model of elements (1):

[timeSeriesResponse](#r336) [77]

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="1" name="[**timeSeries**](#r660)" type="[**TimeSeriesType**](#r671)"/> |

element <timeSeriesResponse>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [TimeSeriesResponseType](#r662) [129] |
| Content: | complex, 2 elements |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r335) [77] |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <timeSeriesResponse> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r659)?, [timeSeries](#r660)+ | |
| </timeSeriesResponse> | |

Content model elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |

XML Source

|  |
| --- |
| <xsi:element name="[**timeSeriesResponse**](#r336)" type="[**TimeSeriesResponseType**](#r662)"/> |

element <timeSingle>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Content: | simple |
| Defined: | [locally](#r673) within complexType [TimeSingleType](#r675) [131] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r337) [78] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <timeSingle | | |
|  | *Content:* | { xsi:dateTime } |
| </timeSingle> | | |

XML Source

|  |
| --- |
| <xsi:element name="[**timeSingle**](#r673)" type="xsi:dateTime"/> |

element <timeSpacing>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:float |
| Content: | simple |
| Defined: | [locally](#r328) within element [timeScale](#r332) [76] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r339) [78] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <timeSpacing | | |
|  | *Content:* | { xsi:float } |
| </timeSpacing> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeScale](#r332) (in [variable](#r393)) [75] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSpacing**](#r328)" type="xsi:float"/> |

element <timeSupport>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:float |
| Content: | simple |
| Defined: | [locally](#r329) within element [timeScale](#r332) [76] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r341) [78] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <timeSupport | | |
|  | *Content:* | { xsi:float } |
| </timeSupport> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeScale](#r332) (in [variable](#r393)) [75] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSupport**](#r329)" type="xsi:float"/> |

element <timeZoneInfo>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r345), 2 [elements](#r348) |
| Defined: | [locally](#r623) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r343) [79] |
| Includes: | definitions of 1 [attribute](#r345) and 2 [elements](#r348) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <timeZoneInfo | | | |
|  | [siteUsesDaylightSavingsTime](#r344) | = | xsi:boolean |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [defaultTimeZone](#r347)?, [daylightSavingsTimeZone](#r346)? | | | |
| </timeZoneInfo> | | | |

Content model elements (2):

|  |  |
| --- | --- |
| [daylightSavingsTimeZone](#r72) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [28], | [defaultTimeZone](#r78) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [30] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

Annotation

the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**timeZoneInfo**](#r623)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r347)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r346)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**siteUsesDaylightSavingsTime**](#r344)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r349) component only; 1/1)

siteUsesDaylightSavingsTime



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r349) component only; 2/2)

[daylightSavingsTimeZone](#r72) [28]



|  |  |
| --- | --- |
| Type: | [anonymous](#r70) (extension of [TimeZoneType](#r681)), empty content |

[defaultTimeZone](#r78) [30]



|  |  |
| --- | --- |
| Type: | [anonymous](#r76) (extension of [TimeZoneType](#r681)), empty content |

element <timeZoneInfo>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [attribute](#r352), 2 [elements](#r355) |
| Defined: | [locally](#r462) within complexType [DataSetInfoType](#r464) [100] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r350) [80] |
| Includes: | definitions of 1 [attribute](#r352) and 2 [elements](#r355) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <timeZoneInfo | | | |
|  | [siteUsesDaylightSavingsTime](#r351) | = | xsi:boolean |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [defaultTimeZone](#r354)?, [daylightSavingsTimeZone](#r353)? | | | |
| </timeZoneInfo> | | | |

Content model elements (2):

|  |  |
| --- | --- |
| [daylightSavingsTimeZone](#r75) (in [timeZoneInfo](#r356) : anonymous) [29], | [defaultTimeZone](#r81) (in [timeZoneInfo](#r356) : anonymous) [30] |

Annotation

the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**timeZoneInfo**](#r462)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r354)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r353)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**siteUsesDaylightSavingsTime**](#r351)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r356) component only; 1/1)

siteUsesDaylightSavingsTime



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r356) component only; 2/2)

[daylightSavingsTimeZone](#r75) [29]



|  |  |
| --- | --- |
| Type: | [anonymous](#r73) (extension of [TimeZoneType](#r681)), empty content |

[defaultTimeZone](#r81) [30]



|  |  |
| --- | --- |
| Type: | [anonymous](#r79) (extension of [TimeZoneType](#r681)), empty content |

element <Title>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r514) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r357) [81] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <Title | | |
|  | *Content:* | { xsi:string } |
| </Title> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**Title**](#r514)" type="xsi:string"/> |

element <TopicCategory>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r515) within complexType [MetaDataType](#r517) [108] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r359) [81] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <TopicCategory | | |
|  | *Content:* | { xsi:string } |
| </TopicCategory> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**TopicCategory**](#r515)" type="xsi:string"/> |

element <typeOfContact>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:normalizedString |
| Content: | simple |
| Defined: | [locally](#r445) within complexType [ContactInformationType](#r447) [97] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r361) [82] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <typeOfContact | | |
|  | *Content:* | { xsi:normalizedString } |
| </typeOfContact> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**typeOfContact**](#r445)" type="xsi:normalizedString"/> |

element <unit>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [UnitsType](#r704) [134] |
| Content: | complex, 1 attribute, 5 elements |
| Defined: | locally at 3 [locations](#r364) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <unit | | | |
|  | [unitID](#r696) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [unitName](#r701)?, [unitDescription](#r700)?, [unitType](#r702)?, [unitAbbreviation](#r698)?, [unitCode](#r699) | | | |
| </unit> | | | |

Content model elements (5):

|  |  |
| --- | --- |
| [unitAbbreviation](#r368) (in [unit](#r366)) [83],  [unitCode](#r370) (in [unit](#r366)) [83],  [unitDescription](#r372) (in [unit](#r366)) [83], | [unitName](#r374) (in [unit](#r366)) [84],  [unitType](#r376) (in [unit](#r366)) [84] |

Included in content model of elements (3):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48],  [timeScale](#r332) (in [variable](#r393)) [75], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (2):

[OffsetType](#r546) [112], [VariableInfoType](#r752) [142]

* Within anonymous complexTypes of elements (1):

[timeScale](#r332) (in [variable](#r393)) [76]

Annotations (1) (by all definition locations)

**Location:**

within complexType [VariableInfoType](#r752) [142]

**Annotation:**

The units of the measurement.

element <unitAbbreviation>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r698) within complexType [UnitsType](#r704) [134] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r367) [83] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <unitAbbreviation | | |
|  | *Content:* | { xsi:string } |
| </unitAbbreviation> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**unitAbbreviation**](#r698)" type="xsi:string"/> |

element <unitCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:token |
| Content: | simple |
| Defined: | [locally](#r699) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r369) [83] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <unitCode | | |
|  | *Content:* | { xsi:token } |
| </unitCode> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**unitCode**](#r699)" type="xsi:token"/> |

element <unitDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r700) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r371) [84] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <unitDescription | | |
|  | *Content:* | { xsi:string } |
| </unitDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**unitDescription**](#r700)" type="xsi:string"/> |

element <unitName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r701) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r373) [84] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <unitName | | |
|  | *Content:* | { xsi:string } |
| </unitName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**unitName**](#r701)" type="xsi:string"/> |

element <unitType>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [UnitsTypeCodeList](#r830) [161] |
| Content: | simple |
| Defined: | [locally](#r702) within complexType [UnitsType](#r704) [135] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r375) [84] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <unitType | | |
|  | *Content:* | { xsi:string | ("Angle" | "Area" | "Dimensionless" | "Energy" | "Energy Flux" | "Flow" | "Force" | "Frequency" | "Length" | "Light" | "Mass" | "Permeability" | "Power" | "Pressure/Stress" | "Resolution" | "Scale" | "Temperature" | "Time" | "Velocity" | "Volume") } |
| </unitType> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**unitType**](#r702)" type="[**UnitsTypeCodeList**](#r830)"/> |

element <value>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [ValueSingleVariable](#r728) [135] |
| Content: | simple, 20 attributes |
| Defined: | [locally](#r691) within complexType [TsValuesSingleVariableType](#r693) [133] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r377) [85] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <value | | | |
|  | [accuracyStdDev](#r707) | = | xsi:double |
|  | [censorCode](#r708) | = | (("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string) |
|  | [codedVocabulary](#r709) | = | xsi:boolean |
|  | [codedVocabularyTerm](#r710) | = | xsi:normalizedString |
|  | [dateTime](#r711) | = | xsi:dateTime |
|  | [dateTimeUTC](#r712) | = | xsi:dateTime |
|  | [labSampleCode](#r713) | = | xsi:token |
|  | [metadataTime](#r714) | = | xsi:dateTime |
|  | [methodCode](#r715) | = | xsi:token |
|  | [methodID](#r716) | = | xsi:nonNegativeInteger |
|  | [offsetTypeCode](#r717) | = | xsi:token |
|  | [offsetTypeID](#r718) | = | xsi:nonNegativeInteger |
|  | [offsetValue](#r719) | = | xsi:double |
|  | [oid](#r720) | = | xsi:normalizedString |
|  | [qualifiers](#r721) | = | xsi:NMTOKENS |
|  | [qualityControlLevelCode](#r722) | = | xsi:token |
|  | [sampleID](#r723) | = | xsi:nonNegativeInteger |
|  | [sourceCode](#r724) | = | xsi:token |
|  | [sourceID](#r725) | = | xsi:nonNegativeInteger |
|  | [timeOffset](#r726) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:decimal } | | | |
| </value> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

Annotation

text

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**value**](#r691)" type="[**ValueSingleVariable**](#r728)"/> |

element <valueCount>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r379) (extension of [positiveInt](#r790)) |
| Content: | simple, 1 [attribute](#r382) |
| Defined: | [locally](#r266) within element [series](#r271) [65] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r380) [86] |
| Includes: | definition of 1 [attribute](#r382) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <valueCount | | | |
|  | [countIsEstimated](#r381) | = | xsi:boolean |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:int } | | | |
| </valueCount> | | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:int  [positiveInt](#r790) [151] (restriction)  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of [positiveInt](#r790) |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**valueCount**](#r266)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="[**positiveInt**](#r790)">  <xsi:attribute name="[**countIsEstimated**](#r381)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r383) component only; 1/1)

countIsEstimated



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

element <values>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [TsValuesSingleVariableType](#r693) [132] |
| Content: | complex, 8 elements |
| Defined: | [locally](#r668) within complexType [TimeSeriesType](#r671) [130] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r384) [87] |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <values> | |
|  | |  |  | | --- | --- | | *Content:* | [value](#r691)\*, [qualifier](#r687)\*, [qualityControlLevel](#r688)\*, [method](#r685)\*, [source](#r690)\*, [offset](#r686)\*, [sample](#r689)\*, [censorCode](#r684)\* | |
| </values> | |

Content model elements (8):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22],  [method](#r159) (type [MethodType](#r526)) [45],  [offset](#r175) (in [values](#r385)) [48],  [qualifier](#r220) (in [values](#r385)) [56], | [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57],  [sample](#r251) (in [values](#r385)) [61],  [source](#r307) (type [SourceType](#r642)) [71],  [value](#r378) (in [values](#r385)) [84] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" name="[**values**](#r668)" type="[**TsValuesSingleVariableType**](#r693)"/> |

element <valueType>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [ValueTypeCodeList](#r836) [163] |
| Content: | simple |
| Defined: | locally at 2 [locations](#r387) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <valueType | | |
|  | *Content:* | { xsi:string | ("Field Observation" | "Sample" | "Model Simulation Result" | "Derived Value" | "Unknown") } |
| </valueType> | | |

Included in content model of elements (2):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

Definition Locations

* Within global complexTypes (1):

[VariableInfoType](#r752) [142]

* Within anonymous complexTypes of elements (1):

[series](#r271) (in [seriesCatalog](#r273)) [65]

element <variable>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [VariableInfoType](#r752) [138] |
| Content: | complex, 2 attributes, 17 elements |
| Defined: | locally at 3 [locations](#r391) in [cuahsiTimeSeries\_v1\_1.xsd](#r7) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <variable | | | |
|  | [metadataTime](#r731) | = | xsi:dateTime |
|  | [oid](#r732) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [variableCode](#r747)+, [variableName](#r749)?, [variableDescription](#r748)?, [valueType](#r746)?, [dataType](#r735)?, [generalCategory](#r737)?, [sampleMedium](#r742)?, [unit](#r745)?, [options](#r740)?, [note](#r739)\*, [related](#r741)?, [extension](#r736)?, [noDataValue](#r738)?, [timeScale](#r744)?, [speciation](#r743)?, [categories](#r734)?, [variableProperty](#r750)\* | | | |
| </variable> | | | |

Content model elements (17):

|  |  |
| --- | --- |
| [categories](#r23) (in [variable](#r393)) [20],  [dataType](#r67) (type [DataTypeCodeList](#r767)) [27],  [extension](#r105) [35],  [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35],  [noDataValue](#r167) (in [variable](#r393)) [47],  [note](#r173) (type [NoteType](#r534)) [47],  [options](#r200) [52],  [related](#r242) (in [variable](#r393)) [59],  [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62], | [speciation](#r319) (in [variable](#r393)) [74],  [timeScale](#r332) (in [variable](#r393)) [75],  [unit](#r366) (type [UnitsType](#r704)) [82],  [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87],  [variableCode](#r402) (in [variable](#r393)) [88],  [variableDescription](#r404) (in [variable](#r393)) [89],  [variableName](#r406) (in [variable](#r393)) [90],  [variableProperty](#r410) (in [variable](#r393)) [91] |

Included in content model of elements (3):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63],  [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76], | [variables](#r414) (in [variablesResponse](#r416)) [91] |

Definition Locations

* Within global complexTypes (1):

[TimeSeriesType](#r671) [130]

* Within anonymous complexTypes of elements (2):

[series](#r271) (in [seriesCatalog](#r273)) [65], [variables](#r414) (in [variablesResponse](#r416)) [92]

element <variableCode>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [anonymous](#r394) (extension of xsi:token) |
| Content: | simple, 4 [attributes](#r401) |
| Defined: | [locally](#r747) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r395) [89] |
| Includes: | definitions of 4 [attributes](#r401) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <variableCode | | | |
|  | [default](#r396) | = | xsi:boolean |
|  | [network](#r397) | = | xsi:token |
|  | [variableID](#r399) | = | xsi:int |
|  | [vocabulary](#r400) | = | xsi:token |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:token } | | | |
| </variableCode> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Anonymous Type Detail

|  |
| --- |
| Type Derivation Tree  xsi:token  **complexType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:token |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="1" name="[**variableCode**](#r747)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:token">  <xsi:attribute name="[**network**](#r397)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r400)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r396)" type="xsi:boolean"/>  <xsi:attribute name="[**variableID**](#r399)">  <xsi:simpleType>  <xsi:restriction base="[**positiveInt**](#r790)">  <xsi:minInclusive value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:attribute>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element> |

Attribute Detail (defined in [this](#r402) component only; 4/4)

default



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

network



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

variableID



|  |  |
| --- | --- |
| Type: | [anonymous](#r398) (restriction of [positiveInt](#r790)) |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Anonymous simpleType

|  |
| --- |
| Type Derivation Tree  xsi:int  [positiveInt](#r790) [151] (restriction)  **simpleType** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of [positiveInt](#r790) |
| Facets: | |  |  | | --- | --- | | minInclusive: | 0 | |

vocabulary



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

element <variableDescription>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r748) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r403) [90] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <variableDescription | | |
|  | *Content:* | { xsi:string } |
| </variableDescription> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Annotation

A detailed descriptn of the variable. May include processing information and other details.

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**variableDescription**](#r748)" type="xsi:string"/> |

element <variableName>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r749) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r405) [90] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <variableName | | |
|  | *Content:* | { xsi:string } |
| </variableName> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Annotation

A brief name of the variable that could be shown in a menu

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**variableName**](#r749)" type="xsi:string"/> |

element <variableParam>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r53) within element [criteria](#r55) [26] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r407) [91] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <variableParam | | |
|  | *Content:* | { xsi:string } |
| </variableParam> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [criteria](#r55) (in [queryInfo](#r233)) [25] |  |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:element minOccurs="0" name="[**variableParam**](#r53)" type="xsi:string"/> |

element <variableProperty>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [PropertyType](#r553) [112] |
| Content: | simple, 3 attributes |
| Defined: | [locally](#r750) within complexType [VariableInfoType](#r752) [142] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r409) [91] |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <variableProperty | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </variableProperty> | | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**variableProperty**](#r750)" type="[**PropertyType**](#r553)"/> |

element <variables>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | anonymous complexType |
| Content: | complex, 1 [element](#r413) |
| Defined: | [locally](#r756) within complexType [VariablesResponseType](#r758) [143] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r411) [92] |
| Includes: | definition of 1 [element](#r413) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <variables> | |
|  | |  |  | | --- | --- | | *Content:* | [variable](#r412)\* | |
| </variables> | |

Content model elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Included in content model of elements (1):

[variablesResponse](#r416) [92]

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="1" name="[**variables**](#r756)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**variable**](#r412)" type="[**VariableInfoType**](#r752)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element> |

Content Element Detail (defined in [this](#r414) component only; 1/1)

[variable](#r393) [87]



|  |  |
| --- | --- |
| Type: | [VariableInfoType](#r752) [138], complex content |

element <variablesResponse>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [VariablesResponseType](#r758) [142] |
| Content: | complex, 2 elements |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r415) [92] |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <variablesResponse> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r755)?, [variables](#r756) | |
| </variablesResponse> | |

Content model elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [variables](#r414) (in [variablesResponse](#r416)) [91] |

XML Source

|  |
| --- |
| <xsi:element name="[**variablesResponse**](#r416)" type="[**VariablesResponseType**](#r758)"/> |

element <variableTimeInterval>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [TimePeriodType](#r656) [128] |
| Content: | complex, 4 elements |
| Defined: | [locally](#r269) within element [series](#r271) [65] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r417) [93] |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <variableTimeInterval> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r651), [endDateTime](#r653), [beginDateTimeUTC](#r652)?, [endDateTimeUTC](#r654)? | |
| </variableTimeInterval> | |

Content model elements (4):

|  |  |
| --- | --- |
| [beginDateTime](#r17) (in [variableTimeInterval](#r418)) [19],  [beginDateTimeUTC](#r19) (in [variableTimeInterval](#r418)) [20], | [endDateTime](#r96) (in [variableTimeInterval](#r418)) [34],  [endDateTimeUTC](#r98) (in [variableTimeInterval](#r418)) [34] |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [series](#r271) (in [seriesCatalog](#r273)) [63] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**variableTimeInterval**](#r269)" type="[**TimePeriodType**](#r656)"/> |

element <verticalDatum>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:string |
| Content: | simple |
| Defined: | [locally](#r624) within complexType [SiteInfoType](#r626) [124] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r419) [93] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <verticalDatum | | |
|  | *Content:* | { xsi:string } |
| </verticalDatum> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**verticalDatum**](#r624)" type="xsi:string"/> |

element <west>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | [Longitude](#r787) [150] |
| Content: | simple |
| Defined: | [locally](#r494) within complexType [LatLonBoxType](#r496) [104] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r421) [93] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <west | | |
|  | *Content:* | { xsi:double } |
| </west> | | |

Simple Content Detail:

|  |  |
| --- | --- |
| MaxInclusive: | 180.00 |
| MinInclusive: | -180.00 |

XML Source

|  |
| --- |
| <xsi:element name="[**west**](#r494)" type="[**Longitude**](#r787)"/> |

element <X>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:double |
| Content: | simple |
| Defined: | [locally](#r142) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r423) [94] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <X | | |
|  | *Content:* | { xsi:double } |
| </X> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [localSiteXY](#r146) (in [geoLocation](#r116)) [42] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**X**](#r142)" type="xsi:double"/> |

element <Y>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:double |
| Content: | simple |
| Defined: | [locally](#r143) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r425) [94] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <Y | | |
|  | *Content:* | { xsi:double } |
| </Y> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [localSiteXY](#r146) (in [geoLocation](#r116)) [42] |  |

XML Source

|  |
| --- |
| <xsi:element name="[**Y**](#r143)" type="xsi:double"/> |

element <Z>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:double |
| Content: | simple |
| Defined: | [locally](#r144) within element [localSiteXY](#r146) [43] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r427) [95] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <Z | | |
|  | *Content:* | { xsi:double } |
| </Z> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [localSiteXY](#r146) (in [geoLocation](#r116)) [42] |  |

XML Source

|  |
| --- |
| <xsi:element maxOccurs="1" minOccurs="0" name="[**Z**](#r144)" type="xsi:double"/> |

element <Z>

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:decimal |
| Content: | simple |
| Defined: | [locally](#r452) within complexType [CoordType](#r454) [98] in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r429) [95] |

|  |  |  |
| --- | --- | --- |
| XML Representation Summary | | |
| <Z | | |
|  | *Content:* | { xsi:decimal } |
| </Z> | | |

Included in content model of elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

XML Source

|  |
| --- |
| <xsi:element minOccurs="0" name="[**Z**](#r452)" type="xsi:decimal"/> |

complexType *"CensorCodeType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r434), 2 [elements](#r437) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r432) [96] |
| Includes: | definitions of 1 [attribute](#r434) and 2 [elements](#r437) |
| Used: | at 1 [location](#r431) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [censorCodeID](#r433) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [censorCode](#r435), [censorCodeDescription](#r436) | | | |
| </...> | | | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [censorCode](#r34) (in [censorCode](#r32) in [values](#r385)) [22], | [censorCodeDescription](#r36) (in [censorCode](#r32) in [values](#r385)) [23] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**CensorCodeType**](#r438)">  <xsi:sequence>  <xsi:element name="[**censorCode**](#r435)" type="[**CensorCodeCodeList**](#r761)"/>  <xsi:element name="[**censorCodeDescription**](#r436)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**censorCodeID**](#r433)" type="xsi:int"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r438) component only; 1/1)

censorCodeID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r438) component only; 2/2)

[censorCode](#r34) [22]



|  |  |
| --- | --- |
| Type: | [CensorCodeCodeList](#r761) [143], simple content |

Simple Content

|  |
| --- |
| ("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string |

[censorCodeDescription](#r36) [23]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"ContactInformationType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 5 [elements](#r446) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r440) [97] |
| Includes: | definitions of 5 [elements](#r446) |
| Used: | at 1 [location](#r439) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [contactName](#r442), [typeOfContact](#r445)?, [email](#r443)\*, [phone](#r444)\*, [address](#r441)\* | |
| </...> | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [address](#r11) (in [contactInformation](#r40)) [18],  [contactName](#r42) (in [contactInformation](#r40)) [24],  [email](#r92) (in [contactInformation](#r40)) [33], | [phone](#r216) (in [contactInformation](#r40)) [55],  [typeOfContact](#r362) (in [contactInformation](#r40)) [81] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [contactInformation](#r40) (type [ContactInformationType](#r447)) [23] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**ContactInformationType**](#r447)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="1" name="[**contactName**](#r442)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**typeOfContact**](#r445)" type="xsi:normalizedString"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**email**](#r443)" type="xsi:normalizedString"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**phone**](#r444)" type="xsi:string"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**address**](#r441)" type="xsi:anyType"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r447) component only; 5/5)

[address](#r11) [18]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[contactName](#r42) [24]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[email](#r92) [33]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined, simple content |

[phone](#r216) [55]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[typeOfContact](#r362) [81]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined, simple content |

complexType *"CoordType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 3 [elements](#r453) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r449) [98] |
| Includes: | definitions of 3 [elements](#r453) |
| Used: | at 1 [location](#r448) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [latitude](#r450), [longitude](#r451), [Z](#r452)? | |
| </...> | |

Content Model Elements (3):

|  |  |
| --- | --- |
| [latitude](#r137) (in [coordLatLong](#r44)) [41],  [longitude](#r151) (in [coordLatLong](#r44)) [43], | [Z](#r430) (in [coordLatLong](#r44)) [95] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

Annotation

Represents a coordinate tuple in one, two, or three dimensions. ============================================================== There are two ways to represent coordinates: (1) as a sequence of &lt;coord> elements that encapsulate tuples, or (2) using a single &lt;coordinates> string. ===================================================================

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:complexType name="[**CoordType**](#r454)">  <xsi:sequence>  <xsi:element name="[**latitude**](#r450)" type="[**Latitude**](#r784)"/>  <xsi:element minOccurs="1" name="[**longitude**](#r451)" type="[**Longitude**](#r787)"/>  <xsi:element minOccurs="0" name="[**Z**](#r452)" type="xsi:decimal"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r454) component only; 3/3)

[latitude](#r137) [41]



|  |  |
| --- | --- |
| Type: | [Latitude](#r784) [149], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 90.00 |
| minInclusive: | -90.00 |

[longitude](#r151) [43]



|  |  |
| --- | --- |
| Type: | [Longitude](#r787) [150], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 180.00 |
| minInclusive: | -180.00 |

[Z](#r430) [95]



|  |  |
| --- | --- |
| Type: | xsi:decimal, predefined, simple content |

complexType *"DataSetInfoType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 7 [elements](#r463) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r455) [99] |
| Includes: | definitions of 7 [elements](#r463) |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [dataSetIdentifier](#r457), [timeZoneInfo](#r462)?, [dataSetDescription](#r456), [note](#r461)\*, [dataSetLocation](#r458)?, [extension](#r460)?, [dataSetProperty](#r459)\* | |
| </...> | |

Content Model Elements (7):

|  |  |
| --- | --- |
| [dataSetDescription](#r57) (type xsi:string) [26],  [dataSetIdentifier](#r59) (type xsi:string) [26],  [dataSetLocation](#r61) (type [*GeogLocationType*](#r476)) [27],  [dataSetProperty](#r63) (type [PropertyType](#r553)) [27], | [extension](#r105) [35],  [note](#r173) (type [NoteType](#r534)) [47],  [timeZoneInfo](#r356) (type anonymous) [80] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [SourceInfoType](#r629) [124]  **DataSetInfoType** (extension) |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:complexType name="[**DataSetInfoType**](#r464)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**SourceInfoType**](#r629)">  <xsi:sequence>  <xsi:element name="[**dataSetIdentifier**](#r457)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeZoneInfo**](#r462)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r354)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r353)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**siteUsesDaylightSavingsTime**](#r351)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**dataSetDescription**](#r456)" type="xsi:string"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r461)" type="[**NoteType**](#r534)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**dataSetLocation**](#r458)" type="[**GeogLocationType**](#r476)"/>  <xsi:element minOccurs="0" ref="[**extension**](#r105)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**dataSetProperty**](#r459)" type="[**PropertyType**](#r553)"/>  </xsi:sequence>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Content Element Detail (defined in [this](#r464) component only; 7/7)

[dataSetDescription](#r57) [26]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[dataSetIdentifier](#r59) [26]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[dataSetLocation](#r61) [27]



|  |  |
| --- | --- |
| Type: | [*GeogLocationType*](#r476) [101], empty content |

[dataSetProperty](#r63) [27]



|  |  |
| --- | --- |
| Type: | [PropertyType](#r553) [112], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[timeZoneInfo](#r356) [80]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)

complexType *"DocumentationType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | mixed, 4 [attributes](#r470) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r465) [100] |
| Includes: | definitions of 4 [attributes](#r470) |
| Used: | never |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [href](#r466) | = | xsi:string |
|  | [show](#r467) | = | xsi:string |
|  | [title](#r468) | = | xsi:string |
|  | [type](#r469) | = | (xsi:token | ("funding" | "history" | "processing\_level" | "rights" | "summary")) |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | {text} | | | |
| </...> | | | |

XML Source

|  |
| --- |
| <xsi:complexType mixed="true" name="[**DocumentationType**](#r471)">  <xsi:attribute name="[**type**](#r469)" type="[**DocumentationEnumTypes**](#r773)"/>  <xsi:attribute name="[**href**](#r466)" type="xsi:string"/>  <xsi:attribute name="[**title**](#r468)" type="xsi:string"/>  <xsi:attribute name="[**show**](#r467)" type="xsi:string"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r471) component only; 4/4)

href



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

show



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

title



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

type



|  |  |
| --- | --- |
| Type: | [DocumentationEnumTypes](#r773) [147] |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:token | ("funding" | "history" | "processing\_level" | "rights" | "summary") |

complexType *"GeogLocationType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | empty, 1 [attribute](#r475) |
| Abstract: | (cannot be assigned directly to elements used in instance XML documents) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r473) [101] |
| Includes: | definition of 1 [attribute](#r475) |
| Used: | at 5 [locations](#r472) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
| /> | | | |

Known Direct Subtypes (3):

[LatLonBoxType](#r496) [103], [latLonLineString](#r503) [105], [LatLonPointType](#r508) [106]

All Direct / Indirect Based Elements (2):

|  |  |
| --- | --- |
| [dataSetLocation](#r61) (type [*GeogLocationType*](#r476)) [27], | [geogLocation](#r111) (in [geoLocation](#r116)) [36] |

Known Usage Locations

* In derivations of other global types (3):

|  |  |
| --- | --- |
| [LatLonBoxType](#r496) [103] (as extension base),  [latLonLineString](#r503) [105] (as extension base), | [LatLonPointType](#r508) [106] (as extension base) |

* As direct type of elements (2):

|  |  |
| --- | --- |
| [dataSetLocation](#r61) (type [*GeogLocationType*](#r476)) [27], | [geogLocation](#r111) (in [geoLocation](#r116)) [36] |

XML Source

|  |
| --- |
| <xsi:complexType abstract="true" name="[**GeogLocationType**](#r476)">  <xsi:sequence/>  <xsi:attribute default="EPSG:4326" name="[**srs**](#r474)" type="xsi:string" use="optional"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r476) component only; 1/1)

srs



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

Attribute Value

|  |  |
| --- | --- |
| Default: | "EPSG:4326" |

complexType *"LabMethodType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r480), 7 [elements](#r488) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r478) [102] |
| Includes: | definitions of 1 [attribute](#r480) and 7 [elements](#r488) |
| Used: | at 1 [location](#r477) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [labMethodID](#r479) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [labCode](#r481), [labName](#r485)?, [labOrganization](#r486)?, [LabMethodName](#r484)?, [labMethodDescription](#r482)?, [labMethodLink](#r483)?, [labSourceDetails](#r487)? | | | |
| </...> | | | |

Content Model Elements (7):

|  |  |
| --- | --- |
| [labCode](#r118) (in [labMethod](#r120)) [37],  [labMethodDescription](#r122) (in [labMethod](#r120)) [38],  [labMethodLink](#r124) (in [labMethod](#r120)) [39],  [LabMethodName](#r126) (in [labMethod](#r120)) [39], | [labName](#r128) (in [labMethod](#r120)) [39],  [labOrganization](#r130) (in [labMethod](#r120)) [40],  [labSourceDetails](#r134) (in [labMethod](#r120)) [41] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38] |  |

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:complexType name="[**LabMethodType**](#r489)">  <xsi:sequence>  <xsi:element name="[**labCode**](#r481)" type="xsi:token"/>  <xsi:element minOccurs="0" name="[**labName**](#r485)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**labOrganization**](#r486)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**LabMethodName**](#r484)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**labMethodDescription**](#r482)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**labMethodLink**](#r483)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**labSourceDetails**](#r487)" type="[**SourceType**](#r642)"/>  </xsi:sequence>  <xsi:attribute name="[**labMethodID**](#r479)" type="xsi:int"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r489) component only; 1/1)

labMethodID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r489) component only; 7/7)

[labCode](#r118) [37]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

The Abbrevation for the lab. e.g. BETA for Beta Analytical

[labMethodDescription](#r122) [38]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[labMethodLink](#r124) [39]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[LabMethodName](#r126) [39]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[labName](#r128) [39]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[labOrganization](#r130) [40]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[labSourceDetails](#r134) [41]



|  |  |
| --- | --- |
| Type: | [SourceType](#r642) [125], complex content |

This is the contact information for a laboratory

complexType *"LatLonBoxType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 attribute, 4 [elements](#r495) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r490) [104] |
| Includes: | definitions of 4 [elements](#r495) |
| Used: | never |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [south](#r493), [west](#r494), [north](#r492), [east](#r491) | | | |
| </...> | | | |

Content Model Elements (4):

|  |  |
| --- | --- |
| [east](#r88) (type [Longitude](#r787)) [32],  [north](#r169) (type [Latitude](#r784)) [47], | [south](#r317) (type [Latitude](#r784)) [74],  [west](#r422) (type [Longitude](#r787)) [93] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [*GeogLocationType*](#r476) [101]  **LatLonBoxType** (extension) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**LatLonBoxType**](#r496)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**GeogLocationType**](#r476)">  <xsi:sequence>  <xsi:element name="[**south**](#r493)" type="[**Latitude**](#r784)"/>  <xsi:element name="[**west**](#r494)" type="[**Longitude**](#r787)"/>  <xsi:element name="[**north**](#r492)" type="[**Latitude**](#r784)"/>  <xsi:element name="[**east**](#r491)" type="[**Longitude**](#r787)"/>  </xsi:sequence>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Content Element Detail (defined in [this](#r496) component only; 4/4)

[east](#r88) [32]



|  |  |
| --- | --- |
| Type: | [Longitude](#r787) [150], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 180.00 |
| minInclusive: | -180.00 |

[north](#r169) [47]



|  |  |
| --- | --- |
| Type: | [Latitude](#r784) [149], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 90.00 |
| minInclusive: | -90.00 |

[south](#r317) [74]



|  |  |
| --- | --- |
| Type: | [Latitude](#r784) [149], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 90.00 |
| minInclusive: | -90.00 |

[west](#r422) [93]



|  |  |
| --- | --- |
| Type: | [Longitude](#r787) [150], simple content |

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 180.00 |
| minInclusive: | -180.00 |

complexType *"latLonLineString"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [attributes](#r500), 1 [element](#r502) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r497) [105] |
| Includes: | definitions of 1 [attribute](#r500) and 1 [element](#r502) |
| Used: | never |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
|  | [zDirection](#r499) | = | (xsi:string | ("PositiveUp" | "PositiveDown" | "Depth" | "Altitude")) |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [coordLatLong](#r501)[2..\*] | | | |
| </...> | | | |

Content Model Elements (1):

|  |  |
| --- | --- |
| [coordLatLong](#r44) (type [CoordType](#r454)) [24] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [*GeogLocationType*](#r476) [101]  **latLonLineString** (extension) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**latLonLineString**](#r503)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**GeogLocationType**](#r476)">  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="2" name="[**coordLatLong**](#r501)" type="[**CoordType**](#r454)"/>  </xsi:sequence>  <xsi:attribute name="[**zDirection**](#r499)">  <xsi:simpleType>  <xsi:union memberTypes="xsi:string [**zDirectionEnum**](#r847)"/>  </xsi:simpleType>  </xsi:attribute>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Attribute Detail (defined in [this](#r503) component only; 1/2)

zDirection



|  |  |
| --- | --- |
| Type: | [anonymous](#r498) (union of (xsi:string | [zDirectionEnum](#r847))) |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:string | ("PositiveUp" | "PositiveDown" | "Depth" | "Altitude") |

Anonymous simpleType

|  |
| --- |
| Type Derivation Tree  union of (xsi:string | [zDirectionEnum](#r847))  **simpleType** |

Content Element Detail (defined in [this](#r503) component only; 1/1)

[coordLatLong](#r44) [24]



|  |  |
| --- | --- |
| Type: | [CoordType](#r454) [97], complex content |

complexType *"LatLonPointType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 attribute, 2 [elements](#r507) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r504) [106] |
| Includes: | definitions of 2 [elements](#r507) |
| Used: | never |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [srs](#r474) | = | xsi:string : "EPSG:4326" |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [latitude](#r505), [longitude](#r506) | | | |
| </...> | | | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [latitude](#r137) (in [coordLatLong](#r44)) [41], | [longitude](#r151) (in [coordLatLong](#r44)) [43] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [*GeogLocationType*](#r476) [101]  **LatLonPointType** (extension) |

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:complexType name="[**LatLonPointType**](#r508)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**GeogLocationType**](#r476)">  <xsi:sequence>  <xsi:element name="[**latitude**](#r505)" type="[**Latitude**](#r784)"/>  <xsi:element name="[**longitude**](#r506)" type="[**Longitude**](#r787)"/>  </xsi:sequence>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Content Element Detail (defined in [this](#r508) component only; 2/2)

[latitude](#r137) [41]



|  |  |
| --- | --- |
| Type: | [Latitude](#r784) [149], simple content |

The latitude of the site in a decimal degrees as calculated in terms of the given datum.

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 90.00 |
| minInclusive: | -90.00 |

[longitude](#r151) [43]



|  |  |
| --- | --- |
| Type: | [Longitude](#r787) [150], simple content |

The longitude of the site in a decimal degrees as calculated in terms of the given datum.

Simple Content

|  |
| --- |
| xsi:double |

|  |  |
| --- | --- |
| maxInclusive: | 180.00 |
| minInclusive: | -180.00 |

complexType *"MetaDataType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 5 [elements](#r516) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r510) [107] |
| Includes: | definitions of 5 [elements](#r516) |
| Used: | at 1 [location](#r509) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [TopicCategory](#r515)?, [Title](#r514)?, [Abstract](#r511)?, [ProfileVersion](#r513)?, [MetadataLink](#r512)? | |
| </...> | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [Abstract](#r9) (in [metadata](#r153)) [18],  [MetadataLink](#r155) (in [metadata](#r153)) [44],  [ProfileVersion](#r218) (in [metadata](#r153)) [55], | [Title](#r358) (in [metadata](#r153)) [81],  [TopicCategory](#r360) (in [metadata](#r153)) [81] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [metadata](#r153) (type [MetaDataType](#r517)) [44] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**MetaDataType**](#r517)">  <xsi:sequence>  <xsi:element minOccurs="0" name="[**TopicCategory**](#r515)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**Title**](#r514)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**Abstract**](#r511)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**ProfileVersion**](#r513)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**MetadataLink**](#r512)" type="xsi:anyURI"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r517) component only; 5/5)

[Abstract](#r9) [18]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[MetadataLink](#r155) [44]



|  |  |
| --- | --- |
| Type: | xsi:anyURI, predefined, simple content |

[ProfileVersion](#r218) [55]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[Title](#r358) [81]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[TopicCategory](#r360) [81]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"MethodType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r521), 3 [elements](#r525) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r519) [108] |
| Includes: | definitions of 1 [attribute](#r521) and 3 [elements](#r525) |
| Used: | at 1 [location](#r518) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [methodID](#r520) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [methodCode](#r522)?, [methodDescription](#r523)?, [methodLink](#r524)? | | | |
| </...> | | | |

Content Model Elements (3):

|  |  |
| --- | --- |
| [methodCode](#r161) (in [method](#r159)) [46],  [methodDescription](#r163) (in [method](#r159)) [46], | [methodLink](#r165) (in [method](#r159)) [46] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [method](#r159) (type [MethodType](#r526)) [45] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [method](#r159) (type [MethodType](#r526)) [45] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**MethodType**](#r526)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**methodCode**](#r522)" type="xsi:token"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**methodDescription**](#r523)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**methodLink**](#r524)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**methodID**](#r520)" type="[**positiveInt**](#r790)"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r526) component only; 1/1)

methodID



|  |  |
| --- | --- |
| Type: | [positiveInt](#r790) [151] |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Content Element Detail (defined in [this](#r526) component only; 3/3)

[methodCode](#r161) [46]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

[methodDescription](#r163) [46]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[methodLink](#r165) [46]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"NoteType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | simple, 4 [attributes](#r533) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r528) [110] |
| Includes: | definitions of 4 [attributes](#r533) |
| Used: | at 1 [location](#r527) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [href](#r529) | = | xsi:string |
|  | [show](#r530) | = | xsi:string |
|  | [title](#r531) | = | xsi:string |
|  | [type](#r532) | = | xsi:token |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </...> | | | |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [note](#r173) (type [NoteType](#r534)) [47] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [note](#r173) (type [NoteType](#r534)) [47] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **NoteType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:string |

XML Source

|  |
| --- |
| <xsi:complexType name="[**NoteType**](#r534)">  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**type**](#r532)" type="xsi:token"/>  <xsi:attribute name="[**href**](#r529)" type="xsi:string"/>  <xsi:attribute name="[**title**](#r531)" type="xsi:string"/>  <xsi:attribute name="[**show**](#r530)" type="xsi:string"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType> |

Attribute Detail (defined in [this](#r534) component only; 4/4)

href



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

show



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

title



|  |  |
| --- | --- |
| Type: | xsi:string, predefined |
| Use: | optional |

type



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

complexType *"OffsetType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r538), 6 [elements](#r545) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r536) [111] |
| Includes: | definitions of 1 [attribute](#r538) and 6 [elements](#r545) |
| Used: | at 1 [location](#r535) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [offsetTypeID](#r537) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [offsetTypeCode](#r542)?, [offsetValue](#r543), [offsetDescription](#r540)?, [unit](#r544), [offsetIsVertical](#r541), [offsetAzimuthDegrees](#r539)? | | | |
| </...> | | | |

Content Model Elements (6):

|  |  |
| --- | --- |
| [offsetAzimuthDegrees](#r177) (in [offset](#r175)) [49],  [offsetDescription](#r179) (in [offset](#r175)) [49],  [offsetIsVertical](#r181) (in [offset](#r175)) [49], | [offsetTypeCode](#r183) (in [offset](#r175)) [50],  [offsetValue](#r185) (in [offset](#r175)) [50],  [unit](#r366) (type [UnitsType](#r704)) [82] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [offset](#r175) (in [values](#r385)) [48] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**OffsetType**](#r546)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetTypeCode**](#r542)" type="xsi:token"/>  <xsi:element name="[**offsetValue**](#r543)" type="xsi:float"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetDescription**](#r540)" type="xsi:string"/>  <xsi:element name="[**unit**](#r544)" type="[**UnitsType**](#r704)"/>  <xsi:element default="true" name="[**offsetIsVertical**](#r541)" type="xsi:boolean"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**offsetAzimuthDegrees**](#r539)" type="xsi:int"/>  </xsi:sequence>  <xsi:attribute name="[**offsetTypeID**](#r537)" type="[**positiveInt**](#r790)"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r546) component only; 1/1)

offsetTypeID



|  |  |
| --- | --- |
| Type: | [positiveInt](#r790) [151] |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Content Element Detail (defined in [this](#r546) component only; 6/6)

[offsetAzimuthDegrees](#r177) [49]



|  |  |
| --- | --- |
| Type: | xsi:int, predefined, simple content |

[offsetDescription](#r179) [49]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[offsetIsVertical](#r181) [49]



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined, simple content |

Simple Content

|  |  |
| --- | --- |
| Default: | "true" |

[offsetTypeCode](#r183) [50]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

[offsetValue](#r185) [50]



|  |  |
| --- | --- |
| Type: | xsi:float, predefined, simple content |

[unit](#r366) [82]



|  |  |
| --- | --- |
| Type: | [UnitsType](#r704) [134], complex content |

complexType *"PropertyType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | simple, 3 [attributes](#r552) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r548) [112] |
| Includes: | definitions of 3 [attributes](#r552) |
| Used: | at 5 [locations](#r547) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [name](#r549) | = | xsi:normalizedString |
|  | [type](#r550) | = | xsi:token |
|  | [uri](#r551) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:string } | | | |
| </...> | | | |

All Direct / Indirect Based Elements (5):

|  |  |
| --- | --- |
| [dataSetProperty](#r63) (type [PropertyType](#r553)) [27],  [seriesCatalogProperty](#r275) (in [seriesCatalog](#r273)) [66],  [seriesProperty](#r277) (in [series](#r271)) [66], | [siteProperty](#r299) (in [siteInfo](#r295)) [70],  [variableProperty](#r410) (in [variable](#r393)) [91] |

Known Usage Locations

* As direct type of elements (5):

|  |  |
| --- | --- |
| [dataSetProperty](#r63) (type [PropertyType](#r553)) [27],  [seriesCatalogProperty](#r275) (in [seriesCatalog](#r273)) [66],  [seriesProperty](#r277) (in [series](#r271)) [66], | [siteProperty](#r299) (in [siteInfo](#r295)) [70],  [variableProperty](#r410) (in [variable](#r393)) [91] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **PropertyType** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:string |

XML Source

|  |
| --- |
| <xsi:complexType name="[**PropertyType**](#r553)">  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**type**](#r550)" type="xsi:token" use="optional"/>  <xsi:attribute name="[**name**](#r549)" type="xsi:normalizedString" use="required"/>  <xsi:attribute name="[**uri**](#r551)" type="xsi:anyURI" use="optional"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType> |

Attribute Detail (defined in [this](#r553) component only; 3/3)

name



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | required |

type



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

uri



|  |  |
| --- | --- |
| Type: | xsi:anyURI, predefined |
| Use: | optional |

complexType *"QualifierType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 4 [attributes](#r560), 2 [elements](#r563) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r555) [113] |
| Includes: | definitions of 4 [attributes](#r560) and 2 [elements](#r563) |
| Used: | at 1 [location](#r554) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [default](#r556) | = | xsi:boolean |
|  | [network](#r557) | = | xsi:NMTOKEN |
|  | [qualifierID](#r558) | = | xsi:int |
|  | [vocabulary](#r559) | = | xsi:NMTOKEN |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [qualifierCode](#r561), [qualifierDescription](#r562)? | | | |
| </...> | | | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [qualifierCode](#r222) (in [qualifier](#r220)) [56], | [qualifierDescription](#r224) (in [qualifier](#r220)) [57] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [qualifier](#r220) (in [values](#r385)) [56] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [qualifier](#r220) (in [values](#r385)) [56] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**QualifierType**](#r564)">  <xsi:sequence>  <xsi:element name="[**qualifierCode**](#r561)" type="xsi:token"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**qualifierDescription**](#r562)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**qualifierID**](#r558)" type="[**positiveInt**](#r790)"/>  <xsi:attribute ref="[**network**](#r859)"/>  <xsi:attribute ref="[**vocabulary**](#r867)"/>  <xsi:attribute ref="[**default**](#r851)"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r564) component only; 4/4)

[default](#r851) [166]



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

[network](#r859) [167]



|  |  |
| --- | --- |
| Type: | xsi:NMTOKEN, predefined |
| Use: | optional |

qualifierID



|  |  |
| --- | --- |
| Type: | [positiveInt](#r790) [151] |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

[vocabulary](#r867) [168]



|  |  |
| --- | --- |
| Type: | xsi:NMTOKEN, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r564) component only; 2/2)

[qualifierCode](#r222) [56]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

[qualifierDescription](#r224) [57]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"QualityControlLevelType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r568), 3 [elements](#r572) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r566) [115] |
| Includes: | definitions of 1 [attribute](#r568) and 3 [elements](#r572) |
| Used: | at 1 [location](#r565) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [qualityControlLevelID](#r567) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [qualityControlLevelCode](#r571)?, [definition](#r569)?, [explanation](#r570)? | | | |
| </...> | | | |

Content Model Elements (3):

|  |  |
| --- | --- |
| [definition](#r84) (in [qualityControlLevel](#r228)) [31],  [explanation](#r100) (in [qualityControlLevel](#r228)) [34], | [qualityControlLevelCode](#r230) (in [qualityControlLevel](#r228)) [58] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57] |  |

XML Source (w/o annotations (3))

|  |
| --- |
| <xsi:complexType name="[**QualityControlLevelType**](#r573)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**qualityControlLevelCode**](#r571)" type="xsi:token"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**definition**](#r569)">  <xsi:simpleType>  <xsi:restriction base="xsi:string">  <xsi:maxLength value="255"/>  <xsi:minLength value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**explanation**](#r570)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**qualityControlLevelID**](#r567)" type="xsi:int"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r573) component only; 1/1)

qualityControlLevelID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r573) component only; 3/3)

[definition](#r84) [31]



|  |  |
| --- | --- |
| Type: | [anonymous](#r82) (restriction of xsi:string), simple content |

Definition of Quality Control Level. “Raw Data”, “Quality Controlled Data”

Simple Content

|  |
| --- |
| xsi:string |

|  |  |
| --- | --- |
| maxLength: | 255 |
| minLength: | 0 |

[explanation](#r100) [34]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

Explanation of Quality Control Level eg “Raw data is defined as unprocessed data and data products that have not undergone quality control.”

[qualityControlLevelCode](#r230) [58]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

Code used to identify the level of quality control to which data values have been subjected. This code is used to link a quality element (qualityControlLevelType) to a dataValue/@ququalityControlLevel “1”, “1.1”, “Raw”, “QCChecked” A quality control level code of -9999 is suggested for data whose quality control level is unknown

complexType *"QueryInfoType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 5 [elements](#r581) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r575) [116] |
| Includes: | definitions of 5 [elements](#r581) |
| Used: | at 1 [location](#r574) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [creationTime](#r576)?, [queryURL](#r580)?, [criteria](#r577)?, [note](#r579)\*, [extension](#r578)? | |
| </...> | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [creationTime](#r46) (in [queryInfo](#r233)) [25],  [criteria](#r55) (in [queryInfo](#r233)) [25],  [extension](#r105) [35], | [note](#r173) (type [NoteType](#r534)) [47],  [queryURL](#r235) (in [queryInfo](#r233)) [59] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58] |  |

XML Source (w/o annotations (6))

|  |
| --- |
| <xsi:complexType name="[**QueryInfoType**](#r582)">  <xsi:sequence>  <xsi:element minOccurs="0" name="[**creationTime**](#r576)" type="xsi:dateTime"/>  <xsi:element minOccurs="0" name="[**queryURL**](#r580)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**criteria**](#r577)">  <xsi:complexType>  <xsi:sequence minOccurs="0">  <xsi:element minOccurs="0" name="[**locationParam**](#r50)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**variableParam**](#r53)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**timeParam**](#r52)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTime**](#r321)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTime**](#r322)" type="xsi:string"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**parameter**](#r51)">  <xsi:complexType>  <xsi:attribute name="[**name**](#r204)" type="xsi:token"/>  <xsi:attribute name="[**value**](#r205)" type="xsi:string"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**MethodCalled**](#r48)" type="xsi:normalizedString"/>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r579)" type="[**NoteType**](#r534)"/>  <xsi:element minOccurs="0" ref="[**extension**](#r105)"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r582) component only; 5/5)

[creationTime](#r46) [25]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

[criteria](#r55) [25]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[queryURL](#r235) [59]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"SampleType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r586), 3 [elements](#r590) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r584) [118] |
| Includes: | definitions of 1 [attribute](#r586) and 3 [elements](#r590) |
| Used: | at 1 [location](#r583) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [sampleID](#r585) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [labSampleCode](#r588)?, [sampleType](#r589)?, [labMethod](#r587)? | | | |
| </...> | | | |

Content Model Elements (3):

|  |  |
| --- | --- |
| [labMethod](#r120) (in [sample](#r251)) [38],  [labSampleCode](#r132) (in [sample](#r251)) [40], | [sampleType](#r257) (in [sample](#r251)) [62] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [sample](#r251) (in [values](#r385)) [61] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [sample](#r251) (in [values](#r385)) [61] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**SampleType**](#r591)">  <xsi:sequence>  <xsi:element minOccurs="0" name="[**labSampleCode**](#r588)" type="xsi:normalizedString"/>  <xsi:element minOccurs="0" name="[**sampleType**](#r589)" type="[**SampleTypeCodeList**](#r804)"/>  <xsi:element minOccurs="0" name="[**labMethod**](#r587)" type="[**LabMethodType**](#r489)"/>  </xsi:sequence>  <xsi:attribute name="[**sampleID**](#r585)" type="xsi:int"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r591) component only; 1/1)

sampleID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r591) component only; 3/3)

[labMethod](#r120) [38]



|  |  |
| --- | --- |
| Type: | [LabMethodType](#r489) [102], complex content |

[labSampleCode](#r132) [40]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined, simple content |

[sampleType](#r257) [62]



|  |  |
| --- | --- |
| Type: | [SampleTypeCodeList](#r804) [155], simple content |

Simple Content

|  |
| --- |
| ("FD" | "FF" | "FL" | "LF" | "GW" | "PB" | "PD" | "PE" | "PI" | "PW" | "RE" | "SE" | "SR" | "SS" | "SW" | "TE" | "TI" | "TW" | "VE" | "VI" | "VW" | "Grab" | "Unknown" | "No Sample") | xsi:string |

complexType *"seriesCatalogType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [attributes](#r596), 4 [elements](#r601) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r593) [119] |
| Includes: | definitions of 2 [attributes](#r596) and 4 [elements](#r601) |
| Used: | at 1 [location](#r592) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [menuGroupName](#r594) | = | xsi:normalizedString |
|  | [serviceWsdl](#r595) | = | xsi:anyURI |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [note](#r598)\*, [series](#r599)\*, [seriesCatalogProperty](#r600)\*, [extension](#r597)? | | | |
| </...> | | | |

Content Model Elements (4):

|  |  |
| --- | --- |
| [extension](#r105) [35],  [note](#r173) (type [NoteType](#r534)) [47], | [series](#r271) (in [seriesCatalog](#r273)) [63],  [seriesCatalogProperty](#r275) (in [seriesCatalog](#r273)) [66] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [seriesCatalog](#r273) (in [site](#r283)) [65] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [seriesCatalog](#r273) (in [site](#r283)) [65] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**seriesCatalogType**](#r602)">  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r598)" type="[**NoteType**](#r534)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**series**](#r599)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**dataType**](#r259)" type="[**DataTypeCodeList**](#r767)"/>  <xsi:element name="[**variable**](#r268)" type="[**VariableInfoType**](#r752)"/>  <xsi:element minOccurs="0" name="[**valueCount**](#r266)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="[**positiveInt**](#r790)">  <xsi:attribute name="[**countIsEstimated**](#r381)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**variableTimeInterval**](#r269)" type="[**TimePeriodType**](#r656)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**valueType**](#r267)" type="[**ValueTypeCodeList**](#r836)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**generalCategory**](#r260)" type="[**GeneralCategoryCodeList**](#r778)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**sampleMedium**](#r263)" type="[**SampleMediumCodeList**](#r798)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**method**](#r261)" type="[**MethodType**](#r526)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**source**](#r265)" type="[**SourceType**](#r642)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**qualityControlLevel**](#r262)" type="[**QualityControlLevelType**](#r573)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesProperty**](#r264)" type="[**PropertyType**](#r553)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesCatalogProperty**](#r600)" type="[**PropertyType**](#r553)"/>  <xsi:element maxOccurs="1" minOccurs="0" ref="[**extension**](#r105)"/>  </xsi:sequence>  <xsi:attribute name="[**menuGroupName**](#r594)" type="xsi:normalizedString"/>  <xsi:attribute name="[**serviceWsdl**](#r595)" type="xsi:anyURI"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r602) component only; 2/2)

menuGroupName



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

serviceWsdl



|  |  |
| --- | --- |
| Type: | xsi:anyURI, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r602) component only; 4/4)

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[series](#r271) [63]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[seriesCatalogProperty](#r275) [66]



|  |  |
| --- | --- |
| Type: | [PropertyType](#r553) [112], simple content |

Simple Content

|  |
| --- |
| xsi:string |

complexType *"SiteInfoResponseType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [elements](#r607) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r604) [120] |
| Includes: | definitions of 2 [elements](#r607) |
| Used: | at 1 [location](#r603) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r605)?, [site](#r606)\* | |
| </...> | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [site](#r283) (in [sitesResponse](#r301)) [66] |

All Direct / Indirect Based Elements (1):

[sitesResponse](#r301) [71]

Known Usage Locations

* As direct type of elements (1):

[sitesResponse](#r301) [71]

XML Source

|  |
| --- |
| <xsi:complexType name="[**SiteInfoResponseType**](#r608)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**queryInfo**](#r605)" type="[**QueryInfoType**](#r582)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**site**](#r606)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="1" name="[**siteInfo**](#r281)" type="[**SiteInfoType**](#r626)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**seriesCatalog**](#r280)" type="[**seriesCatalogType**](#r602)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" ref="[**extension**](#r105)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r608) component only; 2/2)

[queryInfo](#r233) [58]



|  |  |
| --- | --- |
| Type: | [QueryInfoType](#r582) [116], complex content |

[site](#r283) [66]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

complexType *"SiteInfoType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [attributes](#r613), 11 [elements](#r625) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r610) [122] |
| Includes: | definitions of 2 [attributes](#r613) and 11 [elements](#r625) |
| Used: | at 1 [location](#r609) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [metadataTime](#r611) | = | xsi:dateTime |
|  | [oid](#r612) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [siteName](#r620), [siteCode](#r619)+, [timeZoneInfo](#r623)?, [geoLocation](#r617), [elevation\_m](#r615)?, [verticalDatum](#r624)?, [note](#r618)\*, [extension](#r616)?, [altname](#r614)?, [siteType](#r622)\*, [siteProperty](#r621)\* | | | |
| </...> | | | |

Content Model Elements (11):

|  |  |
| --- | --- |
| [altname](#r13) (in [siteInfo](#r295)) [19],  [elevation\_m](#r90) (in [siteInfo](#r295)) [32],  [extension](#r105) [35],  [geoLocation](#r116) (in [siteInfo](#r295)) [36],  [note](#r173) (type [NoteType](#r534)) [47],  [siteCode](#r293) (in [siteInfo](#r295)) [67], | [siteName](#r297) (in [siteInfo](#r295)) [70],  [siteProperty](#r299) (in [siteInfo](#r295)) [70],  [siteType](#r303) (in [siteInfo](#r295)) [71],  [timeZoneInfo](#r349) (in [siteInfo](#r295)) [78],  [verticalDatum](#r420) (in [siteInfo](#r295)) [93] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69] |  |

Annotation

A sampling station is any place where data are collected.

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [SourceInfoType](#r629) [124]  **SiteInfoType** (extension) |

XML Source (w/o annotations (6))

|  |
| --- |
| <xsi:complexType name="[**SiteInfoType**](#r626)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**SourceInfoType**](#r629)">  <xsi:sequence>  <xsi:element name="[**siteName**](#r620)" type="xsi:string"/>  <xsi:element maxOccurs="unbounded" name="[**siteCode**](#r619)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:token">  <xsi:attribute name="[**default**](#r288)" type="xsi:boolean"/>  <xsi:attribute name="[**network**](#r289)" type="xsi:token" use="required"/>  <xsi:attribute name="[**siteID**](#r291)">  <xsi:simpleType>  <xsi:restriction base="[**positiveInt**](#r790)">  <xsi:minInclusive value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:attribute>  <xsi:attribute name="[**agencyCode**](#r286)" type="xsi:normalizedString"/>  <xsi:attribute name="[**agencyName**](#r287)" type="xsi:normalizedString"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeZoneInfo**](#r623)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**defaultTimeZone**](#r347)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**daylightSavingsTimeZone**](#r346)">  <xsi:complexType>  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimeZoneType**](#r681)"/>  </xsi:complexContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  <xsi:attribute name="[**siteUsesDaylightSavingsTime**](#r344)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**geoLocation**](#r617)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**geogLocation**](#r113)" type="[**GeogLocationType**](#r476)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**localSiteXY**](#r114)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**X**](#r142)" type="xsi:double"/>  <xsi:element name="[**Y**](#r143)" type="xsi:double"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**Z**](#r144)" type="xsi:double"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r141)" type="[**NoteType**](#r534)"/>  </xsi:sequence>  <xsi:attribute name="[**projectionInformation**](#r139)" type="xsi:string"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**elevation\_m**](#r615)" type="xsi:double"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**verticalDatum**](#r624)" type="xsi:string"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r618)" type="[**NoteType**](#r534)"/>  <xsi:element minOccurs="0" ref="[**extension**](#r105)"/>  <xsi:element minOccurs="0" name="[**altname**](#r614)" type="xsi:string"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**siteType**](#r622)" type="[**SiteTypeCodeList**](#r810)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**siteProperty**](#r621)" type="[**PropertyType**](#r553)"/>  </xsi:sequence>  <xsi:attribute ref="[**oid**](#r863)"/>  <xsi:attribute ref="[**metadataTime**](#r855)"/>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Attribute Detail (defined in [this](#r626) component only; 2/2)

[metadataTime](#r855) [167]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined |
| Use: | optional |

[oid](#r863) [167]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r626) component only; 11/11)

[altname](#r13) [19]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[elevation\_m](#r90) [32]



|  |  |
| --- | --- |
| Type: | xsi:double, predefined, simple content |

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[geoLocation](#r116) [36]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[siteCode](#r293) [67]



|  |  |
| --- | --- |
| Type: | [anonymous](#r284) (extension of xsi:token), simple content |

A siteID is an identifier that this site is referred to as. There may be multiple siteID elements. Only one should be labeled as the defaultID (set attribute defaultID=true) Multiple siteID elements are allowed because site identifiers may change, and different observation networks may refer to the same site with different identifiers.

Simple Content

|  |
| --- |
| xsi:token |

[siteName](#r297) [70]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[siteProperty](#r299) [70]



|  |  |
| --- | --- |
| Type: | [PropertyType](#r553) [112], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[siteType](#r303) [71]



|  |  |
| --- | --- |
| Type: | [SiteTypeCodeList](#r810) [157], simple content |

Simple Content

|  |
| --- |
| xsi:string | xsi:string |

[timeZoneInfo](#r349) [78]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

the default time zone for this site (+00:00) and if this site shifts to daylight savings time (attribute: usesDaylightSavingsTime)

[verticalDatum](#r420) [93]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

complexType *"SourceInfoType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | empty |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r628) [125] |
| Used: | at 3 [locations](#r627) |

|  |
| --- |
| XML Representation Summary |
| <.../> |

Known Direct Subtypes (2):

[DataSetInfoType](#r464) [98], [SiteInfoType](#r626) [121]

All Direct / Indirect Based Elements (2):

|  |  |
| --- | --- |
| [siteInfo](#r295) (in [site](#r283)) [69], | [sourceInfo](#r313) (in [timeSeries](#r334)) [73] |

Known Usage Locations

* In derivations of other global types (2):

|  |  |
| --- | --- |
| [DataSetInfoType](#r464) [98] (as extension base), | [SiteInfoType](#r626) [121] (as extension base) |

* As direct type of elements (1):

|  |  |
| --- | --- |
| [sourceInfo](#r313) (in [timeSeries](#r334)) [73] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**SourceInfoType**](#r629)"/> |

complexType *"SourceType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r633), 7 [elements](#r641) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r631) [125] |
| Includes: | definitions of 1 [attribute](#r633) and 7 [elements](#r641) |
| Used: | at 2 [locations](#r630) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [sourceID](#r632) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [sourceCode](#r638)?, [organization](#r637)?, [sourceDescription](#r639)?, [metadata](#r636)?, [contactInformation](#r635)\*, [sourceLink](#r640)\*, [citation](#r634)? | | | |
| </...> | | | |

Content Model Elements (7):

|  |  |
| --- | --- |
| [citation](#r38) (type xsi:string) [23],  [contactInformation](#r40) (type [ContactInformationType](#r447)) [23],  [metadata](#r153) (type [MetaDataType](#r517)) [44],  [organization](#r202) (type xsi:string) [53], | [sourceCode](#r309) (type xsi:token) [72],  [sourceDescription](#r311) (type xsi:string) [72],  [sourceLink](#r315) (type xsi:anyURI) [73] |

All Direct / Indirect Based Elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

Known Usage Locations

* As direct type of elements (2):

|  |  |
| --- | --- |
| [labSourceDetails](#r134) (in [labMethod](#r120)) [41], | [source](#r307) (type [SourceType](#r642)) [71] |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:complexType name="[**SourceType**](#r642)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**sourceCode**](#r638)" type="xsi:token"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**organization**](#r637)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**sourceDescription**](#r639)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**metadata**](#r636)" type="[**MetaDataType**](#r517)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**contactInformation**](#r635)" type="[**ContactInformationType**](#r447)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**sourceLink**](#r640)" type="xsi:anyURI"/>  <xsi:element minOccurs="0" name="[**citation**](#r634)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**sourceID**](#r632)" type="[**positiveInt**](#r790)"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r642) component only; 1/1)

sourceID



|  |  |
| --- | --- |
| Type: | [positiveInt](#r790) [151] |
| Use: | optional |

Attribute Value

|  |
| --- |
| xsi:int |

|  |  |
| --- | --- |
| MinInclusive: | 0 |

Content Element Detail (defined in [this](#r642) component only; 7/7)

[citation](#r38) [23]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[contactInformation](#r40) [23]



|  |  |
| --- | --- |
| Type: | [ContactInformationType](#r447) [96], complex content |

[metadata](#r153) [44]



|  |  |
| --- | --- |
| Type: | [MetaDataType](#r517) [107], complex content |

[organization](#r202) [53]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[sourceCode](#r309) [72]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

The abbreviation for the source. e.g. USGS for US Geological Survey.

[sourceDescription](#r311) [72]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[sourceLink](#r315) [73]



|  |  |
| --- | --- |
| Type: | xsi:anyURI, predefined, simple content |

complexType *"TimeIntervalType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 4 elements |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r643) [127] |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r651), [endDateTime](#r653), [beginDateTimeUTC](#r652)?, [endDateTimeUTC](#r654)? | |
| </...> | |

Content Model Elements (4):

|  |  |
| --- | --- |
| [beginDateTime](#r17) (in [variableTimeInterval](#r418)) [19],  [beginDateTimeUTC](#r19) (in [variableTimeInterval](#r418)) [20], | [endDateTime](#r96) (in [variableTimeInterval](#r418)) [34],  [endDateTimeUTC](#r98) (in [variableTimeInterval](#r418)) [34] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [TimePeriodType](#r656) [128]  **TimeIntervalType** (extension) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimeIntervalType**](#r644)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimePeriodType**](#r656)"/>  </xsi:complexContent>  </xsi:complexType> |

complexType *"TimePeriodRealTimeType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 5 [elements](#r647) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r645) [127] |
| Includes: | definition of 1 [element](#r647) |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r651), [endDateTime](#r653), [beginDateTimeUTC](#r652)?, [endDateTimeUTC](#r654)?, [realTimeDataPeriod](#r646) | |
| </...> | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [beginDateTime](#r17) (in [variableTimeInterval](#r418)) [19],  [beginDateTimeUTC](#r19) (in [variableTimeInterval](#r418)) [20],  [endDateTime](#r96) (in [variableTimeInterval](#r418)) [34], | [endDateTimeUTC](#r98) (in [variableTimeInterval](#r418)) [34],  [realTimeDataPeriod](#r237) (type xsi:duration) [59] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [TimePeriodType](#r656) [128]  **TimePeriodRealTimeType** (extension) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimePeriodRealTimeType**](#r648)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimePeriodType**](#r656)">  <xsi:sequence>  <xsi:element name="[**realTimeDataPeriod**](#r646)" type="xsi:duration"/>  </xsi:sequence>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Content Element Detail (defined in [this](#r648) component only; 1/5)

[realTimeDataPeriod](#r237) [59]



|  |  |
| --- | --- |
| Type: | xsi:duration, predefined, simple content |

complexType *"TimePeriodType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 4 [elements](#r655) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r650) [128] |
| Includes: | definitions of 4 [elements](#r655) |
| Used: | at 4 [locations](#r649) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r651), [endDateTime](#r653), [beginDateTimeUTC](#r652)?, [endDateTimeUTC](#r654)? | |
| </...> | |

Content Model Elements (4):

|  |  |
| --- | --- |
| [beginDateTime](#r17) (in [variableTimeInterval](#r418)) [19],  [beginDateTimeUTC](#r19) (in [variableTimeInterval](#r418)) [20], | [endDateTime](#r96) (in [variableTimeInterval](#r418)) [34],  [endDateTimeUTC](#r98) (in [variableTimeInterval](#r418)) [34] |

Known Direct Subtypes (3):

[TimeIntervalType](#r644) [126], [TimePeriodRealTimeType](#r648) [127], [TimeSingleType](#r675) [131]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

Known Usage Locations

* In derivations of other global types (3):

|  |  |
| --- | --- |
| [TimeIntervalType](#r644) [126] (as extension base),  [TimePeriodRealTimeType](#r648) [127] (as extension base), | [TimeSingleType](#r675) [131] (as extension base) |

* As direct type of elements (1):

|  |  |
| --- | --- |
| [variableTimeInterval](#r418) (in [series](#r271)) [92] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimePeriodType**](#r656)">  <xsi:sequence>  <xsi:element name="[**beginDateTime**](#r651)" type="xsi:dateTime"/>  <xsi:element name="[**endDateTime**](#r653)" type="xsi:dateTime"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**beginDateTimeUTC**](#r652)" type="xsi:dateTime"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**endDateTimeUTC**](#r654)" type="xsi:dateTime"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r656) component only; 4/4)

[beginDateTime](#r17) [19]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

[beginDateTimeUTC](#r19) [20]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

[endDateTime](#r96) [34]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

[endDateTimeUTC](#r98) [34]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

complexType *"TimeSeriesResponseType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [elements](#r661) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r658) [129] |
| Includes: | definitions of 2 [elements](#r661) |
| Used: | at 1 [location](#r657) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r659)?, [timeSeries](#r660)+ | |
| </...> | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |

All Direct / Indirect Based Elements (1):

[timeSeriesResponse](#r336) [77]

Known Usage Locations

* As direct type of elements (1):

[timeSeriesResponse](#r336) [77]

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimeSeriesResponseType**](#r662)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**queryInfo**](#r659)" type="[**QueryInfoType**](#r582)"/>  <xsi:element maxOccurs="unbounded" minOccurs="1" name="[**timeSeries**](#r660)" type="[**TimeSeriesType**](#r671)"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r662) component only; 2/2)

[queryInfo](#r233) [58]



|  |  |
| --- | --- |
| Type: | [QueryInfoType](#r582) [116], complex content |

[timeSeries](#r334) [76]



|  |  |
| --- | --- |
| Type: | [TimeSeriesType](#r671) [129], complex content |

complexType *"TimeSeriesType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r666), 3 [elements](#r670) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r664) [130] |
| Includes: | definitions of 1 [attribute](#r666) and 3 [elements](#r670) |
| Used: | at 1 [location](#r663) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [name](#r665) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [sourceInfo](#r667), [variable](#r669), [values](#r668)+ | | | |
| </...> | | | |

Content Model Elements (3):

|  |  |
| --- | --- |
| [sourceInfo](#r313) (in [timeSeries](#r334)) [73],  [values](#r385) (in [timeSeries](#r334)) [86], | [variable](#r393) (type [VariableInfoType](#r752)) [87] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [timeSeries](#r334) (in [timeSeriesResponse](#r336)) [76] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimeSeriesType**](#r671)">  <xsi:sequence>  <xsi:element name="[**sourceInfo**](#r667)" type="[**SourceInfoType**](#r629)"/>  <xsi:element name="[**variable**](#r669)" type="[**VariableInfoType**](#r752)"/>  <xsi:element maxOccurs="unbounded" name="[**values**](#r668)" type="[**TsValuesSingleVariableType**](#r693)"/>  </xsi:sequence>  <xsi:attribute name="[**name**](#r665)" type="xsi:normalizedString" use="optional"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r671) component only; 1/1)

name



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r671) component only; 3/3)

[sourceInfo](#r313) [73]



|  |  |
| --- | --- |
| Type: | [SourceInfoType](#r629) [124], empty content |

[values](#r385) [86]



|  |  |
| --- | --- |
| Type: | [TsValuesSingleVariableType](#r693) [132], complex content |

[variable](#r393) [87]



|  |  |
| --- | --- |
| Type: | [VariableInfoType](#r752) [138], complex content |

complexType *"TimeSingleType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 5 [elements](#r674) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r672) [131] |
| Includes: | definition of 1 [element](#r674) |
| Used: | never |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [beginDateTime](#r651), [endDateTime](#r653), [beginDateTimeUTC](#r652)?, [endDateTimeUTC](#r654)?, [timeSingle](#r673) | |
| </...> | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [beginDateTime](#r17) (in [variableTimeInterval](#r418)) [19],  [beginDateTimeUTC](#r19) (in [variableTimeInterval](#r418)) [20],  [endDateTime](#r96) (in [variableTimeInterval](#r418)) [34], | [endDateTimeUTC](#r98) (in [variableTimeInterval](#r418)) [34],  [timeSingle](#r338) (type xsi:dateTime) [77] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  [TimePeriodType](#r656) [128]  **TimeSingleType** (extension) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimeSingleType**](#r675)">  <xsi:complexContent mixed="false">  <xsi:extension base="[**TimePeriodType**](#r656)">  <xsi:sequence>  <xsi:element name="[**timeSingle**](#r673)" type="xsi:dateTime"/>  </xsi:sequence>  </xsi:extension>  </xsi:complexContent>  </xsi:complexType> |

Content Element Detail (defined in [this](#r675) component only; 1/5)

[timeSingle](#r338) [77]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined, simple content |

complexType *"TimeZoneType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | empty, 2 [attributes](#r680) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r677) [132] |
| Includes: | definitions of 2 [attributes](#r680) |
| Used: | at 4 [locations](#r676) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [zoneAbbreviation](#r678) | = | xsi:token |
|  | [zoneOffset](#r679) | = | xsi:normalizedString |
| /> | | | |

All Direct / Indirect Based Elements (4):

|  |  |
| --- | --- |
| [daylightSavingsTimeZone](#r75) (in [timeZoneInfo](#r356) : anonymous) [29],  [daylightSavingsTimeZone](#r72) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [28], | [defaultTimeZone](#r81) (in [timeZoneInfo](#r356) : anonymous) [30],  [defaultTimeZone](#r78) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [30] |

Known Usage Locations

* In derivations of anonymous types of elements (4):

|  |  |
| --- | --- |
| [daylightSavingsTimeZone](#r75) (in [timeZoneInfo](#r356) : anonymous) [29] (as extension base),  [daylightSavingsTimeZone](#r72) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [28] (as extension base), | [defaultTimeZone](#r81) (in [timeZoneInfo](#r356) : anonymous) [30] (as extension base),  [defaultTimeZone](#r78) (in [timeZoneInfo](#r349) in [siteInfo](#r295)) [30] (as extension base) |

XML Source

|  |
| --- |
| <xsi:complexType name="[**TimeZoneType**](#r681)">  <xsi:attribute name="[**zoneOffset**](#r679)" type="xsi:normalizedString" use="required"/>  <xsi:attribute name="[**zoneAbbreviation**](#r678)" type="xsi:token" use="optional"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r681) component only; 2/2)

zoneAbbreviation



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

zoneOffset



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | required |

complexType *"TsValuesSingleVariableType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 8 [elements](#r692) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r683) [133] |
| Includes: | definitions of 8 [elements](#r692) |
| Used: | at 1 [location](#r682) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [value](#r691)\*, [qualifier](#r687)\*, [qualityControlLevel](#r688)\*, [method](#r685)\*, [source](#r690)\*, [offset](#r686)\*, [sample](#r689)\*, [censorCode](#r684)\* | |
| </...> | |

Content Model Elements (8):

|  |  |
| --- | --- |
| [censorCode](#r32) (in [values](#r385)) [22],  [method](#r159) (type [MethodType](#r526)) [45],  [offset](#r175) (in [values](#r385)) [48],  [qualifier](#r220) (in [values](#r385)) [56], | [qualityControlLevel](#r228) (type [QualityControlLevelType](#r573)) [57],  [sample](#r251) (in [values](#r385)) [61],  [source](#r307) (type [SourceType](#r642)) [71],  [value](#r378) (in [values](#r385)) [84] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [values](#r385) (in [timeSeries](#r334)) [86] |  |

XML Source (w/o annotations (2))

|  |
| --- |
| <xsi:complexType name="[**TsValuesSingleVariableType**](#r693)">  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**value**](#r691)" type="[**ValueSingleVariable**](#r728)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**qualifier**](#r687)" type="[**QualifierType**](#r564)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**qualityControlLevel**](#r688)" type="[**QualityControlLevelType**](#r573)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**method**](#r685)" type="[**MethodType**](#r526)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**source**](#r690)" type="[**SourceType**](#r642)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**offset**](#r686)" type="[**OffsetType**](#r546)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**sample**](#r689)" type="[**SampleType**](#r591)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**censorCode**](#r684)" type="[**CensorCodeType**](#r438)"/>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r693) component only; 8/8)

[censorCode](#r32) [22]



|  |  |
| --- | --- |
| Type: | [CensorCodeType](#r438) [95], complex content |

[method](#r159) [45]



|  |  |
| --- | --- |
| Type: | [MethodType](#r526) [108], complex content |

Multiple &lt;method&gt;s lists the methods used to collect the data and any additional information about the method. Different instruments should be represented as different methods, according to ODM best practices.

[offset](#r175) [48]



|  |  |
| --- | --- |
| Type: | [OffsetType](#r546) [110], complex content |

[qualifier](#r220) [56]



|  |  |
| --- | --- |
| Type: | [QualifierType](#r564) [113], complex content |

[qualityControlLevel](#r228) [57]



|  |  |
| --- | --- |
| Type: | [QualityControlLevelType](#r573) [114], complex content |

[sample](#r251) [61]



|  |  |
| --- | --- |
| Type: | [SampleType](#r591) [117], complex content |

[source](#r307) [71]



|  |  |
| --- | --- |
| Type: | [SourceType](#r642) [125], complex content |

[value](#r378) [84]



|  |  |
| --- | --- |
| Type: | [ValueSingleVariable](#r728) [135], simple content |

text

Simple Content

|  |
| --- |
| xsi:decimal |

complexType *"UnitsType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 1 [attribute](#r697), 5 [elements](#r703) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r695) [134] |
| Includes: | definitions of 1 [attribute](#r697) and 5 [elements](#r703) |
| Used: | at 1 [location](#r694) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [unitID](#r696) | = | xsi:int |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [unitName](#r701)?, [unitDescription](#r700)?, [unitType](#r702)?, [unitAbbreviation](#r698)?, [unitCode](#r699) | | | |
| </...> | | | |

Content Model Elements (5):

|  |  |
| --- | --- |
| [unitAbbreviation](#r368) (in [unit](#r366)) [83],  [unitCode](#r370) (in [unit](#r366)) [83],  [unitDescription](#r372) (in [unit](#r366)) [83], | [unitName](#r374) (in [unit](#r366)) [84],  [unitType](#r376) (in [unit](#r366)) [84] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [unit](#r366) (type [UnitsType](#r704)) [82] |  |

XML Source

|  |
| --- |
| <xsi:complexType name="[**UnitsType**](#r704)">  <xsi:sequence>  <xsi:element minOccurs="0" name="[**unitName**](#r701)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**unitDescription**](#r700)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**unitType**](#r702)" type="[**UnitsTypeCodeList**](#r830)"/>  <xsi:element minOccurs="0" name="[**unitAbbreviation**](#r698)" type="xsi:string"/>  <xsi:element name="[**unitCode**](#r699)" type="xsi:token"/>  </xsi:sequence>  <xsi:attribute name="[**unitID**](#r696)" type="xsi:int"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r704) component only; 1/1)

unitID



|  |  |
| --- | --- |
| Type: | xsi:int, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r704) component only; 5/5)

[unitAbbreviation](#r368) [83]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[unitCode](#r370) [83]



|  |  |
| --- | --- |
| Type: | xsi:token, predefined, simple content |

[unitDescription](#r372) [83]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[unitName](#r374) [84]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

[unitType](#r376) [84]



|  |  |
| --- | --- |
| Type: | [UnitsTypeCodeList](#r830) [161], simple content |

Simple Content

|  |
| --- |
| xsi:string | ("Angle" | "Area" | "Dimensionless" | "Energy" | "Energy Flux" | "Flow" | "Force" | "Frequency" | "Length" | "Light" | "Mass" | "Permeability" | "Power" | "Pressure/Stress" | "Resolution" | "Scale" | "Temperature" | "Time" | "Velocity" | "Volume") |

complexType *"ValueSingleVariable"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | simple, 20 [attributes](#r727) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r706) [136] |
| Includes: | definitions of 20 [attributes](#r727) |
| Used: | at 1 [location](#r705) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [accuracyStdDev](#r707) | = | xsi:double |
|  | [censorCode](#r708) | = | (("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string) |
|  | [codedVocabulary](#r709) | = | xsi:boolean |
|  | [codedVocabularyTerm](#r710) | = | xsi:normalizedString |
|  | [dateTime](#r711) | = | xsi:dateTime |
|  | [dateTimeUTC](#r712) | = | xsi:dateTime |
|  | [labSampleCode](#r713) | = | xsi:token |
|  | [metadataTime](#r714) | = | xsi:dateTime |
|  | [methodCode](#r715) | = | xsi:token |
|  | [methodID](#r716) | = | xsi:nonNegativeInteger |
|  | [offsetTypeCode](#r717) | = | xsi:token |
|  | [offsetTypeID](#r718) | = | xsi:nonNegativeInteger |
|  | [offsetValue](#r719) | = | xsi:double |
|  | [oid](#r720) | = | xsi:normalizedString |
|  | [qualifiers](#r721) | = | xsi:NMTOKENS |
|  | [qualityControlLevelCode](#r722) | = | xsi:token |
|  | [sampleID](#r723) | = | xsi:nonNegativeInteger |
|  | [sourceCode](#r724) | = | xsi:token |
|  | [sourceID](#r725) | = | xsi:nonNegativeInteger |
|  | [timeOffset](#r726) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | { xsi:decimal } | | | |
| </...> | | | |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [value](#r378) (in [values](#r385)) [84] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [value](#r378) (in [values](#r385)) [84] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:decimal  **ValueSingleVariable** (extension) |

|  |  |
| --- | --- |
| Derivation: | extension of xsi:decimal |

XML Source (w/o annotations (3))

|  |
| --- |
| <xsi:complexType name="[**ValueSingleVariable**](#r728)">  <xsi:simpleContent>  <xsi:extension base="xsi:decimal">  <xsi:attribute name="[**qualifiers**](#r721)" type="xsi:NMTOKENS"/>  <xsi:attribute name="[**censorCode**](#r708)" type="[**CensorCodeCodeList**](#r761)"/>  <xsi:attribute name="[**dateTime**](#r711)" type="xsi:dateTime" use="required"/>  <xsi:attribute name="[**timeOffset**](#r726)" type="[**TimeOffsetType**](#r822)"/>  <xsi:attribute name="[**dateTimeUTC**](#r712)" type="xsi:dateTime"/>  <xsi:attribute name="[**methodID**](#r716)" type="xsi:nonNegativeInteger"/>  <xsi:attribute name="[**sourceID**](#r725)" type="xsi:nonNegativeInteger"/>  <xsi:attribute name="[**accuracyStdDev**](#r707)" type="xsi:double"/>  <xsi:attribute name="[**sampleID**](#r723)" type="xsi:nonNegativeInteger" use="optional"/>  <xsi:attribute name="[**methodCode**](#r715)" type="xsi:token"/>  <xsi:attribute name="[**sourceCode**](#r724)" type="xsi:token"/>  <xsi:attribute name="[**labSampleCode**](#r713)" type="xsi:token"/>  <xsi:attribute name="[**offsetValue**](#r719)" type="xsi:double" use="optional"/>  <xsi:attribute name="[**offsetTypeID**](#r718)" type="xsi:nonNegativeInteger" use="optional"/>  <xsi:attribute name="[**offsetTypeCode**](#r717)" type="xsi:token"/>  <xsi:attribute name="[**codedVocabulary**](#r709)" type="xsi:boolean" use="optional"/>  <xsi:attribute name="[**codedVocabularyTerm**](#r710)" type="xsi:normalizedString" use="optional"/>  <xsi:attribute name="[**qualityControlLevelCode**](#r722)" type="xsi:token"/>  <xsi:attribute ref="[**metadataTime**](#r855)"/>  <xsi:attribute ref="[**oid**](#r863)"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType> |

Attribute Detail (defined in [this](#r728) component only; 20/20)

accuracyStdDev



|  |  |
| --- | --- |
| Type: | xsi:double, predefined |
| Use: | optional |

censorCode



|  |  |
| --- | --- |
| Type: | [CensorCodeCodeList](#r761) [143] |
| Use: | optional |

Attribute Value

|  |
| --- |
| ("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string |

codedVocabulary



|  |  |
| --- | --- |
| Type: | xsi:boolean, predefined |
| Use: | optional |

codedVocabularyTerm



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

dateTime



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined |
| Use: | required |

dateTimeUTC



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined |
| Use: | optional |

labSampleCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

[metadataTime](#r855) [167]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined |
| Use: | optional |

methodCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

methodID



|  |  |
| --- | --- |
| Type: | xsi:nonNegativeInteger, predefined |
| Use: | optional |

offsetTypeCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

offsetTypeID



|  |  |
| --- | --- |
| Type: | xsi:nonNegativeInteger, predefined |
| Use: | optional |

offsetValue



|  |  |
| --- | --- |
| Type: | xsi:double, predefined |
| Use: | optional |

[oid](#r863) [167]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

qualifiers



|  |  |
| --- | --- |
| Type: | xsi:NMTOKENS, predefined |
| Use: | optional |

qualityControlLevelCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

sampleID



|  |  |
| --- | --- |
| Type: | xsi:nonNegativeInteger, predefined |
| Use: | optional |

sourceCode



|  |  |
| --- | --- |
| Type: | xsi:token, predefined |
| Use: | optional |

sourceID



|  |  |
| --- | --- |
| Type: | xsi:nonNegativeInteger, predefined |
| Use: | optional |

timeOffset



|  |  |
| --- | --- |
| Type: | [TimeOffsetType](#r822) [159] |
| Use: | optional |

This represents an offset for the time zone. [+/-]hh:mm

Attribute Value

|  |
| --- |
| xsi:normalizedString |

|  |  |
| --- | --- |
| Pattern: | ^[+-][01]\d:[0-5]\d |
| WhiteSpace: | collapse |

complexType *"VariableInfoType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [attributes](#r733), 17 [elements](#r751) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r730) [139] |
| Includes: | definitions of 2 [attributes](#r733) and 17 [elements](#r751) |
| Used: | at 1 [location](#r729) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [metadataTime](#r731) | = | xsi:dateTime |
|  | [oid](#r732) | = | xsi:normalizedString |
|  | > | | |
|  | |  |  | | --- | --- | | *Content:* | [variableCode](#r747)+, [variableName](#r749)?, [variableDescription](#r748)?, [valueType](#r746)?, [dataType](#r735)?, [generalCategory](#r737)?, [sampleMedium](#r742)?, [unit](#r745)?, [options](#r740)?, [note](#r739)\*, [related](#r741)?, [extension](#r736)?, [noDataValue](#r738)?, [timeScale](#r744)?, [speciation](#r743)?, [categories](#r734)?, [variableProperty](#r750)\* | | | |
| </...> | | | |

Content Model Elements (17):

|  |  |
| --- | --- |
| [categories](#r23) (in [variable](#r393)) [20],  [dataType](#r67) (type [DataTypeCodeList](#r767)) [27],  [extension](#r105) [35],  [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35],  [noDataValue](#r167) (in [variable](#r393)) [47],  [note](#r173) (type [NoteType](#r534)) [47],  [options](#r200) [52],  [related](#r242) (in [variable](#r393)) [59],  [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62], | [speciation](#r319) (in [variable](#r393)) [74],  [timeScale](#r332) (in [variable](#r393)) [75],  [unit](#r366) (type [UnitsType](#r704)) [82],  [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87],  [variableCode](#r402) (in [variable](#r393)) [88],  [variableDescription](#r404) (in [variable](#r393)) [89],  [variableName](#r406) (in [variable](#r393)) [90],  [variableProperty](#r410) (in [variable](#r393)) [91] |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [variable](#r393) (type [VariableInfoType](#r752)) [87] |  |

XML Source (w/o annotations (10))

|  |
| --- |
| <xsi:complexType name="[**VariableInfoType**](#r752)">  <xsi:sequence>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="1" name="[**variableCode**](#r747)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:token">  <xsi:attribute name="[**network**](#r397)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r400)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r396)" type="xsi:boolean"/>  <xsi:attribute name="[**variableID**](#r399)">  <xsi:simpleType>  <xsi:restriction base="[**positiveInt**](#r790)">  <xsi:minInclusive value="0"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:attribute>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="1" minOccurs="0" name="[**variableName**](#r749)" type="xsi:string"/>  <xsi:element minOccurs="0" name="[**variableDescription**](#r748)" type="xsi:string"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**valueType**](#r746)" type="[**ValueTypeCodeList**](#r836)"/>  <xsi:element minOccurs="0" name="[**dataType**](#r735)" type="[**DataTypeCodeList**](#r767)"/>  <xsi:element minOccurs="0" name="[**generalCategory**](#r737)" type="[**GeneralCategoryCodeList**](#r778)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**sampleMedium**](#r742)" type="[**SampleMediumCodeList**](#r798)"/>  <xsi:element minOccurs="0" name="[**unit**](#r745)" type="[**UnitsType**](#r704)"/>  <xsi:element maxOccurs="1" minOccurs="0" ref="[**options**](#r200)"/>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**note**](#r739)" type="[**NoteType**](#r534)"/>  <xsi:element minOccurs="0" name="[**related**](#r741)">  <xsi:complexType>  <xsi:sequence maxOccurs="unbounded">  <xsi:element name="[**parentCode**](#r239)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r211)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r212)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r210)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  <xsi:element name="[**relatedCode**](#r240)">  <xsi:complexType>  <xsi:simpleContent>  <xsi:extension base="xsi:string">  <xsi:attribute name="[**network**](#r246)" type="xsi:token"/>  <xsi:attribute name="[**vocabulary**](#r247)" type="xsi:token"/>  <xsi:attribute name="[**default**](#r245)" type="xsi:boolean"/>  </xsi:extension>  </xsi:simpleContent>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element minOccurs="0" ref="[**extension**](#r105)"/>  <xsi:element minOccurs="0" name="[**noDataValue**](#r738)" type="xsi:double"/>  <xsi:element minOccurs="0" name="[**timeScale**](#r744)" nillable="true">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**unit**](#r330)" type="[**UnitsType**](#r704)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSpacing**](#r328)" type="xsi:float"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**timeSupport**](#r329)" type="xsi:float"/>  </xsi:sequence>  <xsi:attribute default="false" name="[**isRegular**](#r326)" type="xsi:boolean"/>  </xsi:complexType>  </xsi:element>  <xsi:element minOccurs="0" name="[**speciation**](#r743)" type="[**SpeciationCodeList**](#r816)"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**categories**](#r734)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**category**](#r21)">  <xsi:complexType>  <xsi:sequence>  <xsi:element name="[**dataValue**](#r27)" type="xsi:decimal"/>  <xsi:element maxOccurs="1" minOccurs="0" name="[**description**](#r28)" type="xsi:string"/>  </xsi:sequence>  <xsi:attribute name="[**categoryID**](#r25)" type="xsi:int"/>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**variableProperty**](#r750)" type="[**PropertyType**](#r553)"/>  </xsi:sequence>  </xsi:sequence>  <xsi:attribute ref="[**oid**](#r863)"/>  <xsi:attribute ref="[**metadataTime**](#r855)"/>  </xsi:complexType> |

Attribute Detail (defined in [this](#r752) component only; 2/2)

[metadataTime](#r855) [167]



|  |  |
| --- | --- |
| Type: | xsi:dateTime, predefined |
| Use: | optional |

[oid](#r863) [167]



|  |  |
| --- | --- |
| Type: | xsi:normalizedString, predefined |
| Use: | optional |

Content Element Detail (defined in [this](#r752) component only; 17/17)

[categories](#r23) [20]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[dataType](#r67) [27]



|  |  |
| --- | --- |
| Type: | [DataTypeCodeList](#r767) [145], simple content |

Simple Content

|  |
| --- |
| ("Continuous" | "Instantaneous" | "Cumulative" | "Incremental" | "Average" | "Maximum" | "Minimum" | "Constant Over Interval" | "Categorical" | "Best Easy Systematic Estimator " | "Unknown" | "Variance" | "Median" | "Mode" | "Best Easy Systematic Estimator" | "Standard Deviation" | "Skewness" | "Equivalent Mean" | "Sporadic" | "Unknown") | xsi:string |

[extension](#r105) [35]



|  |  |
| --- | --- |
| Type: | xsi:anyType, any content |

[generalCategory](#r109) [35]



|  |  |
| --- | --- |
| Type: | [GeneralCategoryCodeList](#r778) [148], simple content |

Simple Content

|  |
| --- |
| ("Water Quality" | "Climate" | "Hydrology" | "Geology" | "Biota" | "Unknown" | "Instrumentation") | xsi:string |

[noDataValue](#r167) [47]



|  |  |
| --- | --- |
| Type: | xsi:double, predefined, simple content |

[note](#r173) [47]



|  |  |
| --- | --- |
| Type: | [NoteType](#r534) [109], simple content |

Simple Content

|  |
| --- |
| xsi:string |

[options](#r200) [52]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

See option element for details. This is a list of options. Options are key-value pair elements that control how a variable might be utilized in a service.

[related](#r242) [59]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

[sampleMedium](#r255) [62]



|  |  |
| --- | --- |
| Type: | [SampleMediumCodeList](#r798) [153], simple content |

Simple Content

|  |
| --- |
| ("Surface Water" | "Ground Water" | "Sediment" | "Soil" | "Air" | "Tissue" | "Precipitation" | "Unknown" | "Other" | "Snow" | "Not Relevant") | xsi:string |

[speciation](#r319) [74]



|  |  |
| --- | --- |
| Type: | [SpeciationCodeList](#r816) [158], simple content |

Simple Content

|  |
| --- |
| xsi:string | xsi:string |

[timeScale](#r332) [75]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |
| Nillable: | (can be declared as nil using xsi:nil attribute in instance XML documents) |

Element containing the time support (or temporal footprint) of the data values. @isRegular indicates if the spacing is regular. the timeInterval is the spacing between the observations, with the units being the units of the spacing. This basically communicates the precision of the observation. If timeSupport isReqgular, and has units of 1 day, then clients should reformat output to spreadsheets and applications to day values. In waterML 1.0, there is a divergence of mean between ODM, and WaterML. WaterML only communcates the regularity, and the spacing of the observations (timeInterval). Whereas timesupport in the ODM is associated with the dataType, and time support. This will be addressed in 1.1

[unit](#r366) [82]



|  |  |
| --- | --- |
| Type: | [UnitsType](#r704) [134], complex content |

The units of the measurement.

[valueType](#r389) [87]



|  |  |
| --- | --- |
| Type: | [ValueTypeCodeList](#r836) [163], simple content |

Simple Content

|  |
| --- |
| xsi:string | ("Field Observation" | "Sample" | "Model Simulation Result" | "Derived Value" | "Unknown") |

[variableCode](#r402) [88]



|  |  |
| --- | --- |
| Type: | [anonymous](#r394) (extension of xsi:token), simple content |

Simple Content

|  |
| --- |
| xsi:token |

[variableDescription](#r404) [89]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

A detailed descriptn of the variable. May include processing information and other details.

[variableName](#r406) [90]



|  |  |
| --- | --- |
| Type: | xsi:string, predefined, simple content |

A brief name of the variable that could be shown in a menu

[variableProperty](#r410) [91]



|  |  |
| --- | --- |
| Type: | [PropertyType](#r553) [112], simple content |

Simple Content

|  |
| --- |
| xsi:string |

complexType *"VariablesResponseType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Content: | complex, 2 [elements](#r757) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r754) [143] |
| Includes: | definitions of 2 [elements](#r757) |
| Used: | at 1 [location](#r753) |

|  |  |
| --- | --- |
| XML Representation Summary | |
| <...> | |
|  | |  |  | | --- | --- | | *Content:* | [queryInfo](#r755)?, [variables](#r756) | |
| </...> | |

Content Model Elements (2):

|  |  |
| --- | --- |
| [queryInfo](#r233) (type [QueryInfoType](#r582)) [58], | [variables](#r414) (in [variablesResponse](#r416)) [91] |

All Direct / Indirect Based Elements (1):

[variablesResponse](#r416) [92]

Known Usage Locations

* As direct type of elements (1):

[variablesResponse](#r416) [92]

XML Source

|  |
| --- |
| <xsi:complexType name="[**VariablesResponseType**](#r758)">  <xsi:sequence>  <xsi:element maxOccurs="1" minOccurs="0" name="[**queryInfo**](#r755)" type="[**QueryInfoType**](#r582)"/>  <xsi:element maxOccurs="1" minOccurs="1" name="[**variables**](#r756)">  <xsi:complexType>  <xsi:sequence>  <xsi:element maxOccurs="unbounded" minOccurs="0" name="[**variable**](#r412)" type="[**VariableInfoType**](#r752)"/>  </xsi:sequence>  </xsi:complexType>  </xsi:element>  </xsi:sequence>  </xsi:complexType> |

Content Element Detail (defined in [this](#r758) component only; 2/2)

[queryInfo](#r233) [58]



|  |  |
| --- | --- |
| Type: | [QueryInfoType](#r582) [116], complex content |

[variables](#r414) [91]



|  |  |
| --- | --- |
| Type: | anonymous, complex content |

simpleType *"CensorCodeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r760) [144] |
| Used: | at 2 [locations](#r759) |

|  |
| --- |
| Simple Content Model |
| ("lt" | "gt" | "nc" | "nd" | "pnq") | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [censorCode](#r34) (in [censorCode](#r32) in [values](#r385)) [22] |  |

All Direct / Indirect Based Attributes (1):

|  |  |
| --- | --- |
| [ValueSingleVariable](#r728)/@[censorCode](#r708) [ d PAGEREF r708] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [censorCode](#r34) (in [censorCode](#r32) in [values](#r385)) [22] |  |

* As direct type of attributes within complexTypes (1):

[ValueSingleVariable](#r728)/@[censorCode](#r708) [136]

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([CensorCodeEnum](#r764) | xsi:string)  **CensorCodeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**CensorCodeCodeList**](#r761)">  <xsi:union memberTypes="[**CensorCodeEnum**](#r764) xsi:string"/>  </xsi:simpleType> |

simpleType *"CensorCodeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r763) [145] |
| Used: | at 1 [location](#r762) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "lt", "gt", "nc", "nd", "pnq" |

Known Direct Subtypes (1):

[CensorCodeCodeList](#r761) [143]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [censorCode](#r34) (in [censorCode](#r32) in [values](#r385)) [22] |  |

All Direct / Indirect Based Attributes (1):

|  |  |
| --- | --- |
| [ValueSingleVariable](#r728)/@[censorCode](#r708) [ d PAGEREF r708] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [CensorCodeCodeList](#r761) [143] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **CensorCodeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "lt", "gt", "nc", "nd", "pnq" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**CensorCodeEnum**](#r764)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="lt"/>  <xsi:enumeration value="gt"/>  <xsi:enumeration value="nc"/>  <xsi:enumeration value="nd"/>  <xsi:enumeration value="pnq"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"DataTypeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r766) [145] |
| Used: | at 1 [location](#r765) |

|  |
| --- |
| Simple Content Model |
| ("Continuous" | "Instantaneous" | "Cumulative" | "Incremental" | "Average" | "Maximum" | "Minimum" | "Constant Over Interval" | "Categorical" | "Best Easy Systematic Estimator " | "Unknown" | "Variance" | "Median" | "Mode" | "Best Easy Systematic Estimator" | "Standard Deviation" | "Skewness" | "Equivalent Mean" | "Sporadic" | "Unknown") | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [dataType](#r67) (type [DataTypeCodeList](#r767)) [27] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [dataType](#r67) (type [DataTypeCodeList](#r767)) [27] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([dataTypeEnum](#r770) | xsi:string)  **DataTypeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**DataTypeCodeList**](#r767)">  <xsi:union memberTypes="[**dataTypeEnum**](#r770) xsi:string"/>  </xsi:simpleType> |

simpleType *"dataTypeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r769) [146] |
| Used: | at 1 [location](#r768) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Continuous", "Instantaneous", "Cumulative", "Incremental", "Average", "Maximum", "Minimum", "Constant Over Interval", "Categorical", "Best Easy Systematic Estimator ", "Unknown", "Variance", "Median", "Mode", "Best Easy Systematic Estimator", "Standard Deviation", "Skewness", "Equivalent Mean", "Sporadic", "Unknown" |

Known Direct Subtypes (1):

[DataTypeCodeList](#r767) [145]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [dataType](#r67) (type [DataTypeCodeList](#r767)) [27] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [DataTypeCodeList](#r767) [145] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **dataTypeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Continuous", "Instantaneous", "Cumulative", "Incremental", "Average", "Maximum", "Minimum", "Constant Over Interval", "Categorical", "Best Easy Systematic Estimator ", "Unknown", "Variance", "Median", "Mode", "Best Easy Systematic Estimator", "Standard Deviation", "Skewness", "Equivalent Mean", "Sporadic", "Unknown" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**dataTypeEnum**](#r770)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Continuous"/>  <xsi:enumeration value="Instantaneous"/>  <xsi:enumeration value="Cumulative"/>  <xsi:enumeration value="Incremental"/>  <xsi:enumeration value="Average"/>  <xsi:enumeration value="Maximum"/>  <xsi:enumeration value="Minimum"/>  <xsi:enumeration value="Constant Over Interval"/>  <xsi:enumeration value="Categorical"/>  <xsi:enumeration value="Best Easy Systematic Estimator "/>  <xsi:enumeration value="Unknown"/>  <xsi:enumeration value="Variance"/>  <xsi:enumeration value="Median"/>  <xsi:enumeration value="Mode"/>  <xsi:enumeration value="Best Easy Systematic Estimator"/>  <xsi:enumeration value="Standard Deviation"/>  <xsi:enumeration value="Skewness"/>  <xsi:enumeration value="Equivalent Mean"/>  <xsi:enumeration value="Sporadic"/>  <xsi:enumeration value="Unknown"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"DocumentationEnumTypes"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r772) [147] |
| Used: | at 1 [location](#r771) |

|  |
| --- |
| Simple Content Model |
| xsi:token | ("funding" | "history" | "processing\_level" | "rights" | "summary") |

All Direct / Indirect Based Attributes (1):

|  |  |
| --- | --- |
| [DocumentationType](#r471)/@[type](#r469) [101] |  |

Known Usage Locations

* As direct type of attributes within complexTypes (1):

[DocumentationType](#r471)/@[type](#r469) [101]

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of (xsi:token | restriction of xsi:token)  **DocumentationEnumTypes** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**DocumentationEnumTypes**](#r773)">  <xsi:union memberTypes="xsi:token">  <xsi:simpleType>  <xsi:restriction base="xsi:token">  <xsi:enumeration value="funding"/>  <xsi:enumeration value="history"/>  <xsi:enumeration value="processing\_level"/>  <xsi:enumeration value="rights"/>  <xsi:enumeration value="summary"/>  </xsi:restriction>  </xsi:simpleType>  </xsi:union>  </xsi:simpleType> |

simpleType *"doubleList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r774) [148] |
| Used: | never |

|  |
| --- |
| Simple Content Model |
| *list of* xsi:double |

Annotation

XML List based on XML Schema double type. An element of this type contains a space-separated list of double values =========================================================== == Subset of basicTypes.xsd for this profile ============== =========================================================== ===========================================================

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:double  **doubleList** (list) |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:simpleType name="[**doubleList**](#r775)">  <xsi:list itemType="xsi:double"/>  </xsi:simpleType> |

simpleType *"GeneralCategoryCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r777) [148] |
| Used: | at 1 [location](#r776) |

|  |
| --- |
| Simple Content Model |
| ("Water Quality" | "Climate" | "Hydrology" | "Geology" | "Biota" | "Unknown" | "Instrumentation") | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([generalCategoryEnum](#r781) | xsi:string)  **GeneralCategoryCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**GeneralCategoryCodeList**](#r778)">  <xsi:union memberTypes="[**generalCategoryEnum**](#r781) xsi:string"/>  </xsi:simpleType> |

simpleType *"generalCategoryEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r780) [149] |
| Used: | at 1 [location](#r779) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Water Quality", "Climate", "Hydrology", "Geology", "Biota", "Unknown", "Instrumentation" |

Known Direct Subtypes (1):

[GeneralCategoryCodeList](#r778) [148]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [generalCategory](#r109) (type [GeneralCategoryCodeList](#r778)) [35] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [GeneralCategoryCodeList](#r778) [148] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **generalCategoryEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Water Quality", "Climate", "Hydrology", "Geology", "Biota", "Unknown", "Instrumentation" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**generalCategoryEnum**](#r781)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Water Quality"/>  <xsi:enumeration value="Climate"/>  <xsi:enumeration value="Hydrology"/>  <xsi:enumeration value="Geology"/>  <xsi:enumeration value="Biota"/>  <xsi:enumeration value="Unknown"/>  <xsi:enumeration value="Instrumentation"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"Latitude"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r783) [150] |
| Used: | at 3 [locations](#r782) |

|  |
| --- |
| Simple Content Model |
| xsi:double |

Simple Content Restrictions:

|  |  |
| --- | --- |
| MaxInclusive: | 90.00 |
| MinInclusive: | -90.00 |

All Direct / Indirect Based Elements (3):

|  |  |
| --- | --- |
| [latitude](#r137) (in [coordLatLong](#r44)) [41],  [north](#r169) (type [Latitude](#r784)) [47], | [south](#r317) (type [Latitude](#r784)) [74] |

Known Usage Locations

* As direct type of elements (3):

|  |  |
| --- | --- |
| [latitude](#r137) (in [coordLatLong](#r44)) [41],  [north](#r169) (type [Latitude](#r784)) [47], | [south](#r317) (type [Latitude](#r784)) [74] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:double  **Latitude** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:double |
| Facets: | |  |  | | --- | --- | | maxInclusive: | 90.00 | | minInclusive: | -90.00 | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**Latitude**](#r784)">  <xsi:restriction base="xsi:double">  <xsi:minInclusive value="-90.00"/>  <xsi:maxInclusive value="90.00"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"Longitude"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r786) [151] |
| Used: | at 3 [locations](#r785) |

|  |
| --- |
| Simple Content Model |
| xsi:double |

Simple Content Restrictions:

|  |  |
| --- | --- |
| MaxInclusive: | 180.00 |
| MinInclusive: | -180.00 |

All Direct / Indirect Based Elements (3):

|  |  |
| --- | --- |
| [east](#r88) (type [Longitude](#r787)) [32],  [longitude](#r151) (in [coordLatLong](#r44)) [43], | [west](#r422) (type [Longitude](#r787)) [93] |

Known Usage Locations

* As direct type of elements (3):

|  |  |
| --- | --- |
| [east](#r88) (type [Longitude](#r787)) [32],  [longitude](#r151) (in [coordLatLong](#r44)) [43], | [west](#r422) (type [Longitude](#r787)) [93] |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:double  **Longitude** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:double |
| Facets: | |  |  | | --- | --- | | maxInclusive: | 180.00 | | minInclusive: | -180.00 | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**Longitude**](#r787)">  <xsi:restriction base="xsi:double">  <xsi:minInclusive value="-180.00"/>  <xsi:maxInclusive value="180.00"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"positiveInt"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r789) [152] |
| Used: | at 7 [locations](#r788) |

|  |
| --- |
| Simple Content Model |
| xsi:int |

Simple Content Restrictions:

|  |  |
| --- | --- |
| MinInclusive: | 0 |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [valueCount](#r383) (in [series](#r271)) [85] |  |

All Direct / Indirect Based Attributes (6):

|  |  |
| --- | --- |
| [MethodType](#r526)/@[methodID](#r520) [109],  [OffsetType](#r546)/@[offsetTypeID](#r537) [111],  [QualifierType](#r564)/@[qualifierID](#r558) [114], | [siteCode](#r293) (in [siteInfo](#r295))/@[siteID](#r291) [69],  [SourceType](#r642)/@[sourceID](#r632) [125],  [variableCode](#r402) (in [variable](#r393))/@[variableID](#r399) [89] |

Known Usage Locations

* In derivations of anonymous types of elements (1):

|  |  |
| --- | --- |
| [valueCount](#r383) (in [series](#r271)) [85] (as extension base) |  |

* As direct type of attributes within complexTypes (4):

[MethodType](#r526)/@[methodID](#r520) [109]

[OffsetType](#r546)/@[offsetTypeID](#r537) [111]

[QualifierType](#r564)/@[qualifierID](#r558) [114]

[SourceType](#r642)/@[sourceID](#r632) [125]

* In derivations of anonymous types of attributes within elements (2):

[siteCode](#r293) (in [siteInfo](#r295))/@[siteID](#r291) [69] (as restriction base)

[variableCode](#r402) (in [variable](#r393))/@[variableID](#r399) [89] (as restriction base)

Annotation

.Net serializer work around.

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:int  **positiveInt** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:int |
| Facets: | |  |  | | --- | --- | | minInclusive: | 0 | |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:simpleType name="[**positiveInt**](#r790)">  <xsi:restriction base="xsi:int">  <xsi:minInclusive value="0"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"QualityControlLevelCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r791) [152] |
| Used: | never |

|  |
| --- |
| Simple Content Model |
| ("Raw data" | "Quality controlled data" | "Derived products" | "Interpreted products" | "Knowledge products" | "Unknown") | xsi:string |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([QualityControlLevelEnum](#r795) | xsi:string)  **QualityControlLevelCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**QualityControlLevelCodeList**](#r792)">  <xsi:union memberTypes="[**QualityControlLevelEnum**](#r795) xsi:string"/>  </xsi:simpleType> |

simpleType *"QualityControlLevelEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r794) [153] |
| Used: | at 1 [location](#r793) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Raw data", "Quality controlled data", "Derived products", "Interpreted products", "Knowledge products", "Unknown" |

Known Direct Subtypes (1):

[QualityControlLevelCodeList](#r792) [152]

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [QualityControlLevelCodeList](#r792) [152] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **QualityControlLevelEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Raw data", "Quality controlled data", "Derived products", "Interpreted products", "Knowledge products", "Unknown" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**QualityControlLevelEnum**](#r795)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Raw data"/>  <xsi:enumeration value="Quality controlled data"/>  <xsi:enumeration value="Derived products"/>  <xsi:enumeration value="Interpreted products"/>  <xsi:enumeration value="Knowledge products"/>  <xsi:enumeration value="Unknown"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"SampleMediumCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r797) [154] |
| Used: | at 1 [location](#r796) |

|  |
| --- |
| Simple Content Model |
| ("Surface Water" | "Ground Water" | "Sediment" | "Soil" | "Air" | "Tissue" | "Precipitation" | "Unknown" | "Other" | "Snow" | "Not Relevant") | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([SampleMediumEnum](#r801) | xsi:string)  **SampleMediumCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SampleMediumCodeList**](#r798)">  <xsi:union memberTypes="[**SampleMediumEnum**](#r801) xsi:string"/>  </xsi:simpleType> |

simpleType *"SampleMediumEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r800) [155] |
| Used: | at 1 [location](#r799) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Surface Water", "Ground Water", "Sediment", "Soil", "Air", "Tissue", "Precipitation", "Unknown", "Other", "Snow", "Not Relevant" |

Known Direct Subtypes (1):

[SampleMediumCodeList](#r798) [153]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [sampleMedium](#r255) (type [SampleMediumCodeList](#r798)) [62] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [SampleMediumCodeList](#r798) [153] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **SampleMediumEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Surface Water", "Ground Water", "Sediment", "Soil", "Air", "Tissue", "Precipitation", "Unknown", "Other", "Snow", "Not Relevant" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SampleMediumEnum**](#r801)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Surface Water"/>  <xsi:enumeration value="Ground Water"/>  <xsi:enumeration value="Sediment"/>  <xsi:enumeration value="Soil"/>  <xsi:enumeration value="Air"/>  <xsi:enumeration value="Tissue"/>  <xsi:enumeration value="Precipitation"/>  <xsi:enumeration value="Unknown"/>  <xsi:enumeration value="Other"/>  <xsi:enumeration value="Snow"/>  <xsi:enumeration value="Not Relevant"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"SampleTypeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r803) [155] |
| Used: | at 1 [location](#r802) |

|  |
| --- |
| Simple Content Model |
| ("FD" | "FF" | "FL" | "LF" | "GW" | "PB" | "PD" | "PE" | "PI" | "PW" | "RE" | "SE" | "SR" | "SS" | "SW" | "TE" | "TI" | "TW" | "VE" | "VI" | "VW" | "Grab" | "Unknown" | "No Sample") | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [sampleType](#r257) (in [sample](#r251)) [62] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [sampleType](#r257) (in [sample](#r251)) [62] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([sampleTypeEnum](#r807) | xsi:string)  **SampleTypeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SampleTypeCodeList**](#r804)">  <xsi:union memberTypes="[**sampleTypeEnum**](#r807) xsi:string"/>  </xsi:simpleType> |

simpleType *"sampleTypeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r806) [156] |
| Used: | at 1 [location](#r805) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "FD", "FF", "FL", "LF", "GW", "PB", "PD", "PE", "PI", "PW", "RE", "SE", "SR", "SS", "SW", "TE", "TI", "TW", "VE", "VI", "VW", "Grab", "Unknown", "No Sample" |

Known Direct Subtypes (1):

[SampleTypeCodeList](#r804) [155]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [sampleType](#r257) (in [sample](#r251)) [62] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [SampleTypeCodeList](#r804) [155] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **sampleTypeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "FD", "FF", "FL", "LF", "GW", "PB", "PD", "PE", "PI", "PW", "RE", "SE", "SR", "SS", "SW", "TE", "TI", "TW", "VE", "VI", "VW", "Grab", "Unknown", "No Sample" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**sampleTypeEnum**](#r807)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="FD"/>  <xsi:enumeration value="FF"/>  <xsi:enumeration value="FL"/>  <xsi:enumeration value="LF"/>  <xsi:enumeration value="GW"/>  <xsi:enumeration value="PB"/>  <xsi:enumeration value="PD"/>  <xsi:enumeration value="PE"/>  <xsi:enumeration value="PI"/>  <xsi:enumeration value="PW"/>  <xsi:enumeration value="RE"/>  <xsi:enumeration value="SE"/>  <xsi:enumeration value="SR"/>  <xsi:enumeration value="SS"/>  <xsi:enumeration value="SW"/>  <xsi:enumeration value="TE"/>  <xsi:enumeration value="TI"/>  <xsi:enumeration value="TW"/>  <xsi:enumeration value="VE"/>  <xsi:enumeration value="VI"/>  <xsi:enumeration value="VW"/>  <xsi:enumeration value="Grab"/>  <xsi:enumeration value="Unknown"/>  <xsi:enumeration value="No Sample"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"SiteTypeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r809) [157] |
| Used: | at 1 [location](#r808) |

|  |
| --- |
| Simple Content Model |
| xsi:string | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [siteType](#r303) (in [siteInfo](#r295)) [71] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [siteType](#r303) (in [siteInfo](#r295)) [71] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([SiteTypeEnum](#r813) | xsi:string)  **SiteTypeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SiteTypeCodeList**](#r810)">  <xsi:union memberTypes="[**SiteTypeEnum**](#r813) xsi:string"/>  </xsi:simpleType> |

simpleType *"SiteTypeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r812) [158] |
| Used: | at 1 [location](#r811) |

|  |
| --- |
| Simple Content Model |
| xsi:string |

Known Direct Subtypes (1):

[SiteTypeCodeList](#r810) [157]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [siteType](#r303) (in [siteInfo](#r295)) [71] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [SiteTypeCodeList](#r810) [157] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **SiteTypeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SiteTypeEnum**](#r813)">  <xsi:restriction base="xsi:string"/>  </xsi:simpleType> |

simpleType *"SpeciationCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r815) [158] |
| Used: | at 1 [location](#r814) |

|  |
| --- |
| Simple Content Model |
| xsi:string | xsi:string |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [speciation](#r319) (in [variable](#r393)) [74] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [speciation](#r319) (in [variable](#r393)) [74] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([SpeciationEnum](#r819) | xsi:string)  **SpeciationCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SpeciationCodeList**](#r816)">  <xsi:union memberTypes="[**SpeciationEnum**](#r819) xsi:string"/>  </xsi:simpleType> |

simpleType *"SpeciationEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r818) [159] |
| Used: | at 1 [location](#r817) |

|  |
| --- |
| Simple Content Model |
| xsi:string |

Known Direct Subtypes (1):

[SpeciationCodeList](#r816) [158]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [speciation](#r319) (in [variable](#r393)) [74] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [SpeciationCodeList](#r816) [158] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **SpeciationEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**SpeciationEnum**](#r819)">  <xsi:restriction base="xsi:string"/>  </xsi:simpleType> |

simpleType *"TimeOffsetType"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r821) [160] |
| Used: | at 1 [location](#r820) |

|  |
| --- |
| Simple Content Model |
| xsi:normalizedString |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Pattern: | ^[+-][01]\d:[0-5]\d |
| WhiteSpace: | collapse |

All Direct / Indirect Based Attributes (1):

|  |  |
| --- | --- |
| [ValueSingleVariable](#r728)/@[timeOffset](#r726) [ d PAGEREF r726] |  |

Known Usage Locations

* As direct type of attributes within complexTypes (1):

[ValueSingleVariable](#r728)/@[timeOffset](#r726) [138]

Annotation

This represents an offset for the time zone. [+/-]hh:mm

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:normalizedString  **TimeOffsetType** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:normalizedString |
| Facets: | |  |  | | --- | --- | | pattern: | ^[+-][01]\d:[0-5]\d | | whiteSpace: | collapse | |

XML Source (w/o annotations (1))

|  |
| --- |
| <xsi:simpleType name="[**TimeOffsetType**](#r822)">  <xsi:restriction base="xsi:normalizedString">  <xsi:whiteSpace value="collapse"/>  <xsi:pattern value="^[+-][01]\d:[0-5]\d"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"TopicCategoryCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r823) [160] |
| Used: | never |

|  |
| --- |
| Simple Content Model |
| xsi:string | xsi:string |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of (xsi:string | [TopicCategoryEnum](#r827))  **TopicCategoryCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**TopicCategoryCodeList**](#r824)">  <xsi:union memberTypes="xsi:string [**TopicCategoryEnum**](#r827)"/>  </xsi:simpleType> |

simpleType *"TopicCategoryEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r826) [161] |
| Used: | at 1 [location](#r825) |

|  |
| --- |
| Simple Content Model |
| xsi:string |

Known Direct Subtypes (1):

[TopicCategoryCodeList](#r824) [160]

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [TopicCategoryCodeList](#r824) [160] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **TopicCategoryEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**TopicCategoryEnum**](#r827)">  <xsi:restriction base="xsi:string"/>  </xsi:simpleType> |

simpleType *"UnitsTypeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r829) [162] |
| Used: | at 1 [location](#r828) |

|  |
| --- |
| Simple Content Model |
| xsi:string | ("Angle" | "Area" | "Dimensionless" | "Energy" | "Energy Flux" | "Flow" | "Force" | "Frequency" | "Length" | "Light" | "Mass" | "Permeability" | "Power" | "Pressure/Stress" | "Resolution" | "Scale" | "Temperature" | "Time" | "Velocity" | "Volume") |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [unitType](#r376) (in [unit](#r366)) [84] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [unitType](#r376) (in [unit](#r366)) [84] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of (xsi:string | [UnitsTypeEnum](#r833))  **UnitsTypeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**UnitsTypeCodeList**](#r830)">  <xsi:union memberTypes="xsi:string [**UnitsTypeEnum**](#r833)"/>  </xsi:simpleType> |

simpleType *"UnitsTypeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r832) [162] |
| Used: | at 1 [location](#r831) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Angle", "Area", "Dimensionless", "Energy", "Energy Flux", "Flow", "Force", "Frequency", "Length", "Light", "Mass", "Permeability", "Power", "Pressure/Stress", "Resolution", "Scale", "Temperature", "Time", "Velocity", "Volume" |

Known Direct Subtypes (1):

[UnitsTypeCodeList](#r830) [161]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [unitType](#r376) (in [unit](#r366)) [84] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [UnitsTypeCodeList](#r830) [161] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **UnitsTypeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Angle", "Area", "Dimensionless", "Energy", "Energy Flux", "Flow", "Force", "Frequency", "Length", "Light", "Mass", "Permeability", "Power", "Pressure/Stress", "Resolution", "Scale", "Temperature", "Time", "Velocity", "Volume" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**UnitsTypeEnum**](#r833)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Angle"/>  <xsi:enumeration value="Area"/>  <xsi:enumeration value="Dimensionless"/>  <xsi:enumeration value="Energy"/>  <xsi:enumeration value="Energy Flux"/>  <xsi:enumeration value="Flow"/>  <xsi:enumeration value="Force"/>  <xsi:enumeration value="Frequency"/>  <xsi:enumeration value="Length"/>  <xsi:enumeration value="Light"/>  <xsi:enumeration value="Mass"/>  <xsi:enumeration value="Permeability"/>  <xsi:enumeration value="Power"/>  <xsi:enumeration value="Pressure/Stress"/>  <xsi:enumeration value="Resolution"/>  <xsi:enumeration value="Scale"/>  <xsi:enumeration value="Temperature"/>  <xsi:enumeration value="Time"/>  <xsi:enumeration value="Velocity"/>  <xsi:enumeration value="Volume"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"ValueTypeCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r835) [163] |
| Used: | at 1 [location](#r834) |

|  |
| --- |
| Simple Content Model |
| xsi:string | ("Field Observation" | "Sample" | "Model Simulation Result" | "Derived Value" | "Unknown") |

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87] |  |

Known Usage Locations

* As direct type of elements (1):

|  |  |
| --- | --- |
| [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87] |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of (xsi:string | [valueTypeEnum](#r839))  **ValueTypeCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**ValueTypeCodeList**](#r836)">  <xsi:union memberTypes="xsi:string [**valueTypeEnum**](#r839)"/>  </xsi:simpleType> |

simpleType *"valueTypeEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r838) [164] |
| Used: | at 1 [location](#r837) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "Field Observation", "Sample", "Model Simulation Result", "Derived Value", "Unknown" |

Known Direct Subtypes (1):

[ValueTypeCodeList](#r836) [163]

All Direct / Indirect Based Elements (1):

|  |  |
| --- | --- |
| [valueType](#r389) (type [ValueTypeCodeList](#r836)) [87] |  |

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [ValueTypeCodeList](#r836) [163] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **valueTypeEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "Field Observation", "Sample", "Model Simulation Result", "Derived Value", "Unknown" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**valueTypeEnum**](#r839)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="Field Observation"/>  <xsi:enumeration value="Sample"/>  <xsi:enumeration value="Model Simulation Result"/>  <xsi:enumeration value="Derived Value"/>  <xsi:enumeration value="Unknown"/>  </xsi:restriction>  </xsi:simpleType> |

simpleType *"VerticalDatumCodeList"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r840) [165] |
| Used: | never |

|  |
| --- |
| Simple Content Model |
| xsi:token | xsi:string | xsi:token |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  union of ([VerticalDatumEnum](#r844) | xsi:string | xsi:token)  **VerticalDatumCodeList** |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**VerticalDatumCodeList**](#r841)">  <xsi:union memberTypes="[**VerticalDatumEnum**](#r844) xsi:string xsi:token"/>  </xsi:simpleType> |

simpleType *"VerticalDatumEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r843) [165] |
| Used: | at 1 [location](#r842) |

|  |
| --- |
| Simple Content Model |
| xsi:token |

Known Direct Subtypes (1):

[VerticalDatumCodeList](#r841) [164]

Known Usage Locations

* In derivations of other global types (1):

|  |  |
| --- | --- |
| [VerticalDatumCodeList](#r841) [164] (as union member) |  |

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:token  **VerticalDatumEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:token |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**VerticalDatumEnum**](#r844)">  <xsi:restriction base="xsi:token"/>  </xsi:simpleType> |

simpleType *"zDirectionEnum"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r846) [166] |
| Used: | at 1 [location](#r845) |

|  |
| --- |
| Simple Content Model |
| *enumeration of* xsi:string |

Simple Content Restrictions:

|  |  |
| --- | --- |
| Enumeration: | "PositiveUp", "PositiveDown", "Depth", "Altitude" |

All Direct / Indirect Based Attributes (1):

|  |  |
| --- | --- |
| [latLonLineString](#r503)/@[zDirection](#r499) [105] |  |

Known Usage Locations

* In derivations of anonymous types of attributes within complexTypes (1):

[latLonLineString](#r503)/@[zDirection](#r499) [105] (as union member)

Type Definition Detail

|  |
| --- |
| Type Derivation Tree  xsi:string  **zDirectionEnum** (restriction) |

|  |  |
| --- | --- |
| Derivation: | restriction of xsi:string |
| Facets: | |  |  | | --- | --- | | enumeration: | "PositiveUp", "PositiveDown", "Depth", "Altitude" | |

XML Source

|  |
| --- |
| <xsi:simpleType name="[**zDirectionEnum**](#r847)">  <xsi:restriction base="xsi:string">  <xsi:enumeration value="PositiveUp"/>  <xsi:enumeration value="PositiveDown"/>  <xsi:enumeration value="Depth"/>  <xsi:enumeration value="Altitude"/>  </xsi:restriction>  </xsi:simpleType> |

attribute *"default"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:boolean |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r850) [167] |
| Used: | at 1 [location](#r849) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [default](#r851) | = | xsi:boolean |
| ...> | | | |

Known Usage Locations

* In definitions of global complexTypes (1):

[QualifierType](#r564) [114]

XML Source

|  |
| --- |
| <xsi:attribute name="[**default**](#r851)" type="xsi:boolean"/> |

attribute *"metadataTime"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:dateTime |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r854) [167] |
| Used: | at 3 [locations](#r853) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [metadataTime](#r855) | = | xsi:dateTime |
| ...> | | | |

Known Usage Locations

* In definitions of global complexTypes (3):

[SiteInfoType](#r626) [123], [ValueSingleVariable](#r728) [137], [VariableInfoType](#r752) [140]

XML Source

|  |
| --- |
| <xsi:attribute name="[**metadataTime**](#r855)" type="xsi:dateTime"/> |

attribute *"network"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:NMTOKEN |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r858) [167] |
| Used: | at 1 [location](#r857) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [network](#r859) | = | xsi:NMTOKEN |
| ...> | | | |

Known Usage Locations

* In definitions of global complexTypes (1):

[QualifierType](#r564) [114]

XML Source

|  |
| --- |
| <xsi:attribute name="[**network**](#r859)" type="xsi:NMTOKEN"/> |

attribute *"oid"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:normalizedString |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r862) [168] |
| Used: | at 3 [locations](#r861) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [oid](#r863) | = | xsi:normalizedString |
| ...> | | | |

Known Usage Locations

* In definitions of global complexTypes (3):

[SiteInfoType](#r626) [123], [ValueSingleVariable](#r728) [137], [VariableInfoType](#r752) [140]

XML Source

|  |
| --- |
| <xsi:attribute name="[**oid**](#r863)" type="xsi:normalizedString"/> |

attribute *"vocabulary"*

|  |  |
| --- | --- |
| Namespace: | [http://www.cuahsi.org/waterML/1.1/](#r6) |
| Type: | xsi:NMTOKEN |
| Defined: | globally in [cuahsiTimeSeries\_v1\_1.xsd](#r7), see [XML source](#r866) [168] |
| Used: | at 1 [location](#r865) |

|  |  |  |  |
| --- | --- | --- | --- |
| XML Representation Summary | | | |
| <... | | | |
|  | [vocabulary](#r867) | = | xsi:NMTOKEN |
| ...> | | | |

Known Usage Locations

* In definitions of global complexTypes (1):

[QualifierType](#r564) [114]

XML Source

|  |
| --- |
| <xsi:attribute name="[**vocabulary**](#r867)" type="xsi:NMTOKEN"/> |

|  |
| --- |
| XML schema documentation generated with [DocFlex/XML RE](http://www.filigris.com/products/docflex_xml/#docflex-xml-re) 1.7.2 using [DocFlex/XML XSDDoc](http://www.filigris.com/products/docflex_xml/xsddoc/) 2.1.0 template set |