| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV PACKAGE**](http://docs.google.com/javax/xml/crypto/dsig/spec/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/xml/namespace/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/datatype/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

## Package javax.xml.datatype

XML/Java Type Mappings.

**See:**

[**Description**](#3znysh7)

| **Class Summary** | |
| --- | --- |
| [**DatatypeConstants**](http://docs.google.com/javax/xml/datatype/DatatypeConstants.html) | Utility class to contain basic Datatype values as constants. |
| [**DatatypeConstants.Field**](http://docs.google.com/javax/xml/datatype/DatatypeConstants.Field.html) | Type-safe enum class that represents six fields of the [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) class. |
| [**DatatypeFactory**](http://docs.google.com/javax/xml/datatype/DatatypeFactory.html) | Factory that creates new javax.xml.datatype Objects that map XML to/from Java Objects. |
| [**Duration**](http://docs.google.com/javax/xml/datatype/Duration.html) | Immutable representation of a time span as defined in the W3C XML Schema 1.0 specification. |
| [**XMLGregorianCalendar**](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) | Representation for W3C XML Schema 1.0 date/time datatypes. |

| **Exception Summary** | |
| --- | --- |
| [**DatatypeConfigurationException**](http://docs.google.com/javax/xml/datatype/DatatypeConfigurationException.html) | Indicates a serious configuration error. |

## Package javax.xml.datatype Description

XML/Java Type Mappings.

javax.xml.datatypeAPI provides XML/Java type mappings.

The following XML standards apply:

* [W3C XML Schema 1.0 Part 2, Section 3.2.7-14](http://www.w3.org/TR/xmlschema-2/#dateTime)
* [XQuery 1.0 and XPath 2.0 Data Model, xdt:dayTimeDuration](http://www.w3.org/TR/xpath-datamodel#dt-dayTimeDuration)
* [XQuery 1.0 and XPath 2.0 Data Model, xdt:yearMonthDuration](http://www.w3.org/TR/xpath-datamodel#dt-yearMonthDuration)

| W3C XML Schema Data Type | Java Data Type |
| --- | --- |
| xs:date | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:dateTime | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:duration | [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) |
| xs:gDay | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:gMonth | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:gMonthDay | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:gYear | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:gYearMonth | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |
| xs:time | [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) |

| XQuery 1.0 and XPath 2.0 Data Model | Java Data Type |
| --- | --- |
| xdt:dayTimeDuration | [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) |
| xdt:yearMonthDuration | [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) |

W3C XML Schema data types that have a "*natural*" mapping to Java types are defined by JSR 31: Java™ Architecture for XML Binding (JAXB) Specification, Binding XML Schema to Java Representations. JAXB defined mappings for XML Schema built-in data types include:

* xs:anySimpleType
* xs:base64Binary
* xs:boolean
* xs:byte
* xs:decimal
* xs:double
* xs:float
* xs:hexBinary
* xs:int
* xs:integer
* xs:long
* xs:QName
* xs:short
* xs:string
* xs:unsignedByte
* xs:unsignedInt
* xs:unsignedShort
* Author [Jeff Suttor](mailto:Jeff.Suttor@Sun.com)
* See [W3C XML Schema 1.0 Part 2, Section 3.2.7-14](http://www.w3.org/TR/xmlschema-2/#dateTime)
* See [XQuery 1.0 and XPath 2.0 Data Model, xdt:dayTimeDuration](http://www.w3.org/TR/xpath-datamodel#dt-dayTimeDuration)
* See [XQuery 1.0 and XPath 2.0 Data Model, xdt:yearMonthDuration](http://www.w3.org/TR/xpath-datamodel#dt-yearMonthDuration)
* Since 1.5

| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV PACKAGE**](http://docs.google.com/javax/xml/crypto/dsig/spec/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/xml/namespace/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/datatype/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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