| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/DatatypeConverter.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 CLASS**](http://docs.google.com/javax/xml/bind/Binder.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/bind/DatatypeConverter.html)    [**NO FRAMES**](http://docs.google.com/DatatypeConverter.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **javax.xml.bind**

Class DatatypeConverter

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.xml.bind.DatatypeConverter**

public final class **DatatypeConverter**extends [Object](http://docs.google.com/java/lang/Object.html)

The javaType binding declaration can be used to customize the binding of an XML schema datatype to a Java datatype. Customizations can involve writing a parse and print method for parsing and printing lexical representations of a XML schema datatype respectively. However, writing parse and print methods requires knowledge of the lexical representations (  [XML Schema Part2: Datatypes specification](http://www.w3.org/TR/xmlschema-2/) ) and hence may be difficult to write.

This class makes it easier to write parse and print methods. It defines static parse and print methods that provide access to a JAXB provider's implementation of parse and print methods. These methods are invoked by custom parse and print methods. For example, the binding of xsd:dateTime to a long can be customized using parse and print methods as follows:

// Customized parse method   
 public long myParseCal( String dateTimeString ) {  
 java.util.Calendar cal = DatatypeConverter.parseDateTime(dateTimeString);  
 long longval = convert\_calendar\_to\_long(cal); //application specific  
 return longval;  
 }  
   
 // Customized print method  
 public String myPrintCal( Long longval ) {  
 java.util.Calendar cal = convert\_long\_to\_calendar(longval) ; //application specific  
 String dateTimeString = DatatypeConverter.printDateTime(cal);  
 return dateTimeString;  
 }

There is a static parse and print method corresponding to each parse and print method respectively in the [DatatypeConverterInterface](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html).

The static methods defined in the class can also be used to specify a parse or a print method in a javaType binding declaration.

JAXB Providers are required to call the [setDatatypeConverter](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#setDatatypeConverter(javax.xml.bind.DatatypeConverterInterface)) api at some point before the first marshal or unmarshal operation (perhaps during the call to JAXBContext.newInstance). This step is necessary to configure the converter that should be used to perform the print and parse functionality.

A print method for a XML schema datatype can output any lexical representation that is valid with respect to the XML schema datatype. If an error is encountered during conversion, then an IllegalArgumentException, or a subclass of IllegalArgumentException must be thrown by the method.

**Since:** JAXB1.0 **See Also:**[DatatypeConverterInterface](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html), [ParseConversionEvent](http://docs.google.com/javax/xml/bind/ParseConversionEvent.html), [PrintConversionEvent](http://docs.google.com/javax/xml/bind/PrintConversionEvent.html)

| **Method Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**parseAnySimpleType**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseAnySimpleType(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDAnySimpleType)             Return a string containing the lexical representation of the simple type. |
| static byte[] | [**parseBase64Binary**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseBase64Binary(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDBase64Binary)             Converts the string argument into an array of bytes. |
| static boolean | [**parseBoolean**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseBoolean(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDBoolean)             Converts the string argument into a boolean value. |
| static byte | [**parseByte**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseByte(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDByte)             Converts the string argument into a byte value. |
| static [Calendar](http://docs.google.com/java/util/Calendar.html) | [**parseDate**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseDate(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDDate)             Converts the string argument into a Calendar value. |
| static [Calendar](http://docs.google.com/java/util/Calendar.html) | [**parseDateTime**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseDateTime(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDDateTime)             Converts the string argument into a Calendar value. |
| static [BigDecimal](http://docs.google.com/java/math/BigDecimal.html) | [**parseDecimal**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseDecimal(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDDecimal)             Converts the string argument into a BigDecimal value. |
| static double | [**parseDouble**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseDouble(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDDouble)             Converts the string argument into a double value. |
| static float | [**parseFloat**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseFloat(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDFloat)             Converts the string argument into a float value. |
| static byte[] | [**parseHexBinary**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseHexBinary(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDHexBinary)             Converts the string argument into an array of bytes. |
| static int | [**parseInt**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseInt(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDInt)             Convert the string argument into an int value. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | [**parseInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseInteger(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDInteger)             Convert the string argument into a BigInteger value. |
| static long | [**parseLong**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseLong(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDLong)             Converts the string argument into a long value. |
| static [QName](http://docs.google.com/javax/xml/namespace/QName.html) | [**parseQName**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseQName(java.lang.String,%20javax.xml.namespace.NamespaceContext))([String](http://docs.google.com/java/lang/String.html) lexicalXSDQName, [NamespaceContext](http://docs.google.com/javax/xml/namespace/NamespaceContext.html) nsc)             Converts the string argument into a byte value. |
| static short | [**parseShort**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseShort(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDShort)             Converts the string argument into a short value. |
| static [String](http://docs.google.com/java/lang/String.html) | [**parseString**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseString(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDString)             Convert the lexical XSD string argument into a String value. |
| static [Calendar](http://docs.google.com/java/util/Calendar.html) | [**parseTime**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseTime(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDTime)             Converts the string argument into a Calendar value. |
| static long | [**parseUnsignedInt**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseUnsignedInt(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDUnsignedInt)             Converts the string argument into a long value. |
| static int | [**parseUnsignedShort**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseUnsignedShort(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDUnsignedShort)             Converts the string argument into an int value. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printAnySimpleType**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printAnySimpleType(java.lang.String))([String](http://docs.google.com/java/lang/String.html) val)             Converts a string value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printBase64Binary**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printBase64Binary(byte%5B%5D))(byte[] val)             Converts an array of bytes into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printBoolean**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printBoolean(boolean))(boolean val)             Converts a boolean value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printByte**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printByte(byte))(byte val)             Converts a byte value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printDate**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printDate(java.util.Calendar))([Calendar](http://docs.google.com/java/util/Calendar.html) val)             Converts a Calendar value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printDateTime**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printDateTime(java.util.Calendar))([Calendar](http://docs.google.com/java/util/Calendar.html) val)             Converts a Calendar value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printDecimal**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printDecimal(java.math.BigDecimal))([BigDecimal](http://docs.google.com/java/math/BigDecimal.html) val)             Converts a BigDecimal value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printDouble**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printDouble(double))(double val)             Converts a double value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printFloat**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printFloat(float))(float val)             Converts a float value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printHexBinary**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printHexBinary(byte%5B%5D))(byte[] val)             Converts an array of bytes into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printInt**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printInt(int))(int val)             Converts an int value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printInteger(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)             Converts a BigInteger value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printLong**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printLong(long))(long val)             Converts A long value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printQName**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printQName(javax.xml.namespace.QName,%20javax.xml.namespace.NamespaceContext))([QName](http://docs.google.com/javax/xml/namespace/QName.html) val, [NamespaceContext](http://docs.google.com/javax/xml/namespace/NamespaceContext.html) nsc)             Converts a QName instance into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printShort**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printShort(short))(short val)             Converts a short value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printString**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printString(java.lang.String))([String](http://docs.google.com/java/lang/String.html) val)             Converts the string argument into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printTime**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printTime(java.util.Calendar))([Calendar](http://docs.google.com/java/util/Calendar.html) val)             Converts a Calendar value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printUnsignedInt**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printUnsignedInt(long))(long val)             Converts a long value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | [**printUnsignedShort**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printUnsignedShort(int))(int val)             Converts an int value into a string. |
| static void | [**setDatatypeConverter**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#setDatatypeConverter(javax.xml.bind.DatatypeConverterInterface))([DatatypeConverterInterface](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html) converter)            This method is for JAXB provider use only. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Method Detail** |
| --- |

### setDatatypeConverter

public static void **setDatatypeConverter**([DatatypeConverterInterface](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html) converter)

This method is for JAXB provider use only.

JAXB Providers are required to call this method at some point before allowing any of the JAXB client marshal or unmarshal operations to occur. This is necessary to configure the datatype converter that should be used to perform the print and parse conversions.

Calling this api repeatedly will have no effect - the DatatypeConverterInterface instance passed into the first invocation is the one that will be used from then on.

**Parameters:**converter - an instance of a class that implements the DatatypeConverterInterface class - this parameter must not be null. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the parameter is null

### parseString

public static [String](http://docs.google.com/java/lang/String.html) **parseString**([String](http://docs.google.com/java/lang/String.html) lexicalXSDString)

Convert the lexical XSD string argument into a String value.

**Parameters:**lexicalXSDString - A string containing a lexical representation of xsd:string. **Returns:**A String value represented by the string argument.

### parseInteger

public static [BigInteger](http://docs.google.com/java/math/BigInteger.html) **parseInteger**([String](http://docs.google.com/java/lang/String.html) lexicalXSDInteger)

Convert the string argument into a BigInteger value.

**Parameters:**lexicalXSDInteger - A string containing a lexical representation of xsd:integer. **Returns:**A BigInteger value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDInteger is not a valid string representation of a [BigInteger](http://docs.google.com/java/math/BigInteger.html) value.

### parseInt

public static int **parseInt**([String](http://docs.google.com/java/lang/String.html) lexicalXSDInt)

Convert the string argument into an int value.

**Parameters:**lexicalXSDInt - A string containing a lexical representation of xsd:int. **Returns:**A int value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDInt is not a valid string representation of an int value.

### parseLong

public static long **parseLong**([String](http://docs.google.com/java/lang/String.html) lexicalXSDLong)

Converts the string argument into a long value.

**Parameters:**lexicalXSDLong - A string containing lexical representation of xsd:long. **Returns:**A long value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDLong is not a valid string representation of a long value.

### parseShort

public static short **parseShort**([String](http://docs.google.com/java/lang/String.html) lexicalXSDShort)

Converts the string argument into a short value.

**Parameters:**lexicalXSDShort - A string containing lexical representation of xsd:short. **Returns:**A short value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDShort is not a valid string representation of a short value.

### parseDecimal

public static [BigDecimal](http://docs.google.com/java/math/BigDecimal.html) **parseDecimal**([String](http://docs.google.com/java/lang/String.html) lexicalXSDDecimal)

Converts the string argument into a BigDecimal value.

**Parameters:**lexicalXSDDecimal - A string containing lexical representation of xsd:decimal. **Returns:**A BigDecimal value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDDecimal is not a valid string representation of [BigDecimal](http://docs.google.com/java/math/BigDecimal.html).

### parseFloat

public static float **parseFloat**([String](http://docs.google.com/java/lang/String.html) lexicalXSDFloat)

Converts the string argument into a float value.

**Parameters:**lexicalXSDFloat - A string containing lexical representation of xsd:float. **Returns:**A float value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDFloat is not a valid string representation of a float value.

### parseDouble

public static double **parseDouble**([String](http://docs.google.com/java/lang/String.html) lexicalXSDDouble)

Converts the string argument into a double value.

**Parameters:**lexicalXSDDouble - A string containing lexical representation of xsd:double. **Returns:**A double value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - lexicalXSDDouble is not a valid string representation of a double value.

### parseBoolean

public static boolean **parseBoolean**([String](http://docs.google.com/java/lang/String.html) lexicalXSDBoolean)

Converts the string argument into a boolean value.

**Parameters:**lexicalXSDBoolean - A string containing lexical representation of xsd:boolean. **Returns:**A boolean value represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:boolean.

### parseByte

public static byte **parseByte**([String](http://docs.google.com/java/lang/String.html) lexicalXSDByte)

Converts the string argument into a byte value.

**Parameters:**lexicalXSDByte - A string containing lexical representation of xsd:byte. **Returns:**A byte value represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:byte.

### parseQName

public static [QName](http://docs.google.com/javax/xml/namespace/QName.html) **parseQName**([String](http://docs.google.com/java/lang/String.html) lexicalXSDQName,  
 [NamespaceContext](http://docs.google.com/javax/xml/namespace/NamespaceContext.html) nsc)

Converts the string argument into a byte value.

String parameter lexicalXSDQname must conform to lexical value space specifed at [XML Schema Part 2:Datatypes specification:QNames](http://www.w3.org/TR/xmlschema-2/#QName)

**Parameters:**lexicalXSDQName - A string containing lexical representation of xsd:QName.nsc - A namespace context for interpreting a prefix within a QName. **Returns:**A QName value represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to XML Schema Part 2 specification or if namespace prefix of lexicalXSDQname is not bound to a URI in NamespaceContext nsc.

### parseDateTime

public static [Calendar](http://docs.google.com/java/util/Calendar.html) **parseDateTime**([String](http://docs.google.com/java/lang/String.html) lexicalXSDDateTime)

Converts the string argument into a Calendar value.

**Parameters:**lexicalXSDDateTime - A string containing lexical representation of xsd:datetime. **Returns:**A Calendar object represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:dateTime.

### parseBase64Binary

public static byte[] **parseBase64Binary**([String](http://docs.google.com/java/lang/String.html) lexicalXSDBase64Binary)

Converts the string argument into an array of bytes.

**Parameters:**lexicalXSDBase64Binary - A string containing lexical representation of xsd:base64Binary. **Returns:**An array of bytes represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:base64Binary

### parseHexBinary

public static byte[] **parseHexBinary**([String](http://docs.google.com/java/lang/String.html) lexicalXSDHexBinary)

Converts the string argument into an array of bytes.

**Parameters:**lexicalXSDHexBinary - A string containing lexical representation of xsd:hexBinary. **Returns:**An array of bytes represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:hexBinary.

### parseUnsignedInt

public static long **parseUnsignedInt**([String](http://docs.google.com/java/lang/String.html) lexicalXSDUnsignedInt)

Converts the string argument into a long value.

**Parameters:**lexicalXSDUnsignedInt - A string containing lexical representation of xsd:unsignedInt. **Returns:**A long value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - if string parameter can not be parsed into a long value.

### parseUnsignedShort

public static int **parseUnsignedShort**([String](http://docs.google.com/java/lang/String.html) lexicalXSDUnsignedShort)

Converts the string argument into an int value.

**Parameters:**lexicalXSDUnsignedShort - A string containing lexical representation of xsd:unsignedShort. **Returns:**An int value represented by the string argument. **Throws:** [NumberFormatException](http://docs.google.com/java/lang/NumberFormatException.html) - if string parameter can not be parsed into an int value.

### parseTime

public static [Calendar](http://docs.google.com/java/util/Calendar.html) **parseTime**([String](http://docs.google.com/java/lang/String.html) lexicalXSDTime)

Converts the string argument into a Calendar value.

**Parameters:**lexicalXSDTime - A string containing lexical representation of xsd:time. **Returns:**A Calendar value represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:Time.

### parseDate

public static [Calendar](http://docs.google.com/java/util/Calendar.html) **parseDate**([String](http://docs.google.com/java/lang/String.html) lexicalXSDDate)

Converts the string argument into a Calendar value.

**Parameters:**lexicalXSDDate - A string containing lexical representation of xsd:Date. **Returns:**A Calendar value represented by the string argument. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if string parameter does not conform to lexical value space defined in XML Schema Part 2: Datatypes for xsd:Date.

### parseAnySimpleType

public static [String](http://docs.google.com/java/lang/String.html) **parseAnySimpleType**([String](http://docs.google.com/java/lang/String.html) lexicalXSDAnySimpleType)

Return a string containing the lexical representation of the simple type.

**Parameters:**lexicalXSDAnySimpleType - A string containing lexical representation of the simple type. **Returns:**A string containing the lexical representation of the simple type.

### printString

public static [String](http://docs.google.com/java/lang/String.html) **printString**([String](http://docs.google.com/java/lang/String.html) val)

Converts the string argument into a string.

**Parameters:**val - A string value. **Returns:**A string containing a lexical representation of xsd:string.

### printInteger

public static [String](http://docs.google.com/java/lang/String.html) **printInteger**([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)

Converts a BigInteger value into a string.

**Parameters:**val - A BigInteger value **Returns:**A string containing a lexical representation of xsd:integer **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - val is null.

### printInt

public static [String](http://docs.google.com/java/lang/String.html) **printInt**(int val)

Converts an int value into a string.

**Parameters:**val - An int value **Returns:**A string containing a lexical representation of xsd:int

### printLong

public static [String](http://docs.google.com/java/lang/String.html) **printLong**(long val)

Converts A long value into a string.

**Parameters:**val - A long value **Returns:**A string containing a lexical representation of xsd:long

### printShort

public static [String](http://docs.google.com/java/lang/String.html) **printShort**(short val)

Converts a short value into a string.

**Parameters:**val - A short value **Returns:**A string containing a lexical representation of xsd:short

### printDecimal

public static [String](http://docs.google.com/java/lang/String.html) **printDecimal**([BigDecimal](http://docs.google.com/java/math/BigDecimal.html) val)

Converts a BigDecimal value into a string.

**Parameters:**val - A BigDecimal value **Returns:**A string containing a lexical representation of xsd:decimal **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - val is null.

### printFloat

public static [String](http://docs.google.com/java/lang/String.html) **printFloat**(float val)

Converts a float value into a string.

**Parameters:**val - A float value **Returns:**A string containing a lexical representation of xsd:float

### printDouble

public static [String](http://docs.google.com/java/lang/String.html) **printDouble**(double val)

Converts a double value into a string.

**Parameters:**val - A double value **Returns:**A string containing a lexical representation of xsd:double

### printBoolean

public static [String](http://docs.google.com/java/lang/String.html) **printBoolean**(boolean val)

Converts a boolean value into a string.

**Parameters:**val - A boolean value **Returns:**A string containing a lexical representation of xsd:boolean

### printByte

public static [String](http://docs.google.com/java/lang/String.html) **printByte**(byte val)

Converts a byte value into a string.

**Parameters:**val - A byte value **Returns:**A string containing a lexical representation of xsd:byte

### printQName

public static [String](http://docs.google.com/java/lang/String.html) **printQName**([QName](http://docs.google.com/javax/xml/namespace/QName.html) val,  
 [NamespaceContext](http://docs.google.com/javax/xml/namespace/NamespaceContext.html) nsc)

Converts a QName instance into a string.

**Parameters:**val - A QName valuensc - A namespace context for interpreting a prefix within a QName. **Returns:**A string containing a lexical representation of QName **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null or if nsc is non-null or nsc.getPrefix(nsprefixFromVal) is null.

### printDateTime

public static [String](http://docs.google.com/java/lang/String.html) **printDateTime**([Calendar](http://docs.google.com/java/util/Calendar.html) val)

Converts a Calendar value into a string.

**Parameters:**val - A Calendar value **Returns:**A string containing a lexical representation of xsd:dateTime **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null.

### printBase64Binary

public static [String](http://docs.google.com/java/lang/String.html) **printBase64Binary**(byte[] val)

Converts an array of bytes into a string.

**Parameters:**val - An array of bytes **Returns:**A string containing a lexical representation of xsd:base64Binary **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null.

### printHexBinary

public static [String](http://docs.google.com/java/lang/String.html) **printHexBinary**(byte[] val)

Converts an array of bytes into a string.

**Parameters:**val - An array of bytes **Returns:**A string containing a lexical representation of xsd:hexBinary **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null.

### printUnsignedInt

public static [String](http://docs.google.com/java/lang/String.html) **printUnsignedInt**(long val)

Converts a long value into a string.

**Parameters:**val - A long value **Returns:**A string containing a lexical representation of xsd:unsignedInt

### printUnsignedShort

public static [String](http://docs.google.com/java/lang/String.html) **printUnsignedShort**(int val)

Converts an int value into a string.

**Parameters:**val - An int value **Returns:**A string containing a lexical representation of xsd:unsignedShort

### printTime

public static [String](http://docs.google.com/java/lang/String.html) **printTime**([Calendar](http://docs.google.com/java/util/Calendar.html) val)

Converts a Calendar value into a string.

**Parameters:**val - A Calendar value **Returns:**A string containing a lexical representation of xsd:time **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null.

### printDate

public static [String](http://docs.google.com/java/lang/String.html) **printDate**([Calendar](http://docs.google.com/java/util/Calendar.html) val)

Converts a Calendar value into a string.

**Parameters:**val - A Calendar value **Returns:**A string containing a lexical representation of xsd:date **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if val is null.

### printAnySimpleType

public static [String](http://docs.google.com/java/lang/String.html) **printAnySimpleType**([String](http://docs.google.com/java/lang/String.html) val)

Converts a string value into a string.

**Parameters:**val - A string value **Returns:**A string containing a lexical representation of xsd:AnySimpleType

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/DatatypeConverter.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 CLASS**](http://docs.google.com/javax/xml/bind/Binder.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/bind/DatatypeConverter.html)    [**NO FRAMES**](http://docs.google.com/DatatypeConverter.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

[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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