

## **TelFormFactory Datatypes**

## **Namespace**

It may be noticed that some of the Datatype names are prefixed by the 'colon-ised' 'tag' - 'xsd' and others are prefixed by 'tel'. A tag prefix is an abbreviation for the namespace of the Datatype: in this case xsd indicates the namespace of the W3C Recommendation -http://www.w3.org/2001/XMLSchema and tel stands for the namespace of http://telform.co/ns/2009/telform. Namespace is an important feature of XML. It may be thought of as referring to a dictionary that the XML Document refers to when decoding the document. It is a powerful feature but can cause problems - it means an XML phrase may be connected with other XML documents the other side of the world but which may not understand other phrases in the same paragraph. In theory any prefix can be used to refer to a namespace providing it has been defined in the document, but this should not be relied upon.

Datatype name Decription

tel:TelFormRootType The basis on which the TelForm is

formed.

xsd:string The string datatype represents

character strings in XML.

tel:EmailFieldType EmailFieldType is checked for

valid Email address format.

tel:PhoneFieldType Telephone number field.
xsd:integer integer integer is derived from decimal by

fixing the value of fractionDigits to be 0 and disallowing the trailing

decimal point.

xsd:decimal decimal represents a subset of

the real numbers, which can be represented by decimal numerals. Allows a number of options to be

chosen from a range of values.

tel:MultipleChoiceItemType One of several

tel:MultipleChoiceType

tel:ExclusiveChoiceType

tel:GROUP

xsd:boolean

MultipleChoiceType options.
Allows a single option to be

chosen from a range of values.

ExclusiveChoiceType options. A sub-group of fields may be

attached to this node.

tel:RegEX A holder for a datatype which

contains a Regular Expression

(RegEx). See link below. boolean has the value space

required to support the

mathematical concept of binary-

valued logic: {true, false}.

xsd:float float is patterned after the IEEE

> single-precision 32-bit floating point type [IEEE 754-1985].

xsd:double The double datatype is patterned

after the IEEE double-precision 64-bit floating point type [IEEE

754-1985].

xsd:duration duration represents a duration of

xsd:dateTime dateTime values may be viewed

> as objects with integer-valued year, month, day, hour and minute properties, a decimal-valued second property, and a boolean

timezoned property.

xsd:time time represents an instant of time

that recurs every day.

The value space of date consists xsd:date

of top-open intervals of exactly

one day in length.

xsd:gYearMonth gYearMonth represents a specific

gregorian month in a specific

gregorian year.

gYear represents a gregorian xsd:gYear

calendar year.

gMonthDay is a gregorian date xsd:gMonthDay

> that recurs, specifically a day of the year such as the third of May.

xsd:gDay gDay is a gregorian day that

> recurs, specifically a day of the month such as the 5th of the

month.

xsd:gMonth gMonth is a gregorian month that

recurs every year.

xsd:hexBinary hexBinary represents arbitrary

hex-encoded binary data.

xsd:base64Binary base64Binary represents Base64-

encoded arbitrary binary data.

anyURI represents a Uniform xsd:anyURI

Resource Identifier Reference

(URI).

xsd:QName QName represents XML qualified

names.

xsd:NOTATION NOTATION represents the

> NOTATION attribute type from [XML 1.0 (Second Edition)].

xsd:normalizedString normalizedString represents white

space normalized strings.

xsd:token token represents tokenized

strings.

xsd:language language represents natural

language identifiers as defined by

by [RFC 3066].

xsd:NMTOKEN NMTOKEN represents the

NMTOKEN attribute type from [XML 1.0 (Second Edition)].

xsd:NMTOKENS NMTOKENS represents the

NMTOKENS attribute type from [XML 1.0 (Second Edition)].

xsd:Name Name represents XML Names. xsd:NCName NCName represents XML 'non-

colonized' Names.

xsd:ID ID represents the ID attribute type

from [XML 1.0 (Second Edition)].

xsd:IDREF IDREF represents the IDREF

attribute type from [XML 1.0

(Second Edition)].

xsd:IDREFS IDREFS represents the IDREFS

attribute type from [XML 1.0

(Second Edition)].

xsd:ENTITY ENTITY represents the ENTITY

attribute type from [XML 1.0

(Second Edition)].

xsd:ENTITIES ENTITIES represents the

ENTITIES attribute type from [XML 1.0 (Second Edition)].

xsd:nonPositiveInteger nonPositiveInteger is derived from

integer by setting the value of

maxInclusive to be 0.

xsd:negativeInteger negativeInteger is derived from

nonPositiveInteger by setting the value of maxInclusive to be -1.

xsd:long long is derived from integer by

setting the value of maxInclusive to be 9223372036854775807

and minInclusive to be -9223372036854775808.

xsd:int int is derived from long by setting

the value of maxInclusive to be 2147483647 and minInclusive to

be -2147483648.

xsd:short short is derived from int by setting

the value of maxInclusive to be 32767 and minInclusive to be

-32768.

xsd:byte byte is derived from short by

setting the value of maxInclusive

to be 127 and minInclusive to be

-128.

xsd:nonNegativeInteger nonNegativeInteger is derived

from integer by setting the value

of minInclusive to be 0.

xsd:unsignedLong unsignedLong is derived from

nonNegativeInteger by setting the value of maxInclusive to be

18446744073709551615.

xsd:unsignedInt unsignedInt is derived from

unsignedLong by setting the value of maxInclusive to be

4294967295.

xsd:unsignedShort unsignedShort is derived from

unsignedInt by setting the value of

maxInclusive to be 65535.

xsd:unsignedByte unsignedByte is derived from

unsignedShort by setting the value of maxInclusive to be 255.

xsd:positiveInteger positiveInteger is derived from

nonNegativeInteger by setting the

value of minInclusive to be 1.

## See XML Schema Regular Expressions (RegEx)

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