XMLSchema Reference

XMLSchema: Element/Attribute Declaration

<element name="*element name*" type="*element type*" [options]/>

-or-

<element name="*element name*" type="*element type*" [options]>
    <attribute name="*attribute name*", type="*attribute type*" [options]/>
</element>

XMLSchema: Primitive Types

binary	raw binary data
boolean	logical true/false
decimal (Integer)	signed integer (+/-)
double	64-bit floating point
float	32-bit floating point
recurringInstant (date, time)	specific date/time to be scheduled
string (NMTOKEN, language)	characters
timeDuration	a span of time
timeInstant	date/time combined to define an instant
uri	A Uniform Resource Indicator

XMLSchema: User-Defined Element Types

<complexType name="*complexType name*">
    element specification
    element specification
    …
</complexType>

XML Schema: User-Defined Attribute Types

<simpleType base = "*type*">
    <enumeration value="*1st choice*"/>
    <enumeration value="*2nd choice*"/>
    …
</simpleType>

XMLSchema: Element Cardinality

minOccurs: the minimum number of times the element must occur

maxOccurs: the maximum number of times the element may occur

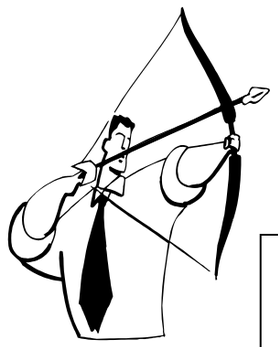
XMLSchema: Namespace

http://www.w3.org/1999/XMLSchema

The Net Objectives

<XML/>

Quick Reference



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XML Language Reference

XML: Rules for a well-formed document

1. Each non-empty element must have an opening and closing tag
2. Each empty element must have a forward-slash (whack) before the closing angle-bracket
3. A closing tag must match the most recently opened, non-closed tag. In other words, elements must be nested in order
4. Attribute values must be enclosed in double quotes.
5. Markup characters are not allowed in text. < & > " ' must use entity references, even in a quoted attribute value. Example: < for the < symbol.
6. Unconstrained documents (those without a DTD or Schema) will default to CDATA attribute types

XML: Element and Attribute Naming Rules

1. Must begin with a letter or underscore
2. May contain only letters, numbers, hyphens, periods, underscores thereafterMay not begin with xml in any case
4. Are case-sensitive
5. May use international symbols such as umlauts and accents.

XML: Entity References and Unparsed Data

&lt;	<
&gt;	>
&amp;	&
&quot;	"
&apos;	'

<![CDATA[Don't worry, this "text" is legal & will <not> be parsed at all.]]>

XML: Processing Instruction

<? xml version = "1.0" [encoding="*encoding type*"] [standalone="yes|no"]?>

version: required attribute, currently 1.0 is standard.

encoding: optional attribute. Examples are "US-ASCII" and "UTF-8".

standalone: optional attribute. "no" indicates that a DTD will be used, and must therefore be specified in a <!DOCTYPE> instruction. "yes" indicates that no DTD will be used.

XML: <!DOCTYPE> declaration

<!DOCTYPE *root-element* SYSTEM|PUBLIC ["*name*"] "*uri*">

examples:

<!DOCTYPE Catalog SYSTEM "DTD/Catalog.dtd">
<!DOCTYPE Catalog PUBLIC "Catalog" "http://www.catcorp.com/dtd/Catalog.dtd">

XML: Reserved Attributes

xml:lang
xml:space
xml:link
xml:attribute

DTD Reference

DTD: Element Declaration

<!ELEMENT *name contents*>

name:	Must follow xml element name conventions, should not include < > characters.
contents:	May be a data rule or a list of other elements contained by this element.

DTD: Element Contents Definition

ANY	The element may contain anything.
PCDATA	The element contains parsed character data, that is, general characters, excluding < > & " ' which require an entity reference.
(e1, e2, …)	The element contains other elements, in the order and with the cardinality indicated
EMPTY	The element must be empty

DTD: Multiple Contained Elements

(Examples)

(division, district) – contains exactly 1 division followed by exactly 1 district

(division|company, district) – contains either exactly 1 division or exactly 1 company, followed by exactly 1 district.

(division, district*) – contains exactly 1 division followed by zero, 1 or more districts.

(division?, district) – contains zero or 1 division followed by exactly 1 district

(division+|district+) – contains 1 or more divisions followed by one or more districts.

DTD Attribute Declaration

<!ATTLIST *element name type default*>

element:	The element that this attribute is found within
name:	Name of the attribute. Must follow the Element and Attribute Naming Ruled
type:	The data type of this attribute
default:	The default value of this attribute, if any, preceded by a default modifier, if any.

DTD: Attribute Data Types

CDATA	Character data
Enumerated	A series of values, one of which is chosen, such as (Monday | Tuesday)
ENTITY	A custom entity reference
ID	An identifier that can be used to refer to this element from another.
IDREF(S)	The value of one or more other attributes, referred to by ID
NMTOKEN(S)	One or more XML name tokens
NOTATION	A notation

DTD: Element Cardinality

<default>	1
+	1+
?	0,1
*	0+

DTD: Attribute Default Modifiers

#REQUIRED
#IMPLIED
#FIXED