

Location Paths [XPath §2]

Optional '/', zero or more location steps, separated by '/'

Location Steps [XPath §2.1]

Axis specifier, node test, zero or more predicates

Axis Specifiers [XPath §2.2]

| | |
|----------------------|---------------------|
| ancestor:: | following-sibling:: |
| ancestor-or-self:: | namespace:: |
| attribute:: | parent:: |
| child:: | preceding:: |
| descendant:: | preceding-sibling:: |
| descendant-or-self:: | self:: |
| following:: | |

Node Tests [XPath §2.3]

| | |
|--------------------|--|
| <i>name</i> | node() |
| <i>prefix:name</i> | text() |
| * | comment() |
| <i>prefix:*</i> | processing-instruction() |
| | processing-instruction(<i>literal</i>) |

Abbreviated Syntax for Location Paths

| | |
|-----------|------------------------------|
| (nothing) | child:: |
| @ | attribute:: |
| // | /descendant-or-self::node()/ |
| . | self::node() |
| .. | parent::node() |
| / | Node tree root |

Predicate [XPath §2.4]

[*expr*]

Variable Reference [XPath §3.7]

\$qname

Literal Result Elements [§7.1.1]

Any element not in the xsl: namespace and not an extension element

XSLT

<http://www.w3.org/TR/xslt>

XPath

<http://www.w3.org/TR/xpath>

XSL-List

<http://www.mulberrytech.com/xsl/xsl-list/>



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XPath Operators

Parentheses may be used for grouping.

Node-sets [XPath §3.3]

| [*expr*] / //

Booleans [XPath §3.4]

<=, <, >=, > =, != and or

Numbers [XPath §3.5]

-*expr* *, div, mod +, -

XPath Core Function Library

Node Set Functions [XPath §4.1]

number last()
number position()
number count(*node-set*)
node-set id(*object*)
string local-name(*node-set*?)
string namespace-uri(*node-set*?)
string name(*node-set*?)

String Functions [XPath §4.2]

string string(*object*?)
string concat(*string*, *string*, *string**)
boolean starts-with(*string*, *string*)
boolean contains(*string*, *string*)
string substring-before(*string*, *string*)
string substring-after(*string*, *string*)
string substring(*string*, *number*, *number*?)
number string-length(*string*?)
string normalize-space(*string*?)
string translate(*string*, *string*, *string*)

Boolean Functions [XPath §4.3]

boolean boolean(*object*)
boolean not(*object*)
boolean true()
boolean false()
boolean lang(*string*)

Number Functions [XPath §4.4]

number number(*object*?)
number sum(*node-set*)
number floor(*number*)
number ceiling(*number*)
number round(*number*)



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XSLT 1.0 & XPath 1.0 Quick Reference

Mulberry Technologies, Inc.
 17 West Jefferson Street, Suite 207
 Rockville, MD 20850 USA
 Phone: +1 301/315-9631
 Fax: +1 301/315-8285
 info@mulberrytech.com
<http://www.mulberrytech.com>



XSLT Functions [§12, §15]

node-set document(*object*, *node-set*?)
node-set key(*string*, *object*)
string format-number(*number*, *string*, *string*?)
node-set current()
string unparsed-entity-uri(*string*)
string generate-id(*node-set*?)
object system-property(*string*)
boolean element-available(*string*)
boolean function-available(*string*)

Node Types [XPath §5]

| | |
|-----------|------------------------|
| Root | Processing Instruction |
| Element | Comment |
| Attribute | Text |
| Namespace | |

Object Types [§11.1, XPath §1]

| | |
|-------------|--|
| boolean | True or false |
| number | Floating-point number |
| string | UCS characters |
| node-set | Set of nodes selected by a path |
| Result tree | XSLT only. Fragment of the result tree |
| fragment | |

Expression Context [§4, XPath §1]

Context node (a node)
 Context position (a number)
 Context size (a number)
 Variable bindings in scope
 Namespace declarations in scope
 Function library

Built-in Template Rules [§5.8]

```
<xsl:template match="*/" >
  <xsl:apply-templates/>
</xsl:template>
<xsl:template match="*/" mode="m">
  <xsl:apply-templates mode="m"/>
</xsl:template>
<xsl:template match="text()|@" *">
  <xsl:value-of select="."/ >
</xsl:template>
<xsl:template
  match="processing-instruction()comment()"/ >
```

Built-in template rule for namespaces is to do nothing



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XSLT Elements

Stylesheet Element [§2.2]

```
<xsl:stylesheet version="1.0" id="id"
  extension-element-prefixes="tokens"
  exclude-result-prefixes="tokens"
  xmlns:xsl="http://www.w3.org/1999/XSL/
  Transform"> xsl:import*, top-level elements
</xsl:stylesheet>
```

xsl.transform is a synonym for xsl.stylesheet

Combining Stylesheets [§2.6]

```
<xsl:include href="uri-reference"/>
<xsl:import href="uri-reference"/>
```

Whitespace Stripping [§3.4]

```
<xsl:strip-space elements="tokens"/>
<xsl:preserve-space elements="tokens"/>
```

Defining Template Rules [§5.3]

```
<xsl:template match="pattern" name="qname"
  priority="number" mode="qname">
  xsl:param* followed by text, literal result elements
  and/or XSL elements </xsl:template>
```

Applying Template Rules [§5.4]

```
<xsl:apply-templates select="node-set-exp"
  mode="qname"/>
<xsl:apply-templates select="node-set-exp"
  mode="qname">
  (xsl:sort | xsl:with-param)* </xsl:apply-templates>
```

Overriding Template Rules [§5.6]

```
<xsl:apply-imports/>
```

Named Templates [§6]

```
<xsl:call-template name="qname"/>
<xsl:call-template name="qname">
  xsl:with-param* </xsl:call-template>
```

Namespace Alias [§7.1.1]

```
<xsl:namespace-alias result-
  prefix="prefix|#default"
  stylesheet-prefix="prefix|#default"/>
```

Creating Elements [§7.1.2]

```
<xsl:element name="{qname}"
  namespace="{uri-reference}"
  use-attribute-sets="qnames">...</xsl:element>
```

Creating Attributes [§7.1.3]

```
<xsl:attribute name="{qname}"
  namespace="{uri-reference}">...</xsl:attribute>
```

Named Attribute Sets [§7.1.4]

```
<xsl:attribute-set name="qname"
  use-attribute-sets="qnames">
  xsl:attribute* </xsl:attribute-set>
```

Creating Text [§7.2]

```
<xsl:text disable-output-escaping="yes|no">
  #PCDATA </xsl:text>
```

Processing Instructions [§7.3]

```
<xsl:processing-instruction name="{ncname}">
  ...</xsl:processing-instruction>
```

Creating Comments [§7.4]

```
<xsl:comment>...</xsl:comment>
```

Copying [§7.5]

```
<xsl:copy use-attribute-sets="qnames">
  ...</xsl:copy>
```

Generating Text [§7.6.1]

```
<xsl:value-of select="string-expr"
  disable-output-escaping="yes|no"/>
```

Attribute Value Templates [§7.6.2]

```
<element attribute="{expr}"/>
```

Numbering [§7.7]

```
<xsl:number level="single|multiple|any"
  count="pattern" from="pattern"
  value="number-expr" format="{string}"
  lang="{nmtoken}"
  letter-value="{alphabetic|traditional}"
  grouping-separator="{char}"
  grouping-size="{number}"/>
```

Repetition [§8]

```
<xsl:for-each select="node-set-exp">
  xsl:sort*, ...</xsl:for-each>
```

Conditional Processing [§9]

```
<xsl:if test="boolean-expr">...</xsl:if>
<xsl:choose>
  <xsl:when test="expr">...</xsl:when>+
  <xsl:otherwise>...</xsl:otherwise?>
</xsl:choose>
```

Sorting [§10]

```
<xsl:sort select="string-expr" lang="{nmtoken}"
  data-type="{text|number|qname-but-not-
  ncname}" order="{ascending|descending}"
  case-order="{upper-first|lower-first}"/>
```

Variables and Parameters [§11]

```
<xsl:variable name="qname" select="expr"/>
<xsl:variable name="qname">...</xsl:variable>
<xsl:param name="qname" select="expr"/>
<xsl:param name="qname">...</xsl:param>
```

Using Values [§11.3]

```
<xsl:copy-of select="expr"/>
```

Passing Parameters [§11.6]

```
<xsl:with-param name="expr" select="expr"/>
<xsl:with-param name="expr">...</xsl:with-
  param>
```

Keys [§12.2]

```
<xsl:key name="qname" match="pattern"
  use="expr"/>
```

Number Formatting [§12.3]

```
<xsl:decimal-format name="qname"
  decimal-separator="char"
  grouping-separator="char" infinity="string"
  minus-sign="char" NaN="string"
  percent="char" per-mille="char"
  zero-digit="char" digit="char"
  pattern-separator="char"/>
```

Messages [§13]

```
<xsl:message terminate="yes|no">
  ...</xsl:message>
```

Fallback [§15]

```
<xsl:fallback>...</xsl:fallback>
```

Output [§16]

```
<xsl:output
  method="xml|html|text|qname-but-not-ncname"
  version="nmtoken" encoding="string"
  omit-xml-declaration="yes|no"
  doctype-public="string" doctype-
  system="string" standalone="yes|no"
  indent="yes|no"
  cdata-section-elements="qnames"
  media-type="string"/>
```

Key

| | |
|----------------|--|
| xsl.stylesheet | Element |
| version= | Required attribute |
| version= | Optional attribute |
| {expr} | Attribute value template. Text between any { and } is evaluated as an expression. Attribute value must evaluate to indicated attribute type. |
| ... | Anything allowed in a template |
| | Separates alternative values |
| ? | Zero or one occurrences |
| * | Zero or more occurrences |
| + | One or more occurrences |
| #PCDATA | Character data |

Attribute Value Types

| | |
|----------------------|--|
| 1.0 | Literal value |
| boolean-expr | Expression returning boolean value |
| char | Single character |
| expr | Expression |
| id | XML name used as identifier |
| ncname | XML name not containing a colon (:) |
| node-set-expr | Expression returning a node set |
| number-expr | Expression returning a number |
| pattern | XSLT pattern |
| prefix | Namespace prefix |
| qname | Namespace-qualified XML name comprising local part and optional prefix |
| qname-but-not-ncname | Namespace-qualified name comprising local part and prefix |
| token | Meaning varies with context. See Rec. |
| uri-reference | Reference to Universal Resource Identifier |

