XMLmind XML Editor Tutorial

This tutorial is also available in PDF format.

Before following this tutorial

Except for the first few ones, this tutorial is organized in largely independent, short, lessons. Almost all lessons contain a short (less than 1mn) screencast. It’s strongly recommended to take the time to read the text of the lesson before watching the corresponding screencast.

We’ll almost exclusively use DocBook 5 examples in these lessons. This does not mean that this tutorial is about DocBook support in XMLmind XML Editor. Everything you’ll learn in this tutorial applies to all document types: DITA, XHTML, etc. We have chosen DocBook mainly because this document type uses self-descriptive names for its elements: para for a paragraph, itemizedlist of an itemized list, etc. Prior knowledge of DocBook is not required in order to follow this tutorial.

If you find that this tutorial is too comprehensive and don’t have enough time to follow it, we nevertheless recommend to read this minimal tutorial (corresponding screencast).

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Creating a document

Creating a document is done by selecting the customary `File→New` menu item. This displays a dialog box allowing to choose a document template.

Each document template has a name and belongs to a category loosely corresponding to a document type: **DITA** (groups topic, map, bookmap and ditaval), **DocBook** (that is, DocBook v4+), **DocBook v5+** and **XHTML**.

Let's suppose you want to create a DocBook 5 article. Here's what you'll see at first:
The little squares are text placeholders. That is, each little square represents an *empty text node*. When the caret is inside such placeholder, you can directly type some text.

You can move the caret inside a text node, whether empty or not, by clicking on it or by pressing Tab or Shift-Tab. Tab moves the caret to the following text node. Shift-Tab moves the caret to the preceding text node.

These tag-less placeholders do not convey any meaningful information, so how can you understand what you see? The answer is: look at the *node path bar*. The node path bar shows you which XML node is selected and which are its ancestor elements.

In the above screenshot, the caret is located inside a text node (#text) contained in a para element, itself contained in a section element, itself contained in an article element.

Because the caret is contained in some text found in a para element, this para element is said to be *implicitly selected*. Editing commands such as Edit→Copy, Edit→Cut, Edit→Replace, etc, will all act on this para element. This can be surprising because there is no visual clue that something is selected.

The node path bar also allows to explicitly select an XML node. Click in the node path bar on "#text" or on the name of an element, for example "section", and you'll select the corresponding text node or element. When you do this, you have *explicitly selected* the XML node and in such case, a red box is drawn around it.
Related productivity tips

- Custom document templates
Basic editing

In order to add some content to your XML document, you must:

1. Select an XML node.

2. Use Edit→Insert Before, Edit→Insert or Edit→Insert After in order to add a new element or text node respectively before, into (that is, at caret position) or after the selected node.

You have learned in the previous lesson that moving the caret into a text node implicitly selects the element containing this text node. You have also learned that clicking in the node path bar on an element name (e.g. "section") or a node name (e.g. "#text") explicitly selects the corresponding node. When a node is explicitly selected, a red box is drawn around it. When an element is implicitly selected, there is no visual clue that something is selected.

In this lesson, you'll learn to use the 3 Insert commands. In practice, you'll use Insert After most of the time.

The Insert commands are found in the Edit menu, but are implemented by the Edit tool:

In order to use an Insert command, you can click on the corresponding button or you can use one of the following keyboard shortcuts (on the Mac, use the Command key, not the Control key):

- Ctrl-I (I is for Insert) invokes command Insert, which inserts an element or text node inside selected element, right here, at caret position.

- Ctrl-H (I is for Insert and letter H is before I in the alphabet) invokes command Insert Before, which inserts an element or text node just before selected node. (On the Mac, use Cmd-B.)

- Ctrl-J (I is for Insert and letter J is after I in the alphabet) invokes command Insert After, which inserts an element or text node just after selected node.

Note that XMLmind XML Editor does not work like other XML editors. In other XML editors,

- Insert often means "Insert somewhere inside selection".
- Insert Before often means "Insert somewhere before selection".
- Insert After often means "Insert somewhere after selection".

The Edit tool requires you to specify what you want to insert. An element is specified by its name and a text node is specified as "(text)". In order to let you to do this, the Edit tool lists all the elements you may insert given the chosen operation and the currently selected XML node.
A single click suffices to select an item from this list. Alternatively, you can type the name of the element you want to insert. Because the **Edit** tool supports auto-completion, suffice to type the first few letters of an element name and then press **Enter** to confirm your choice. After doing that, the keyboard focus is automatically returned to the document view.

If, when using the **Edit** tool, you don't see the element you want to insert, then it's either because you have chosen the wrong operation (e.g. **Insert** instead of **Insert After**) or because you have not selected the right element.

For example, let's suppose a **para** element is currently selected because the caret is found inside it. Let's suppose you want to add a chapter to your document. If you invoke **Insert After**, the **Edit** tool will not list **chapter**. You have to first select the **chapter** containing the **para**, for example by clicking on "chapter" in the node path bar, and then use **Insert After**.

### The **Ins** keyboard shortcut

In the above screencast, we have used **Insert After** and selected "(text)" from the list to add an empty text node after the **command** element. However, in order to add an empty text node after the **trademark** element, we have just pressed **Ins** (**F1** on the Mac). The **Ins** keyboard shortcut is the one of most useful hotkeys of XMLmind XML Editor. It inserts an empty text node after the selected element and if there is already a text node there, it moves the caret inside this text node.

Other useful keyboard shortcuts are:

- **Shift-Ins** inserts an empty text node before selected element.
- **Ctrl-Ins** inserts the same element after selected element.
- **Ctrl+Shift-Ins** inserts the same element before selected element.
Easier editing

The previous lesson, Basic editing, may leave you with the impression that XMLmind XML Editor (XXE for short) is straightforward, but not very convenient, to use. In fact, XXE has a number of secondary features which makes it convenient to use:

- the text selection,
- “text style” toggles found in the toolbar,
- the possibility to repeat a command,
- add-style (as opposed to Insert After) commands implemented by some toolbar buttons,
- keyboard shortcuts commonly found in word-processors.

The text selection

XMLmind XML Editor supports text selection as well as node selection.

There is little to say about text selection because it works as expected in any text editor or word processor: simply click on some text and drag your mouse to the end of selection. Other examples: Shift-button1 extends the selection to the location clicked upon, Shift-Down_Arrow extends the selection to the next line, Ctrl+Shift-Left_Arrow extends the selection to the next word.

The text selection is rendered using a light red background.

“Text style” toggles found in the toolbar

The XHTML, DocBook and DITA toolbars all start with a number of “text style” toggles. These toggles emulate the behavior of the Bold, Italic, Underline, etc, toggles found in the toolbars of almost all word-processors.

For example, clicking the emphasis[bold] toggle converts the text selection to an emphasis element having a role="bold" attribute (there is no bold element in DocBook v5+).

Repeating a command

Once you have, for example, converted the text selection to an emphasis element having a role="bold" using the emphasis[bold] toggle, you can select another piece of text and convert it too to emphasis[bold] simply by pressing Ctrl-A (A like Again).

Ctrl-A is the keyboard shortcut for Edit→Repeat. Command Repeat allows to repeat the last “repeatable command”. Most commands which require the user to type something or to select an item from a list have been made repeatable.

Toolbar buttons invoking add commands

The other buttons of the toolbar allow to add commonly used elements. For example, toolbar button † allows to add a list item whatever the kind of this list.
By add, we mean: *add after the currently selected element at the closest location where this is allowed by the DTD or schema*. For example, if the caret is found in a `para` contained in a `section`, itself contained in a `chapter`. Clicking the toolbar button and selecting `chapter` will add a new chapter after the current one.

Compare this to what we had to do in the *previous lesson* in order to add such chapter using `Edit→Insert After`.

**Convenient keyboard shortcuts**

The easiest way to add another paragraph after an existing one is to press `Enter` at the very end of the paragraph. In fact, `Enter` splits the paragraph at caret position. That's why if you press `Enter` at the very end of the paragraph, this creates a new, empty, paragraph.

A handy alternative is to press `Ctrl-Enter` while the caret is anywhere inside a paragraph.

Pressing `Backspace` at the very beginning of a paragraph works as expected: it joins this paragraph to the preceding one. And, of course, pressing `Del` at the very end of a paragraph joins this paragraph to the following one.

Note that `Enter`, `Backspace` and `Del` work this way not only inside paragraphs, but also inside *list items* and a few other kinds of "block" (e.g. DocBook v5+ bridgehead element). Pressing `Enter` inside a block invokes a specialized variant of more general command `Edit→Split`. `Backspace` and `Del` respectively at the beginning and at the end of a paragraph invoke specialized variants of more general command `Edit→Join`. 
Copy, Cut, Paste and Delete

The customary Copy, Cut and Delete commands

The Edit→Copy (Ctrl-C), Edit→Cut (Ctrl-X) and Edit→Delete (Backspace, Del and Ctrl-K —K like Kill) all work as expected in any text editor or word processor. Their keyboard shortcuts are the usual ones. These commands operate on both the text selection and the node selection.

However, in XMLmind XML Editor, these commands also have the following specificities:

• A special user interface component found at the bottom/right of the main window indicates what has been copied to the system clipboard. Commands Copy and Cut of course update this indicator.

(Clicking on displays a dialog box showing the content of system clipboard.)

• Sometimes the Cut and Delete commands will refuse to work because doing so would make the document invalid. For example, commands Cut and Delete cannot be used to delete the title child element of a DocBook section or chapter.

• Commands Copy, Cut and Delete will happily operate on the implicitly selected element, which can be surprising. For example, click inside a para to make this para implicitly selected. Now simply press Ctrl-X to cut this para.

In the case of command Delete, only the Edit→Delete menu item, toolbar button and Ctrl-K keyboard shortcut operate on the implicitly selected element. As expected, pressing Backspace and Del only deletes the explicit —highlighted in red— selection.

Three Paste commands instead of just one

The Edit→Paste (Ctrl-V) command works quite normally:

• If there is an explicit text or node selection, Paste replaces this selection with the content of the system clipboard.

• If there is no explicit text or node selection, Paste inserts the content of the system clipboard at caret position.

The two other Paste commands, Edit→Paste Before (Ctrl-U; letter U is before V in the alphabet) and Edit→Paste After (Ctrl-W; letter W is after V in the alphabet), are specific to XMLmind XML Editor. These commands insert the content of the system clipboard respectively before and after the node selection. They do not work if there is a text selection.

These commands are useful to move elements around within the document or across different documents. For example, you can use Cut to cut a list item and then use Paste After to paste it after the last item of the list.

When the Paste command you intend to use is disabled (“grayed”), it’s probably because you have chosen the wrong operation (e.g. Paste instead of Paste After) or because you have not selected the right element. This behavior, which is typical of XMLmind XML Editor, has already been described for the three Insert commands (Insert Before, Insert, Insert After).

Related productivity tips
► Quickly paste selected text using mouse button #2

► 101 ways to select nodes
Replacing nodes

Generally, when you insert a new element, XMLmind XML Editor automatically creates for you the valid element having the simplest content. For example, if you insert a note element in a DocBook document, this note contains an empty para.

In other cases, the simplest valid content is, well, too simple to be useful. In such cases, XMLmind XML Editor is expected to have been configured (by XMLmind engineers or by third-party consultants) to insert the most commonly used valid content. For example, if you insert a figure element in a DocBook document, this figure contains an imagedata element.

Now let's suppose you don't want the newly inserted note to contain a paragraph. Instead, you want it to contain an itemizedlist element. Also, you don't want the newly inserted figure to contain an image. You want it to contain a programlisting element.

You have learned that you can select the para contained in the note, insert after it an itemizedlist, then delete the unwanted para. (In that order, because the DocBook schema, hence XMLmind XML Editor, will not allow a note to become empty.)

In fact, the Replace command has been designed to do exactly that, but in a single step. The Replace command allows to replace the selected nodes by an element or by a text node (if allowed by the schema, of course). Like all the other generic editing commands, this command is found in in the Edit tool, in the Edit menu and in the popup menu displayed when you right-click in the document view.

Related productivity tips

- Inserting custom element templates
Converting elements

You have learned in a previous lesson, Easier editing, that some toolbar buttons allow to convert the text selection to commonly used elements such as emphasis, literal, link, etc. In fact, these buttons all invoke commands based on Edit→Convert (keyboard shortcut: Ctrl-T, T like Transform). The Convert command may be applied to the node selection as well as to the text selection.

When a single element is selected, Convert, to make it simple, allows to change the name of this element. For example, you can select a note element and convert it to a caution element. You can select an itemizedlist and convert it to an orderedlist.

Note that the Convert command will not let you convert a note to an example because the content model of a note element is not compatible with the content model of an example element (the example element must begin with a title child element).

When a node range is selected, Convert allows to wrap this node range into a new element. For example, if you first select a programlisting and then use Select→Extend Selection to Following Sibling (keyboard shortcut: Esc Right Arrow) to extend the node selection to the calloutlist found after it, you can wrap these two elements into an informalexample.

What is a node range?

Some of the commands of XMLmind XML Editor (e.g. Paste, Replace, Convert) can be applied to a node range. What we call a node range here is one or more consecutive sibling nodes. A node range may comprise different types of nodes: element, text node, comment, processing-instruction. What counts is that all the nodes have the same parent element and are consecutive.

Now what if you want to wrap a para into a blockquote? You cannot use Convert to do that because this command merely changes the name of an element when a single element is selected. When you need to perform this kind of task, you'll have to use a variant of command Convert: Edit→Convert [wrap] (keyboard shortcut: Ctrl+Shift-T). Unlike plain Convert, Convert [wrap] always wraps the selection into a new element.

Related productivity tips

► 101 ways to select nodes
Setting attributes

The Attributes tool allows to edit the attributes of selected element. This tool is disabled (i.e. grayed) when some text or multiple nodes are selected.

The Attributes tool comprises two parts:

1. The upper part, a small form, which supports auto-completion and specialized attribute editors (specialized dialog boxes).
2. The lower part, a larger table, which displays all attributes. This table also allows the user to set attributes on the selected element.

The attributes table

The most basic way to specify the value of an attribute is to type it in the lower part, the attributes table. For example, let’s suppose you are authoring a DocBook article. Specifying the audience attribute of the root article element consists in

- selecting the root element,
- clicking on the audience row,
- typing, for example ”expert”, in the Value cell,
- and finally pressing Enter to commit the change.

In some cases, for example the class attribute of article, the Value cell contains a drop-down list. In such case, suffice to select an item from this list.

If you want to remove an attribute, do not specify its value as the empty string. Instead, right-click on its row in the attributes table. Doing this pops up a menu allowing to perform various actions on the value of the attribute being clicked upon. Among these actions, you’ll find ✗ Remove.
The attribute form

The upper part, the attribute form, is often used for its specialized attribute editors. For example, let's suppose you have inserted a figure in your document. You may want to give an ID to this figure:

- First select the figure,
- then click on the xml:id row in the attributes table,
- and finally click the Edit button.

Doing this pops down a menu, the very same menu which is displayed when you right-click on a row of the attributes table. This menu has an Edit item.

This Edit item always displays a specialized dialog box allowing to edit an attribute “more comfortably” than with the attribute form or the attribute table. In the case of the xml:id attribute, the specialized dialog box will show you all the existing IDs. This way you'll be able to type an ID which does not already exist.
The figure you have inserted contains an `imagedata` element. Its required `fileref` attribute allows to specify the graphic file which is the source of the image. In order to specify a value for the `fileref` attribute,

- first click on the image placeholder icon to select `imagedata`,
- then click on the `fileref` row in the attributes table,
- and finally click the "Choose file" button.

Doing this displays a file chooser dialog box (or an URL chooser dialog box, if you have checked `File→Use the URL Chooser`).

**Related productivity tips**

- [Quickly adding an attribute](#)
Inserting special characters

There are 3 ways to insert in an XML document characters other than letters, digits and common punctuation signs:

1. Directly type the special character (if this is possible) or copy it from a third-party application (such as Windows Character Map utility), then paste it in the XML document.

Note that the non-breaking space (Unicode code point: U+00A0; corresponds to well-known character entity &nbsp;), which is very commonly used, comes with its own keyboard shortcut: Ctrl-Space. Also notice that XMLmind XML Editor represents the non-breaking space as a small dot a little above the baseline of a text line. That is, this character has been made visible.

2. Click on the character displayed in a character palette of the Characters tool.

Because searching the same characters over and over in the Characters tool can be a daunting task, this tool has a Favorites palette. In order to add a character to the Favorites palette, right-click on it and then select item “Add to Favorites” in the popup menu.

3. Type Esc n (that is, press Esc then press n: n like name) to display this dialog box:
Then type the name of a well-known character entity (mdash, rarr, etc). The text field of this dialog box supports auto-completion, therefore suffice to type the first few characters of the entity name.

The command invoked by the above dialog box inserts the character having specified name. It does not insert a character entity. (XMLmind XML Editor offers no way to work with entities.)

After inserting a character using the above dialog box, it's possible to insert it elsewhere simply by pressing Ctrl-A (that is, Edit→Repeat). Ctrl-A (A like Again) allows to repeat the last “repeatable command”. Most commands which require the user to type something or to select an item from a list have been made repeatable.
Inserting images

The easiest way to insert an image in your document is to use the Add image button found in the toolbar. After doing that, you still have to specify the graphic file which is the source of the image. Generally this is done by first clicking on the image placeholder icon and then using the Attributes tool to specify the graphic file. DocBook example: clicking on the image placeholder selects the corresponding imagedata element. Then you have to specify a fileref attribute for this element.

Inserting image in a document is a very common task that's why there are more convenient ways to specify the graphic file which is the source of the image:

- Double-click on the image placeholder. (Or equivalently, right-click on the image placeholder, then select "Set Image..." from the contextual menu.)
- Or drop an image file onto the image placeholder.

In both cases, this displays a specialized dialog box.

The "Source location" field allows to specify the graphic file which is the source of the image. The "Destination location" field allows to specify how this graphic file is to be referenced in the document. Note that this dialog box requires specifying URLs and not filenames.

For example, let's suppose that your document is found in the docs/ directory and that all your graphic files are found in the docs/images/ subdirectory. If you want to insert an image pointing to docs/images/logo.png, then simply make sure that the "Reference as" radio button is checked.

Now let's suppose you want to insert C:\tmp\screenshot.png in your document. You'll probably want to copy this file to docs/images/ subdirectory and give it a more meaningful name (e.g. login_dialog_box.png). This is done by checking "Copy to" and specifying "images/login_dialog_box.png" in the "Destination location" field.

Related productivity tips

- Drag and drop
Editing tables

After inserting a table in a document, it's always possible to edit it using the **Edit** tool. For example, you can select a row and use **Insert After** to insert after it another row or you can select a cell and use **Insert Before** to insert before it another cell. However the **Edit** tool does not make it easy working on table columns.

Fortunately, the **DocBook**, **DITA Topic** and **XHTML** menus all have **Column**, **Row** and **Cell** submenus which allow to perform all sorts of operations on table columns, rows and cells. For example, **Column→Insert After** adds an empty column after the one containing the caret.

Note that precisely adjusting the presentation of a table may require you to use the **Edit** tool and the **Attributes** tool. For example, making the third column of a DocBook table twice as wide as the other columns requires you to insert a *colspec* element before the *thead* or *tbody* of the *tgroup* and then specify attributes `colnum="3"` and `colwidth="2*"` for the new *colspec*. However, when a precise column width is not required, suffice to drag the column separator as you would do it in any word-processor.

In the above screencast, the user pressed **Ctrl-A** (that is, **Edit→Repeat**) twice, one time to repeat **Row→Insert After** and another time to repeat **Cell→Increment Row Span**. If you don't remember which is the last repeatable command you have invoked, then you may want to use **Edit→Command History** (**Ctrl+Shift-A**).
Related productivity tips

- Inserting custom element templates
Creating a modular document

XMLmind XML Editor allows to include in document B some content found in document A. This feature works by using a special command called **Copy As Reference** and then by using one of the normal **Paste** commands. Unlike the ordinary **Copy/Paste** commands which duplicate content, **Copy As Reference** copies a *reference* to some content found in document A. This means document B will always be up to date no matter how you’ll modify document A.

(Internally, XMLmind XML Editor uses standard mechanisms, e.g. **conref** for DITA and **XInclude** for DocBook, to implement this feature, so you don’t have to worry about the portability of the modular documents you’ll create.)

This feature is generally used to create modular documents. For example, a modular DocBook book (Book.xml) includes several chapters, each chapter element being authored in its own file (Chapter1.xml, Chapter2.xml, etc). This way, different authors may work on different chapters at the same time and also, it’s more comfortable to work on a relatively short chapter rather than on a large, monolithic, book.

This feature is also used to include “boilerplate” content in a document: company name, product name, copyright statement, etc. More about this in next lesson: **Inserting boilerplate content**.

**Edit**→**Reference**→**Copy As Reference** (keyboard shortcut: **Ctrl+Shift+C**) works like ordinary **Edit**→**Copy** (keyboard shortcut: **Ctrl-C**), except that the node selection must comprise a *single element and this element must have an ID* (or if it does not have an ID, it must be the root element of the document). After you invoke **Copy As Reference**, notice that the **Clipboard** tool displays the name of the referenced element using a dimmed blue/gray color.

Note that it’s not possible to **Copy As Reference** some included content. If you want to do that, simply use the normal **Copy** command. The normal **Copy** and **Cut** commands both preserve references when they are used to copy content to the clipboard.

After using **Edit**→**Paste Before** (keyboard shortcut: **Ctrl-U**), **Edit**→**Paste** (keyboard shortcut: **Ctrl-V**) or **Edit**→**Paste After** (keyboard shortcut: **Ctrl-W**) to paste the reference copied using **Copy As Reference**, the included content is rendered using a blue/gray color. This special color means that the included content is read-only. That is, it cannot be edited in place.

In order to edit some included content, you’ll have to open the document which actually contains the data.

Fortunately, this is done very easily by using menu item **Edit**→**Reference**→**Edit Referenced Document** (keyboard shortcut: **Ctrl+Shift+E**).
From there, switching back to the included content is done by using menu item "Edit→Reference→Edit Referencing Document" (keyboard shortcut: Ctrl+Shift+B).
The **Include** tool is hidden by default. To display it, you need to use **Options→Preferences**, **General|Features** section and check **"Enable the Include tool"**.

**Inserting boilerplate content**

We have explained in the previous lesson, Creating a modular document, that **Copy As Reference/Paste** may be used to to include in document B some content found in document A.

This feature is often used to include "boilerplate" content in a document: company name, product name, copyright statement, etc. By working this way, if one day, the value of a boilerplate text changes, you'll not have to manually update all the documents making use of this value.

Such boilerplate content is typically created in a document of its own (e.g. boilerplate.xml), so it can be easily shared between different documents and between different authors.

Remember that **Copy As Reference** works only if the node selection is a *single element having an ID*. So what to do if you just want to include some text, for example, the name of your product? In such case, you'll have to wrap this text in an element. For that, choose an element which has no specific semantics. This element is: **phrase** for DocBook, **ph** or **text** for DITA and **span** for XHTML. Example:

```xml
<phrase xml:id="awb">ACME Widget Builder</phrase>
```

The problem of boilerplate content appears to be solved:

1. Create your **boilerplate.xml** file. This is done once for all.
2. Use **Copy As Reference** (**Ctrl+Shift-C**) to copy a reference from **boilerplate.xml**.
3. Use **Paste** (**Ctrl-V**) to paste this reference in the document you are authoring.

However if you repeat steps 2 and 3 one hundred times a day, you'll quickly find very tedious switching from one document to the other. Fortunately, the **Include** tool has been specially designed to handle the special case of boilerplate content.

Let's suppose you want to include the name of your product in **SampleChapter.xml**, here's what you'll have to do:

1. Use the **+** button to specify once and for all the filename or URL of the document containing your boilerplate content. In the above screenshot, this document is **boilerplate.xml**.
2. Use **Ctrl+Shift-I** (**Edit→Reference→Insert Reference**) to display the **Include** tool.
3. Type the ID of the element for which you want to insert a reference. Typing the first few letters is generally sufficient as the Include text field supports auto-completion.

4. Press Enter to insert the reference at caret position.

Note that the Include tool is not limited to inserting phrase references at the caret position. You can use it to insert all sorts of boilerplate content: paragraphs, tables, admonitions, etc. Therefore it also implements the following commands: Edit→Reference→Replace by Reference, Edit→Reference→Insert Reference Before, Edit→Reference→Insert Reference After.
Working with master documents

What is a master document?

The following documents may be used as master documents: DITA map, DocBook 5.1 assembly, DocBook modular documents (for example, a book including chapters by the means of XInclude).

In order to use a document as a master document, simply open this document and check Tools→Use as Master Document. This is done once for all as this choice is persistent across editing sessions.

Declaring a document as being a master document creates a document set containing the master document and its module document. This document set is automatically updated when the master document is saved to disk.

Notice in the screenshots below that XXE gives the same distinctive color to the tabs containing the master document and its module documents. This makes it easier for the user to spot the members of a document set.

A DITA map (master document) and topics (module documents) side by side
Why check "Use as Master Document"?

By grouping a master document and its module documents, you inform XMLmind XML Editor (XXE) that all the module documents referenced or included, directly or indirectly, by the master document are related. When XXE knows that some of the opened documents are related:

- it will more thoroughly check the cross-references which may exist between these documents;
- it will make it easier creating cross-references between these documents;
- it will make it easier following cross-references between these documents;
- if a DITA map contains key definitions, then this map acts not only as a cross-reference creation/validation context for its topics, but it also acts as a key space;
- if the "Easy Profiling" add-on has been installed, then the conditional processing profile selected for the master document is automatically shared by all module documents;
- if the document view area is split in two parts, the module documents opened from a master document will appear at the opposite of this master document. This allows to use the view of the master document as a rudimentary navigation pane.

Use case explaining the enhanced cross-reference creation/validation provided by a master document
DITA map mymap.ditamap references 3 topics: topicA.dita, topicB.dita and topicC.dita.

File topicA.dita contains:

```
<topic id="topicA">
  <title>Topic A</title>
  <body>
    <section id="sectionA1">
      <title>Section A1</title>
      <p>TODO</p>
    </section>
    <section id="sectionA2">
      <title>Section A2</title>
      <p>TODO</p>
    </section>
  </body>
  <related-links>
    <link href="nowhere.dita">
      <linktext>Link to nowhere</linktext>
    </link>
    <link href="topicB.dita#topicB/sectionB1">
      <linktext>Link to Section B1</linktext>
    </link>
  </related-links>
</topic>
```

In the above file, the first link element points to a non-existent target and the second link points to the first section of topicB.dita.

The user wants to check the links found in topicA.dita and also to add an xref element pointing to the first section of topicC.dita. In order to do that, she/he opens topicA.dita in XXE.

Before using mymap.ditamap as a master document:

- The Validity tool does not report any error, even for `<link href="nowhere.dita">`.
- When the user inserts an xref element and specifies its href attribute, XXE suggests just: #topicA, #topicA/sectionA1, #topicA/sectionA2.

After using mymap.ditamap as a master document:

- The Validity tool now reports 1 cross-reference warning: "nowhere.dita" does not belong to this document set.
- When the user inserts an xref element and specifies its href attribute, XXE now suggests: #topicA, #topicA/sectionA1, #topicA/sectionA2, topicB.dita, topicB.dita#topicB/sectionB1, topicB.dita#topicB/sectionB2, topicC.dita, topicC.dita#topicC/sectionC1, topicC.dita#topicC/sectionC2.

Related tutorials

- Conditional processing made easy
Custom document templates

By default, when you create a new DocBook 5 chapter document, the chapter root element begins with a title child element. Let's suppose this not what you want. You want new chapters to always begin with the more comprehensive info element. The info element has a title child element, but also allows to specify meta-information (e.g. author, pubdate) about the chapter.

XMLmind XML Editor allows you to save any document as a named document template. This custom document template will then be listed by the File→New dialog box just like the stock document templates.

In order to do this, create or open the document you want to use as a template, make sure that the corresponding file has been saved to disk and then select menu item

Options→Customize Configuration→Save Document as Template. Doing this displays a dialog box.

This dialog box allows you to give a name to your custom template. If you give the same name as an existing stock template (e.g. "Chapter"), then your custom template will replace the stock one.

Note that you don’t need to keep the file which has been used to declare the custom template. XMLmind XML Editor has made a copy of it, so you can safely delete it if you want.
Quickly paste selected text using mouse button #2

This functionality is disabled by default (because not all persons are at ease clicking with the mouse wheel). To enable it, you need to use Options→Preferences, Edit section and check "Clicking with middle button pastes system selection".

On Linux and on other operating systems using X-Window for their graphical user interfaces, after you have selected some text, for example by dragging your mouse over it, you can paste it elsewhere by just clicking mouse button #2 (also called middle button or mouse wheel). That is, no need to use Copy (Ctrl-C) / Paste (Ctrl-V) to paste the selected text. On any X-Window system, this feature, called the system selection, is native and works across applications.

This feature is so handy that XMLmind XML Editor implements it, not only on X-Window systems, but also on Windows and on the Mac. However, on Windows and on the Mac, this feature only works within XMLmind's document views.

Note that unlike Edit→Copy (Ctrl-C) which copies characters as well as XML nodes, selecting text this way just copies characters to the system selection. For example, using this feature you can easily copy the content of an XHTML p element in order to paste it in a DocBook para element. (Using Ctrl-C to copy the content of an XHTML p and then using Ctrl-V to paste it in a DocBook para will not work if the p element has child elements.)
Inserting custom element templates

Generally, when you insert a new element, XMLmind XML Editor automatically creates for you the valid element having the simplest content. For example, if you insert a note element in a DocBook document, this note contains an empty para.

But what if you often want your notes to begin with a title element? Will you have to use Insert Before again and again in order to insert by hand a title before the para? The answer is no. Suffice to do that once, select the customized note element and then save it as a named element template. This is done by using menu item Options→Customize Configuration→Save Selected Element as Template.

The dialog box displayed by Save Selected Element as Template has a checkbox called "This replaces the default, automatically generated, element template". If you check it, your custom element template replaces the one created by default by XMLmind XML Editor. That is, if you check it, all the note elements you'll insert will begin with a title.

Let's suppose you do not want to do that. Let's suppose the name of your custom element template is "with_title". When you'll use the Edit tool in order to insert a note element, you'll see two note elements listed there: the default template called "note" and your custom template called "note(with_title)". Notice that named element templates, whether custom ones or stock ones, are displayed using an italic font.
101 ways to select nodes

XMLmind XML Editor supports text selection as well as node selection.

There is little to say about text selection because it works as expected in any text editor or word processor. For example, `Shift-button1` extends the text selection to the location clicked upon, `Shift-Down_Arrow` extends the selection to the next line, `Ctrl+Shift-Left_Arrow` extends the selection to the next word, etc.

You have already learned in the previous lessons that moving the caret into a text node implicitly selects the element containing this text node. You have also learned that clicking in the node path bar on an element name (e.g. "section") or a node name (e.g. "+text") explicitly selects the corresponding node. When a node is explicitly selected, a red box is drawn around it. When an element is implicitly selected, there is no visual clue that something is selected.

However, there are other ways to select nodes, either by using the keyboard or by using the mouse. If you want to be more productive with XMLmind XML Editor, you need to learn some of these other methods.

### Mac users

- Use the `Cmd` key instead of the `Ctrl` key, except for `Ctrl-Tab` (insert tab character) and `Ctrl-Space` (insert non-breaking space character).
- Use `Ctrl-button1` to emulate mouse button3.
- Use `Alt-button1` to emulate mouse button2.

### Select a node

<table>
<thead>
<tr>
<th>Using the keyboard</th>
<th>Using the mouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <code>Ctrl-Up_Arrow</code> selects the parent of selected node.</td>
<td>• <code>Ctrl-button1</code> selects the node clicked upon.</td>
</tr>
<tr>
<td>If there is no explicit node selection, this hotkey selects the text node containing the caret.</td>
<td>Repeating this action without moving the mouse selects its parent, then its grand-parent, etc.</td>
</tr>
<tr>
<td>• <code>Ctrl-Down_Arrow</code> selects the last selected child of selected element.</td>
<td>• Click on the non-editable &quot;decor&quot; which has been generated for an element: the bullet of a list item, the number of a section, the image contained in a figure, the border of a table, etc.</td>
</tr>
<tr>
<td>That is, pressing repeatedly <code>Ctrl-Up_Arrow</code> and then pressing repeatedly <code>Ctrl-Down_Arrow</code>, works as expected.</td>
<td></td>
</tr>
<tr>
<td>• <code>Ctrl+Shift-Up_Arrow</code> selects the preceding sibling of selected node.</td>
<td></td>
</tr>
<tr>
<td>• <code>Ctrl+Shift-Down_Arrow</code> selects the following sibling of selected node.</td>
<td></td>
</tr>
</tbody>
</table>

### Extend the node selection

Some of the commands of XMLmind XML Editor (e.g. Paste, Replace, Convert) can be applied to a node range. What we call a node range here is one or more consecutive sibling nodes. A node range may comprise different
types of nodes: element, text node, comment, processing-instruction. What counts is that all the nodes have the same parent element and are consecutive.

<table>
<thead>
<tr>
<th>Using the keyboard</th>
<th>Using the mouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Esc Right_Arrow (means: press Esc then press Right_Arrow) extends the selection to the following sibling of selected node.</td>
<td>• Shift-button1 extends the node selection, if any, to the node clicked upon.</td>
</tr>
<tr>
<td>Note Esc Right_Arrow (and Esc Left_Arrow) will first select the element containing the caret if there is no explicit node selection, therefore typing Esc Right_Arrow several times is often the quickest way to select a node range.</td>
<td></td>
</tr>
<tr>
<td>• Esc Left_Arrow extends the selection to the preceding sibling of selected node.</td>
<td></td>
</tr>
<tr>
<td>• Esc Down_Arrow selects all the children of the selected element.</td>
<td></td>
</tr>
</tbody>
</table>

**Cancel the text or node selection**

<table>
<thead>
<tr>
<th>Using the keyboard</th>
<th>Using the mouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esc Esc (means: press Esc then press Esc again).</td>
<td>Click inside any text node to cancel the explicit selection.</td>
</tr>
</tbody>
</table>
Quickly adding an attribute

The quickest way to add an attribute to an element is to proceed as follows:

1. Select the element.
2. Press \texttt{Ctrl-E} to move the keyboard focus to the \textbf{Name} field of the \textbf{Attributes} tool.
3. Type the name of the attribute in the \textbf{Name} field.
   Thanks to the auto-completion feature of this field, typing the first few characters of an attribute name is sufficient to specify it.
4. Press \texttt{Enter} or \texttt{Tab} to move the keyboard focus to the \textbf{Value} field of the \textbf{Attributes} tool.
5. Type the value of the attribute in the \textbf{Value} field.
   In many cases (ID, IDREF, enumeration, etc), this fields supports auto-completion too. However, unlike the \textbf{Name} field, the auto-completion feature here allows you to type anything you want, so you may have to press \texttt{Space} (which means: auto-complete as much as possible) in order to fully specify the value of the attribute.
6. Press \texttt{Enter} to commit the change and return the keyboard focus to the document view.
Drag and drop

After selecting some text or some nodes, it's possible to drag this selection and drop it elsewhere inside or outside XMLmind XML Editor (XXE for short). Just remember that you'll have to press the Alt key while dragging the selection. Other than this, dragging works as expected.

Now if you drop some text —whether plain text or well-formed XML— inside XMLmind XML Editor, XXE will display a popup menu allowing copy or move this text before, into or after the drop location.

The popup menu displayed at the end of a drop action

<table>
<thead>
<tr>
<th>Copy Before ul</th>
<th>Copy Into li</th>
<th>Copy After ul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move Before ul</td>
<td>Move Into li</td>
<td>Move After ul</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancel</td>
</tr>
</tbody>
</table>

The behavior of XXE will differ if the text you are dropping can be parsed as an URL (e.g. file:/C:/Program%20Files/XMLmind_XML_Editor/demo/dita-sample.ditamap) or is the absolute path of an existing file (e.g. C:\Program Files\XMLmind_XML_Editor\demo\dita-sample.ditamap):

- If you drop it onto an image placeholder, this will open a dialog box allowing to change the source of the image element. See Inserting images in your document.

- If you drop it onto an external link element (DocBook 5: link xlink:href="XXX", DocBook 4: ulink element, DITA topic: xref or link elements, XHTML: a href="XXX" element), this will change the target of the link.

- If you drop it anywhere else, this will attempt to open the corresponding XML document in XXE.
Automating repetitive tasks by recording macros

Let’s suppose that in a poorly-tagged document, you want to replace dozens of literal elements containing word “XXE” by the equivalent abbrev elements. How would you do that using XMLmind XML Editor, given the fact that this application only has a text search/replace facility?

The answer is: perform the editing operation only once as you would do it normally, but make sure to record your actions using the Tools→Record Macro facility.

After the macro —that is, the sequence of commands you have invoked— has been recorded, it becomes possible to “replay” this macro as many times as needed to.

In the case of the above example, the sequence of commands to be recorded is:

1. Find next occurrence of a literal element containing word “XXE” using Search→Find Element (Esc f, f like find).

2. Use Edit→Convert (Ctrl-T) to convert the literal element to an abbrev element.
3. Press **Tab** to move the caret outside the `abbrev` element.

Once the macro has been recorded, you'll have to invoke it repeatedly until all the occurrences of `literal` element containing word "XXE” have been replaced by `abbrev` elements. This can be done by pressing **Esc p** (p like play), which is quicker than selecting menu item **Tools→Record Macro→Replay Macro**.

While recording a macro, you can use, not only keyboard shortcuts, but also any part of the user interface of XMLmind XML Editor: menu item, toolbar button, right-side pane, etc. This means that you can work almost normally while you are recording macro. There are notable exceptions though. Using any of the following commands will automatically cancel the recording of the macro: **Undo, Redo, Repeat** and any command bound to a mouse click (for example, double-click to select a word).

Also note that commands such as **File→Save** are simply not recorded because such commands do not contribute in modifying the document.

**Keyboard shortcuts**

While it's certainly possible to click on menu items, toolbar buttons, etc, while recording a macro, this facility is meant to be used with the keyboard alone.

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Esc m</strong> (m like macro)</td>
<td>Start/stop recording a macro.</td>
</tr>
<tr>
<td><strong>Esc q</strong> (q like quit)</td>
<td>Cancel the recording.</td>
</tr>
<tr>
<td><strong>Esc p</strong> (p like play)</td>
<td>Execute (&quot;replay&quot;) the macro.</td>
</tr>
<tr>
<td><strong>Esc f</strong> (f like find)</td>
<td>Find element.</td>
</tr>
<tr>
<td><strong>Esc s</strong> (s like search)</td>
<td>Find some text. Displays a simple text search dialog box (see below) which is more convenient to use in the context of macro recording than the <strong>Search</strong> right-side pane.</td>
</tr>
<tr>
<td><strong>Esc x</strong> (x like execute)</td>
<td>Execute a command by specifying its name and its parameter. Example: execute command &quot;selectText” with parameter &quot;word&quot;. The <strong>Tools→Execute Command</strong> dialog box (see below) is useful when there is no other way to execute a command, for example, when the command has no keyboard binding or when the command only has a mouse binding. (Remember that using your mouse inside the document view will cancel the recording of the macro.) The commands which can be executed this way are all documented in XMLmind XML Editor - Commands.</td>
</tr>
</tbody>
</table>
Related productivity tips

- Custom keyboard shortcuts
Custom keyboard shortcuts

You have learned in this other lesson that recording a macro allows to automate repetitive tasks. In some cases, you'll want the recorded macro to be remembered across editing sessions and you'll also want to trigger the execution of this macro by pressing a sequence of one or more keystrokes.

This can be done by selecting Options→Customize Configuration→Add Keyboard Shortcut. This menu item displays the following dialog box:

Using this dialog box is simple in its principle:

1. First specify a sequence of one or two keystrokes. A keystroke is specified by the name of a keyboard key (e.g. F7), optionally associated to a modifier key (e.g. Ctrl), or by a typed character (e.g. "}

2. Then specify the command which is to be executed when the chosen keystrokes have been pressed.

This dialog box has a "Last recorded macro-command" option which allows to specify that the command to be executed is the last recorded macro-command.
Another easy to use option consists in binding the chosen keystrokes to one of the last executed commands. The "Choose from last executed commands" button displays the list of last executed commands (when an executed command is "repeatable").

More generally, you'll have to specify the name of a command (e.g. "insert") and also, optionally, the parameter—a text string—passed to this command (e.g. "into (http://docbook.org/ns/docbook)olink"). XMLmind XML Editor commands are all documented in XMLmind XML Editor - Commands. This document is directly available from within the dialog box (Documentation).

You'll find in the table below, some very useful examples of what you can do using this Add Keyboard Shortcut facility.

<table>
<thead>
<tr>
<th>Keystroke</th>
<th>Command</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>insertCharSequence</td>
<td>- mdash</td>
<td>Typing a single &quot;-&quot; inserts a &quot;-&quot; character. Typing two &quot;-&quot; in a row inserts a &quot;-&quot; character (em dash).</td>
</tr>
<tr>
<td></td>
<td>insertCharSequence</td>
<td>- 0x201c</td>
<td>Typing a single &quot;·&quot; inserts a &quot;·&quot; character. Typing two &quot;··&quot; in a row inserts a &quot;·&quot; character (opening quotation mark).</td>
</tr>
<tr>
<td>'</td>
<td>insertCharSequence</td>
<td>' 0x201d</td>
<td>Typing a single &quot;‘&quot; inserts a &quot;‘&quot; character. Typing two &quot;‘‘&quot; in a row inserts a &quot;‘&quot; character (closing quotation mark).</td>
</tr>
<tr>
<td>,</td>
<td>insertCharSequence</td>
<td>, 0x201e</td>
<td>Typing a single &quot;,&quot; inserts a &quot;,&quot; character. Typing two &quot;,,&quot; in a row inserts a &quot;,&quot; character (German opening quotation mark).</td>
</tr>
<tr>
<td>&lt;</td>
<td>insertCharSequence</td>
<td>&lt; 0x00ab</td>
<td>Typing a &quot;&lt;&quot; single inserts a &quot;&lt;&quot; character. Typing two &quot;&lt;&quot; in a row inserts a &quot;&lt;&quot; character (opening French guillemet).</td>
</tr>
<tr>
<td>&gt;</td>
<td>insertCharSequence</td>
<td>&gt; 0x00bb</td>
<td>Typing a single &quot;&gt;&quot; inserts a &quot;&gt;&quot; character. Typing two &quot;&gt;&quot; in a row inserts a &quot;&gt;&quot; character (closing French guillemet).</td>
</tr>
<tr>
<td>)</td>
<td>showMatchingChar</td>
<td>)</td>
<td>Inserts a closing parenthesis at caret position then, if the corresponding opening parenthesis is found, highlights this character for half a second. If the opening parenthesis is not found, this command emits an audio beep.</td>
</tr>
<tr>
<td>]</td>
<td>showMatchingChar</td>
<td>]</td>
<td>See above.</td>
</tr>
</tbody>
</table>

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Creating a DITA bookmap

A DITA map is basically a sequence of possibly nested topicref elements. As suggested by its name, a topicref is simply a reference (or a “pointer”) to a topic stored in a separate file of its own.

A DITA bookmap is a useful variant of a map in which some specialized topicref elements: part, chapter, appendix, etc., may be used, not only to reference a topic, but also to give it a distinctive role.

In this lesson, we'll get acquainted with the buttons of the specialized toolbar which is automatically displayed when you open a DITA map or bookmap in XMLmind XML Editor (XXE for short).

• We'll first see how the "Edit Topicref" button may be used to modify a chapter topicref.

• Clicking the "Open Referenced Topic or Map" button or more simply, double-clicking a topicref, may be used to open the corresponding topic in XXE.

• Buttons "Insert Topicref Before", "Insert Topicref Into" and "Insert Topicref After" may be used to add topicrefs to a map.

Note that these buttons, just like the "Edit Topicref" button, display a dialog box allowing to create on the fly the topic to be referenced or to choose an existing topic file.
• Buttons ➡ Promote and ➡ Demote may be used to respectively un-nest and nest topicrefs. For example, selecting a topicref nested inside a chapter then clicking Promote will un-nest this topicref and automatically convert it to a chapter.

• All the aforementioned tools are found not only in the specialized toolbar, but also in a popup menu displayed when you right-click a topicref or drag and drop a file onto a topicref.

![Image of the toolbar with buttons for Open Referenced Topic or Map, Open Referenced Topic or Map in Read-only Mode, Insert topicref Before topicref, Insert topicref Into topicref, Insert topicref After topicref, Edit topicref, Move Up, Move Down, Promote, Demote, More]

• Opening a map in XXE does not display a specialized pane but simply displays an ordinary document view styled using a specific CSS file. This means that, in addition to the specialized toolbar, any stock tool (Edit tool, Attributes tool, etc) may be used to edit a DITA map. Examples:

  – Select appendix and click ✖ Delete (or press Del) to delete it.

  – Select frontmatter/booklist and use ➡ “Insert After” (or press Ctrl-J) to add a topicref pointing to an introductory topic after the toc element.

• Finally, we’ll see how to use the ➡ “Add reltable” button to add a reltable to a DITA map and how to use the ➡ “Reltable row” button to remove a relrow from this reltable.

Related productivity tips

▶ Custom document templates
Adding MathML equations

The toolbar button allows to add an `m:math` top-level MathML element to your document. For now, this button is found in the toolbar only when you open a DocBook v5+ document, a DITA topic or an XHTML 5 page.

The newly inserted `m:math` element contains just an empty `m:mi` (math identifier) element. Using the MathML tool, you'll be able to replace this placeholder by complex equations without knowing much about the MathML standard.

The MathML tool contains a number of palettes. Each palette contains a number of MathML templates.
Clicking on a template replaces the implicitly or explicitly selected element by this template. Remember that the element containing the caret is implicitly selected. Therefore, generally, clicking on a template replaces the element containing the caret.

In practice, this means that using the MathML tool imposes you to construct your equation using a top-down approach. If you want to write \( \frac{1}{x} = \frac{1}{y} \), you cannot write that naturally, from left to right. You'll have to first insert the template, then replace the left placeholder by a fraction template, then replace the right placeholder by another fraction template and so on. This top-down approach may seem tedious and slow, but it is also easy to remember and straightforward to use.

Fortunately, in some cases, there are ways to workaround this top-down approach:

- It's possible to type simple expressions in \( m:mi \) (math identifier) and \( m:mn \) elements (math number) and then invoke menu item "Parse Text As MathML" (keyboard shortcut Ctrl+Shift+SPACE) in order to parse the expression as MathML. For example, if you can type "E = m*c^2" and then press Ctrl+Shift+SPACE to let XMLmind XML Editor do all the hard work for you.

- If you Ctrl-click or Shift-click on a template, this will wrap (rather than replace) the implicitly or explicitly selected element in the MathML template clicked upon.

- More intuitive, you can use the text selection to specify the MathML element which is the common ancestor of the nodes involved in this selection. And when the text selection is used (as opposed to the implicit or explicit element selection), suffice to click on a template (that is, no need to Ctrl-click or Shift-click) in order to wrap what has been selected in the MathML template clicked upon.
This being said, if you know MathML, you are free to write your equations directly using the Edit and the Attributes tools. Because XMLmind XML Editor natively supports MathML presentation markup, MathML elements are not treated differently than say, a paragraph or a list item.

Let's give it a try

Suppose that you need to insert the following equation in a DocBook 5 document:

\[ F = \frac{G m_1 m_2}{d^2} \]

1. Replace the initial empty \texttt{m:mi} (math identifier) element by clicking on the simplest equation template.
2. Type "F" in the left placeholder.
3. Replace the right placeholder by clicking on the fraction template.
4. Type "G*m_1*m_2" in the numerator of the fraction; press Ctrl+Shift-SPACE to invoke "Parse Text As MathML"; Click in the popup (or press Down then Enter, like for any popup menu) to accept what's suggested in the popup.

Notice that character "*" is translated by "Parse Text As MathML" to what's looks like a small x. This very common MathML operator is called \texttt{InvisibleTimes}. This operator is peculiar because normally it's invisible. However for easier editing, XMLmind XML Editor has made it visible.

5. Type "d^2" in the denominator of the fraction; press Ctrl+Shift-SPACE to invoke "Parse Text As MathML"; press Down then Enter to accept what's suggested in the popup.

Most computer keyboards will allow you to directly type "d^2" in the empty denominator of the fraction. This empty denominator is, like all placeholders, an \texttt{m:mi} element. Don't do that because "d^2" is clearly not an identifier. In MathML, "d^2" is represented by:

\[
\texttt{<m:msup>}
\texttt{<m:mi>d</m:mi>}
\texttt{<m:mn>2</m:mn>}
\texttt{</m:msup>}
\]

and this is exactly what will be suggested by "Parse Text As MathML" if you type "d^2" in the denominator of the fraction.
Easily create DocBook olinks

A refresher about olinks

The DocBook olink element allows to create a link between two different documents. For example, it allows to create a link in document `folder1/Article1.xml` pointing to the section having "sectionA" as its ID which is found in document `folderA/ArticleA.xml`.

The olink element used to represent the aforementioned link is:

```
<olink targetdoc="articleA" targetptr="sectionA"></olink>
```

- Notice that the target document is specified by a symbolic name, "articleA", rather then by its URL, "folderA/ArticleA.xml".
- The value of the targetptr attribute is simply the ID of the target element as contained in the target document. This attribute is optional. Without it, the olink implicitly points to the root element of the target document.
- An olink can optionally contain some text. When this text is absent, the DocBook XSL stylesheets automatically use the content of the title child element of the target element.

Where to find the symbolic name of each document involved in olinking? The DocBook XSL stylesheets requires such documents to be declared in a special XML file called a sitemap. The sitemap file describes the directory structure of your HTML or PDF output tree. You must declare the symbolic names of your documents in this file.

Example:

```
<!DOCTYPE targetset [
  <!ENTITY article1 SYSTEM "folder1/target.db">
  <!ENTITY articleA SYSTEM "folderA/target.db">
>]
<targetset>
  <sitemap>
    <dir name="docs">
      <dir name="folder1">
        <document targetdoc="article1">
          &article1;
        </document>
      </dir>
      <dir name="folderA">
        <document targetdoc="articleA">
          &articleA;
        </document>
      </dir>
    </dir>
  </sitemap>
</targetset>
```

It is customary to use the ID of the root element of a document as its symbolic name.

Processing a set of olinked documents using the DocBook XSL stylesheets is not a simple task and we'll not attempt to describe it in this tutorial. For more information please refer to [DocBook XSL: The Complete Guide](#) by Bob Stayton.

In the following section, we'll see how XMLmind XML Editor can help you create olink elements. However it is important to understand that XMLmind XML Editor (XXE for short) cannot help you in putting these olink elements into use when converting your DocBook document to HTML, PDF, etc. For example, XXE cannot assist you in creating the sitemap file, in populating it with link targets, etc. All these tasks must be performed "by hand", outside XXE.
How XMLmind XML Editor can help you

1. Use DocBook→Set up olinks to declare all your DocBook documents (XMLmind XML Editor cannot read your sitemap file). This is done once for all. See how below.

2. Use the Edit tool to insert an empty olink element at caret position or to convert selected text to an olink element.

3. Right-click anywhere inside the olink element. Doing this displays a contextual popup menu having a "Set Link Target" entry.

4. Selecting this "Set Link Target" entry displays the following dialog box:

Both text fields in the above dialog box support autocompletion. Moreover, clicking displays a value chooser dialog box which may be more convenient to use:
Alternatively, you may use the Attributes tool to specify the targetdoc attribute and optionally, the targetptr attribute of an olink element. If, and only if, DocBook→Set up olinks has first been used to declare all your DocBook documents, then you’ll be able to use the autocompletion facility of the Attributes tool when you’ll specify the values of the targetdoc and targetptr attributes.

**Set up olinks**

The DocBook→Set up olinks menu item displays the following dialog box:
Basically this dialog box allows to create a list of DocBook 4 and/or DocBook 5 documents, each document being specified by its URL (e.g. "file://E:/docs/olinking/folderA/ArticleA.xml") and its symbolic name (e.g. "articleA"). This list is specified once for all.

Make sure to specify the same symbolic name as the one found in your sitemap. If, by convention, your organization always uses the ID of the root element of a document as its symbolic name, then suffice to click the button.
Reviewing changes using the Compare tool

Why use the Compare tool?

The Compare tool allows to compare two revisions of the same initial document.

Unlike generic XML comparison tools, you must explicitly turn on an option in the initial document if you want to be able to compare two revisions using the Compare tool. This is done by selecting menu item Tools→Revisions→Enable the Comparison of Revisions or Tools→Revisions→Store All Revisions in the Document.

Option "Enable the Comparison of Revisions" requires you to keep each revision in its own XML file. In practice, this option is useful only when your documents are stored in a CMS, a document repository, on a versioning file system or more simply, if you often archive copies of the XML sources of your documents.

Option "Store All Revisions in the Document" instructs XMLmind XML Editor to start storing all the revisions of the document being edited in the XML file containing this document. Therefore this option is more handy when it comes to reviewing the changes made to your document.

If all revisions are stored in the XML file, then you'll be able to use open any of these revisions using Tools→Revisions→Open Revision.

The "Open Revision" dialog box, here allowing to compare the document being edited (revision #4; latest one) to the initial revision (revision #1)

The comparison of revisions is done using the Compare tool. The Compare tool will show you the differences existing between two revisions. It also allows to accept or reject some or all the changes.
**A simple use case**

This tool is typically used by an author after her/his draft document has been reviewed and possibly modified by other authors. For example, let's suppose that John has finished writing `doc.xml`.

John turns on option "**Store All Revisions in the Document**" in `doc.xml` using **Tools→Revisions→Store All Revisions in the Document**, saves the document to disk and then sends a copy to Bart.

Bart modifies `doc.xml`. He also adds a `remark` using **Tools→Remark→Insert or Edit Remark** explaining why he deleted the last paragraph. This results in creating revision #2 of `doc.xml`.

Bart sends his modified copy to Charles, who does not agree with some of the changes made by Bart. This results in creating revision #3 of `doc.xml`.

Finally, John receives a `doc.xml` file containing the changes made by Bart and then by Charles.

Out of curiosity, John uses **Tools→Revisions→Open Revision** to take a look at what Bart has done, that is, revision #2 of `doc.xml`.
After closing revision #2, John uses Tools→Revisions→Open Revision one more time. This time, he wants to compare his original work (revision #1; the initial revision) to the document being edited (revision #4; latest one) which contains all the changes made by Bart and Charles.

John accepts all the changes except those contained in the last paragraph, closes revision #1 and the Compare tool, turns off option "Store All Revisions in the Document" and saves doc.xml to disk.
Conditional processing made easy

What is conditional processing?

Conditional processing, also called profiling, allows you to use the same XML source document to create several variants of the deliverables (PDF, RTF, EPUB, etc). For example, your document is a manual for a product which has 3 editions: "Lite", "Professional", "Ultimate", and you want to create a different set of deliverables for each edition.

Implementing conditional processing requires you to set special attributes (called conditional processing attributes or profiling attributes) on the elements you want to include or exclude from the deliverable depending on the variant you want to generate.

For example, let’s suppose your document contains 3 paragraphs: first paragraph has no profiling attributes, second paragraph has profiling attribute product="Lite" and third paragraph has product="Professional". If you generate a variant of the deliverable for the "Lite" edition, then this variant will contain the first and second paragraph, but not the third one.

Generating a variant of the deliverable for the "Lite" edition implies applying a profile where product="Lite" to your document. A profile may be seen a named combination of profiling attribute values. In our example, let’s call this profile "lite". The "lite" profile comprises a single profiling attribute value product="Lite".


Why install and use the "Easy Profiling" add-on?

In a nutshell, without the help of the "Easy Profiling" add-on, implementing conditional processing in your DITA or DocBook documents is tedious and error-prone.

Moreover, the "Easy Profiling" add-on allows to assign screen styles to elements having profiling attribute values and/or to elements which are to be included or excluded from the deliverable depending on the selected profile.

How to put the "Easy Profiling" add-on into use?

We’ll use a simple DITA bookmark, user_guide.ditamap, referencing just two topics, export_pdf.dita and advanced_features.dita, to explain this process.

First step: specify which profiles you are going to use in your document

This is done using File→New and then selecting the document template called "Conditional Processing Profiles" found in the category of the document you are authoring ("DITA" in the case of our example).
1. First specify which profiling attributes you are going to use in your document (example: attribute "product"). For each of these attributes, specify all the allowed values (example: attribute values "Lite", "Professional" and "Ultimate").

2. Then specify one or more profiles, that is, give a name (examples: "lite", "pro", "ultimate") to a combination of profiling attribute values (example: profile "lite" comprises product="Lite").

3. While at it, give a distinct screen style (CSS style properties) to the “unselected profiles”. That is, give a distinct style to the elements which will be excluded from the deliverable given the selected profile.

This is done by clicking the button which is next to the “Conditional processing profiles” document title and then choosing "Style of Unselected Profile" from the popup menu.

In the dialog box below, excluded elements are given a pink hatched background.
4. Finally save this special XML document to a file having a ".profiles" extension.

**Second step: associate a profile to your document**

This is done by using **BookMap**→**Conditional Processing**→**Select Profile**.

In the dialog box below, the "editions.profiles" file created above is associated to DITA bookmap `user_guide.ditamap`. 
Associate a profile to the DITA map and not to the individual topics referenced by this map, then make sure to have checked Tools→Use as Master Document for this map. When this the case, the topics referenced by a map automatically “inherit” the profile of this map.

The same tip applies to DocBook. Associate a profile to the modular book and not to the individual chapters included in this book, then make sure to have checked Tools→Use as Master Document for this modular book.

**Third step: set profiling attributes on some elements**

The easiest way to set profiling attributes on some elements is to use Bookmap→Conditional Processing→Set Profiling Attributes.

In the dialog box below, topicref href="advanced_features.dita" found in DITA bookmap user_guide.ditamap is given profiling attribute value product="Professional Ultimate" (which means that this topicref applies to both the "Professional" and "Ultimate" editions or the product being documented).
While less convenient, it's also certainly possible to use the Attributes tool to set profiling attributes on some elements. Note that when a ".profiles" file has been associated to the document being edited, undeclared profiling attribute values are reported as semantic errors by the Validity tool.

Fourth step: generate the deliverable corresponding to selected profile

Once a profile has been selected using BookMap→Conditional Processing→Select Profile, suffice to use one of the items of menu BookMap→Convert Document to generate the corresponding variant of the deliverable. For example, use BookMap→Convert Document→Convert to PDF to generate "user_guide_lite.pdf" then select profile "ultimate" and use BookMap→Convert Document→Convert to PDF again to generate "user_guide_ultimate.pdf".

Related tutorials

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