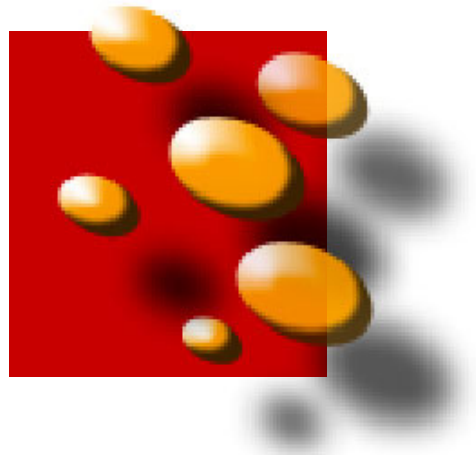


Introduction to Topologi Professional Edition



Overview

Congratulations on purchasing Topologi Professional Edition. This document introduces the features and parts of Topologi.

A Solution for Publishing

Topologi Professional Edition helps industrial publishers create, maintain and manage

- XML, SGML and HTML documents,
- Image, video and audio, and
- Service-Oriented Architecture publishing systems.

Quality

Topologi Professional Edition has been designed to help you achieve the highest quality:

- Direct access to markup and metadata
- Validation of markup and graphics
- Term-markup checking and spell checking
- Whitespace manipulation

Performance

Topologi Professional Edition has been designed for performance:

- Handle documents with more than one million lines;
- Super-fast search-and-replace;
- Operate on multiple files.

Growth

Topologi Professional Edition is a standalone application but is designed to grow:

- Connection to remote services for easy integration;
- Plug-ins scripts using full Unicode-based Java API allows extension;
- Built-in peer-to-peer networking allows messaging and screenshots.

Topologi Professional Edition has a tabbed interface. Each of the tabs is either

- a text file (such as an XML document) open in a Markup Editor,
- media preview, or
- tree information (such as a listing of files and directories) open in a TreeWorld Browser.

Markup Editor

The Markup Editor is designed for all stages of an XML or SGML document's life: entry, import, markup, correction, conversion, proofing and tweaking:

- User-definable Marker Pens for efficient and convenient markup;
- Keyboard shortcuts for efficient data entry;
- Instant visual feedback on syntax errors;
- Grey-out markup to proof-read data content
- Unique markup-aware copy and paste operations
- Complete validation, search and spell-checking features
- Character menu for direct entry of special characters

Media Browser

The Media Browser provides viewing, validation and metadata for dozens of common media formats: text, images, video, animation, virtual reality, audio and music. EXIF camera metadata, JPEG validation and multi-page TIFF images are supported.

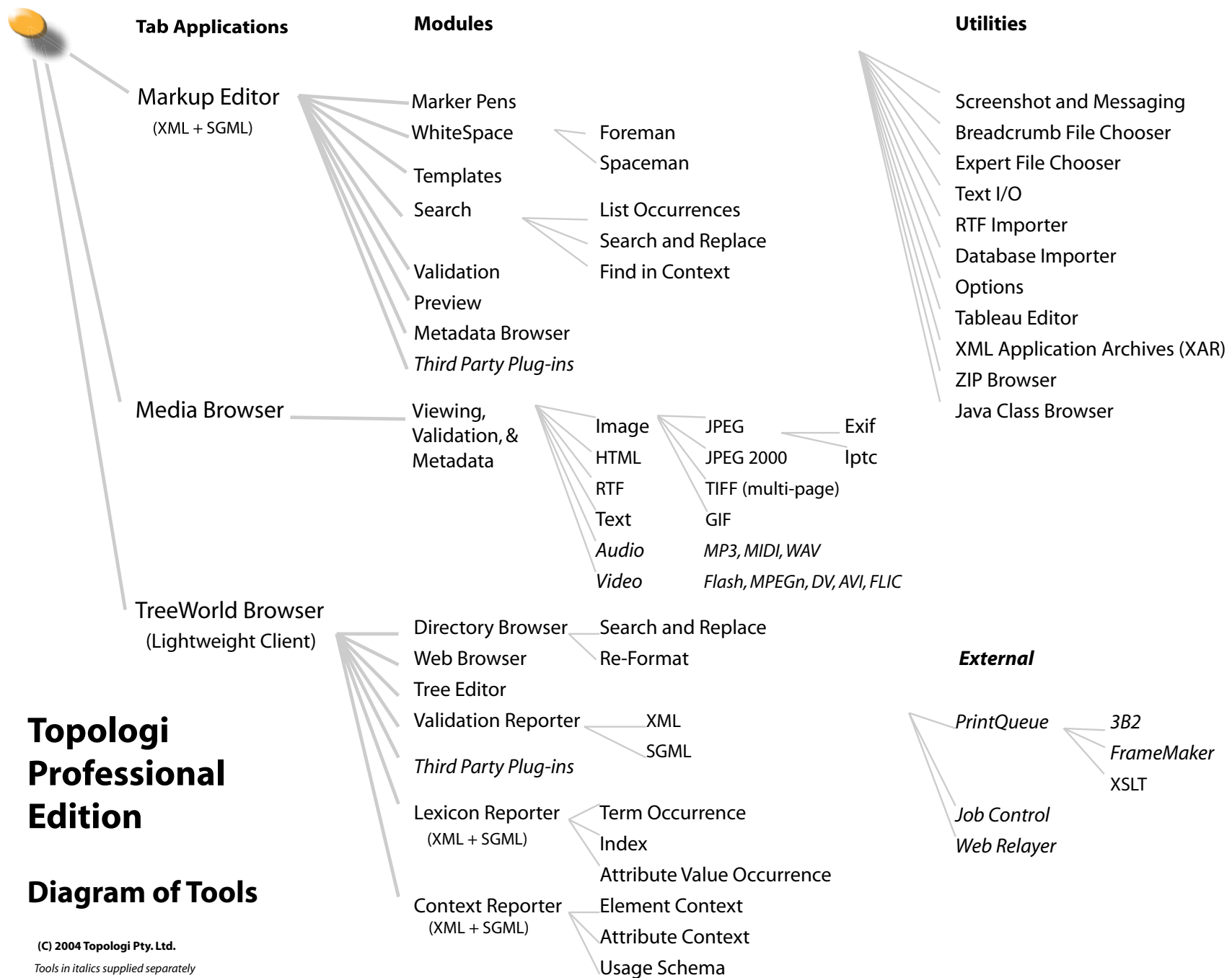
XML & SGML Reports

- Comprehensive Reports on validity and tag usage in XML & SGML documents
- Search for strings and elements-in-context
- Operations on multiple files such as indexing, search-and-replace,

TreeWorld Browser & Services

The TreeWorld Browser navigate and connects any kind of tree information: listings of file systems, XML documents and elements, the results of reporting tools, and even external databases. You can browse, search, sort and view data, and interact with external web services. Instead of one application to talk to your job control system, another to list files, another to view graphics, another to validate, another to edit and another to perform batch processing, the TreeWorld Browser lets do it all with a single, straight-forward user interface.

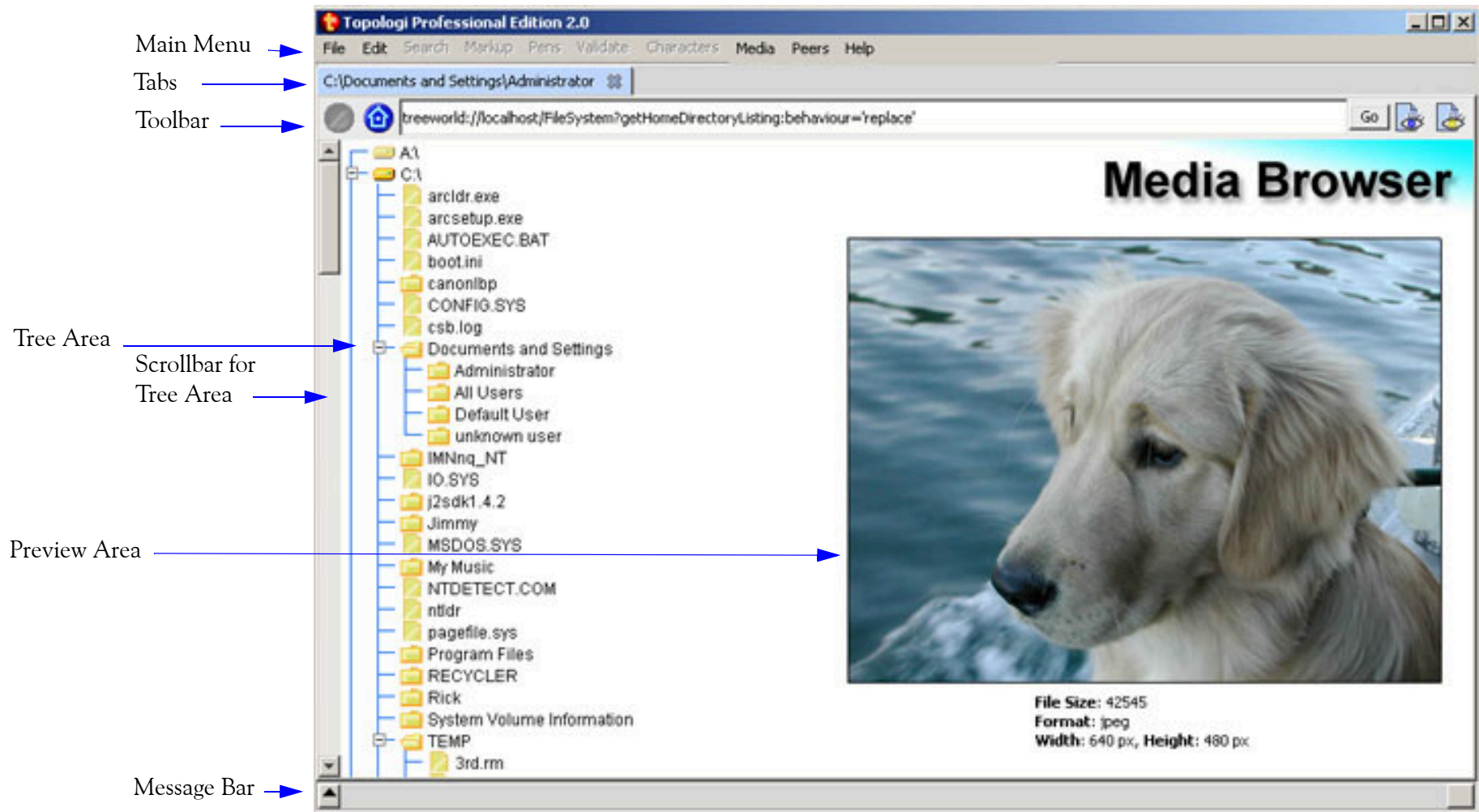
The next page is a diagram of the major tools available in Topologi Professional Edition.



Browse Files

Navigate through your file system and preview, delete or rename files:

- Text, XML, SGML, HTML, RTF
- JPEG, JPEG2000, GIF, multi-page TIFF, PNG
- Video, Audio, Animation, Music (requires Apple QuickTime for Java)

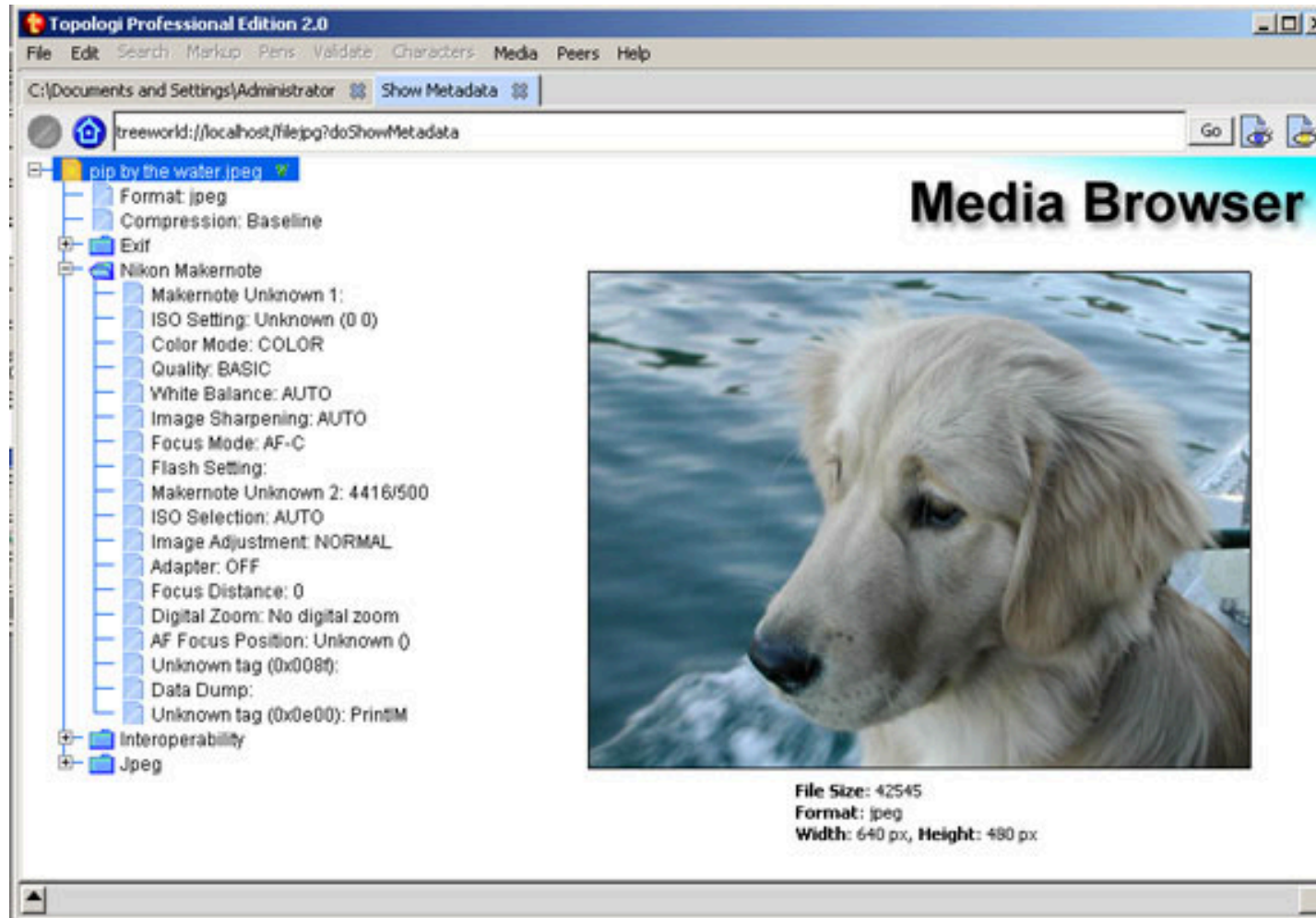


Right click on an item in the Tree Area to view the actions available.

See Metadata

As well as basic file and format information, see

- EXIF camera metadata
- IPTC press metadata
- GPS geographic position metadata



Right-click on a JPEG or TIFF image and select *View Metadata*

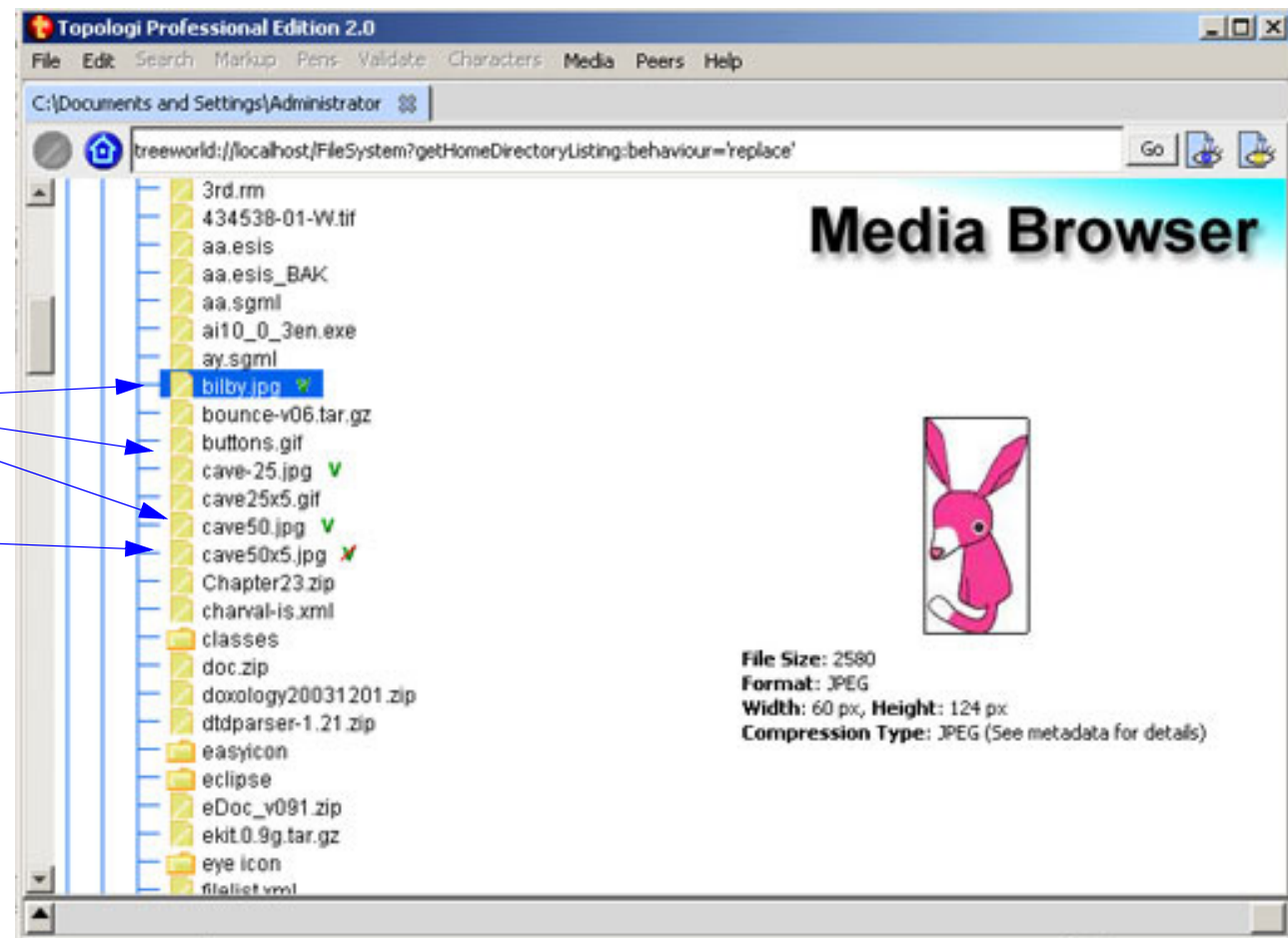
Check Images

Check one or more images for validity

- Does the extension match the format?
- Is the file not zero-sized?
- Can the file be loaded?
- Is the metadata format correct?

Green V means *Valid*

Red Crossed V means *Invalid*

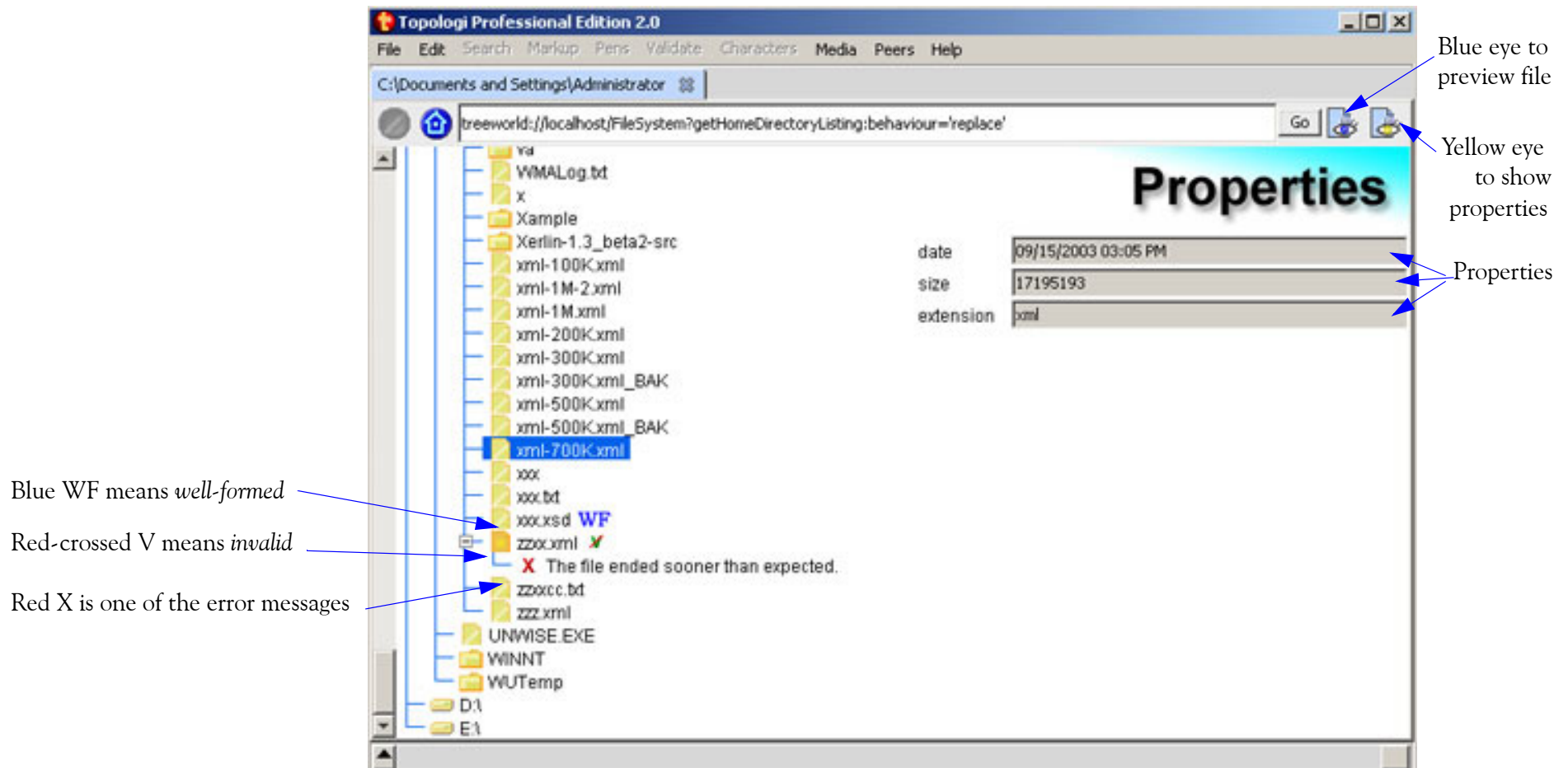


Select one or more TIFFs or JPEGs, then right-click and select *Validate*

Check Markup

Check the markup in multiple documents:

- Check XML documents for well-formedness or DTD validity
- Check SGML documents for DTD validity: set other files as the SGML declaration and DOCTYPE declaration
- Check SGML and XML documents against sampled Schematron *usage* schemas



Select one or more SGML or XML files, then right-click and select *Validate*

Select an error, right click and select *Open In Markup Editor* to be taken to the location of the error in the built-in Markup Editor.

Tree-Edit XML

Edit XML files with the convenient built-in Tree Editor or in the powerful Markup Editor

- Generic actions for any document
- Context-specific editor actions created from DTD (requires free configuration tool)

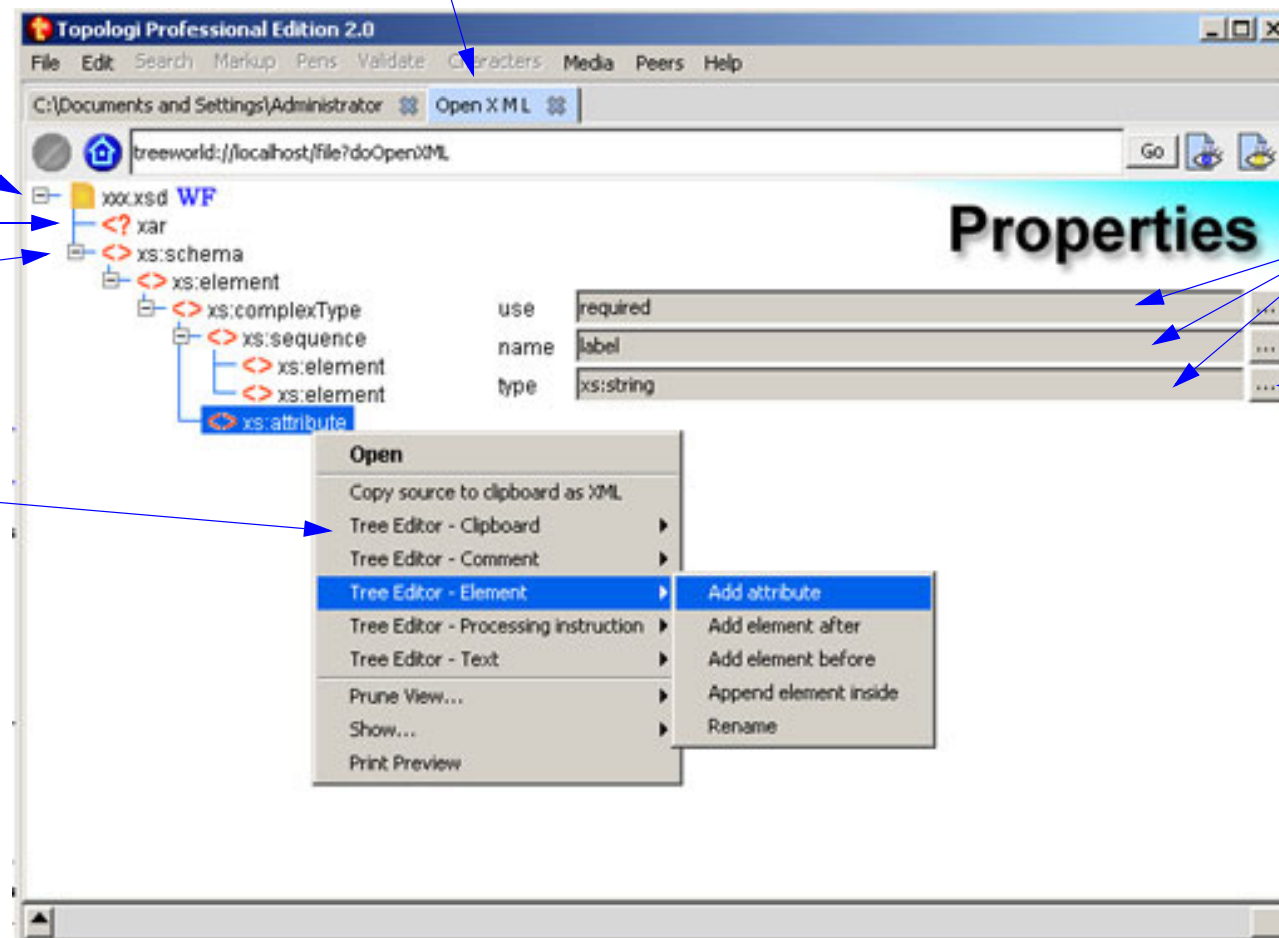
Tree Editor opens New Tab

XML file opens
in Tree Area

A processing instruction

An element

XML editing commands



Attributes

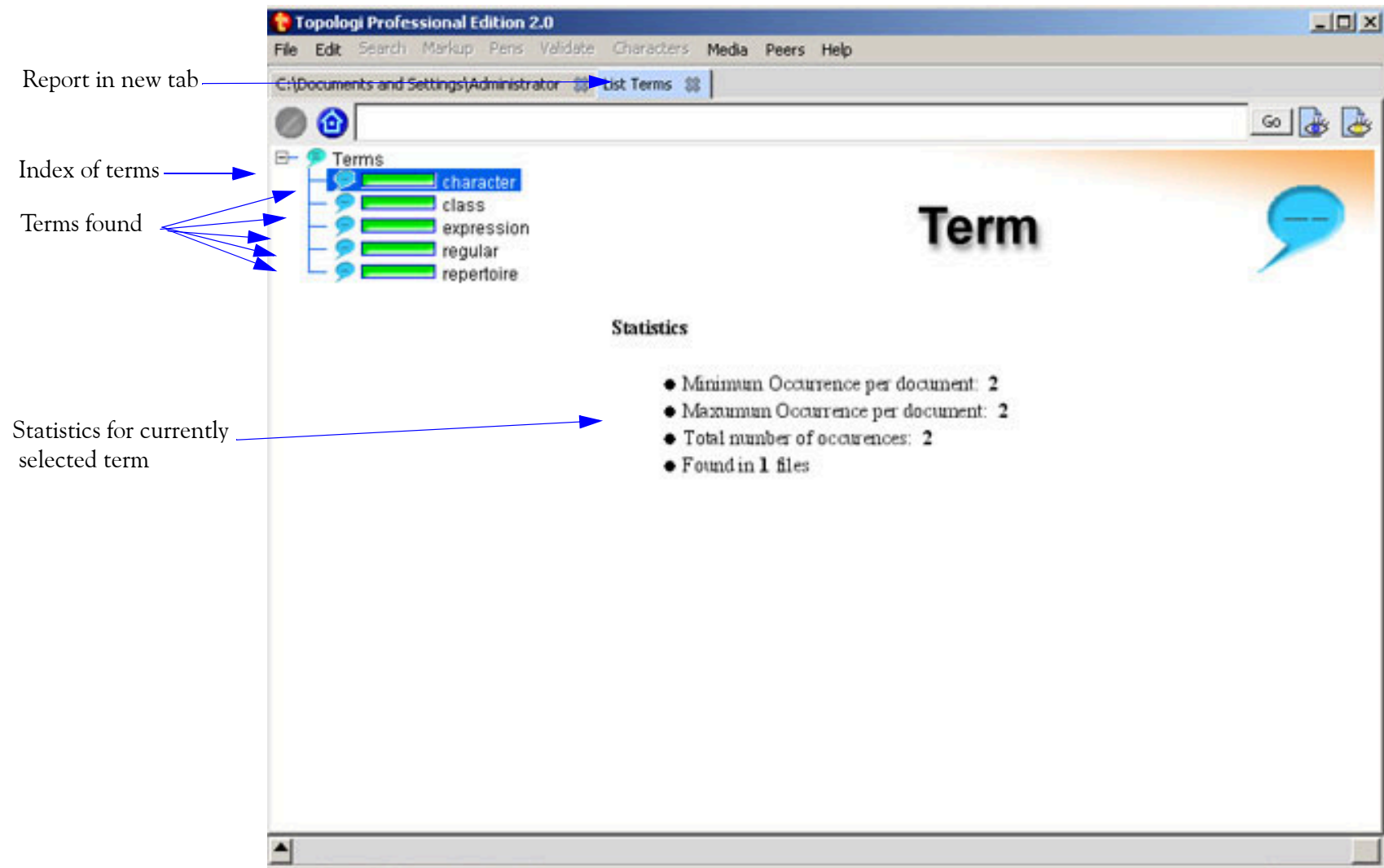
Edit values

Select an XML file, right-click and select *Open in Tree Editor*

Report Terms

Examine XML documents to check that terms have been correctly marked:

- Create index of all terms in documents, or just in particular elements or attributes
- Find documents where that term has not been marked up in the elements you expect
- See statistics on term occurrences in context by file



Select one or more XML files, right-click and select *List all Terms in an Element* in the *Lexical Reporter* section

Report Usage

Sample sets of XML or SGML documents to find how elements and attributes have been used:

- Context Report shows parents, children (first, middle, last), attributes, and following siblings of every element and attribute
- Attribute Report shows all unique attribute values and occurrence statistics
- Path Report shows full XPaths of every element and attribute in context
- Tag Report shows which start- or end-tags follow and precede the current element

The screenshot shows the 'Topologi Professional Edition 2.0' application window. The 'Combined Report' is displayed for the element 'v.background'. The left pane shows a tree structure of reports, and the right pane shows the details for the selected element.

Report in new tab: Points to the 'Combined Report' tab in the top toolbar.

Attributes report: Points to the 'Attributes' folder in the left pane.

Elements report: Points to the 'Elements' folder in the left pane.

Attributes found: Points to the 'Attributes' sub-report under 'v.background'.

Parent elements: Points to the 'Parents' sub-report under 'v.background'.

Child elements: Points to the 'All Children' sub-report under 'v.background'.

Immediate siblings: Points to the 'Elements that can be first children', 'Elements that can be last children', 'Elements that precede', and 'Elements that follow' sub-reports under 'v.background'.

Files found in: Points to the 'Found In' sub-report under 'v.background'.

Element: Points to the 'Element' header in the right pane.

Stats: Points to the 'Occurrence in this context: 1' text in the right pane.

Select XML or SGML files, the right-click and select from the reports in *Structure Reports*

Get All Paths

All items in any tree in the Tree Area can be:

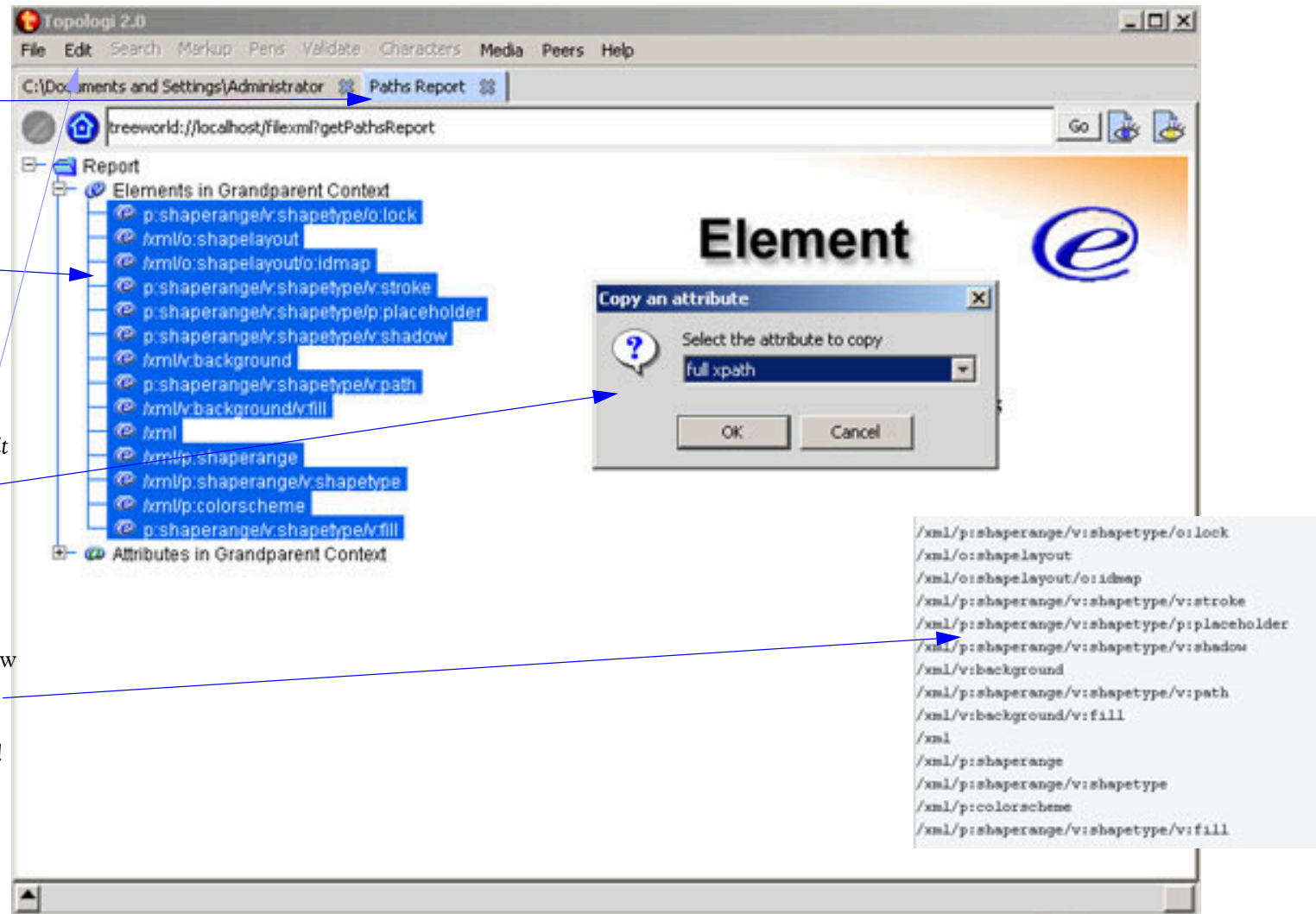
- sorted
- hidden from view (pruned)
- displayed in a new tab
- cut whole branch (as XML) onto the clipboard for later use
- select similar items and copy property value to clipboard for later use

1. Select files, right-click and select *Paths Report*. A Paths Report in new tab

2. Sort and select the unique paths you are interested in

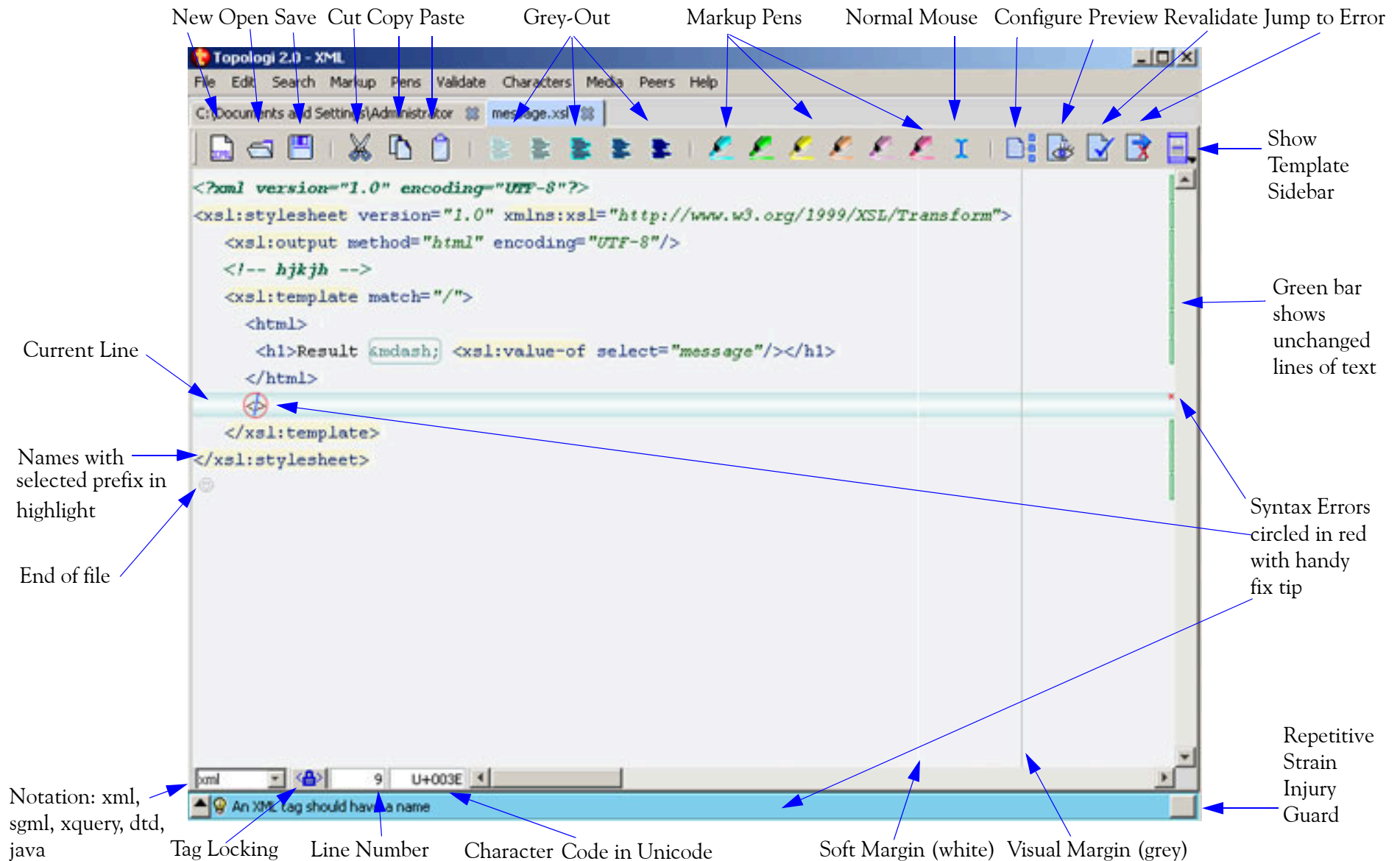
3. Select *Copy* from the *Edit* menu and then select the *Full Xpath* property to copy to the clipboard

4. The unique paths are now available in the clipboard. You could use these paths as the basis for a stylesheet! (The Topologi Mentor product has special tools to do this even more conveniently!)

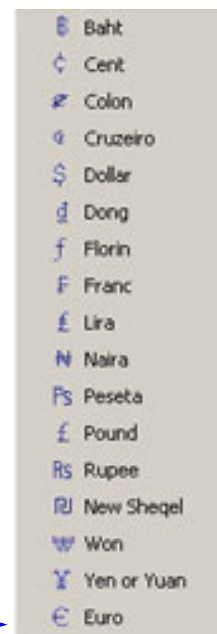


Markup Editor

The built-in Markup Editor is a tag-aware text editor.



Special Characters



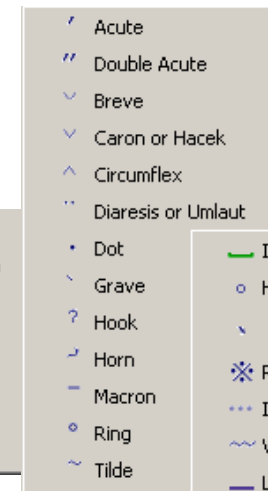
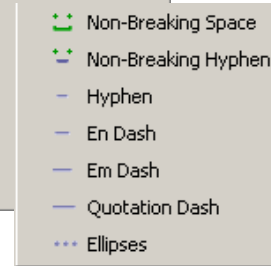
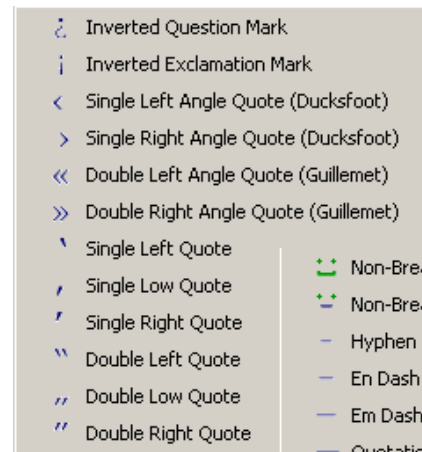
Euro →

The Topologi Professional Edition uses the Unicode character standard and supports most Western and Eastern characters. Special characters can be entered by:

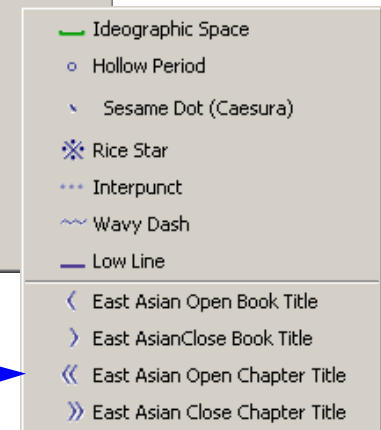
- the native input method (IME) of your computer to type the character
- special Java IMEs
- importing files in other encodings
- selecting a character from the *Characters* menu
- entering the Unicode number for the character in the Character Code box at the bottom left of the Markup Editor.
- cut and paste from other applications, such as the *Character Map* accessory found on most computers.

As well, special characters can be entered indirectly in XML and SGML using numeric character references or ISO entity references. The Template Sidebar provides support for entering entity references.

The *Characters* menu provides direct input of publishing, commercial and regional Latin characters. It has menu items for accents: first type the character you want to accent, then select the appropriate accent(s).



Accents →



East Asian Punctuation →

Shortcut Keys

A full set of shortcut keys is available, following familiar Windows, CUA and other conventions

Key	Function	Shift-Function	Ctrl-Function	Ctrl-Shift-Function
Back-space	Delete previous character		Delete previous word	
DEL	Delete character		Delete word	
HOME	Move to start of line	Select to start of line	Move to start of file	Select to start of file
END	Move to end of line	Select to end of line	Move to end of file	Select to end of file
Left	Move to previous character	Select previous character	Move to previous word	Select previous word
Right	Move to next character	Select next character	Move to next word	Select next word
Up	Move up one line	Select line up		Scroll up
Down	Move down one line	Select next line		Scroll down

Key	Function	Key	Function
ESC	Close element	Ctrl-a	Select All
Ctrl-\	Split element	Ctrl-c	Copy
Ctrl-b	Break, wrap and indent line	Ctrl-f	Find
Ctrl-j	Paste, removing data content	Ctrl-g	Find again
Ctrl-k	Paste, removing data content and attribute values	Ctrl-n	New (XML)
Ctrl-l	Multiline paste	Ctrl-o	Open
Ctrl-w	Validate	Ctrl-p	Print
Ctrl-INSERT	Copy	Ctrl-q	Quit
Shift-INSERT	Paste	Ctrl-r	Redo
Shift-DELETE	Cut	Ctrl-s	Save
<, <!, <?, &	Select Template tab for element, comment, PI, entity	Ctrl-Shift-S	Save As
Ctrl-Space	Reveal the Template Sidebar	Ctrl-t	New (text)
Ctrl-Enter	Insert Template	Ctrl-v	Paste
Ctrl-Up-arrow	Move up template list	Ctrl-x	Cut
Ctrl-Down-arrow	Move down template list	Ctrl-z	Undo

Key	Function	Key	Function	Key	Function	Key	Function	Key	Function	Key	Function
F1	Help	F2	Find	F3	Save As	F4	Open	F5	Print	F6	Next
F7	Break	F8	Trim	Shift-F3	Save	Shift-F4	New	F11	Jump	F12	Save As
Ctrl-F4	Close	Alt-F4	Quit	Ctrl-F9	Light	Ctrl-F10	Normal	Ctrl-F11	Bright	Shift-F12	Save

Pens

Markup of terms and paragraphs is most efficient using the mouse:

- Associate start and end text with Markup Pens
- Select a pen, swipe text, and that text is wrapped by the start and end text
- ID numbers can be automatically generated and incremented
- Switch better pens sets for different structures
- Rectangular selections & multi-line markup available (hold control key down)

The screenshot shows the Topologi 2.0 - XML application window. The menu bar includes File, Edit, Search, Markup, Pens, Validate, Characters, Media, Peers, and Help. The toolbar contains various icons for file operations and editing. The main text area displays an XML document with a table of years. The table has 6 rows, with the last row highlighted in red. The XML code is as follows:

```
<h1>Table of Years</h1>

<table id="tab1" cols="">
<tr><td> 2000<td>    <td>39&ndash;40<td></tr>
<tr><td> 2001<td>    <td>40&ndash;41<td></tr>
<tr><td> 2002<td>    <td>41&ndash;42<td></tr>
<tr><td> 2003<td>    <td>42&ndash;43<td></tr>
<tr><td> 2004<td>    <td>43&ndash;44<td></tr>
<tr><td> 2005<td>    44&ndash;45</tr>
</table>
```

The 'Options' dialog box is open, showing the 'Markup-Pen Set "Tables"' configuration. The 'AutoNum' checkbox is checked. The 'Blue Pen' is set to wrap the table opening and closing tags. The 'Green Pen' is set to wrap the row opening and closing tags. The 'Yellow Pen' is set to wrap the header opening and closing tags. The 'Salmon Pen' is set to wrap the cell opening and closing tags. The 'Lilac Pen' and 'Pink Pen' are currently empty.

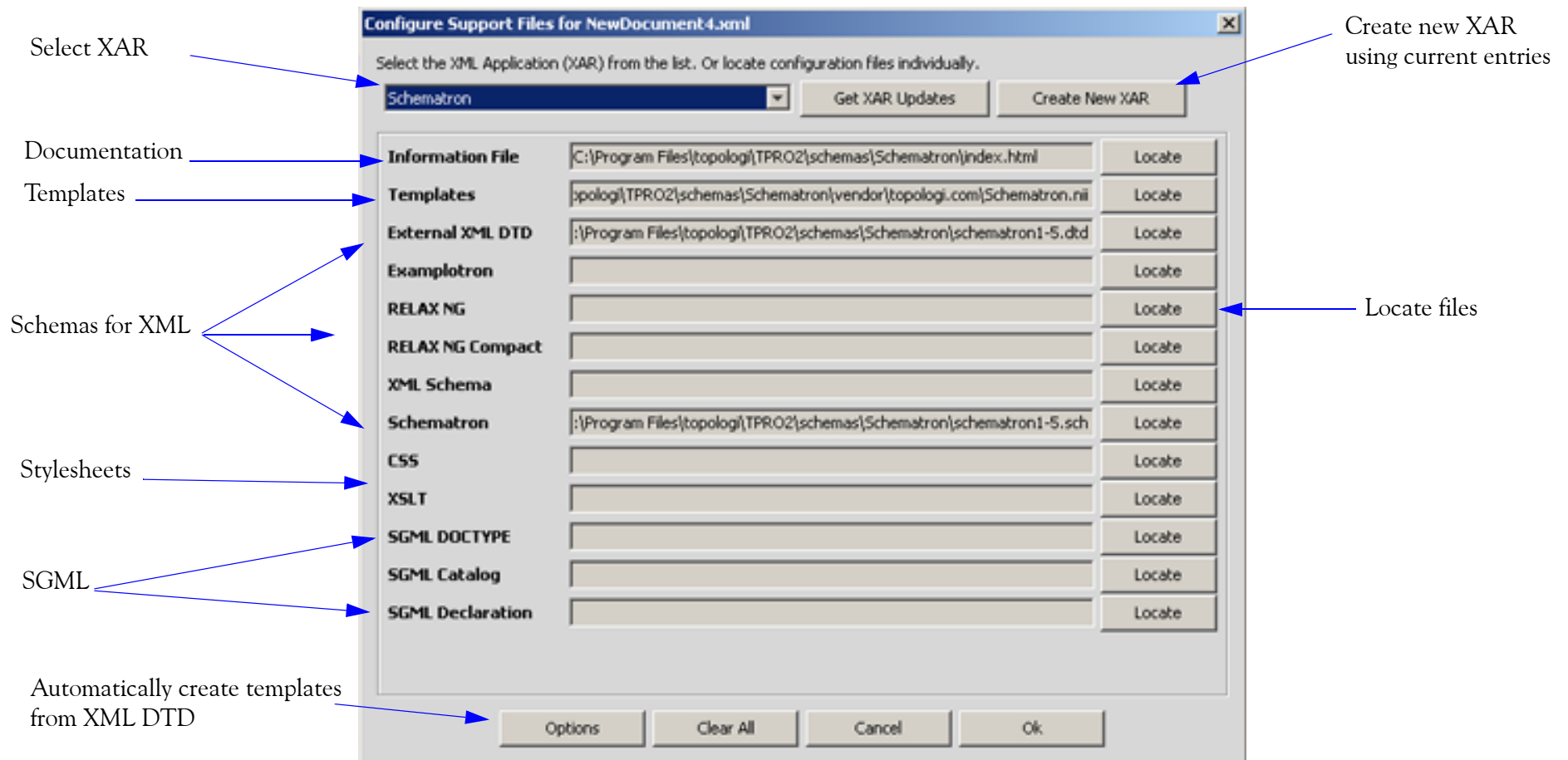
Annotations:

- 1. Create Pen Set (points to the 'Markup-Pen Set "Tables"' dialog box)
- 2. Select Salmon Pen (points to the 'Pens' menu)
- 3. Swipe text to mark up (points to the red highlight on the last row of the table)
- Autonumber using "\$\$" (points to the 'AutoNum' checkbox)

Configuration

The Topologi Professional Edition does not require any configuration to open and edit files. For more power, a single form lets you configure:

- schemas (DTDs, Schematron, RELAX NG, W3C XML Schema, Examplotron)
- preview stylesheets (XSLT, CSS)
- catalog files
- sidebar templates
- HTML documentation



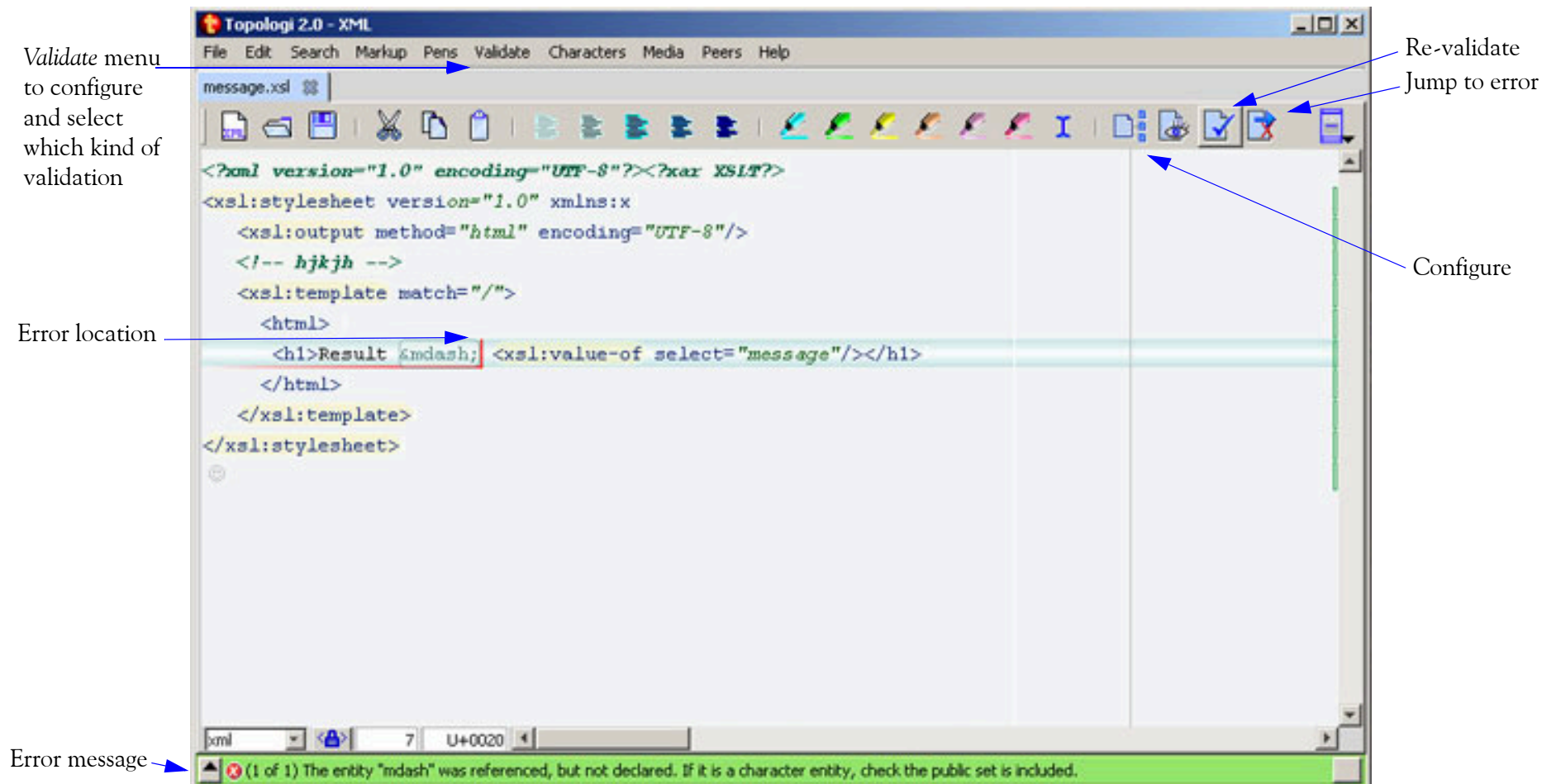
Convenient XAR (XML Application Archives) bundle different configuration files together. Select an XAR or fill in forms data individually. A *Usage Schema* created by sampling documents can be selected as the Schematron schema.

Progressive Validation

Check the correctness of your XML document in stages, from raw text to fully marked-up:

- Delimiters correct
- Well-formed
- Feasible elements (incomplete contents)
- Valid (DTD, schema)
- Schematron valid

The Markup Editor provides instant feedback on delimiter errors with red circles and helpful hints. When a fragment is selected, the Markup Editor will attempt to validate just that rather than the whole file or document.



Templates

Tag completion and faster data entry: Topologi Professional Edition allows templates sets for

- elements
- entity references
- processing instructions
- comments

The screenshot shows the 'Elements' sidebar in Topologi Professional Edition. It features a title bar with a 'Show/Hide Template Sidebar' button. Below the title bar is a section for 'Element Set' with a dropdown menu set to 'Schematron', and 'New' and 'Delete' buttons. A checkbox labeled 'Insert Prefix' is followed by a text field containing 'sch'. A list of template names is displayed in a scrollable area, including 'active', 'assert', 'diagnostic', 'diagnostics', 'dir', 'emph', 'extends', 'key', 'name', 'ns', 'p', 'pattern', 'phase', and 'report'. At the bottom of the sidebar are three buttons: 'Insert', 'Entity Reference', 'Comment', and 'Processing Instruction'. Blue arrows point from text annotations to these UI elements.

Templates are organized into sets

Template sets come from XAR applications, or from DTD or usage samples, or you can make your own.

Choose if you wish to generate namespace prefix

Tag completion: the Template Sidebar follows your typing: when you type a < the Element templates become active. For example, type <as then **Ctrl-Enter** and the template for *assert* will be entered. Or use the mouse: click on **Elements** then double click on the template you want.

Show/Hide Template Sidebar

For Element templates

For Entity Reference templates

For Comment templates

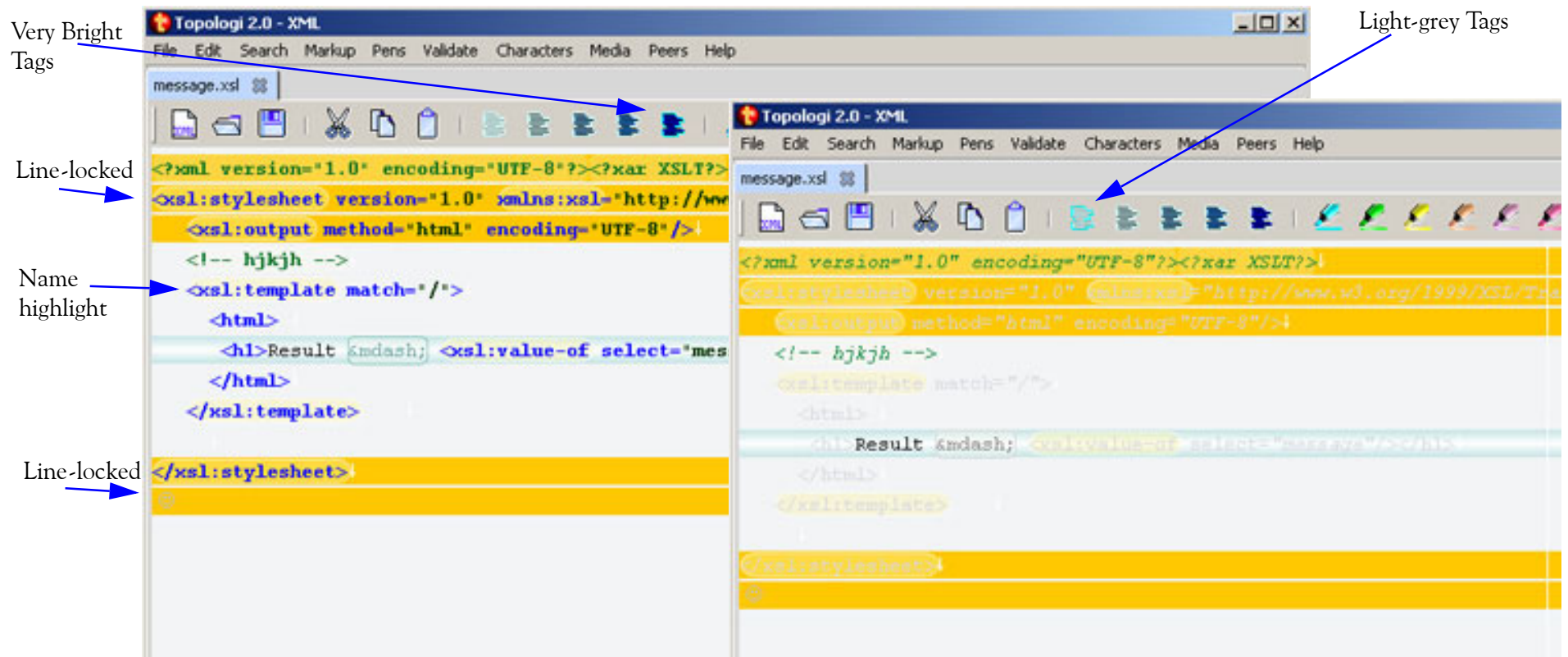
For Processing Instruction templates

Templates can include any text, even text without tags. The Template Sidebar tracks your key-boarding: if you type <, <?, <!--, or & the sidebar will attempt to match the next characters you type with names of element, PI, comment or entity reference templates, respectively. You can type an XML Namespace-style prefix to select a particular set.

Visual Aids

Topologi Professional Edition has four special features to help you edit:

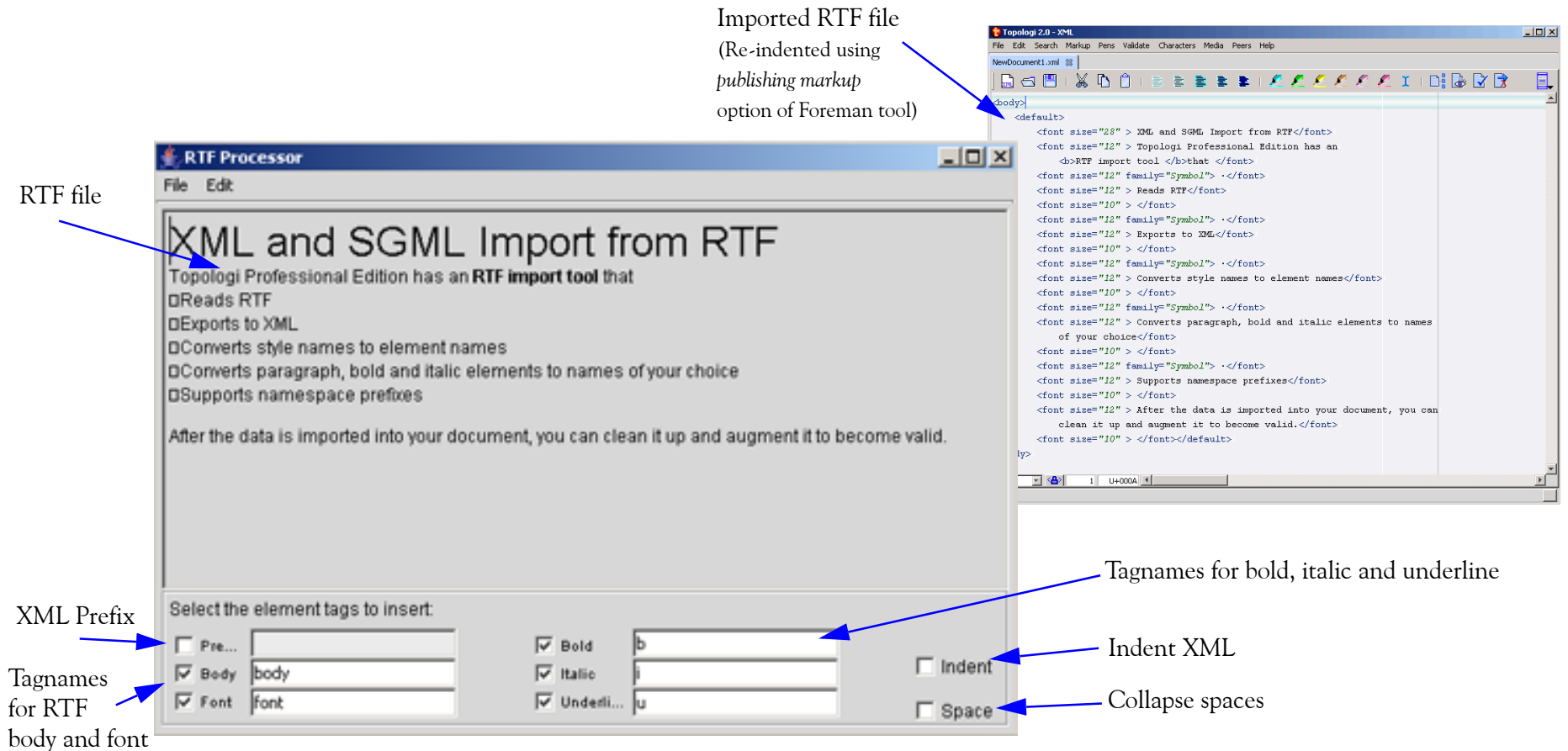
- Grey-out buttons provide five preset levels of contrast and colour: these range from *light-grey*, where tags are almost completely invisible to allow proofreading, to *very bright*, where tags are bold and in strong colours. Select the appropriate level of colouring to suit your tasks, eyes and screen.
- *Line-locking* marks a region at the top and bottom with an orange highlight, and prevents editing operations in those areas. This is very useful for large and repetitive files, to make sure you do not overrun the section your are working on.
- *Name-highlighting* draws a mild yellow highlight behind element and attribute names that start with a string you provide: for example, "xslt:" would highlight XSLT elements but not HTML elements in an XSLT script.
- *User Preferences* supports various accessibility options, such as changing colors, fonts, font sizes, and anti-aliasing. You can change font size using your mouse wheel and the control key too.



Import RTF

The RTF import tool lets you:

- Read an RTF file
- Make simple editing corrections
- Convert the RTF text to XML, with custom names, prefixes and indentation



Select *Import from RTF* from the *Import* menu in the *Markup* menu.

Note: RTF is not a structured format and different applications generate very different kinds of RTF: visual structures apparent to the eye such as tables may not translate to useful markup.

Quick Indexes

Quick indexes are useful for navigation (even through non-well-formed documents), searches, and report or index generation. Validation results can be displayed in the List Viewer.

Search field
(regular
expression)

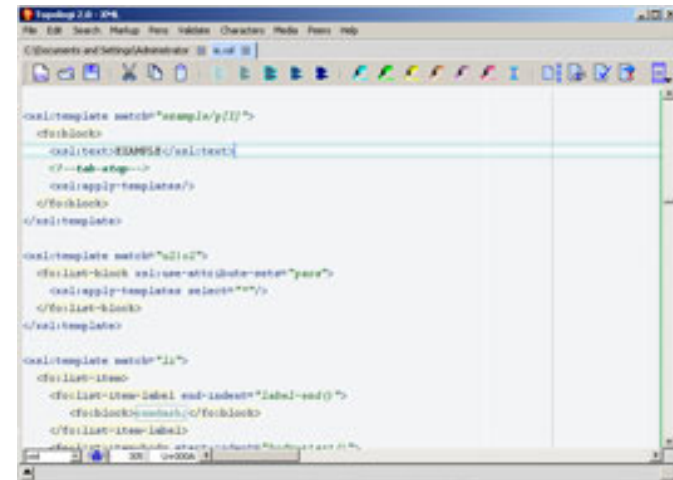
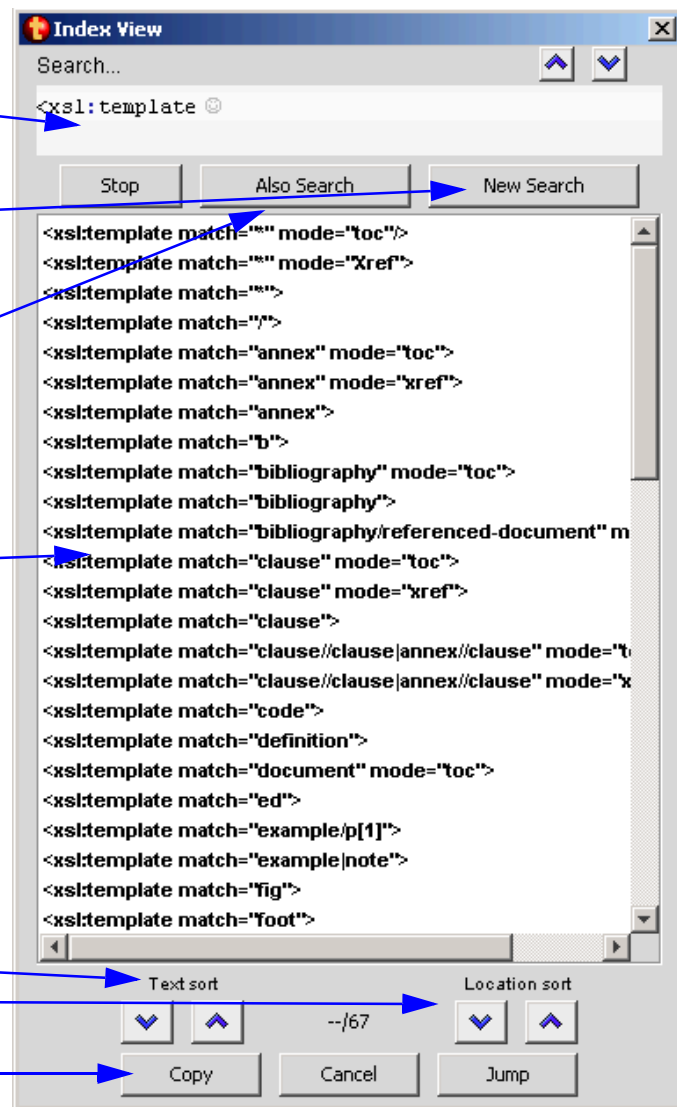
Perform search
(result in bold)

Perform other
search and
merge results
(other results
in plain)

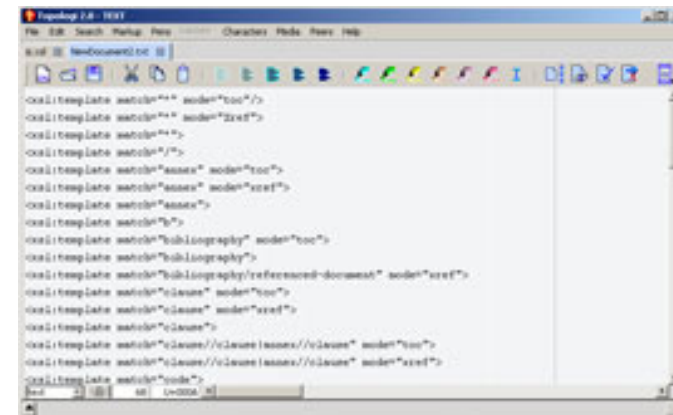
Search results
(Double click
to jump to
location in
Markup
Editor)

Sort by text or
by line number

Copy list to
clipboard



1. Search XSLT document for all `xs:template`
2. Sort by text
3. Copy to clipboard
4. Paste into editor: you now can see whether you are missing some important case



Select List Occurrences from the Search menu