# Introduction to Topologi Professional Edition



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# Contents

# Overview

Thank you for using Topologi Professional Edition. This document introduces the features and parts of Topologi 2.3 and after.

## 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 & Analytics

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.

# Applications

Topologi Professional Edition has a tabbed interface; each file or report has a separate tab. Each of the tabs is either a Markup Editor tab or a TreeWorld Browser tab; TreeWorld is a special tree browser built into the Topologi Professional Edition, and provides a consistent user interface for the Media Browser, custom Tree Edtors, the analytic tools, and external services. As well

## Media Browser

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

## 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
- Peer-to-peer collaboration features such as instant messaging and screenshot annotation and exchange.

## XML & SGML Analytics

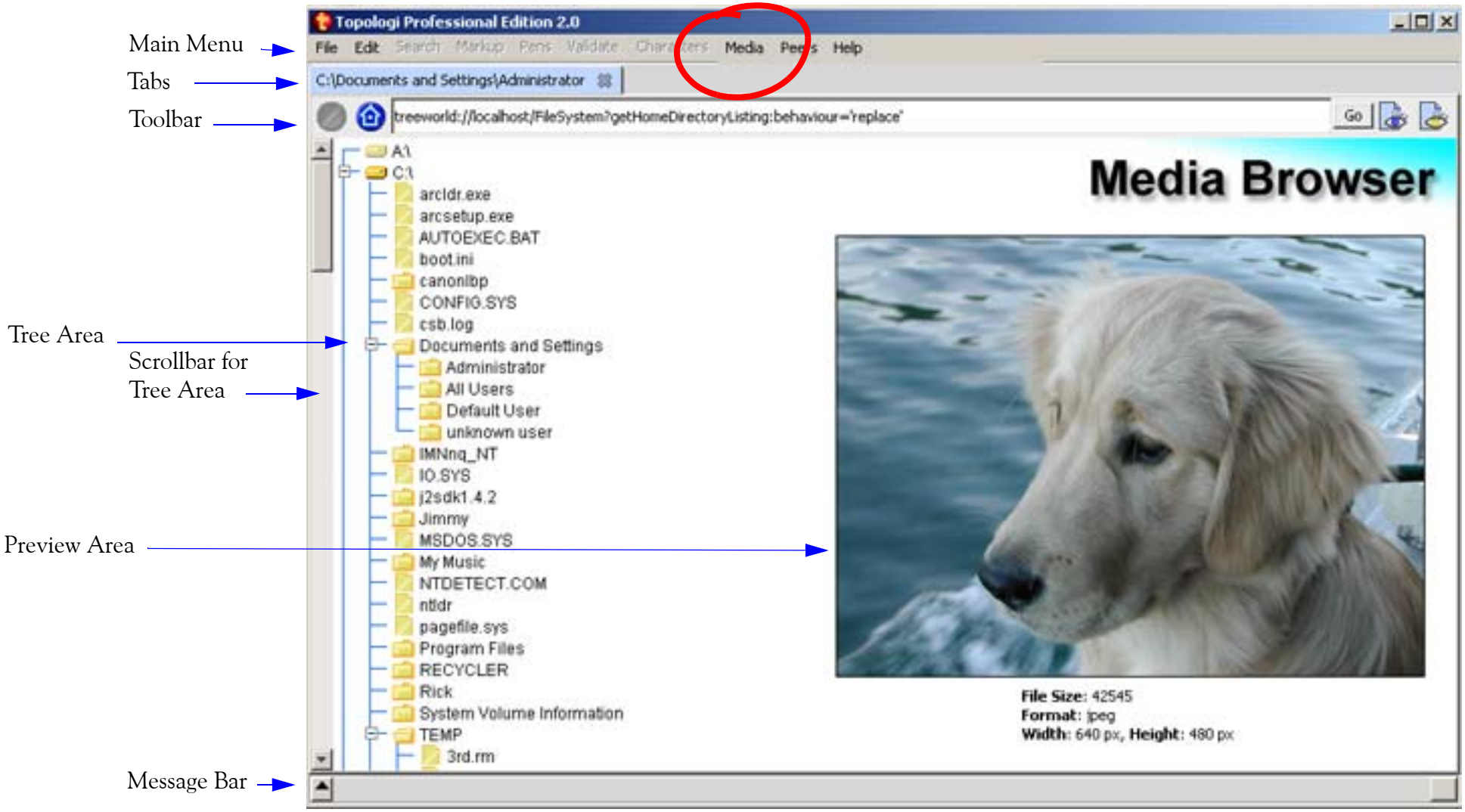
- Comprehensive reports on tag usage in context for XML & SGML documents
- Search for strings and elements-in-context
- Operations on multiple files such as indexing, search-and-replace,
- Select and validate multiple files, using all major schema languages: DTD, Schematron, ISO RELAX NG and W3C XML Schemas. Supports validation of XML and SGML with Catalogs.

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)

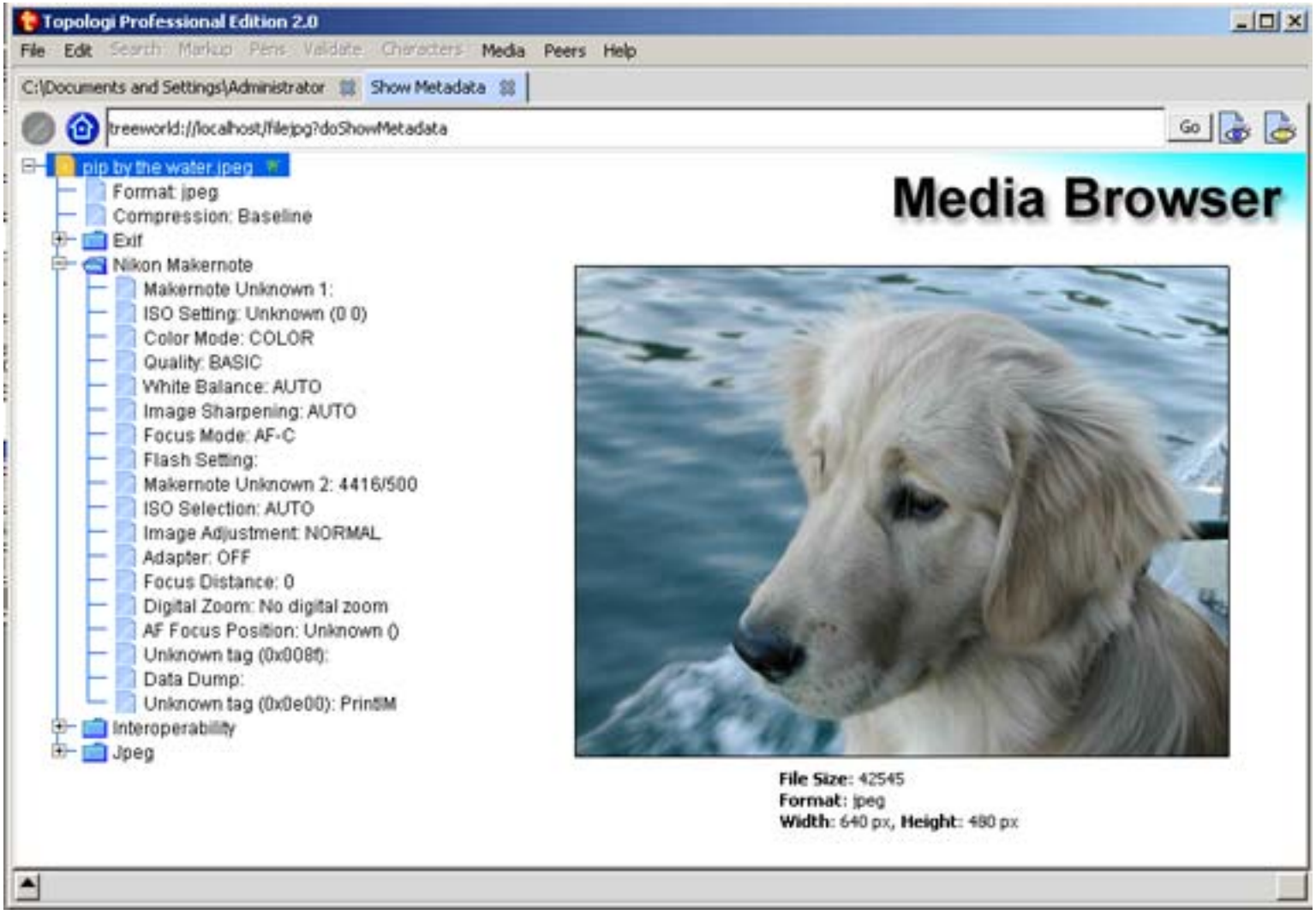



Right click on an icon in the Tree Area to see the available actions. If you have closed the browser tab, you can open it again by selecting the menu *Media>Home*

# 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 icon and select *Media Browser>View Metadata*

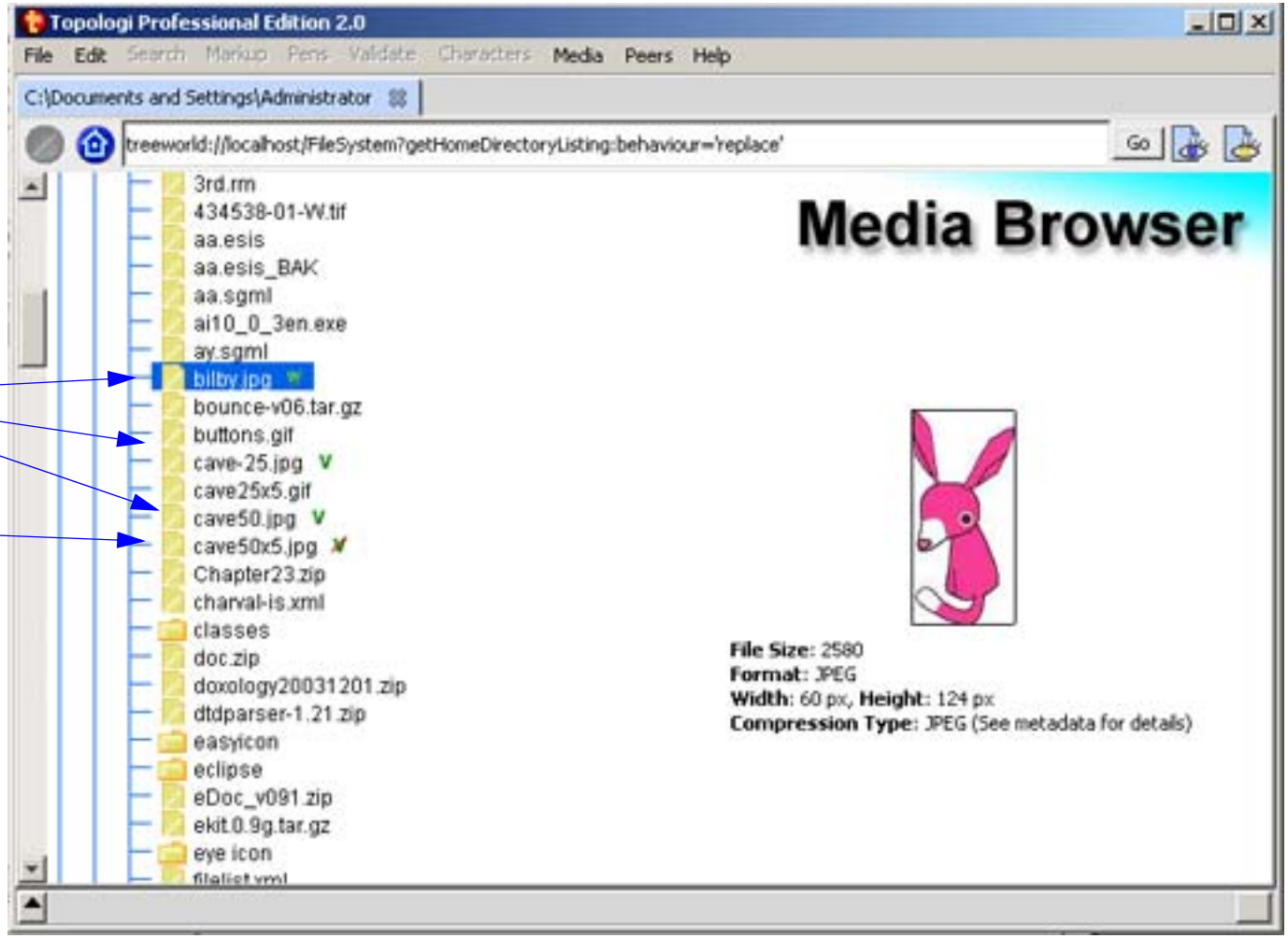
# Check Images

Check one or more images for validty

- Does the extension match the format?
- Is the file not zero-sized?
- Can the file be loaded?
- Is the metadata format correct?
- Does the JPEG file match ISO 10198-1 or EXIF profiles?

Green V means *Valid*

Red Crossed V means *Invalid*

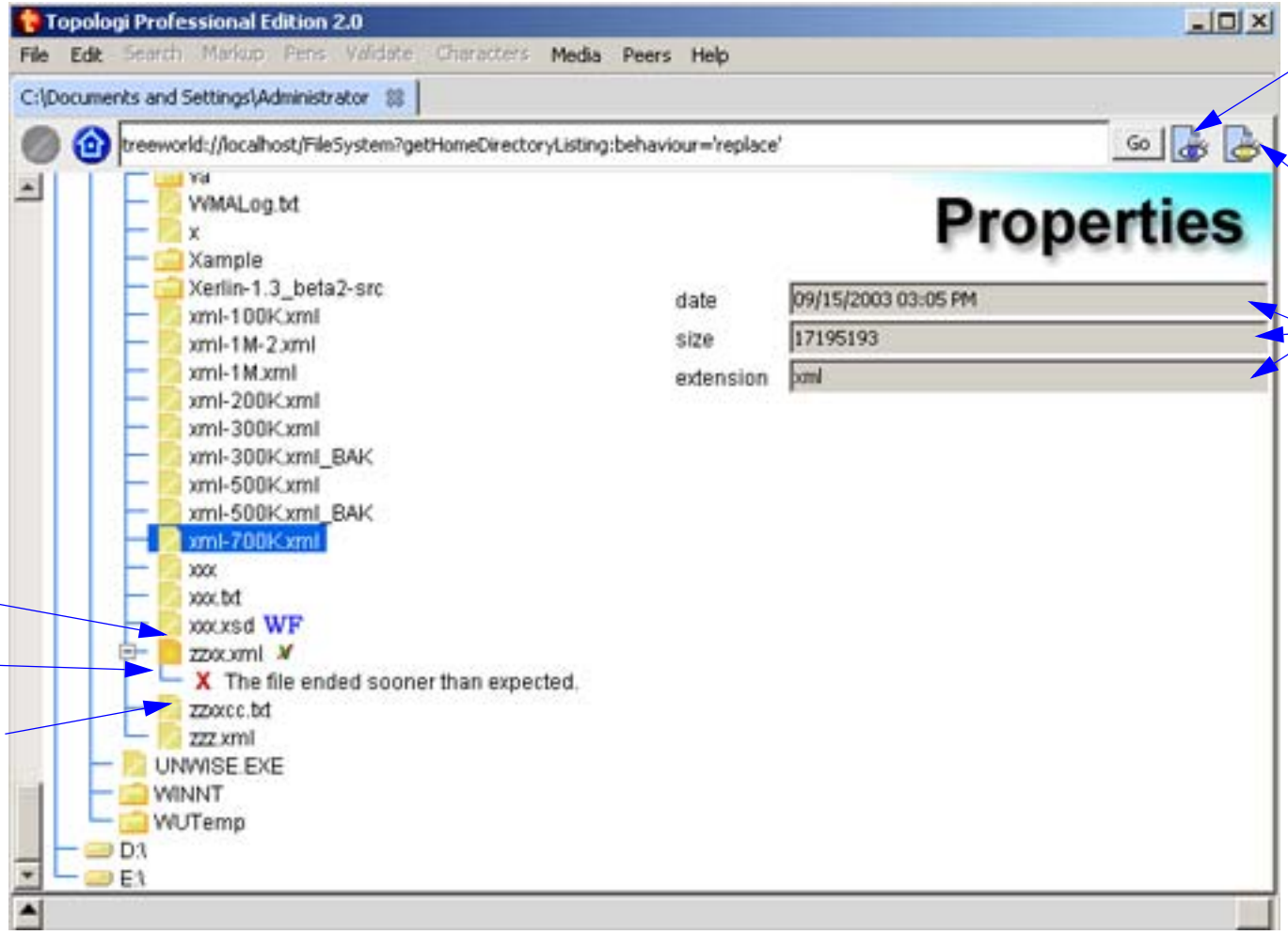



Select one or more TIFFs or JPEG icons, then right-click and select *Media Browser>Validate*

# Check Markup

Check the markup in multiple documents:

- Check XML documents for well-formedness;
- Validate XML and SGML documents with DTD, Schematron, ISO RELAX NG and W3C XML Schemas
- Check SGML and XML documents against sampled Schematron *usage* schemas



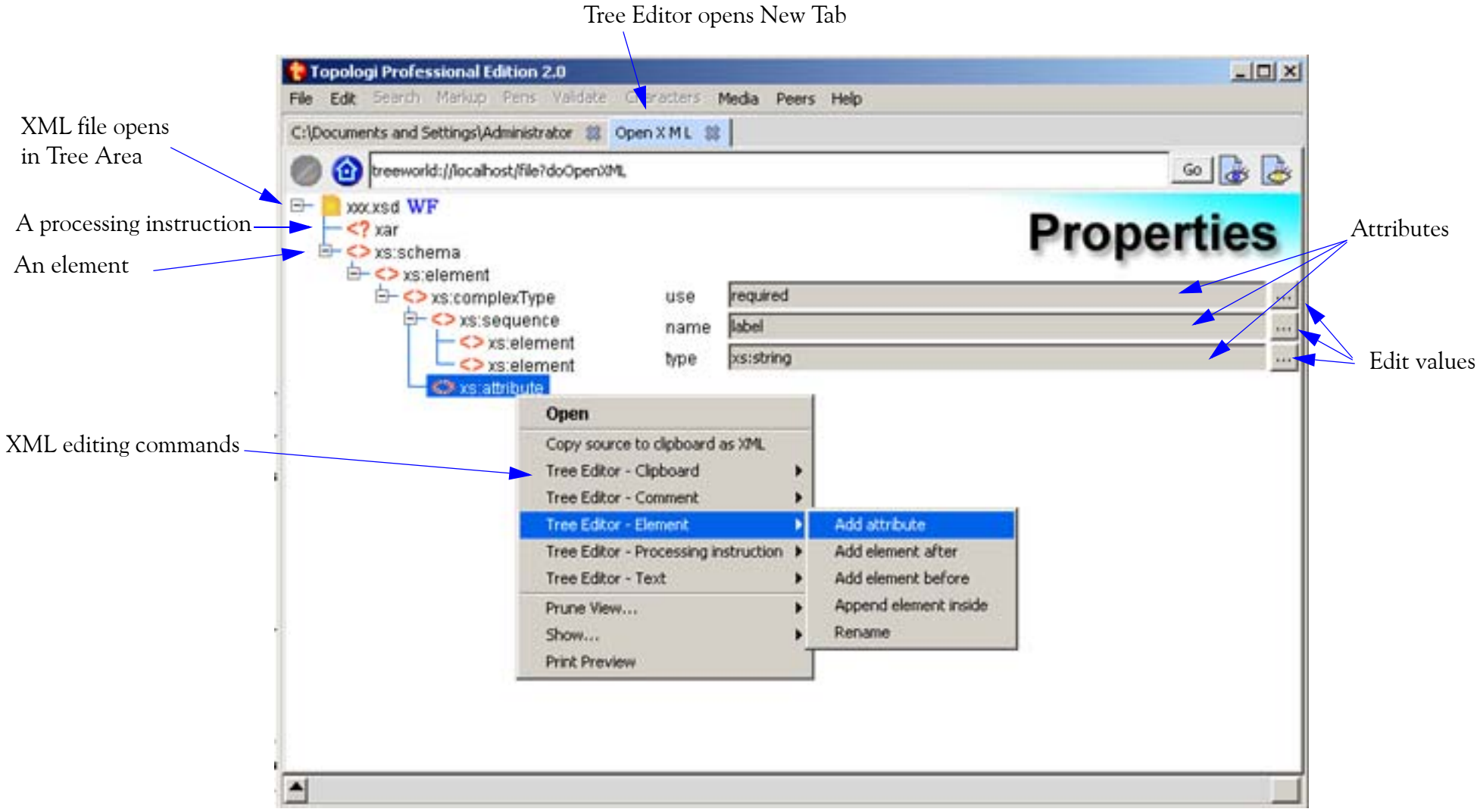

Select one or more SGML or XML files, then right-click and select *Markup Validation*.

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 data-oriented XML files with the convenient built-in Tree Editor:

- Generic actions for any document
- Context-specific editor actions created from DTD (requires free configuration tool)
- Validate with DTD, Schematron, ISO RELAX NG and W3C XML Schemas

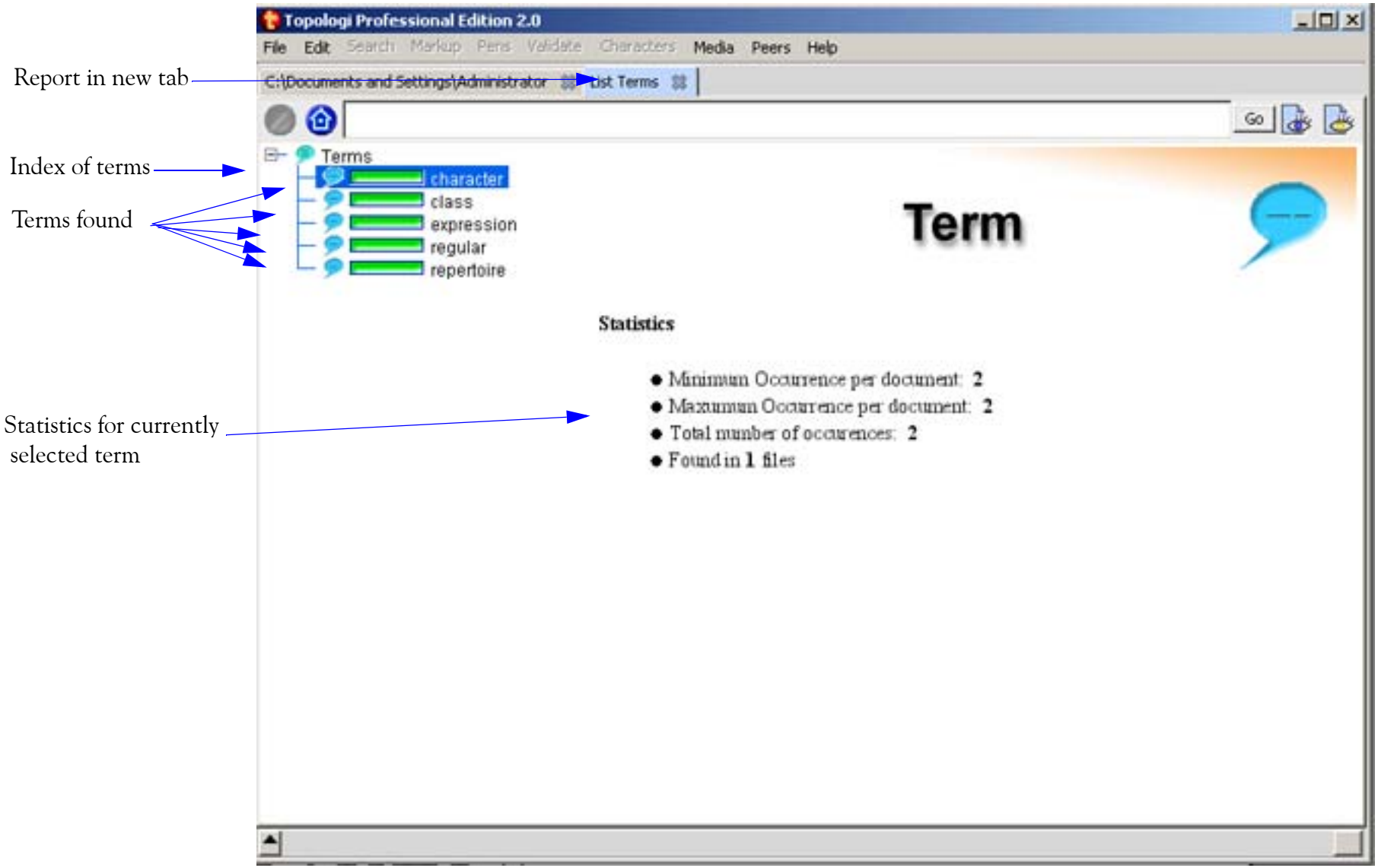



Select an XML file, right-click and select *Open in Tree Editor*

# 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

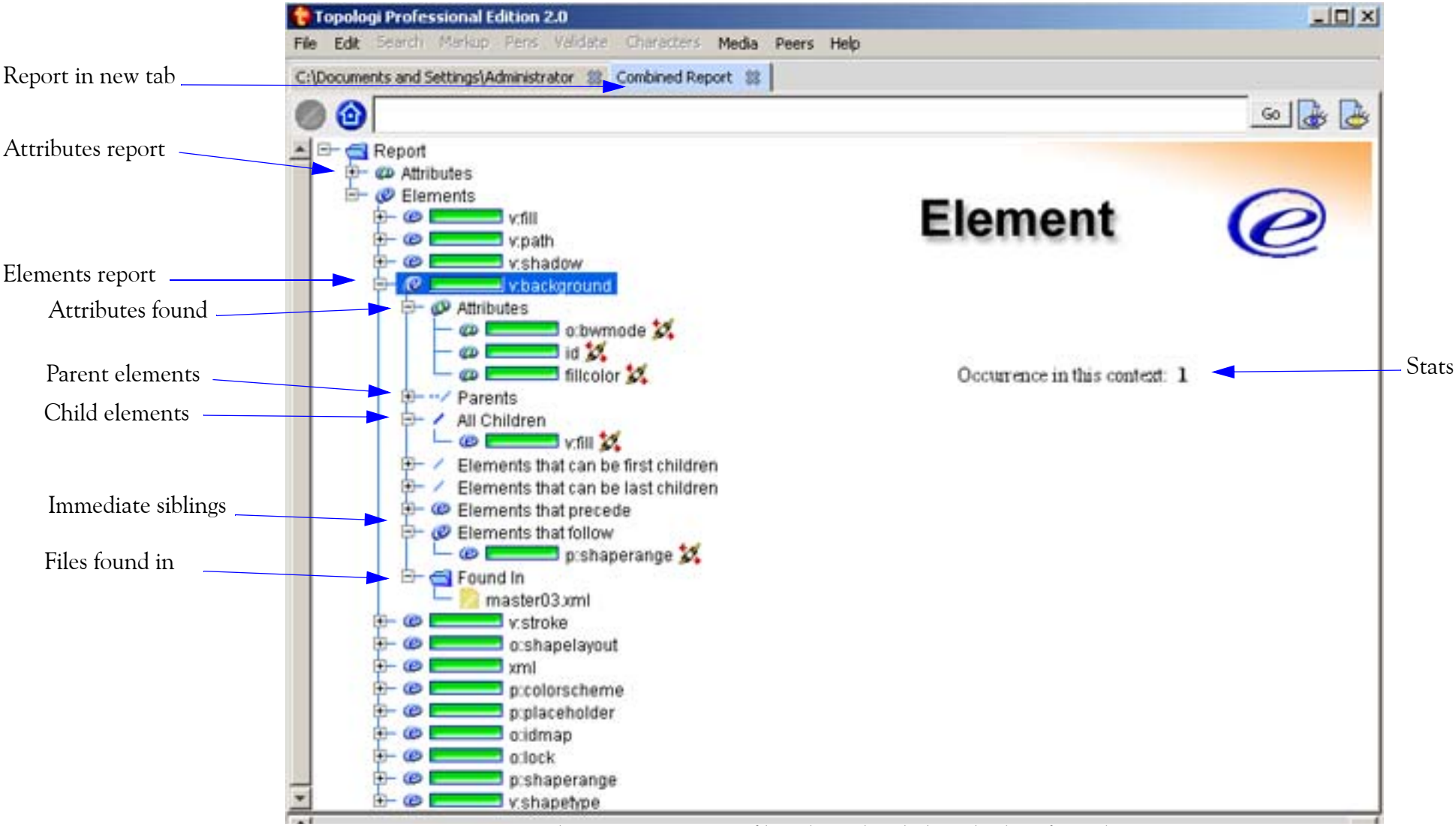



Select one or more XML files, right-click and select *List all Terms in an Element* in the *Lexical Reporter* section

# 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




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:

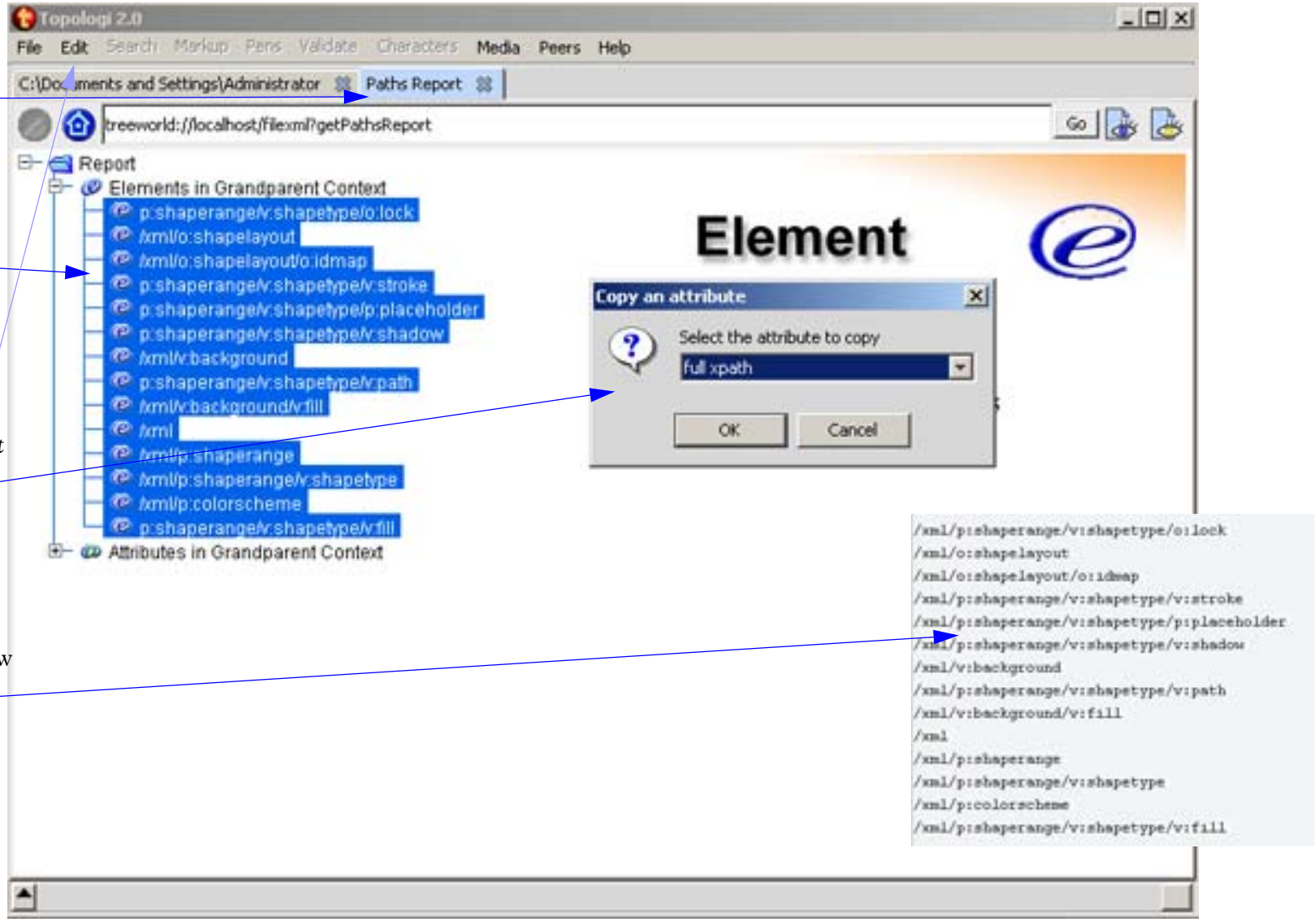
- sorted
- hidden from view (pruned)
- displayed in a new tab
- cut whole branch (as XML) onto the clipboard for later use
- select similar items and copy property value to clipboard for later use

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

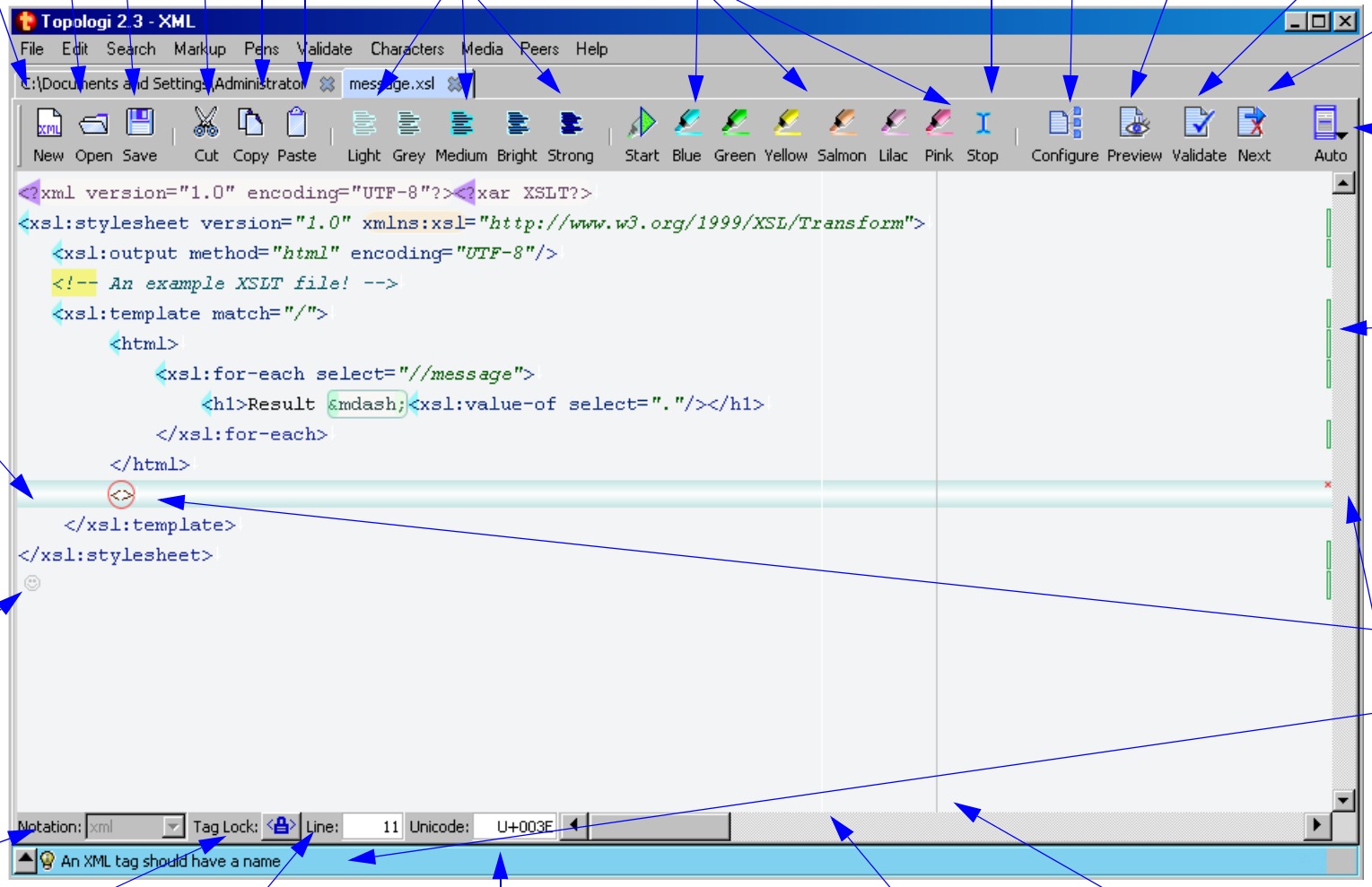
3. Select *Copy* from the *Edit* menu and then select the *Full Xpath* property to copy to the clipboard

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

Edit publishing-oriented documents in the built-in Markup Editor: a tag-aware text editor for XML, HTML and SGML with special features for marking up new documents from raw text.




Select *File>New XML>XML* to create a new XML file, in a new tab. The Configuration Setup form will appear, if you wish to configure the tab for validation and preview at that time.

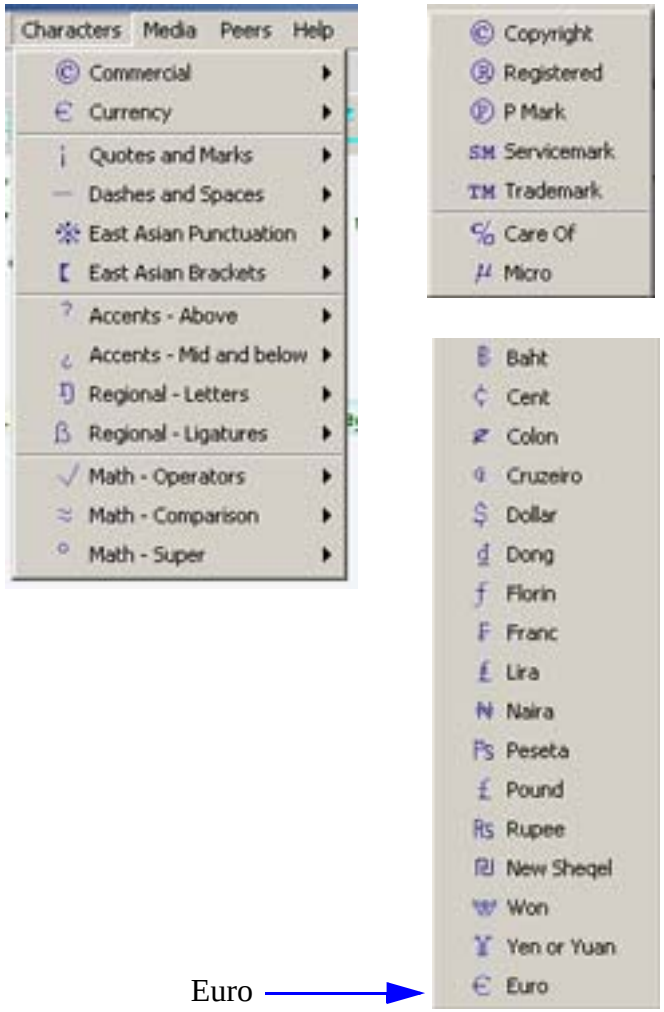
# Special Characters

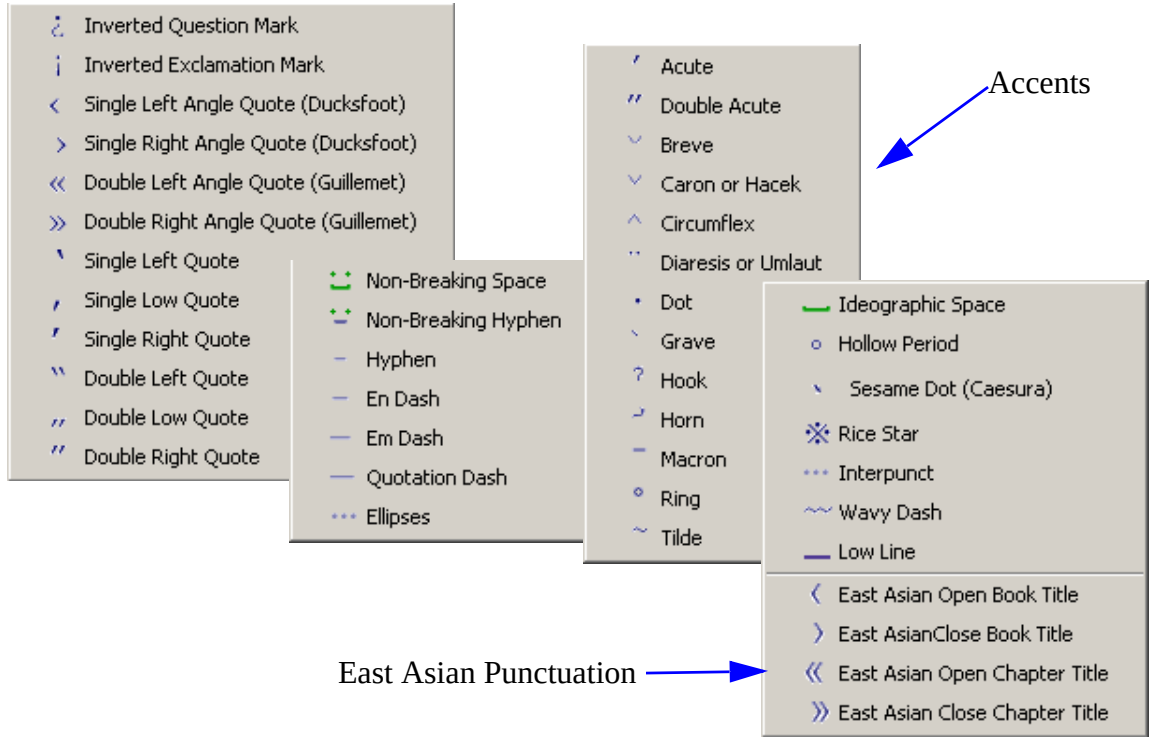
The Topologi Professional Edition uses the Unicode character standard and supports most Western and Eastern characters. Special characters can be entered by:

- 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).



# 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 |
| Crtl-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 | Moveup template list | Ctrl-x | Cut |
| Ctrl-Down-arrow | Move down template list | Ctrl-z | Undo |

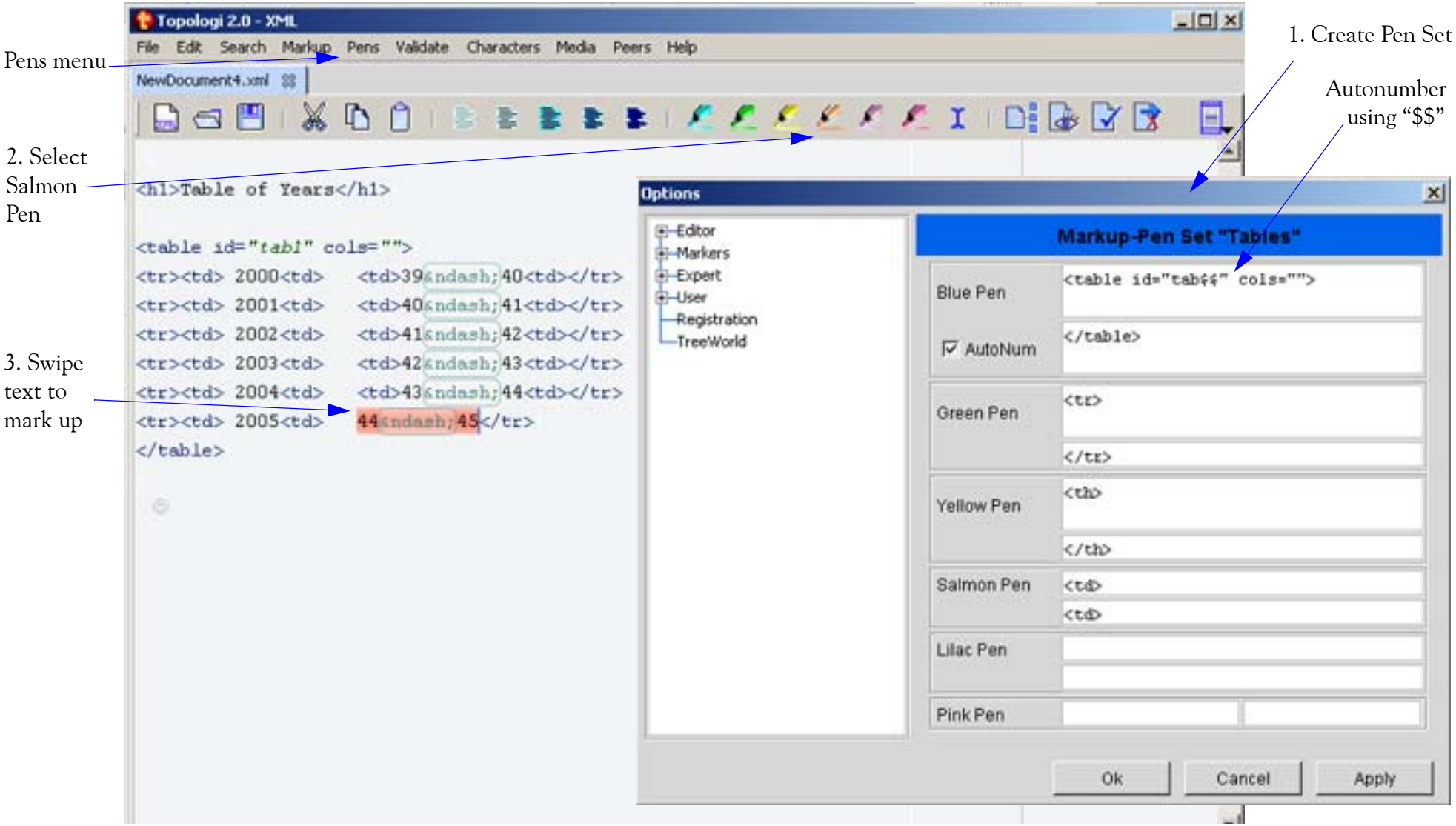
| Key | Function | Key | Function | Key | Function | Key | Function | Key | Function | Key | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | Help | F2 | Find | F3 | Save As | F4 | Open | F5 | Print | F6 | Next |
| F7 | Break | F8 | Trim | Shift-F3 | Save | Shft-F4 | New | F11 | Jump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

Markup Editor function

# Pens

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

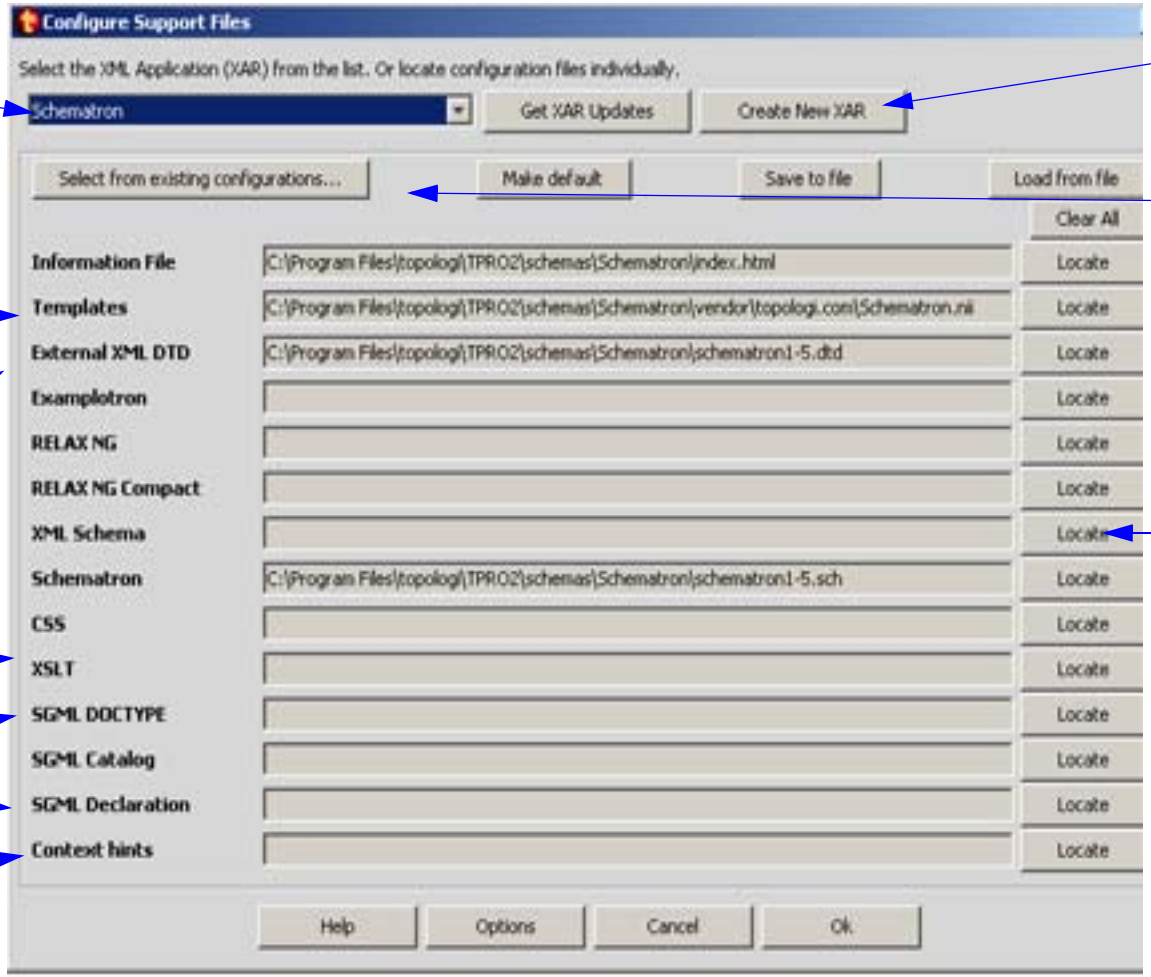
- Associate start and end text with Markup Pens
- Select a pen, swipe text, and that text is wrapped by the start and end text
- ID numbers can be automatically generated and incremented
- Switch better pens sets for different structures
- Sequence through a pen set automatically, for marking up complex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



# Configuration

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

- schemas (DTDs, Schematron, RELAX NG, W3C XML Schema, Examplotron)
- preview stylesheets (XSLT, CSS)
- catalog files
- sidebar templates for the Markup Editor and context hints for the Tree Editor
- HTML documentation




Select XAR

Create new XAR using current entries

Populate the form with entries from a default configuration, or from the configuration used by some other tab, or using a saved configuration. Recent files have their last configuration reloaded automatically.

Documentation

Templates

Schemas for XML

Locate files for schemas, etc..

Stylesheets

SGML

Tree Editor contextual help

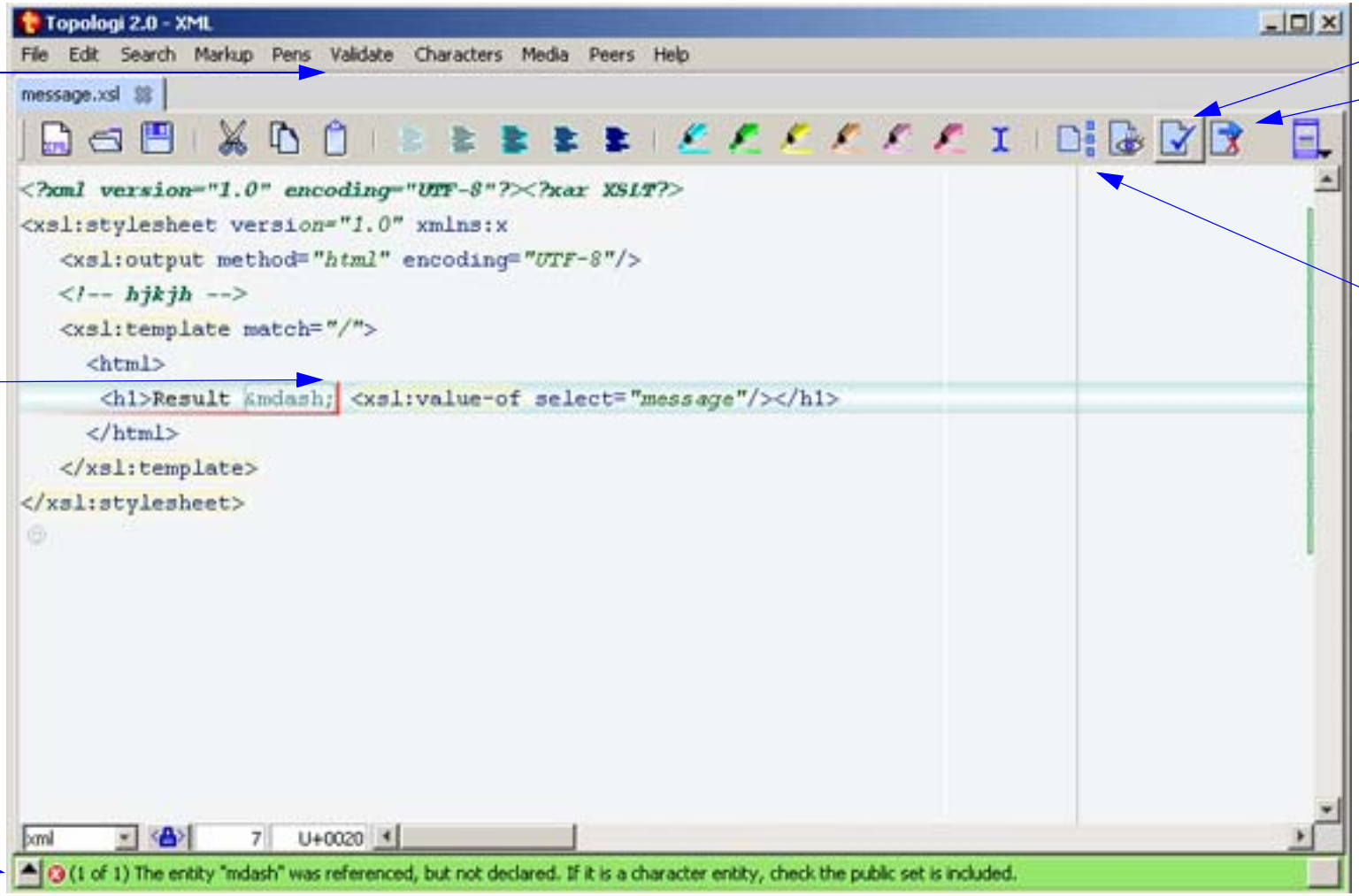
Convenient XAR (XML Application Archives) bundle different configuration files together. Select an XAR or fill in forms data individually. A *Usage Schema* created by sampling documents can be selected in addition.

# 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.




Markup Editor function

# Templates

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

- elements
- entity references
- processing instructions
- comments


Show/Hide Template Sidebar (Ctrl-Enter)

For Element templates

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.

For Entity Reference templates

For Comment templates

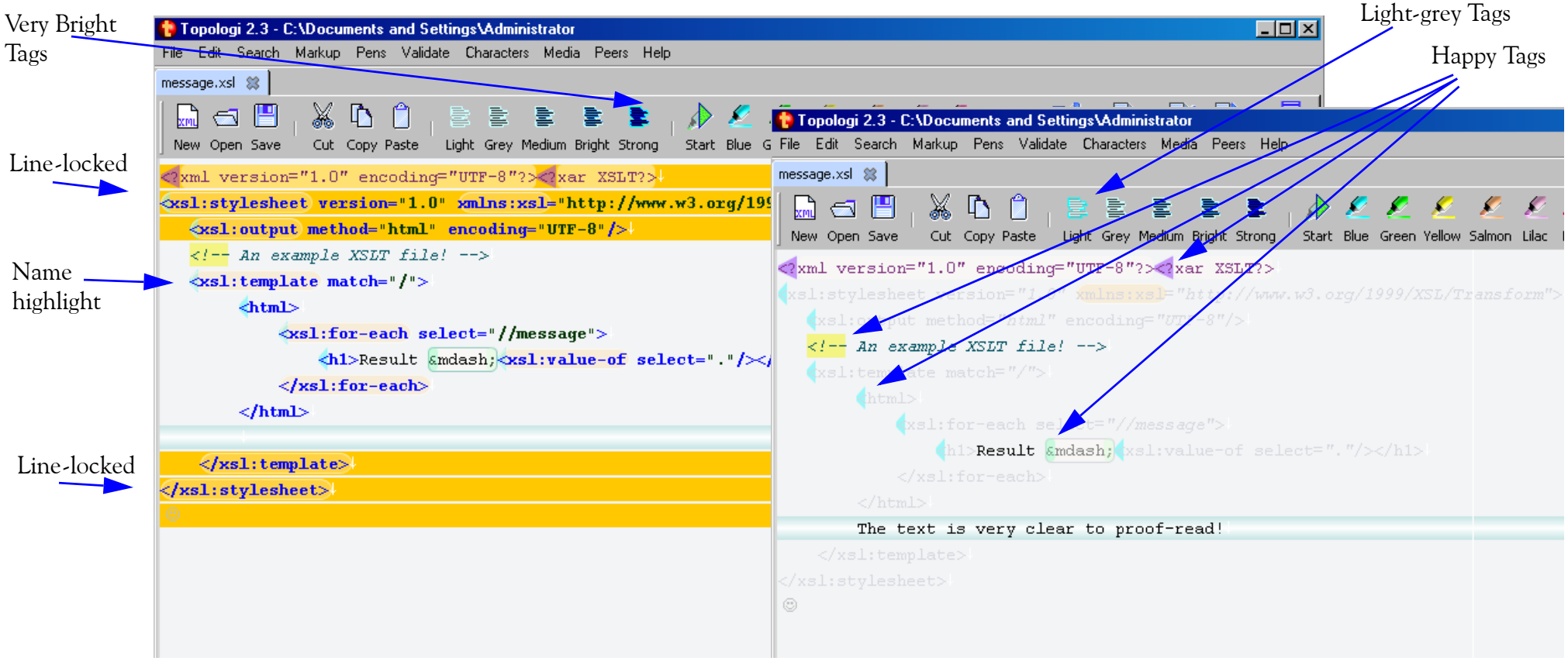
For Processing Instruction templates

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, respsectively. You can type an XML Namespace-style prefix to select a particular set.

# Visual Aids

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

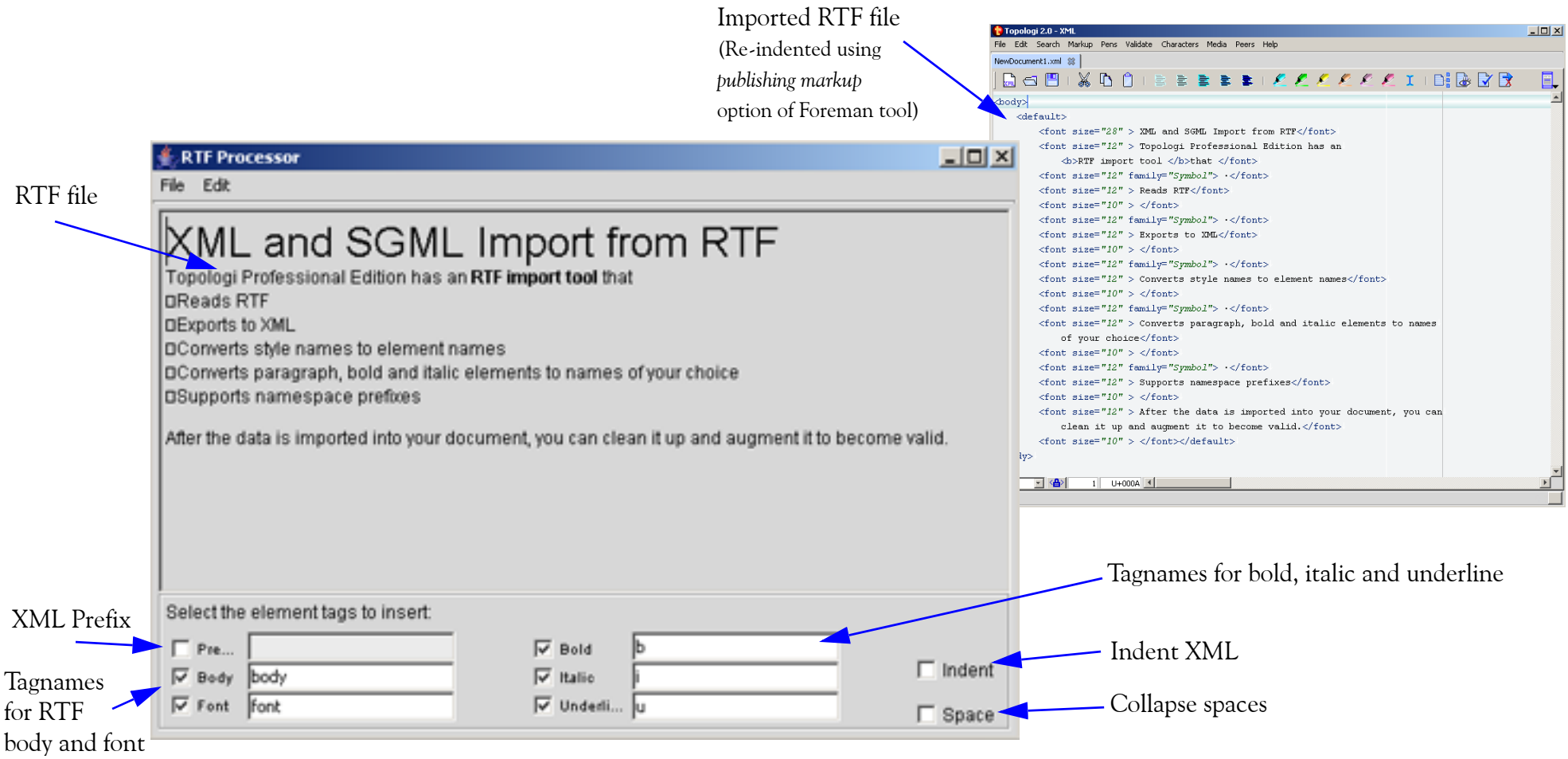
- *Grey-out* buttons provide five preset levels of contrast and colour: these range from *light-grey*, where tags are almost completely invisible to allow proofreading, to *very bright*, where tags are bold and in strong colours.
- *Line-locking* marks a region at the top and bottom with an orange highlight, and prevents editing operations in those arease. Useful to prevent overrun on large and repetitive files,.
- *Name-highlighting* draws a mild yellow hightlight 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.
- *Happy Tags* are undercolours for the open delimiters of tags: comments, start-tags, processing-instructions and references, and sections without them, have never been clearer.
- *User Preferences* supports variou 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 stuctured format and different applications generate very different kinds of RTF: visual structures apparant 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 even be displayed in the List Viewer.

Search field (regular expression)

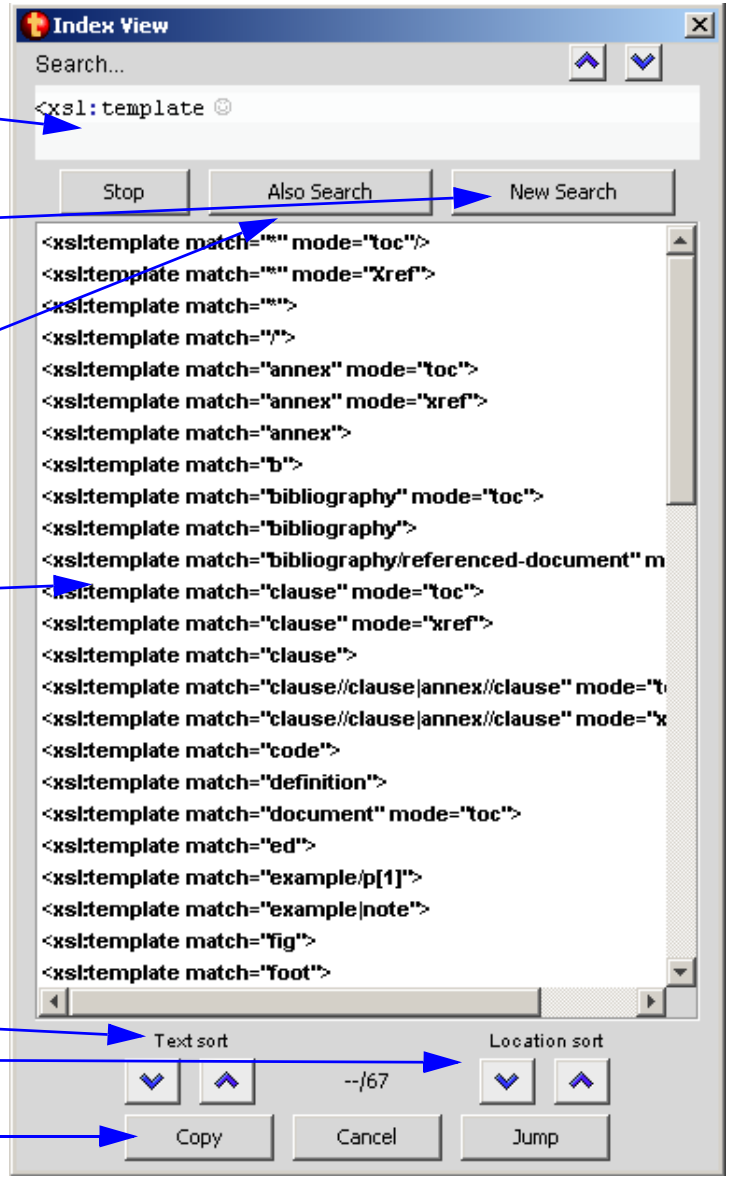
Perform search (result in bold)

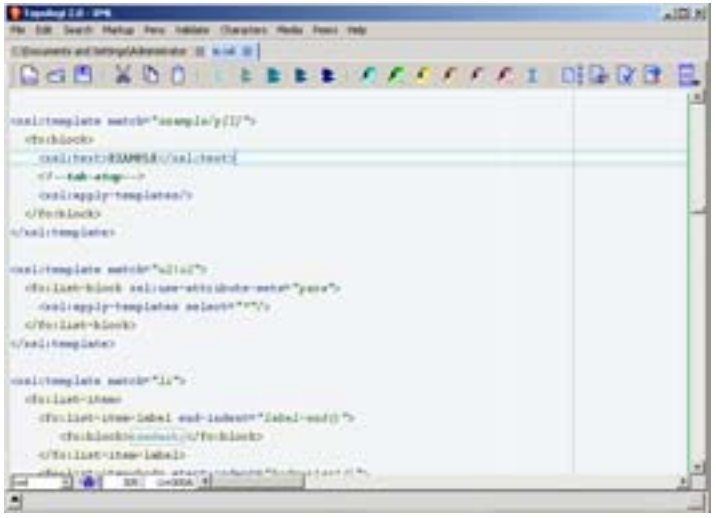
Perform other search with merged results (other results in plain, to show context)

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

Sort by text or by line number

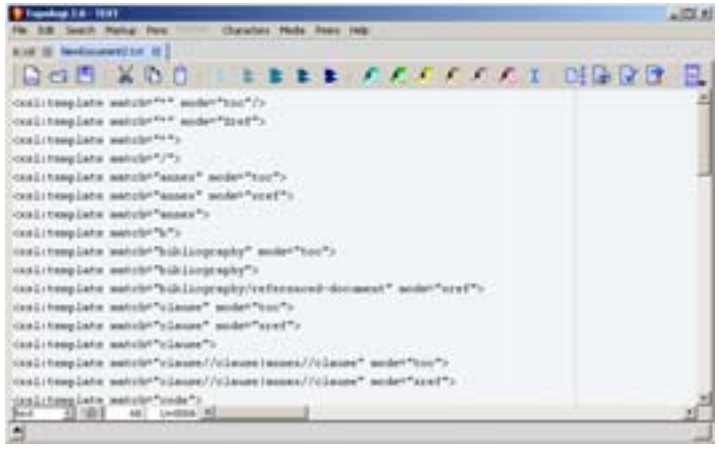
Copy list to clipboard



Example: What XSLT templates Do I Have?

1. Search XSLT document for all **xs:template**
2. Sort by text
3. Copy to clipboard
4. Paste into editor



Select *List Occurrences* from the *Search*menu