Introduction to XSLT using Oxygen XML Editor

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schematron
Structured
editing
XML
review
XQuery
Publish
PDF
DTD DocBook
oXygen
authoring
XML Editor
XSD SCH XSD
XPR RNC FO
frameworks
Profiling
WSDL
styles
visual
WebHelp
DITA
TEI
XSL
PHP
Ant
Js

JS
KML
XSLT
SVN
JSON
SVG
IDREFS
WebDAV
Single
Source
Datab
XHTML
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Agenda

- XSLT Editing, Content Completion Assistant

- XSLT Validation

- XSLT Transformations

- XSLT Documentation

- XSLT Unit Testing

XSLT

(eXtensible Stylesheet Language Transformations)

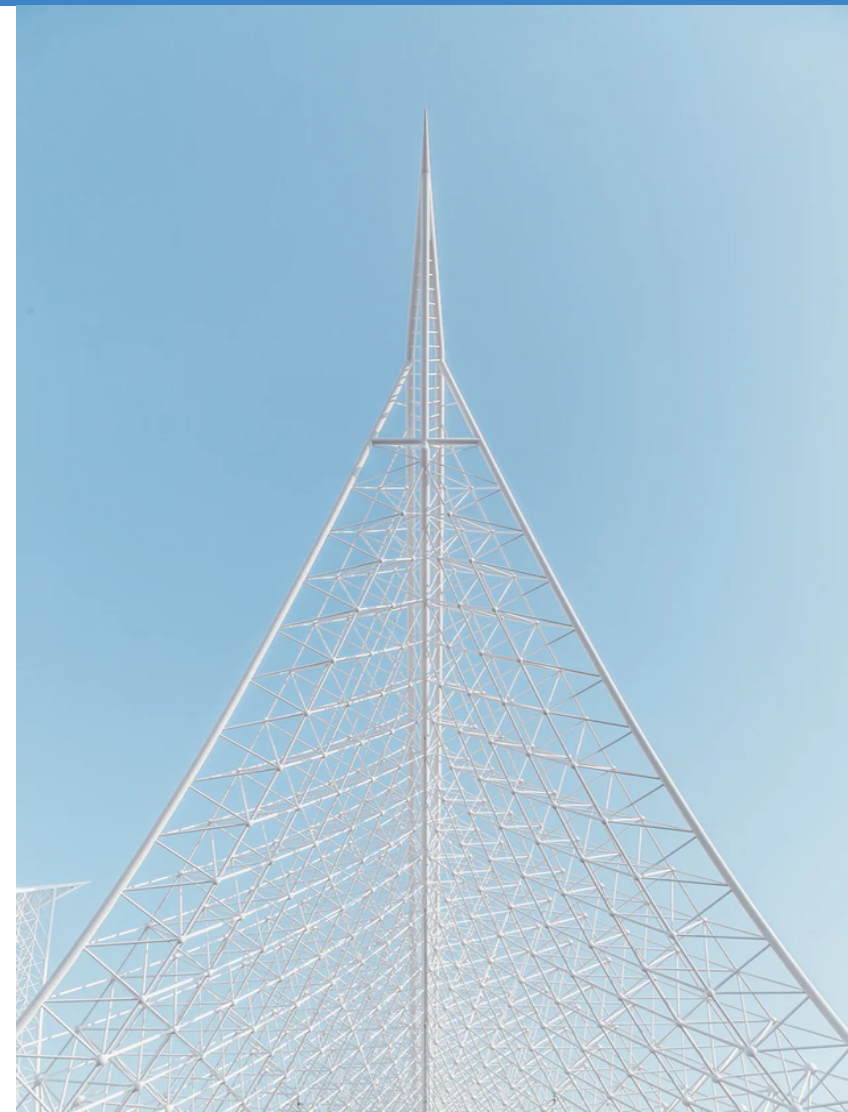- A language for transforming XML

- Is an XML-based language

XSL

w3.org/TR/xslt

XSLT Specification

- ## XSL Transformations (XSLT) Version 1.0
  - W3C Recommendation 16 November 1999
- ## XSL Transformations (XSLT) Version 2.0
  - W3C Recommendation 23 January 2007
- ## XSL Transformations (XSLT) Version 3.0
  - W3C Recommendation 8 June 2017

W3C®

Question: What XSLT versions do you use?

- ❑ None, I do not use XSLT
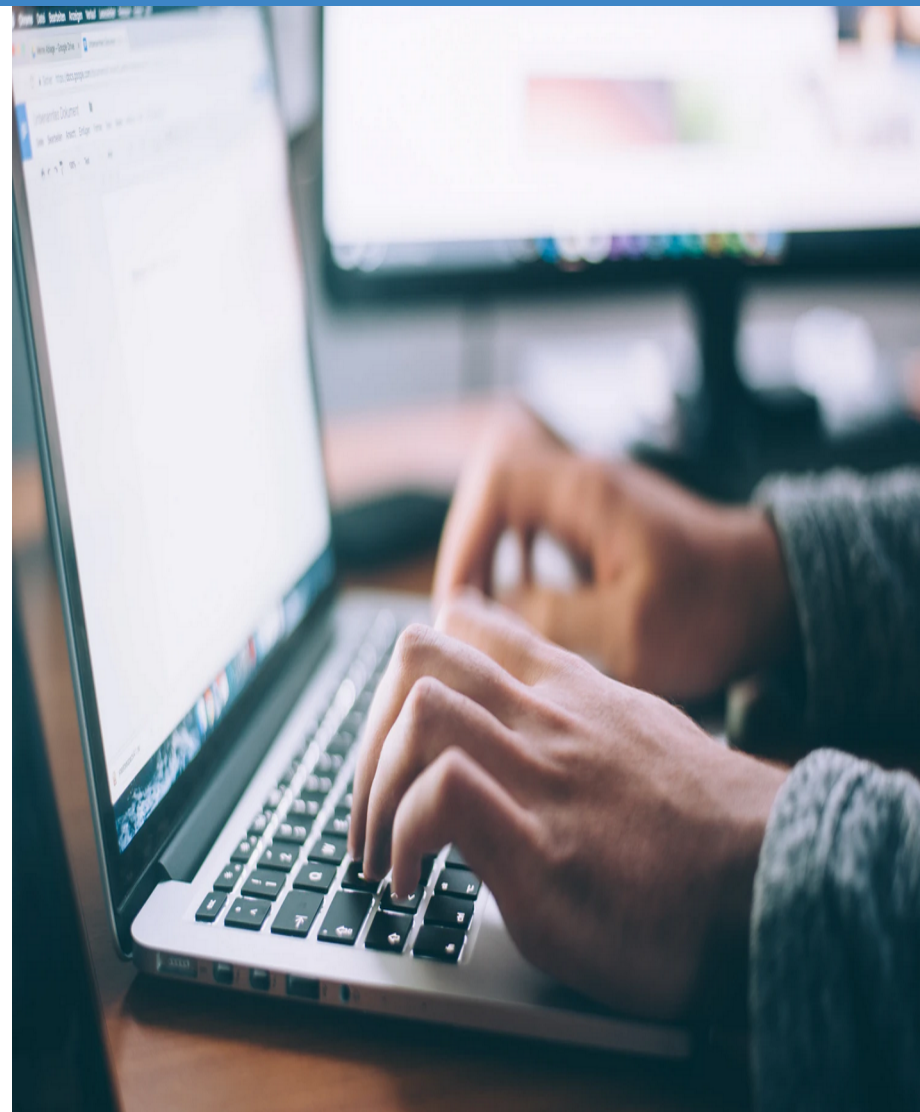- ❑ XSLT 1.0
- ❑ XSLT 2.0
- ❑ XSLT 3.0

Demo

- Stylesheets editing, validation, and transformation

XSLT Stylesheet

Demo- Generate HTML

- Create a stylesheet to generate an HTML file


```
<books>
  <book targeturi="bookTargetUri">
    <title>XSLT 2.0 Programmer's Reference</title>
    <author>Michael Kay</author>
    <image description="XSLT 2.0" src="XSLT.jpg"/>
    <paperback>955 pages</paperback>
    <publisher>Wrox</publisher>
    <isbn>0764</isbn>
    <description>XSLT 2.0 Programmer's Reference,
      3rd Edition, is the authoritative reference
      guide to the language</description>
  </book>
</books>
```
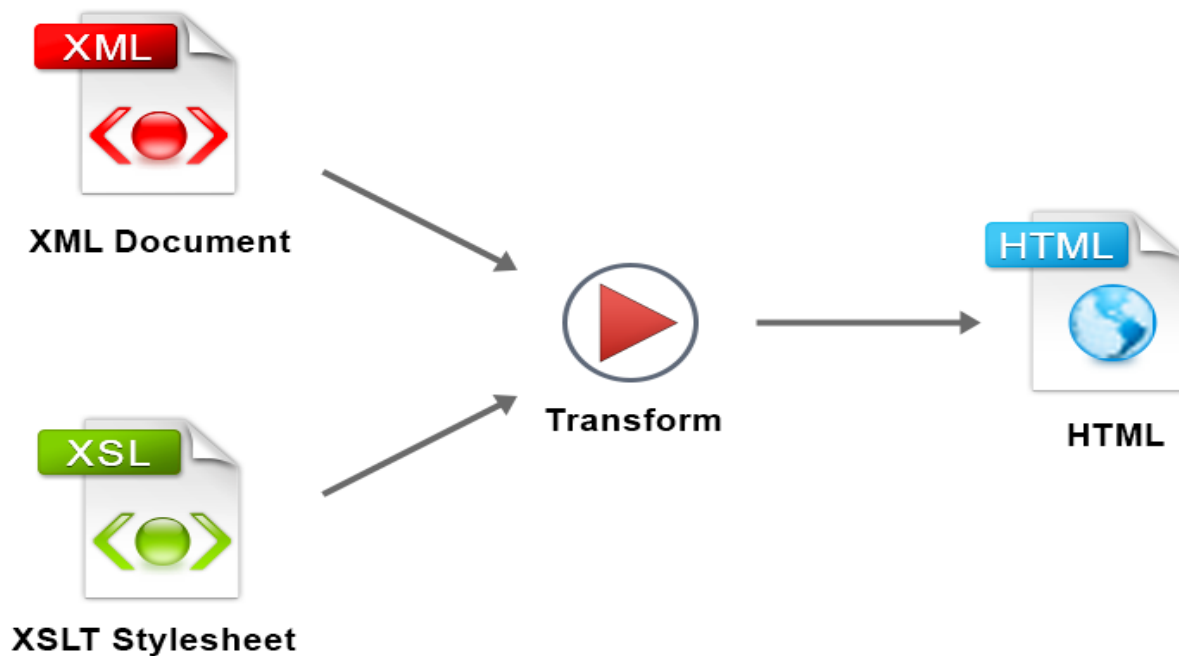
XSLT 2.0 Programmer's Reference

by Michael Kay

Paperback: 955 pages | **Publisher:** Wrox | **Isbn:** 0764

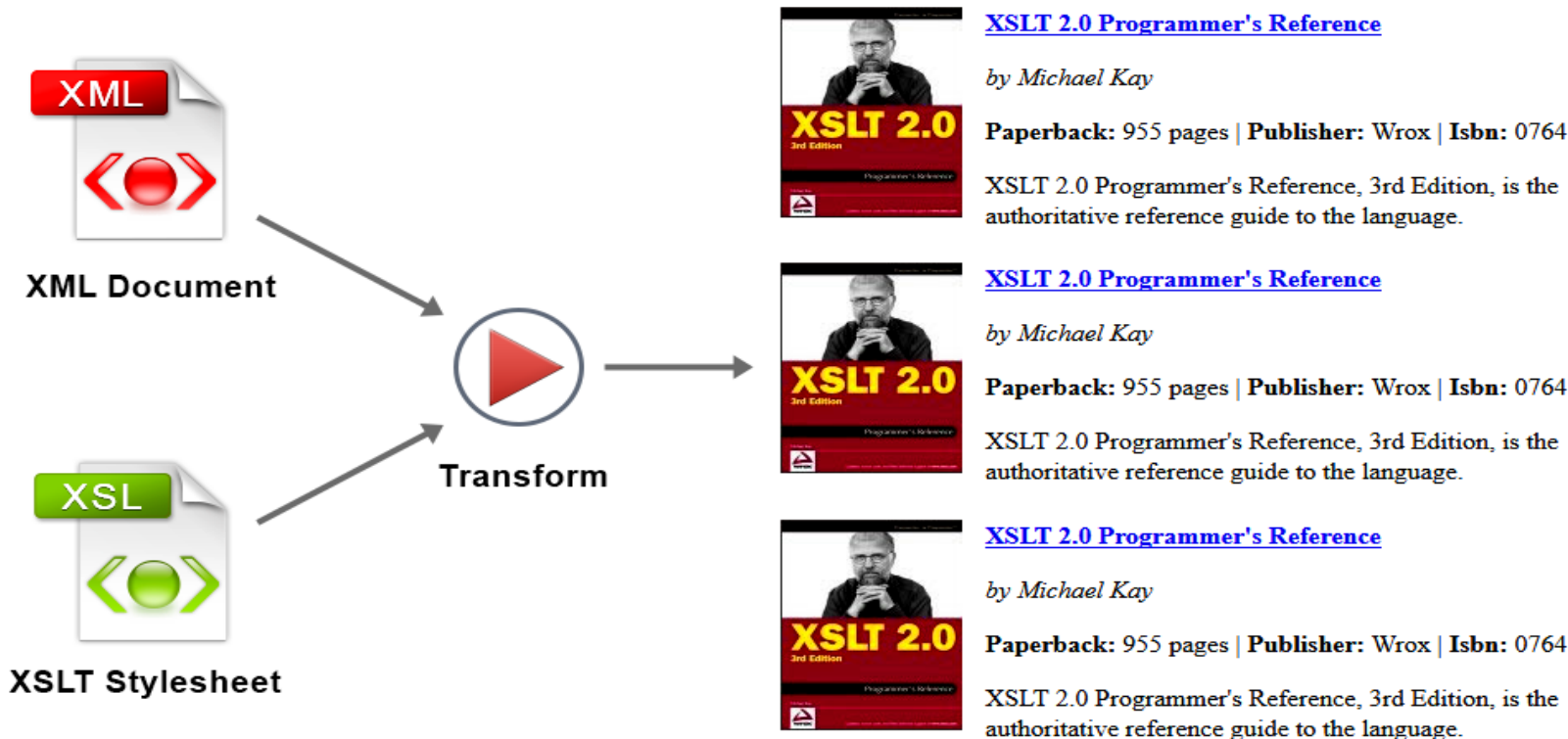XSLT 2.0 Programmer's Reference, 3rd Edition, is the authoritative reference guide to the language.

Demo – step 2

- Associate the XML with the XSL and generate an output

Demo – step 3

- Generate a table with books

Demo – step 4

- Generate books images

XML   **HTML**

```
<books>
  <book targeturi="bookTargetUri">
    <title>XSLT 2.0 Programmer's Reference</title>
    <author>Michael Kay</author>
    <image description="XSLT 2.0" src="XSLT.jpg"/>
    <paperback>955 pages</paperback>
    <publisher>Wrox</publisher>
    <isbn>0764</isbn>
    <description>XSLT 2.0 Programmer's Reference,
      3rd Edition, is the authoritative reference
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  </book>
</books>
```

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Demo – step 5

- Generate title with link

XML

```
<books>
  <book targeturi="bookTargetUri">
    <title>XSLT 2.0 Programmer's Reference</title>
    <author>Michael Kay</author>
    <image description="XSLT 2.0" src="XSLT.jpg"/>
    <paperback>955 pages</paperback>
    <publisher>Wrox</publisher>
    <isbn>0764</isbn>
    <description>XSLT 2.0 Programmer's Reference,
      3rd Edition, is the authoritative reference
      guide to the language</description>
  </book>
</books>
```
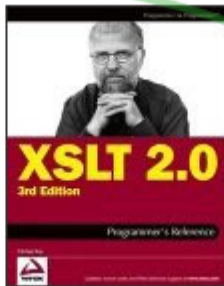
HTML

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by Michael Kay

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Demo – step 6

- Generate author in output

Demo – step 7

- Generate book info in output

XML

HTML

```
<books>
  <book targeturi="bookTargetUri">
    <title>XSLT 2.0 Programmer's Reference</title>
    <author>Michael Kay</author>
    <image description="XSLT 2.0" src="XSLT.jpg"/>
    <paperback>955 pages</paperback>
    <publisher>Wrox</publisher>
    <isbn>0764</isbn>
    <description>XSLT 2.0 Programmer's Reference,
      3rd Edition, is the authoritative reference
      guide to the language</description>
  </book>
</books>
```
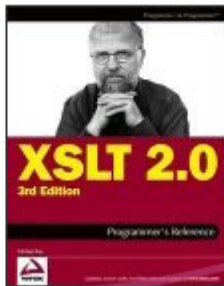

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Demo – step 8

- Generate description in output

XML

```
<books>
  <book targeturi="bookTargetUri">
    <title>XSLT 2.0 Programmer's Reference</title>
    <author>Michael Kay</author>
    <image description="XSLT 2.0" src="XSLT.jpg"/>
    <paperback>955 pages</paperback>
    <publisher>Wrox</publisher>
    <isbn>0764</isbn>
    <description>XSLT 2.0 Programmer's Reference,
      3rd Edition, is the authoritative reference
      guide to the language</description>
  </book>
</books>
```

HTML

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Conclusion

- Create a stylesheet from scratch

    – XSLT and XPath content completion

    – XSLT Input view

    – Code templates

- Validation

    – Validation as you type

    – Highlight errors

- Transformation

    – Transformation scenarios

    – Multiple engines

Question: Do you use Oxygen for XSLT development?

- Yes

- I am testing Oxygen

- I use Oxygen but not for XSLT

- I develop XSLT with a different tool

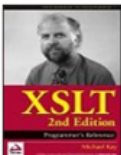- I do not use Oxygen and I do not work with XSLT

Demo – step 9

- Identify and rename an XSLT component (templates, variables, parameters, attribute sets, keys, functions, outputs)

Demo – step 10

- Group the books by technology

XSLT Books

XSLT : Programmer's Reference (Programmer to Programmer)

by Michael Kay

Paperback: 992 pages | **Publisher:** Wrox; 2 edition (May 3, 2001) | **Isbn:** 0764543814

This compact, relevant, updated version reflects recent changes in the XSLT specification and developments in XSLT

Learning XSLT

by Michael Fitzgerald

Paperback: 368 pages | **Publisher:** O'Reilly; 1 edition (November 18, 2003) | **Isbn:** 0596003277

Learning XSLT moves smoothly from the simple to complex, illustrating all aspects of XSLT 1.0 through step-by-step

XML Books

XML Hacks 100 Industrial-Strength Tips & Tools

by Michael Fitzgerald

Paperback: 478 pages | **Publisher:** O'Reilly; 1 edition (July 27, 2004) | **Isbn:** 0596007116

Developers and system administrators alike are uncovering the true power of XML, the Extensible Markup Language

Effective XML: 50 Specific Ways to Improve Your XML
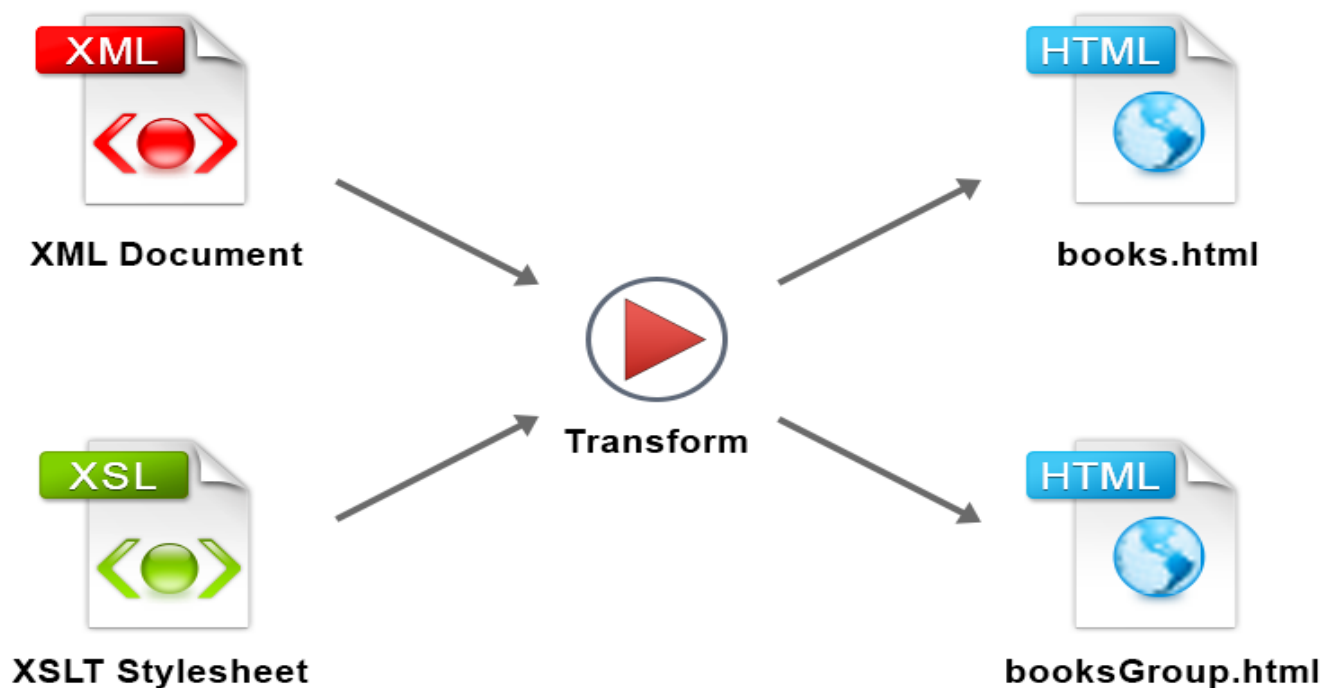
by Elliotte Rusty Harold

Paperback: 336 pages | **Publisher:** Addison-Wesley Professional; 1st edition (September 12, 2003) | **Isbn:** 0321150406

Elliotte Rusty Harold provides you with 50 practical rules of thumb based on real-world examples and best practices.
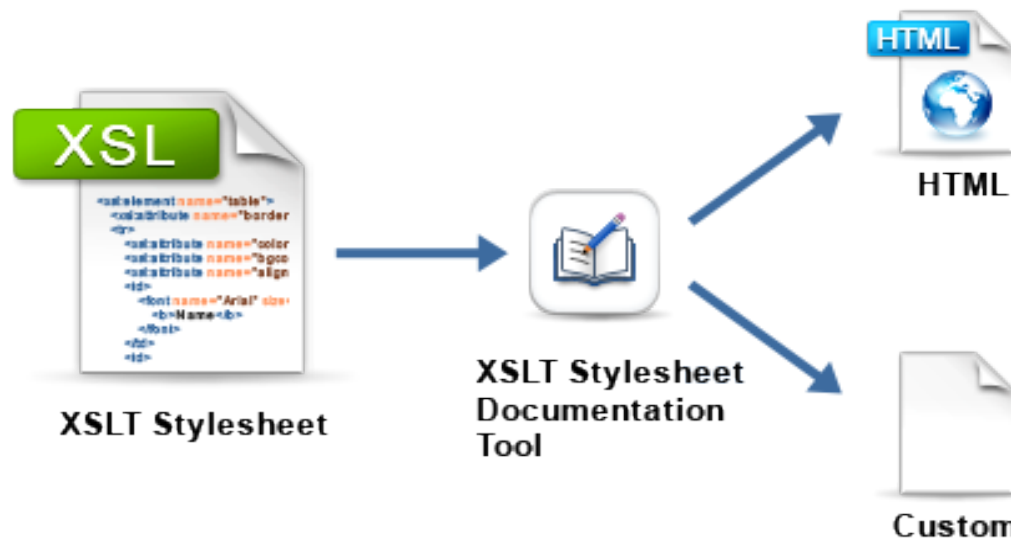
Demo – step 11

- Generate multiple HTML files

Demo – XSLT Documentation

- Generate XSLT Documentation

Demo – XSLT Unit Test (XSpec)

- Test you stylesheet

Conclusion

- XSLT Search and Refactoring

    - Rename XSLT occurrences

    - Search XSLT references/declarations

    - Component dependencies

- Transformation View

- XSLT Documentation Generator

- XSLT Unit Testing Support

Future Plans

- Improve XSLT 3.0 Support

- Provide Latest Saxon Version

- XSLT Unit Code Coverage

- and more …

Resources

- W3C XSLT Specification

- XSLT Support in Oxygen XML Editor

- Oxygen User Manual - Editing XSLT Stylesheets

- Oxygen XSLT Presentations and Tutorials

- Oxygen Emmet Plugin

Questions?

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