



# Quick Fixes



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# Quick Fixes

- It is important to have a document without errors
- Not all users know how to fix an error
- Suggestions to fix errors
- Similar to spell check proposals



# Proposals to Solve Errors

- Some errors can be fixed automatically
  - Required element missing
  - Attribute not allowed



- Analyze error and propose valid fixes
- Write your own quick fix

# <oxygen/> Quick Fixes Support



For XSLT documents



For Ant Build documents

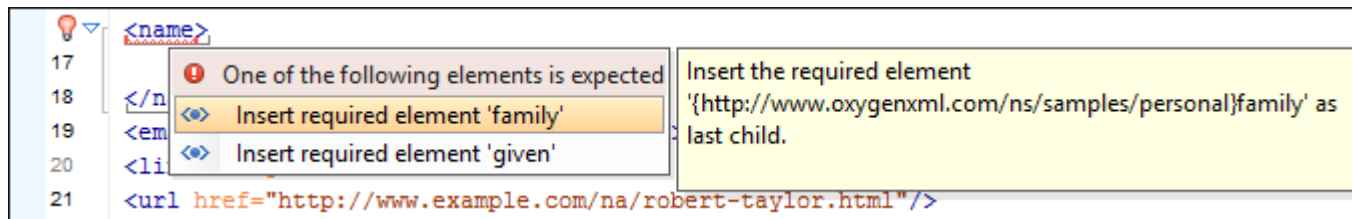


For XML documents

- validation against XML Schema
- validation against Relax NG
- validation against Schematron (in progress)







# Display Quick Fix Proposals

- Place the caret on error highlight will display a bulb
- Show fix proposals:
  - Click the red bulb
  - Invoke the quick fix menu with Alt + 1



# Apply Quick Fix

- Just click the proposal
- Available in both Text and Author page
- Reconfigure on document modification

Horizontal Span	a3
<i>fl</i>	 The value of the attribute 'align' is invalid
b1	 Set 'align' attribute value to 'center'
c1	 Set 'align' attribute value to 'char'
c1	 Set 'align' attribute value to 'justify'
d1	 Set 'align' attribute value to 'left'
d1	 Set 'align' attribute value to 'right'

Docbook 5 also supports the HTML tables:

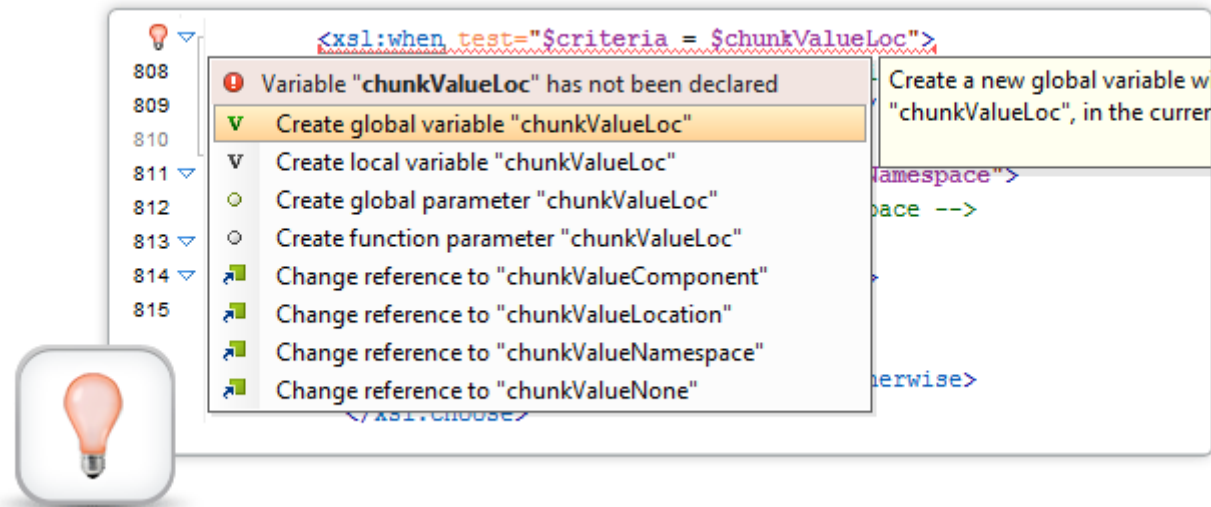


Horizontal Span	a3	
<i>fl</i>	<i>f2</i>	<i>f3</i>
b1	b2	b3
c1	Spans Both directions	
d1		

Docbook 5 also supports the HTML tables:

# XSLT Quick Fixes

- Fixes for validation errors
- Multiple suggestions to fix an error



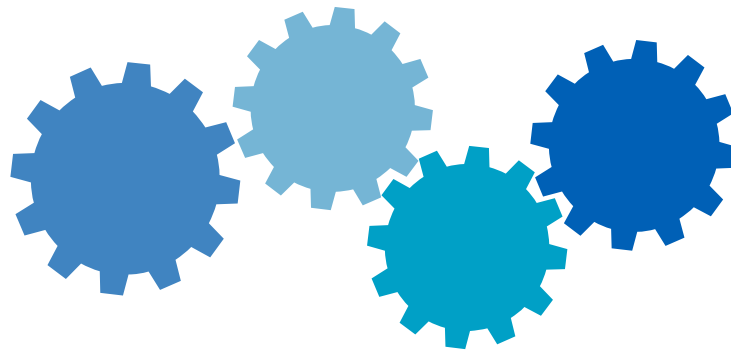
# XSLT Quick Fixes for

- ❏ Missing template
- ❏ Misspelled template name
- f() Missing function
- v References to an undeclared variable or parameter
  - Others



# XSLT Quick Fixes benefits

- Quickly solve errors
- Speed up your work
- Together with the Quick Assist creates a complete XSLT development support





# XML Quick Fixes

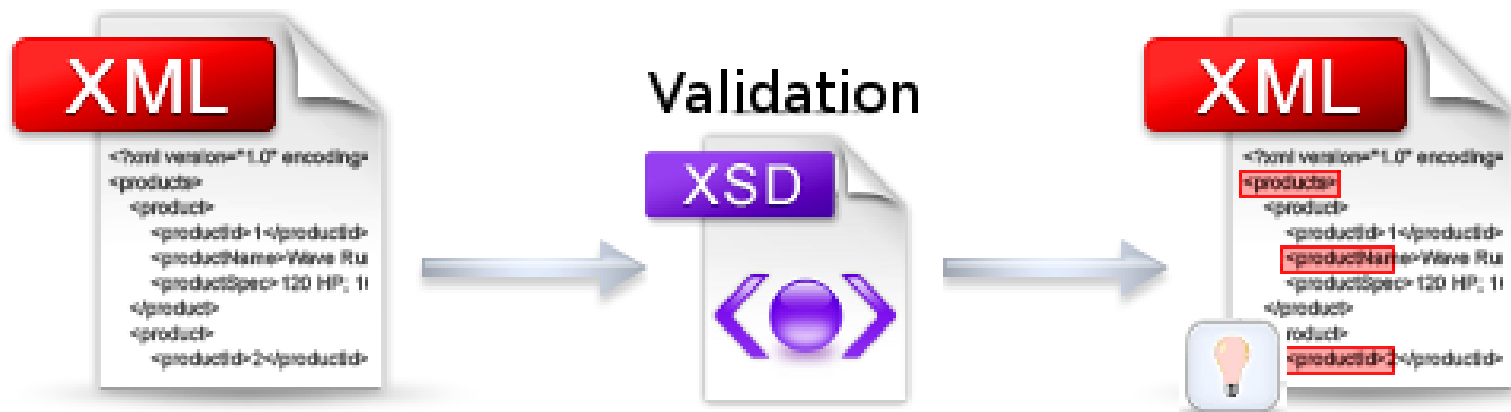
- Solve errors that appear in an XML document
  - validation against XML Schema
  - validation against Relax NG
  - validation against Schematron (in progress)



# XML Validated with XSD

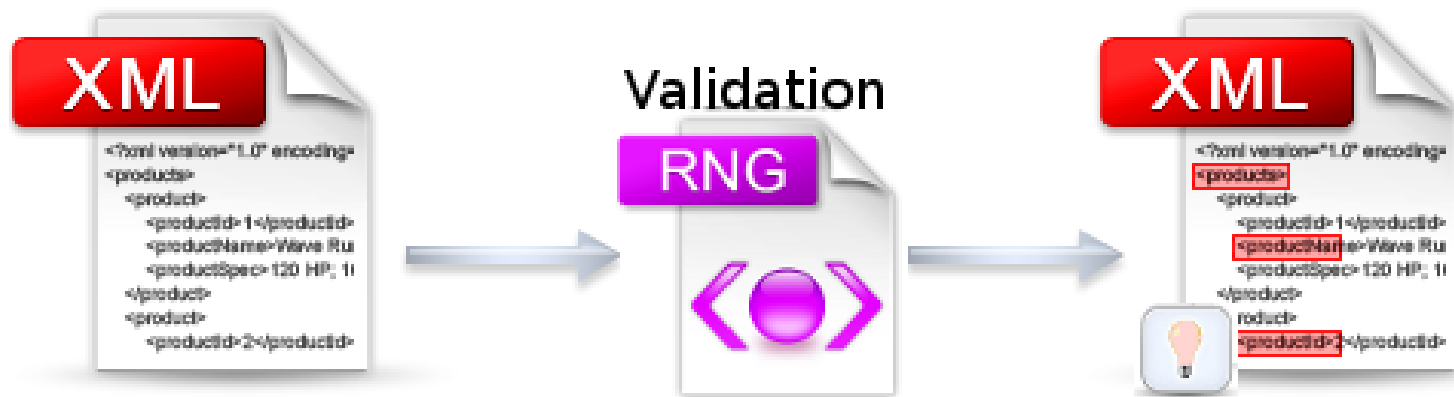
- Quick fixes for common errors
  - a* A required attribute is missing
  -  An element is invalid in the current context
  -  References to an invalid ID

...



# XML Validated with RNG

- Quick fixes for common validation errors
- Fixes provided if XML is validated against RNG or RNC schema



# XML Quick Fixes benefits

- Solutions to fix the errors
- A better description of the problem
- Solve errors with just one click
- Fixes available on both Text and Author page



# Schematron Quick Fixes (SQF)

- Open source project
- Extends the Schematron language

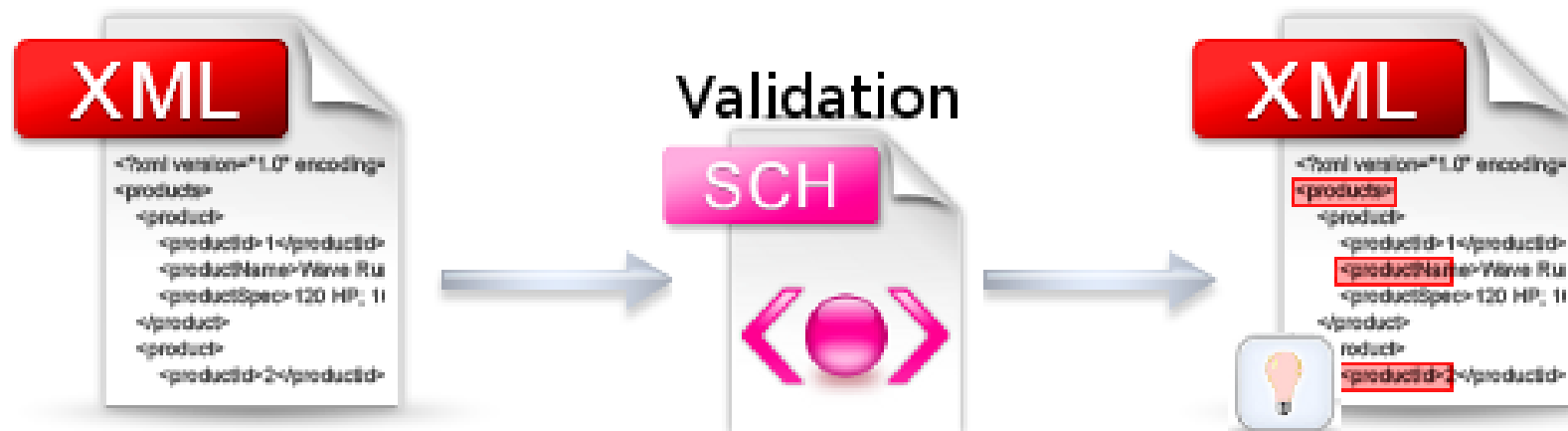
SQF

[www.schematron-quickfix.com](http://www.schematron-quickfix.com)

[www.w3.org/community/quickfix](http://www.w3.org/community/quickfix)

# XML Validated with Schematron

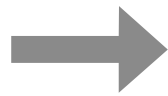
- Define fixes in SQF
- SQF fixes are compiled and we generate the <oxygen/> quick fixes



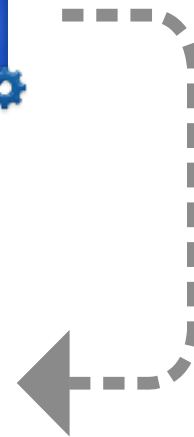
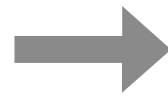
# SQF to <oxygen/> Quick Fix





- How the compilation is made

SQF



OQF



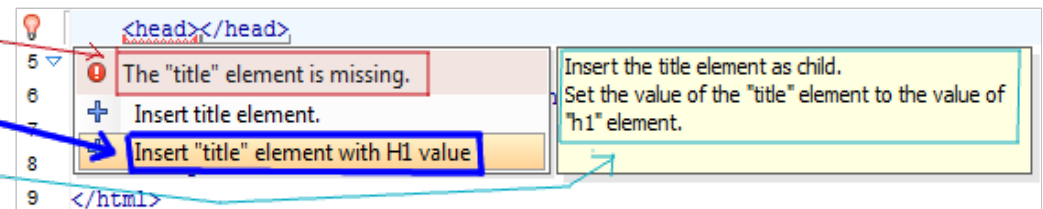
	The sum of the column widths (106%) is greater than 100%.
	Subtract the excessive width from the last <col> element.
	Subtract the excessive width from each <col> element proportionally.
	Auto-correct the width of one column.



# How SQF is presented

- The error message is presented as description
- The fix title is presented as proposal name
- The description of the fix is presented on the tooltip

```
<assert test="html:title" sqf:fix="addTitle setTitleToH1">
  The "title" element is missing.</assert>
<sqf:fix id="setTitleToH1">
  <sqf:description>
    <sqf:title>Insert "title" element with H1 value</sqf:title>
    <sqf:p>Insert the title element as child.</sqf:p>
    <sqf:p>Set the value of the "title" element to the value of
  </sqf:description>
  <sqf:add target="title" node-type="element">
    <value-of select="//html:h1[1]">
  </sqf:add>
</sqf:fix>
```



The screenshot shows an IDE window with a tree view on the left and a code editor on the right. The tree view shows a folder for <head> with a sub-item for <title>. The code editor shows the following code:

```
<head></head>
5
6
7
8
9 </html>
```

The error message is displayed in a red box: "The 'title' element is missing." The quick fix is displayed in a yellow box: "Insert 'title' element with H1 value". The tooltip is displayed in a green box: "Insert the title element as child. Set the value of the 'title' element to the value of 'h1' element." Arrows indicate the mapping from the code to the error and the quick fix, and from the quick fix to the tooltip.

# SQF Framework

- Support to edit SQF quick fixes in Schematron or in a separate file
- Content completion
- Validation as you type



# SQF Quick Fixes benefits

- Create custom quick fixes for errors
- Use the power of Schematron and XSLT
- Custom solution for different type of documents
- Create refactoring actions using SQF



# Thank you!

## Questions?

<oxygen/> XML Editor

<http://www.oxygenxml.com>

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