What's New in Oxygen XML Editor 20

- Development -

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<oXygen/> XML Editor

Overview

XSLT

Saxon

Schematron

SQF

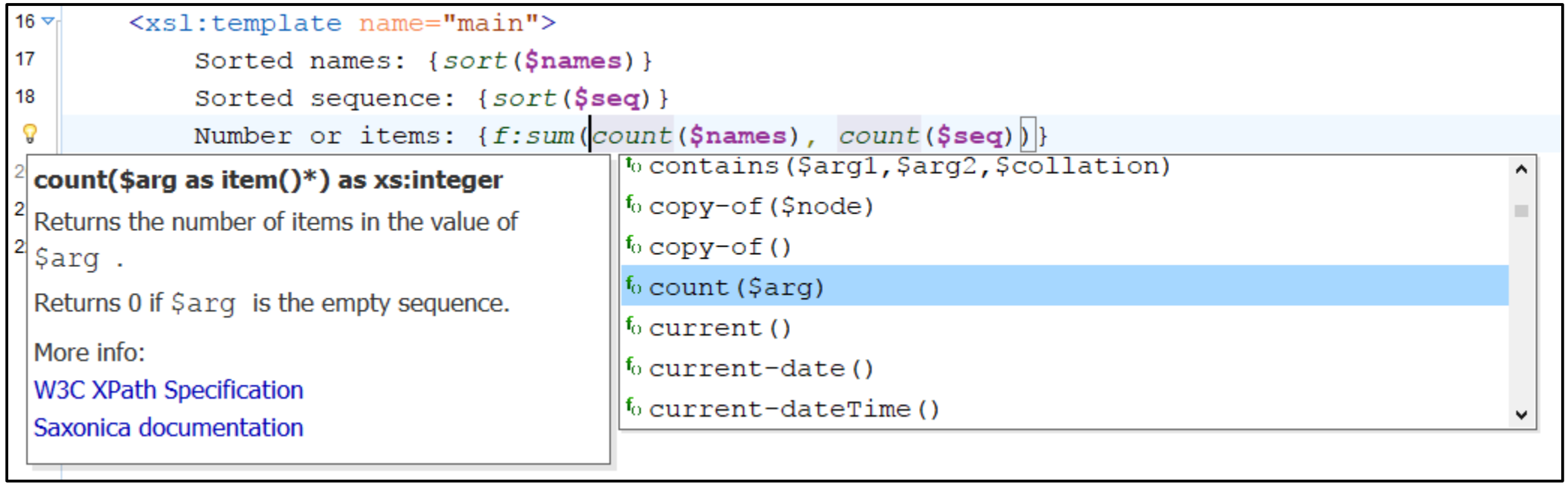
JSON

XSLT Improvements

- XPath content completion in TVTs
- Search and refactoring in TVTs
- Documentation for functions and template presented in the content completion window
- ...

XPath Content Completion in TVTs

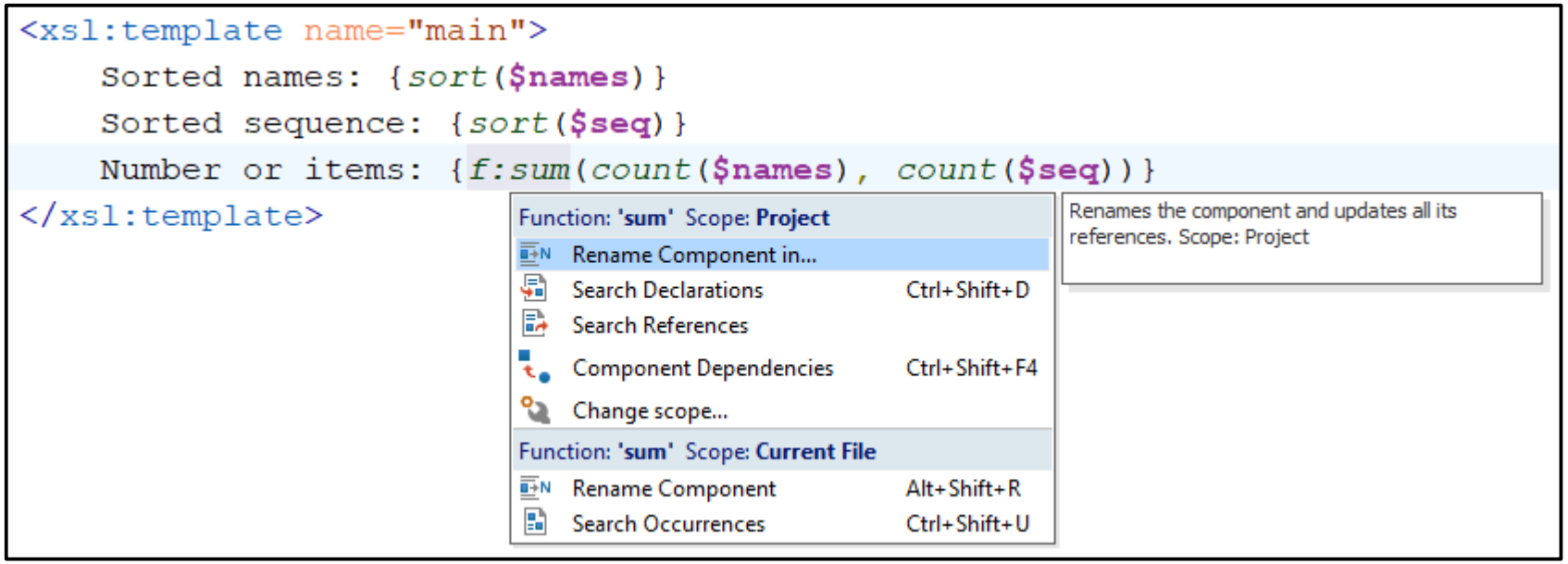
- Full content completion support was added for text value templates



w3.org/TR/xslt-30/#text-value-templates

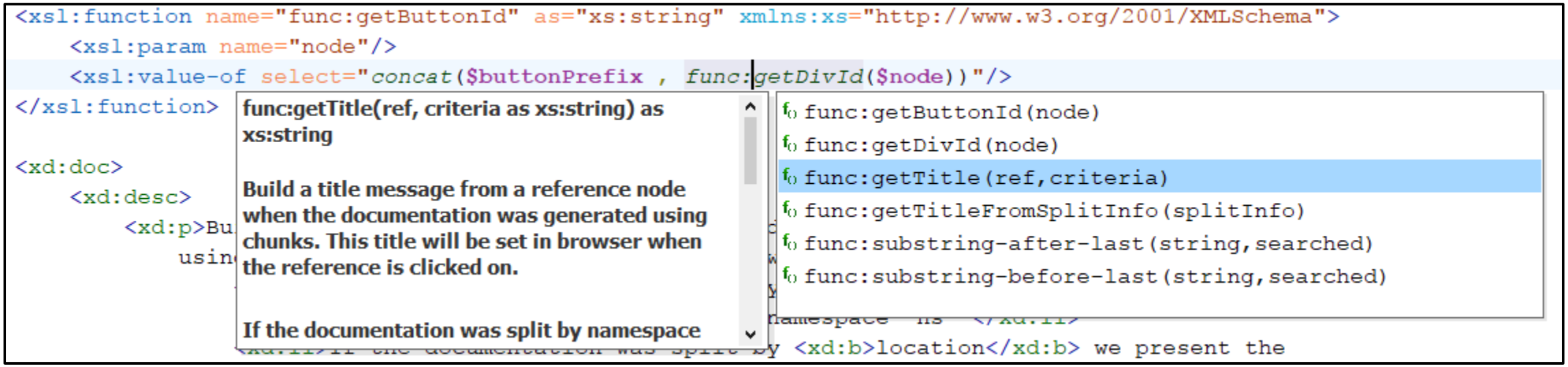
Search and Refactoring in TVTs

- Added support to search and rename variable, parameters, or functions in text value templates



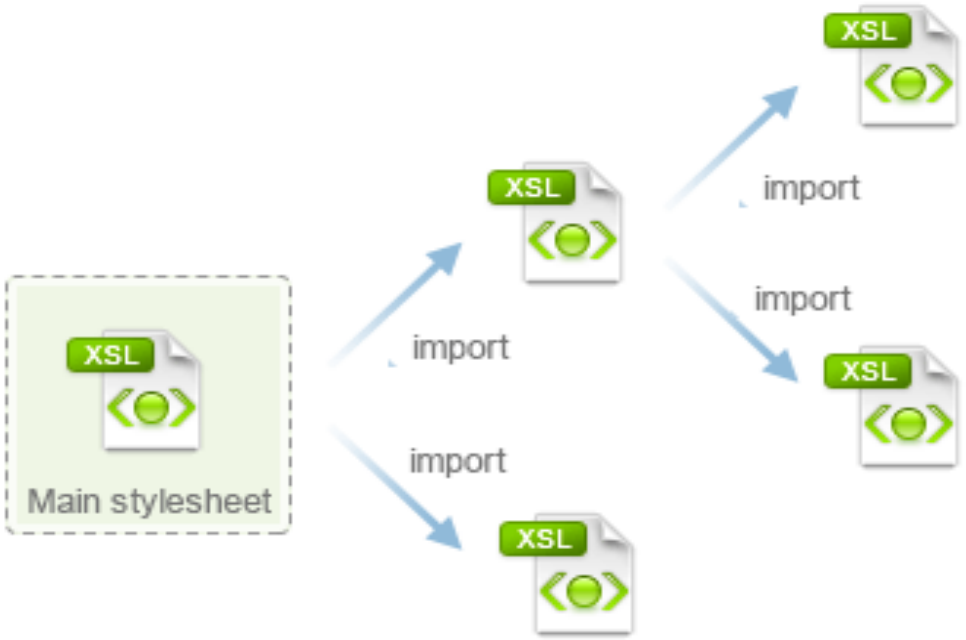
Functions and Templates Documentation

- Documentation for current function and template presented in the content completion window



Override Parameters in XSLT Modules

- When editing XSLT that references modules, if you try to define a new parameter, the content completion list shows the names of the parameters defined in the modules



Convert xsl:attribute to Inline Attributes

- You can now convert xsl:attribute elements to inline attributes for elements outside the XSL namespace

```
<person>
    <xsl:attribute name="id">john.doe</xsl:attribute>
    <xsl:attribute name="email"><xsl:text>john.doe@example.com</xsl:text></xsl:attribute>
    <xsl:attribute name="manager"><xsl:value-of select="person[@id='boss']/name"/></xsl:attribute>
</person>
```

```
<person id="john.doe" email="john.doe@example.com" manager="{person[@id='boss']/name}"/>
```

Improved Refactoring Support

- **Improved extract template** - the action that extracts a fragment as a named template now adds type information to the variables or parameters used in the new template.

oxygenxml.com/doc/ug-editor/topics/xslt-refactoring-actions.html

Saxon Update

- We keep updating Saxon
  - Saxon **9.8.0.8** in **<oXygen/>** 20.0
  - Saxon **9.6**, **9.7**, **9.8** available as **<oXygen/>** add-ons

SAXONICA.COM
XSLT AND XQUERY PROCESSING

www.saxonica.com

Saxon

- Saxon HE/PE/EE is builtin in <oXygen/>
- Used for:
  - XSLT validation, execution, and debugging
  - Compile XSL stylesheet for Saxon JS or Saxon HE/PE/EE
  - XQuery validation, execution, and debugging
  - Schematron and SQF execution
  - XML Schema validation

Schematron

- Added content completion and syntax highlighting for the ISO Schematron @documents attributes

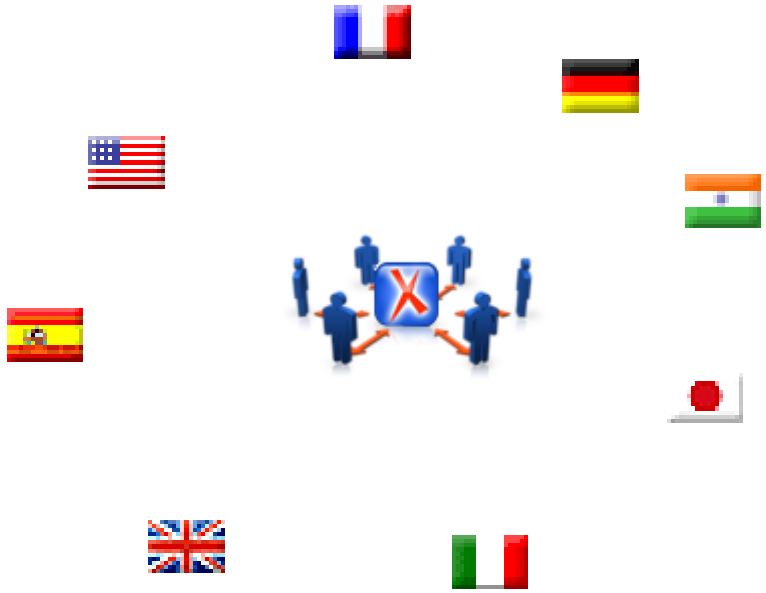
SQF Update

- Multilingual support for quick fixes
- Generate Multiple Similar Fixes
- Changed sqf:keep in sqf:copy-of
- Added @flags for sqf:stringReplace

http://schematron-quickfix.github.io/sqf

Multilingual Support for Quick Fixes

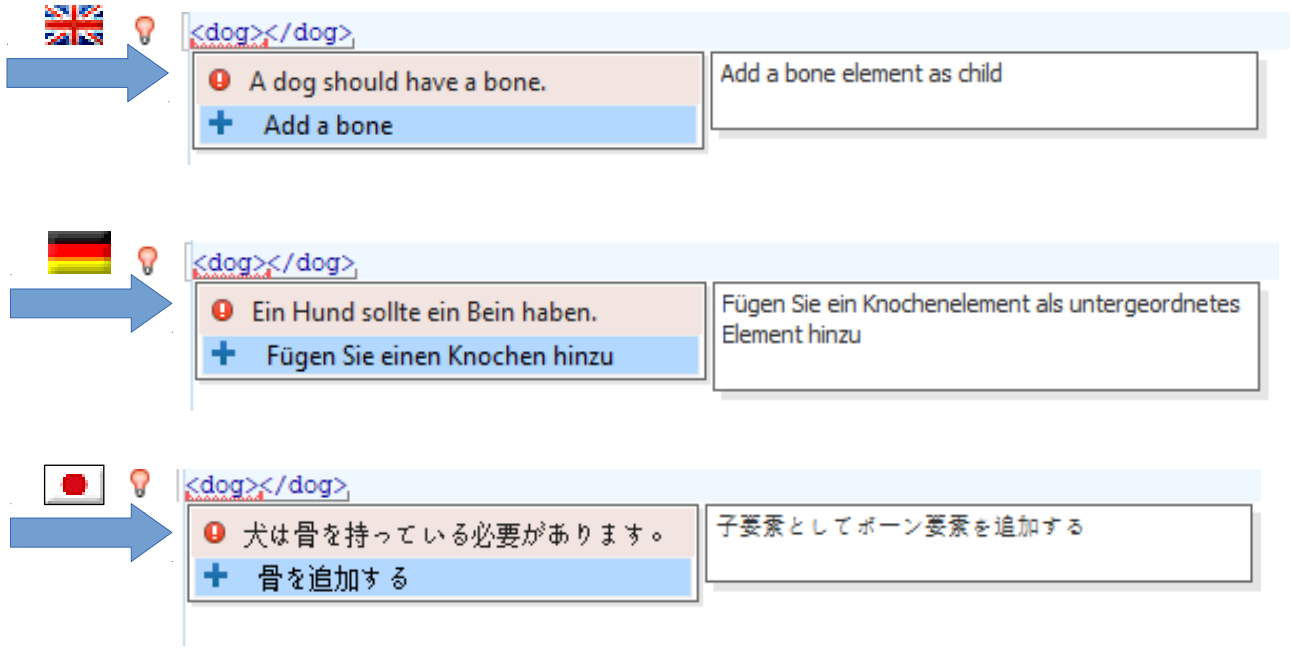
- Impose same rules but present them in different languages



Multilingual Support in SQF

- The name and description of a quick fix are defined by sqf:title and sqf:p elements
- The @ref attribute specifies IDs or keys for alternative localization

```
<sqf:fix id="addBone">
   <sqf:description>
      <sqf:title ref="fix_jp fix_de">Add a bone</sqf:title>
      <sqf:p ref="fix_d_jp fix_d_de">Add a bone as child</sqf:p>
   </sqf:description>
   <sqf:add node-type="element" target="bone"/>
</sqf:fix>
```



Localization Using Diagnostics

- Implementation of quick fix localization using Schematron diagnostics
  - A diagnostic element is used for each language
  - The @ref attribute refers diagnostic IDs

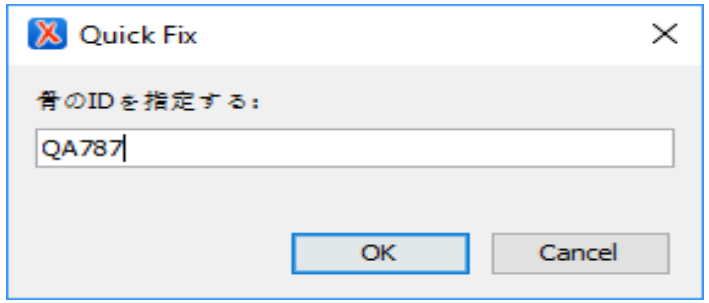
```
<sqf:fix id="addBone">
   <sqf:description>
      <sqf:title ref="fix_fr fix_de">Add a bone</sqf:title>
   </sqf:description>
   <sqf:add node-type="element" target="bone"/>
</sqf:fix>
....
<sch:diagnostics>
   <sch:diagnostic id="fix_fr" xml:lang="fr">  Ajouter un os </sch:diagnostic>
   <sch:diagnostic id="fix_de" xml:lang="de">Fügen Sie einen Knochen hinzu</sch:diagnostic>
</sch:diagnostics>
```

SQF Localization

- Separate files for each language
- Include files from the main Schematron
- Support for included diagnostics
    - Validation
    - Content completion
    - Search and rename

User Entry Multilingual Messages

- Support to present the user entry messages in multiple languages




```
<sqf:user-entry name="boneId">
    <sqf:description>
        <sqf:title ref="ue_en ue_fr ue_de ue_ja">Specify bone ID:</sqf:title>
    </sqf:description>
</sqf:user-entry>
<sqf:add node-type="element" target="bone" select="concat('ID: ', $boneId)"/>
```

Language Options

- Uses Schematron messages options:
  - Use the application language
  - Use the “xml:lang” attribute set on the Schematron root
  - Ignore the language and show all messages
  - Use a custom language

Generate Multiple Similar Fixes

- Added support to generate quick fixes dynamically using the @use-for-each attribute
- Generate a quick fix for each match of the @use-for-each attribute

```
<sqf:fix id="removeAnyItem" use-for-each="1 to count(li)">
    ....
</sqf:fix>
```

Use-for-each Attribute

- XPath content completion
- Present $sqf:current in content completion list

```
<sqf:fix id="removeAnyItem" use-for-each="1 to count(li)">
    <sqf:description>
        <sqf:title>Remove item #<sch:value-of select="$sqf:current"/></sqf:title>
    </sqf:description>
    <sqf:delete match="li[$sqf:current]"/>
</sqf:fix>
```

Changed sqf:keep in sqf:copy-of

- sqf:copy-of – copies the nodes selected by the select attribute, similar with xsl:copy-of

```
<report test=".//doc:footnote" sqf:fix="parentBrackets">Footnote in footnote is forbidden.</report>
<sqf:fix id="parentBrackets">
   <sqf:description><sqf:title>Resolve as text in brackets.</sqf:title></sqf:description>
   <sqf:replace >
      (<sqf:copy-of select="./doc:para/node()"/>)
   </sqf:replace>
</sqf:fix>
```

Added @flags for sqf:stringReplace

- sqf:stringReplace operation specifies also the flags for the regular expression
- Similar with the flags of the xsl:analyze-string instruction

```
<sqf:stringReplace regex="dialog(?!\s+box)" flags="i" select="'dialog box'"/>
```

Improvements for sqf:user-entry

- Content completion
- Search
- Refactoring

```
<sqf:fix id="editTitle">
    <sqf:description>
        <sqf:title>Edit the jurnal title</sqf:title>
    </sqf:description>
    <sqf:user-entry name="newTitle" default="@title">
        <sqf:description><sqf:title>Edit the title:</sqf:title></sqf:description>
    </sqf:user-entry>
    <sqf:replace match="@title" target="title" node-type="keep" select="$newTitle"/>
</sqf:fix>
```

JSON

- Improved the syntax highlighting for JSON scripts embedded in XHTML documents
- Added JSON-specific syntax highlights for DITA codeblock elements
- JSON arrays can now be folded using the collapse/expand arrow
- When using the action to convert XML to JSON, the generated JSON file is automatically formatted and indented

THANK YOU!

Any questions?

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