

How to develop XSLT stylesheets for Saxon-CE

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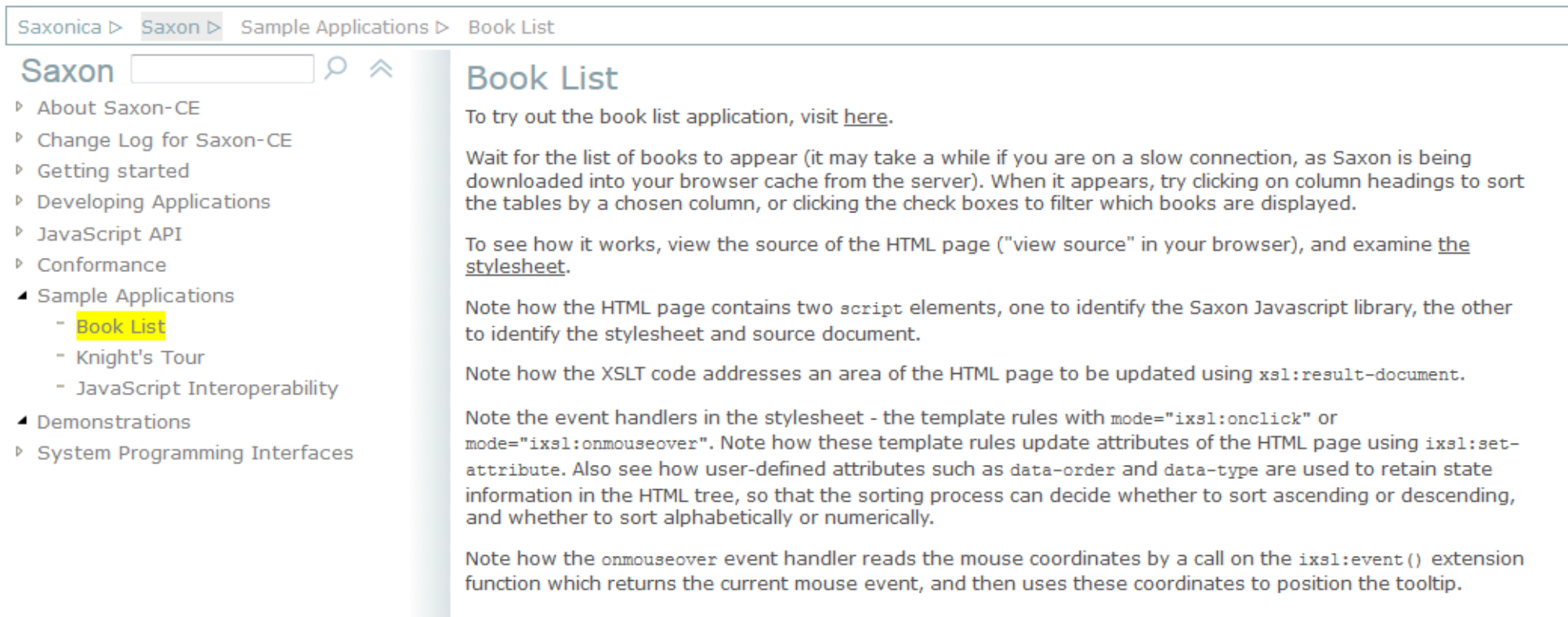
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A few words about Saxon-CE processor

- Saxon-CE is a Saxonica implementation of XSLT 2.0 processor designed to work within a web browser
- Saxon-CE can handle the user input and interactions directly in the XSLT code
- Saxon-CE is a JavaScript library obtained by converting the Java processor into highly-optimized JavaScript using GWT library

'Book list' sample

<http://saxonica.com/ce/user-doc/1.1/index.html#!samples/booklist>

A screenshot of a web browser showing the Saxon Book List application. The browser's address bar shows the URL http://saxonica.com/ce/user-doc/1.1/index.html#!samples/booklist. The page has a navigation menu on the left with links like 'About Saxon-CE', 'Change Log for Saxon-CE', 'Getting started', 'Developing Applications', 'JavaScript API', 'Conformance', 'Sample Applications' (with 'Book List' highlighted), 'Demonstrations', and 'System Programming Interfaces'. The main content area is titled 'Book List' and contains several paragraphs of text explaining how to use the application, including instructions on waiting for the list to appear, viewing the source, and understanding the XSLT code and event handlers.

XSLT with Saxon-CE support add-on

<http://www.oxygenxml.com/InstData/Addons/Saxon-CE/updateSite.xml>

- an XSLT module
- an implementation of the Java extension SchemaManagerFilter
- a Schematron module
- two default validation scenarios

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- an *XSLT module* containing declarations of the extension functions specific to Saxon-CE processor

Unknown Saxon-CE extension function

```
<xsl:variable  
  name="styleLeftVal"  
  select="concat(ixsl:get(ixsl:event(), 'clientX') + 30, 'px')"/>
```

XSLT module snippet

```
<xsl:function name="ixsl:event" override="no"/>  
  
<xsl:function name="ixsl:get" override="no">  
  <xsl:param name="object"/>  
  <xsl:param name="property"/>  
</xsl:function>
```

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- an implementation of the Java extension *SchemaManagerFilter* to improve content completion proposals

```
/**
 * Interface for objects used to filter the editor content completion schema manager proposals.
 * This should be implemented if the list of content completion proposals must be filtered based on some
 criteria or
 * some new entries need to be added.
 */
public interface SchemaManagerFilter extends Extension {
    List<CIElement> filterElements(List<CIElement> elements, WhatElementsCanGoHereContext context);
    List<CIValue> filterElementValues(List<CIValue> elementValues, Context context);
    List<CIAttribute> filterAttributes(List<CIAttribute> attributes, WhatAttributesCanGoHereContext context);
    List<CIValue> filterAttributeValues(List<CIValue> attributeValues, WhatPossibleValuesHasAttributeContext
context);
}
```

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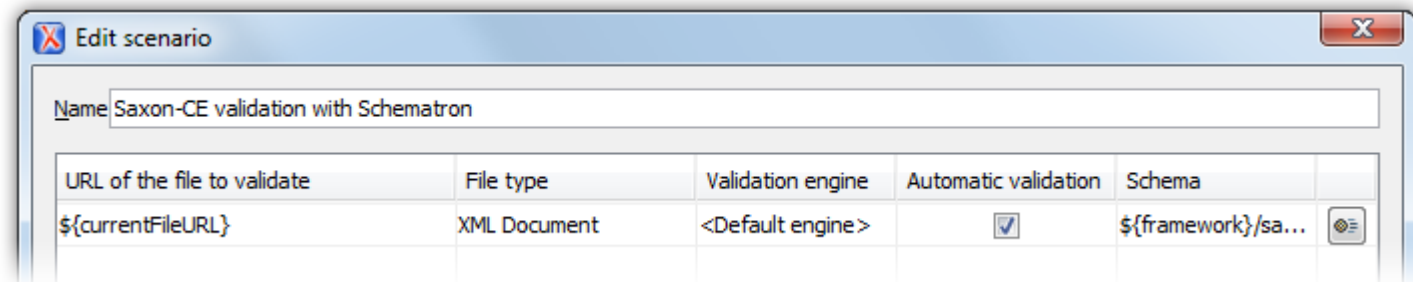
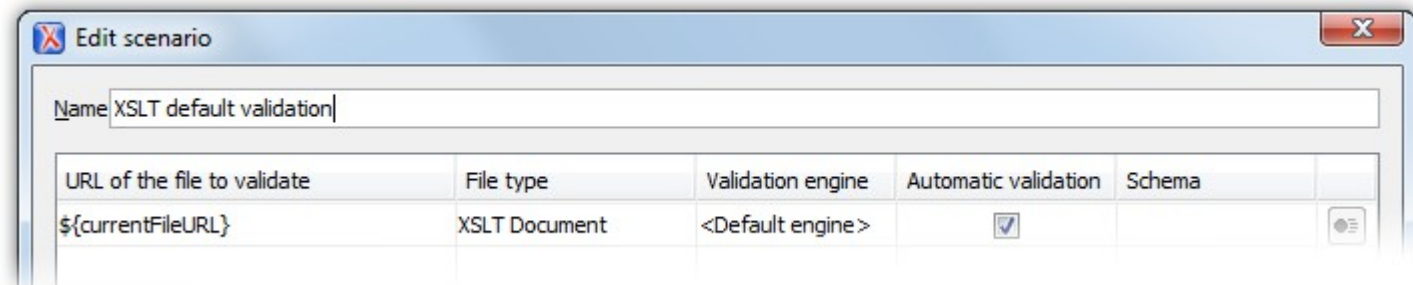
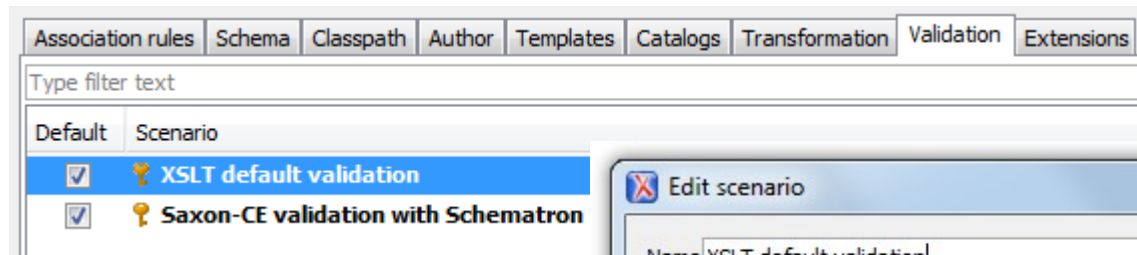
- a *Schematron* module to verify the name of Saxon-CE extension elements and attributes

```
<pattern id="ixsl_element_names">
  <p>Test the names of Saxon-CE extension elements.</p>
  <rule context="ixsl:*">
    <let name="elemName" value="local-name()"/>
    <assert test="$elemName = 'set-attribute' or $elemName = 'set-property' or
      $elemName = 'schedule-action' or $elemName = 'remove-attribute'" role="warning">
      Unknown Saxon CE extension element: '<value-of select="$elemName"/>'.
      Expected one of: 'set-attribute', 'set-property', 'remove-attribute' and 'schedule-action'.
    </assert>
  </rule>
</pattern>
```

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- two default validation scenarios



Conclusions

- Installing *XSLT with Saxon-CE* add-on helps you to develop Saxon-CE stylesheets
- A document type can be extended to improve content completion or document validation
- A document type can be distributed as an add-on

Thank you!

Location for *XSLT with Saxon-CE support* add-on:

<http://www.oxygenxml.com/InstData/Addons/Saxon-CE/updateSite.xml>

Questions?

<oXygen/> XML Editor
<http://www.oxygenxml.com>
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