



# Tutorial

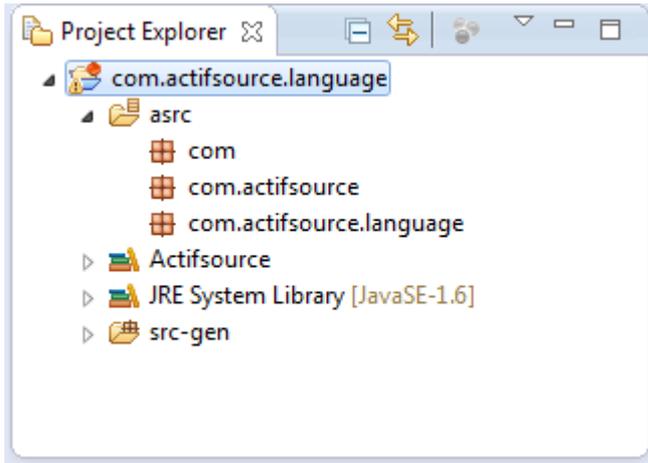
Language

Tutorial	Actifsource Tutorial – Language
Required Time	<ul style="list-style-type: none"> <li>• 15 Minutes</li> </ul>
Prerequisites	<ul style="list-style-type: none"> <li>• Actifsource Tutorial – Installing Actifsource</li> <li>• Actifsource Tutorial – Simple Service</li> </ul>
Goal	<ul style="list-style-type: none"> <li>• Enabling syntax highlighting for any programming language</li> </ul>
Topics covered	<ul style="list-style-type: none"> <li>• Create a new Language</li> <li>• Use the new Language</li> </ul>
Notation	<ul style="list-style-type: none"> <li>•  To do</li> <li>•  Information</li> <li>• <b>Bold</b>: Terms from actifsource or other technologies and tools</li> <li>• <b><u>Bold underlined</u></b>: actifsource Resources</li> <li>• <u>Underlined</u>: User Resources</li> <li>• <i><u>UnderlinedItalics</u></i>: Resource Functions</li> <li>• Monospaced: User input</li> <li>• <i>Italics</i>: Important terms in current situation</li> </ul>
Disclaimer	<p>The authors do not accept any liability arising out of the application or use of any information or equipment described herein. The information contained within this document is by its very nature incomplete. Therefore the authors accept no responsibility for the precise accuracy of the documentation contained herein. It should be used rather as a guide and starting point.</p>
Contact	<p><b>actifsource GmbH</b>  Täferstrasse 37  5405 Baden-Dättwil  Switzerland  <a href="http://www.actifsource.com">www.actifsource.com</a></p>
Trademark	<p><b>actifsource</b> is a registered trademark of <b>actifsource GmbH</b> in Switzerland, the EU, USA, and China. Other names appearing on the site may be trademarks of their respective owners.</p>
Compatibility	<p>Created with <b>actifsource</b> Version 5.10.0</p>

- Preparation
- Create a new Language
- Using the Language

# Part I: Preparation

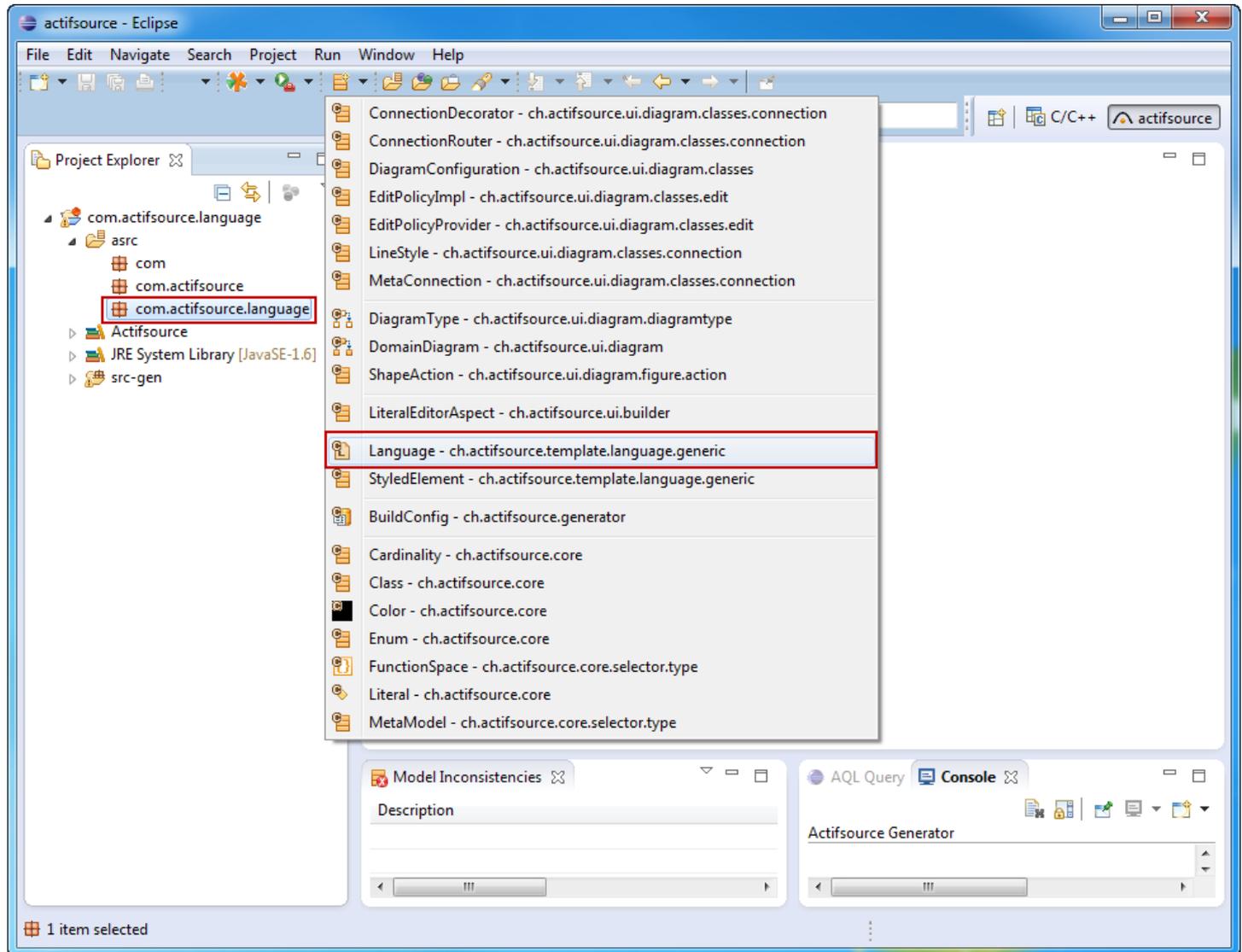
4



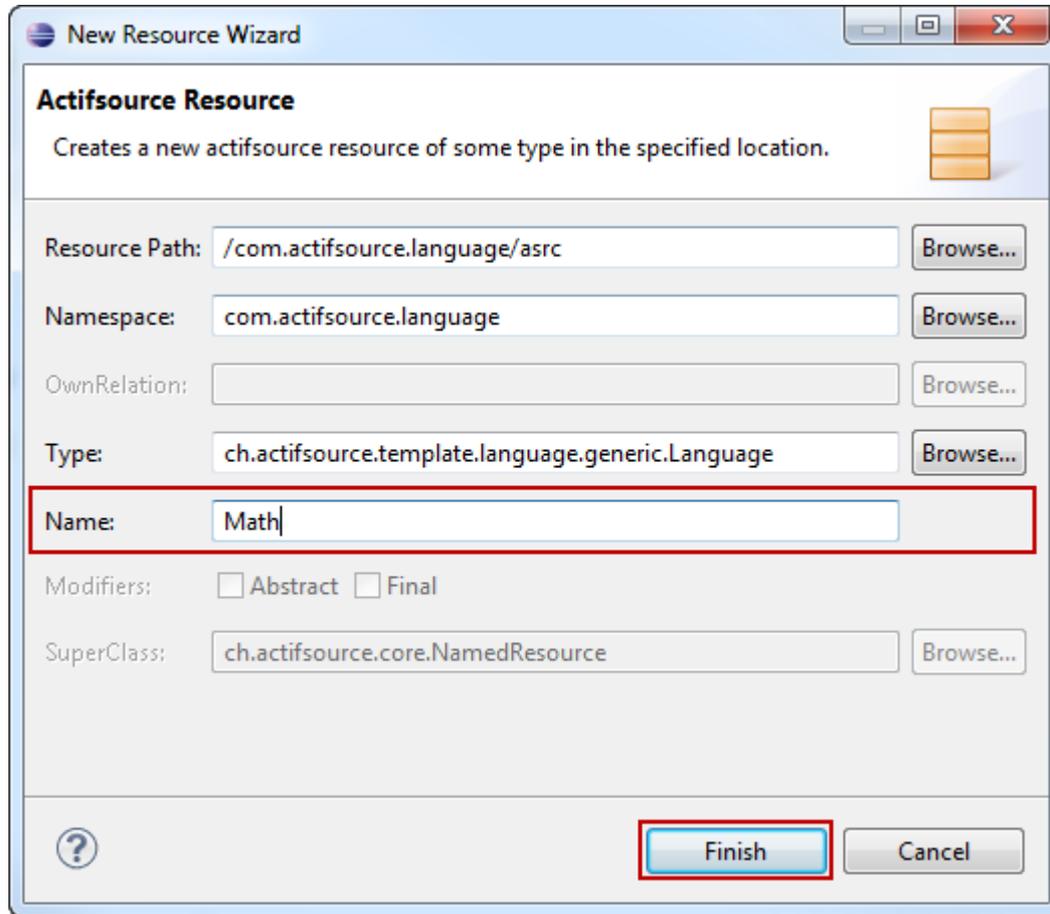
- ↪ Prepare a new **actifsource Project** named `com.actifsource.language` as seen in the *Actifsource Tutorial – Simple Service*

## Create a new Language

- ① Instances of Language describe the following language elements
  - Keywords
  - Single Line Comments
  - Multi Line Comment
  - Color and font type
- ① Let's create an new Language instance for a fictitious math language

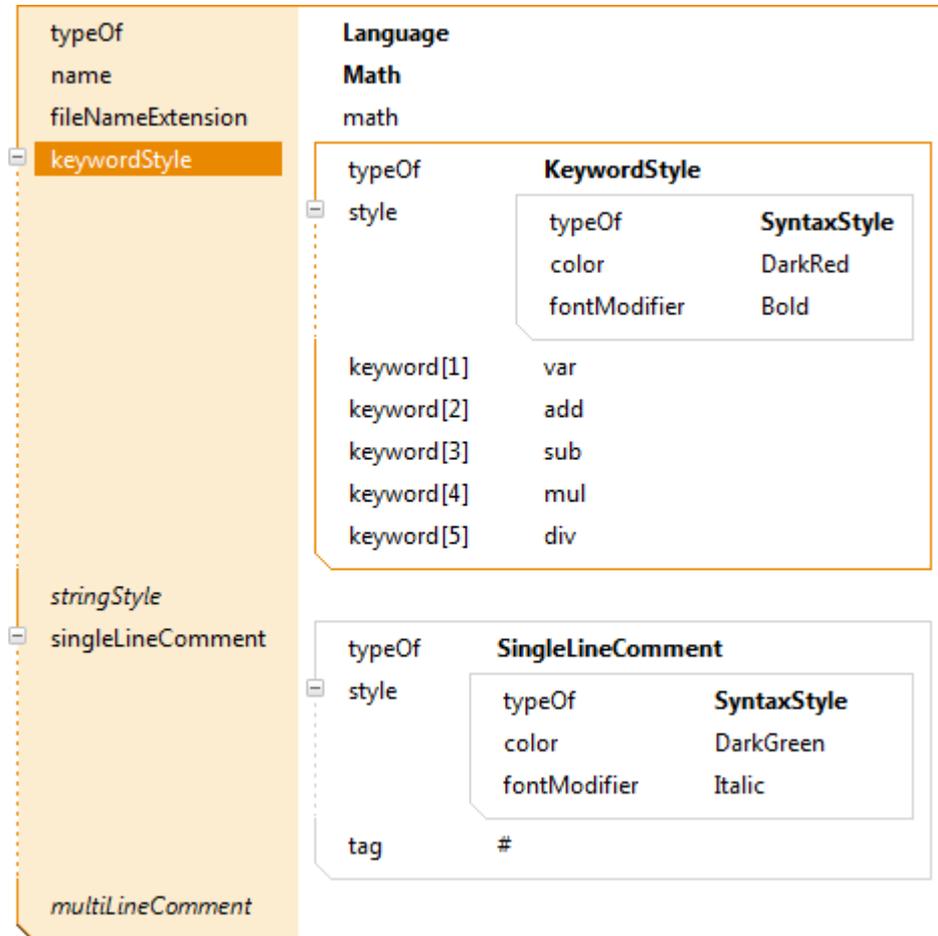


- ↖ Select the **package language**
- ↖ Use the **New Resource** Tool to create a **Resource** of type **Language**



↵ Name the Language Math

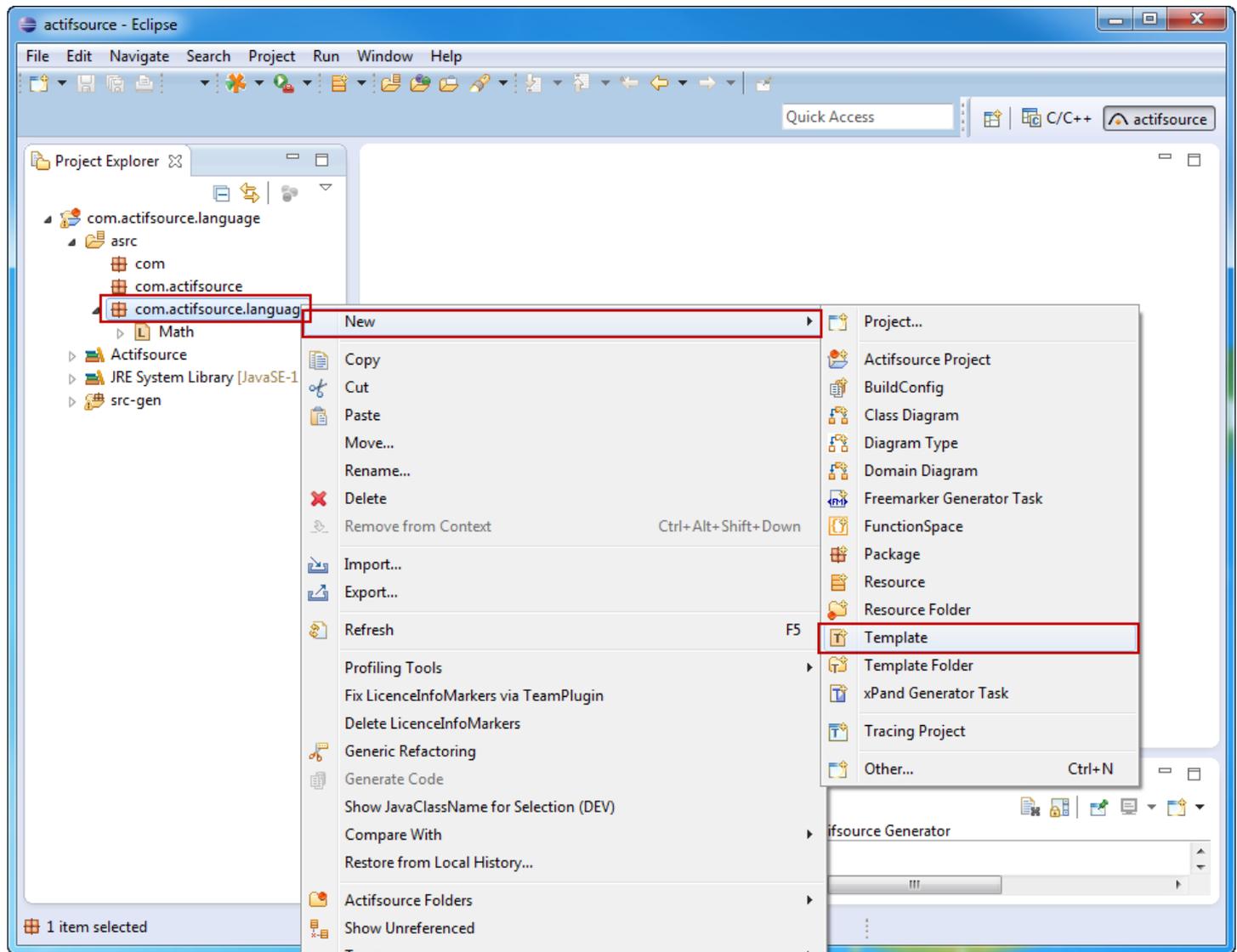
↵ Click *Finish*



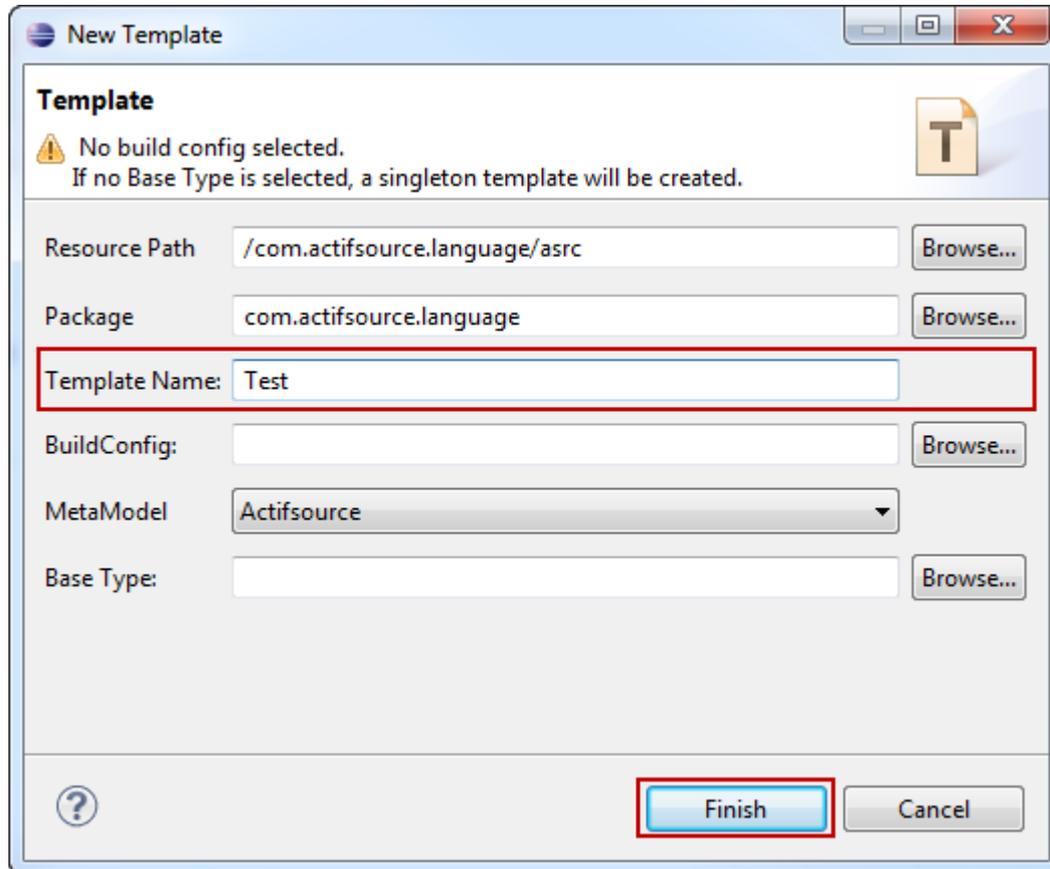
- ↵ Define the file name extension for the new language
- ↵ Define your keyword style: color DarkRed, fontModifier Bold
- ↵ Define your keywords: var, add, sub, mul, div
- ↵ Define your single line comment style: color DarkGreen, fontModifier Italic
- ↵ Define your single line comment tag: #
- ⓘ Use a StringStyle to define string coloring

## Use the new Language

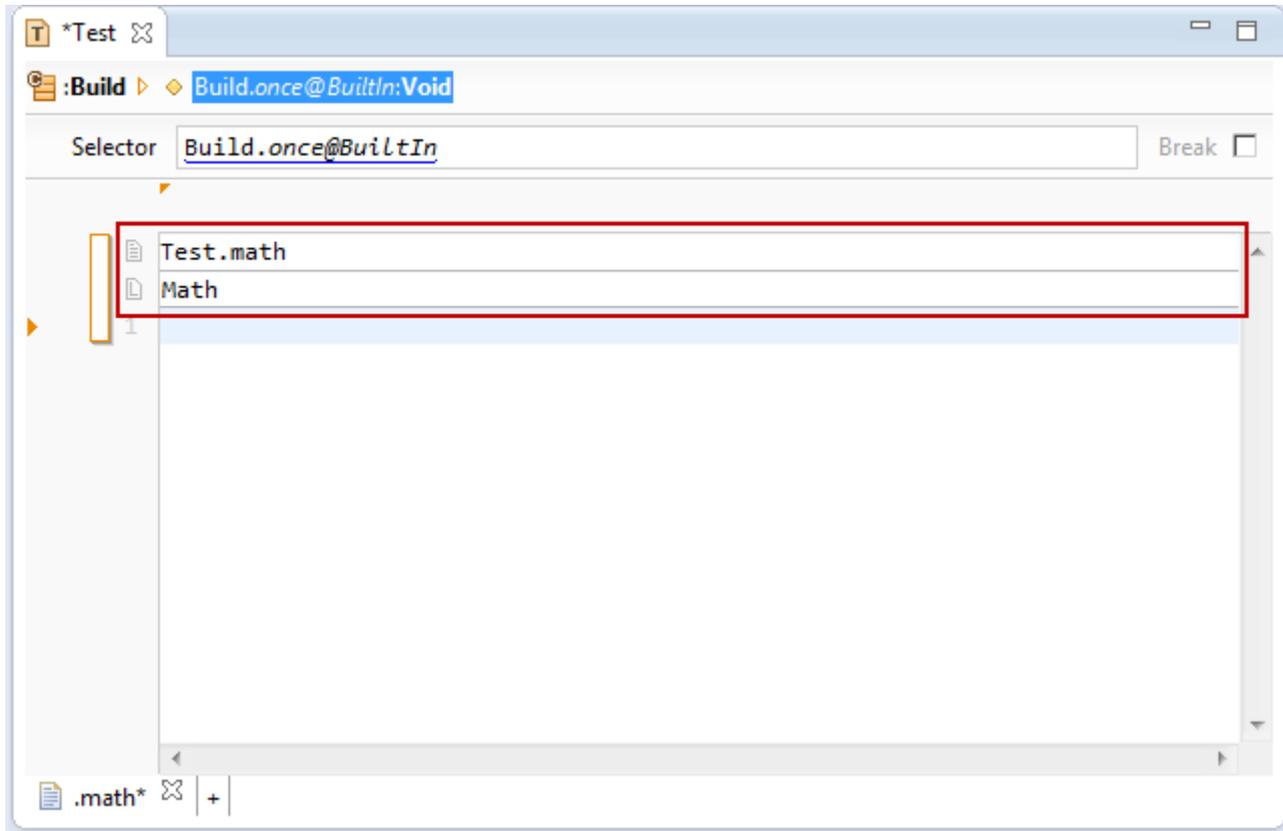
- ① The actifsource template editor is now supporting the new Language for the specific file extensions
- ① Let's test the new syntax highlighting



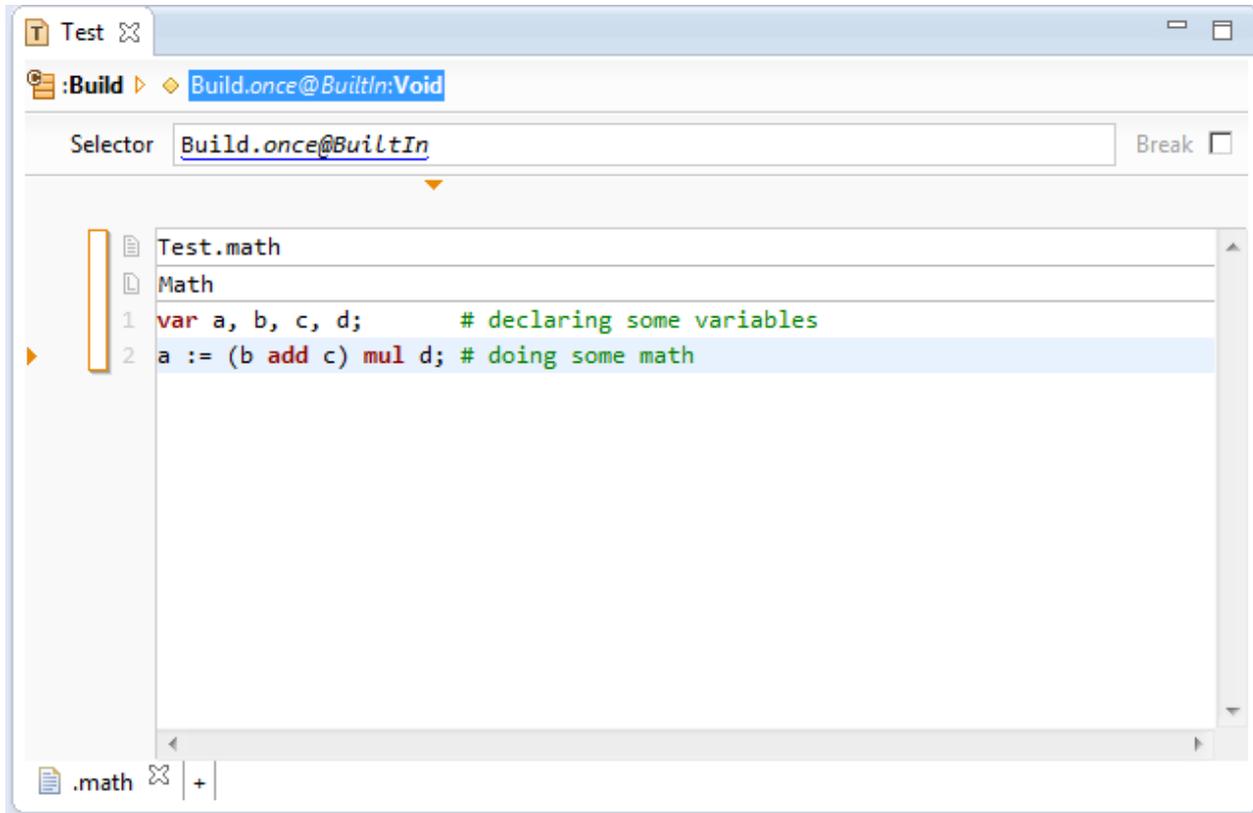
➤ Create a new **Template** in the **Package language**



- ↪ Name the **Template** Test
- ↪ Click *Finish*
- ⓘ Ignore the warning “No build config selected.”



- ↩ In the *file line*, choose the *file extension* `.math`
- ↩ The **Language** is Math selected automatically
- ⓘ Use Content Assist (Ctrl+Space) to select the language manually (i.e. if there is no file extension)
- ⓘ Use Ctrl+Click on the **Language** to open the **Language** Resource



The screenshot shows a code editor window titled "Test". The editor displays a file named "Test.math" with the following code:

```
1 var a, b, c, d;      # declaring some variables
2 a := (b add c) mul d; # doing some math
```

The second line of code is highlighted in blue. The editor interface includes a "Selector" field containing "Build.once@BuiltIn" and a "Break" checkbox. The file name ".math" is visible in the bottom left corner of the editor window.

- ↵ Add some Code using the new keywords
- ↵ Try to write some comments

