Sourcemap Debugging using IntelliJ IDEA 13

March 2014 - Brian Slesinsky
Status: draft

Introduction

Here are some step-by-step instructions for using sourcemap debugging with IntelliJ IDEA. I haven't used debugging within IDEA for real GWT development yet, but if you want to try it out, I hope you can learn how to use it by following these instructions and then adapt them to your project.

Install the JetBrains Chrome extension

Its name is "JetBrains IDE Support" and it's available in the Chrome web store. I tested using version 2.0.

(Like any debugger, the JetBrains extension requires lots of permissions. If you are concerned about privacy, you can create a separate Chrome profile to use when you are debugging, and install the JetBrains extension only in that profile. For more, see Manage multiple users on Chrome.)

Download IDEA

- I tried this using IDEA Ultimate 13.0.2. I believe 13.1 (not yet released) should also work.

Enable Sourcemap Debugging

Sourcemap debugging will not work by default. You need to edit **idea.vmoptions** or **idea64.vmptions** and add this line:

```
-Djava.debugger.xBreakpoint=true
```

For details, see Configuring JVM options and platform properties.

Test Drive

Since there are many steps, I recommend testing the debugger using a separate IDEA project for practice. Once you've seen it working, it will be easier to apply to your own IDEA projects.

Create an empty project

Choose "Empty Project" and accept all defaults. You don't need to create a module.

Create a debug configuration
- Choose Run->Edit Configurations
- Click '+' in the upper left corner of the dialog
- Choose "JavaScript Debug".
- Give it a name such as "Debug GWT"
- For the URL, enter http://www.gwtproject.org/
- For browser, stick with Chrome.
- Press "Okay" to create the debug configuration.

Connect to the browser
- Make sure Chrome is open.
- If you're using multiple Chrome profiles, make sure you open the one that has the JetBrains extension installed.
- In IDEA, choose Run->Debug… and select the configuration you just made.
- A new tab should appear in Chrome. The URL should be www.gwtproject.org (as you entered in the debug configuration) and at the top of the tab, it should say:

<mark>"JetBrains IDE Support" is debugging this tab.</mark>

Set a breakpoint
- In IDEA, click the Debug tab at the bottom to show the debugger.
- At the top of the debugger, click "Scripts". It will show a tree widget containing folders for each website and Chrome extension.
- Open the folder for "http://www.gwtproject.org/"
- To find the Java file, open "src", "com/google/gwt", "site/webapp/client"
- Click the right button on "GWTProjectEntryPoint.java" to open the contextual menu. Choose "Open Actual Source". . See http://youtrack.jetbrains.com/issue/IDEA-128294
- Add a breakpoint at line 61, the first line in openMenu().

Stop at a breakpoint
- In Chrome, click "Articles" and then "Overview" in the menu tree. After you click "Overview", it should stop in the debugger.