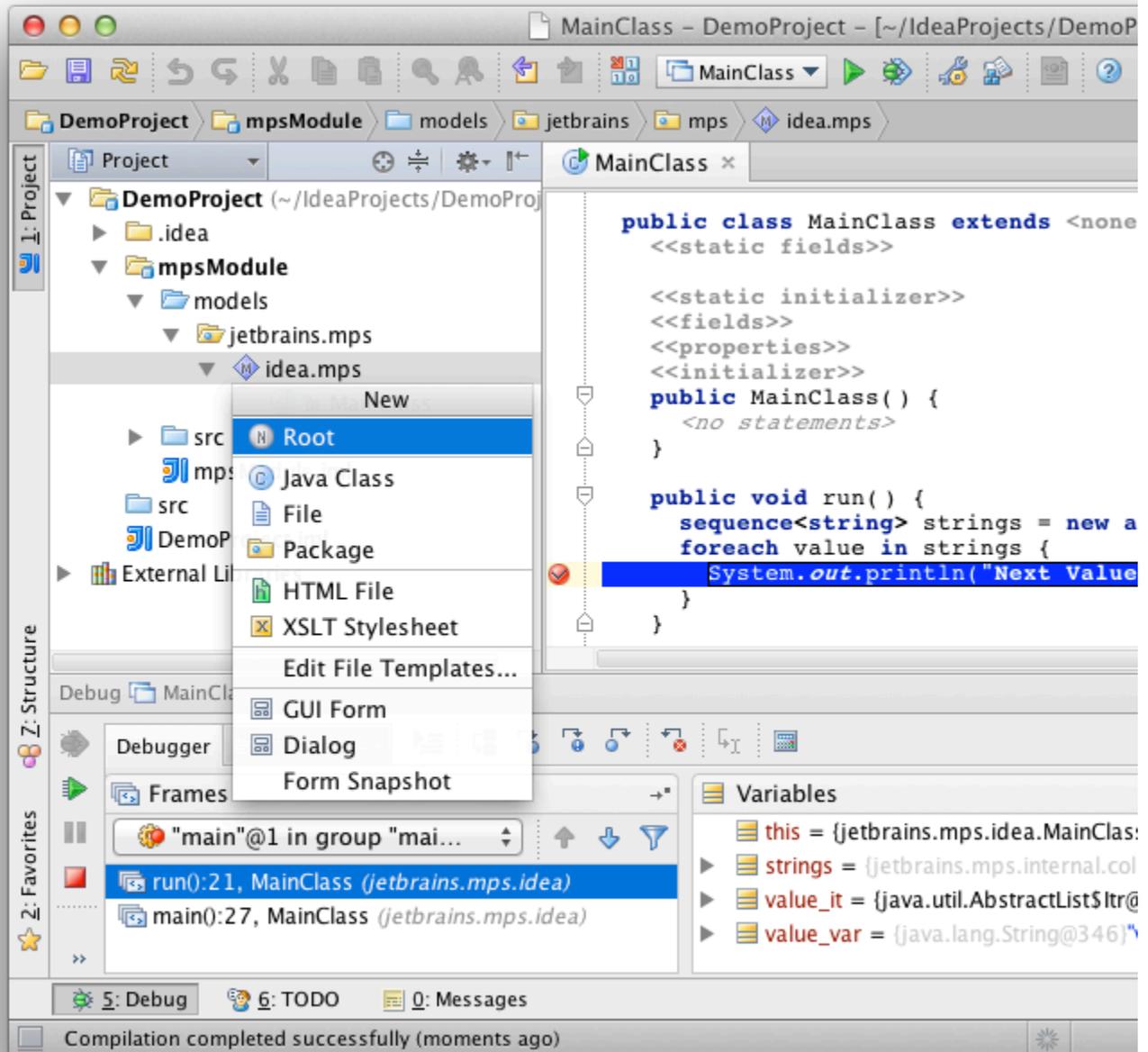# MPS plugin for IntelliJ IDEA

MPS 2.5 can be run as a plugin for IntelliJ IDEA enabling MPS-based DSLs to be used directly in a Java IDE, interoperating tightly with other elements of the project. Although you need MPS in its entirety to create languages, IntelliJ IDEA represents a convenient additional channel for DSL distribution.


Editor

Enabling MPS inside a Java module is as simple as adding the MPS facet to it. Just like in MPS you can create models, import any MPS languages and start instantiating the root nodes. The root nodes are displayed in the Project View together with the other project sources and files. The projectional editor for the root nodes opens directly in IntelliJ IDEA so all your code stays within a single IDE.
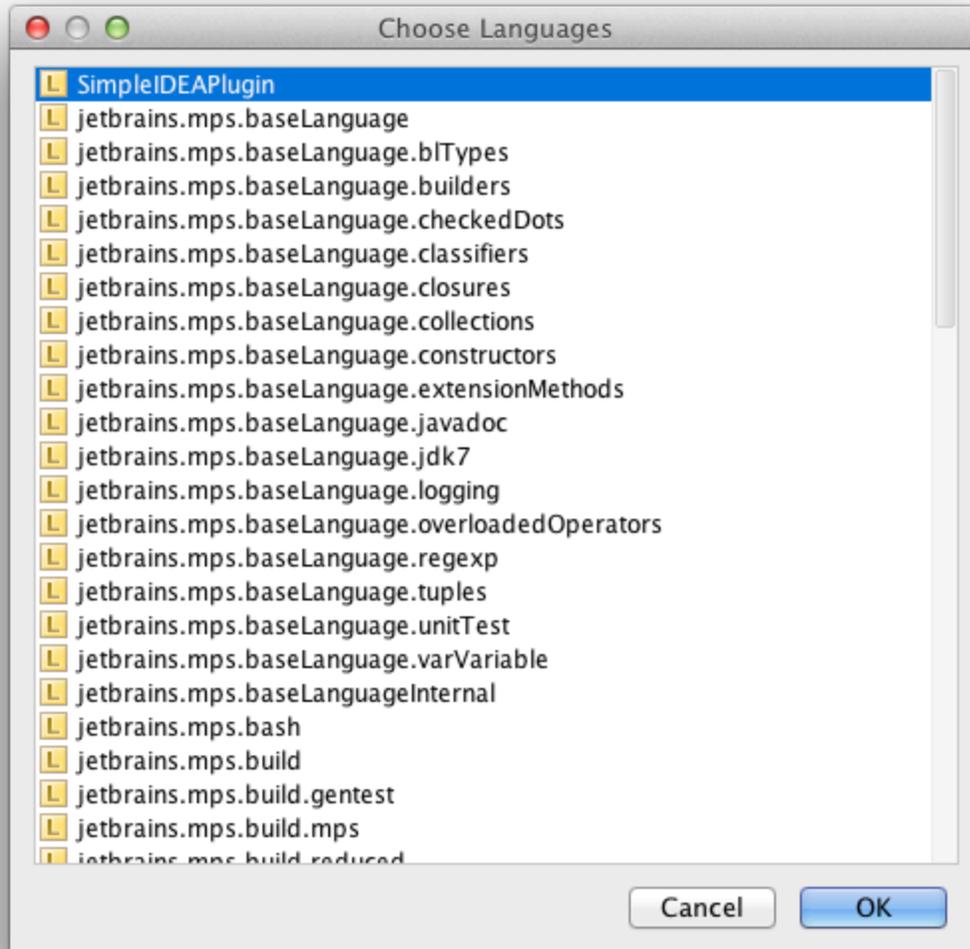
Code Generation

The code generation process of MPS models is tied to the IntelliJ IDEA's make/rebuild project actions and so will be triggerred automatically. You hit Compile in IDEA and your MPS code gets generated and compiled as well. No need for extra steps.

The generation-time errors are propagated into the Messages View alongside all other compilation problems. You also have the possibility to navigate to the corresponding model elements by clicking on the displayed error:
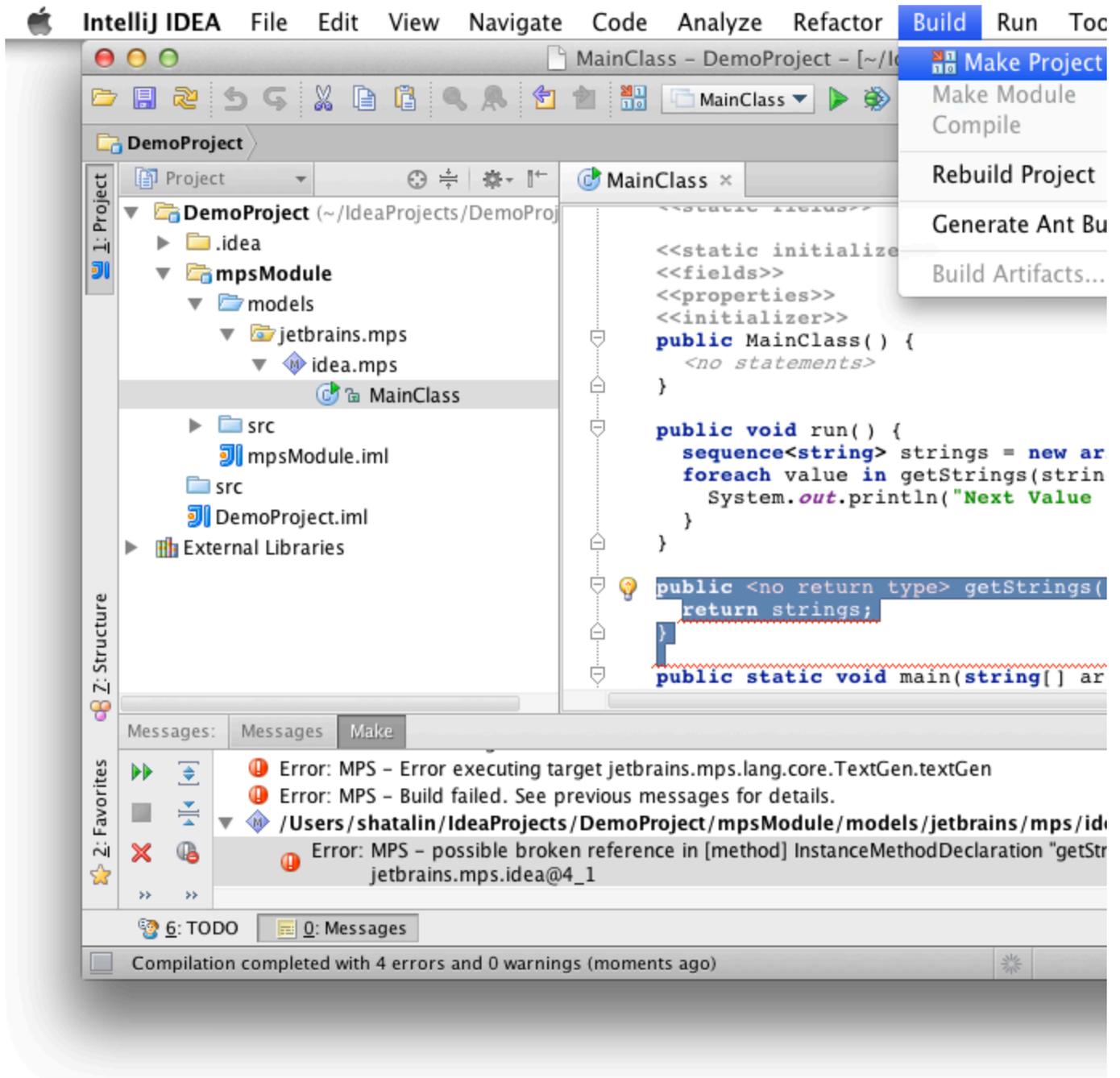
Version Control

When comparing versions or resolving conflicts in MPS models, you can rely on the MPS structural diff/merge tool, just like in MPS. The tool will render the model content in a domain specific rather then the persistence-specific way:
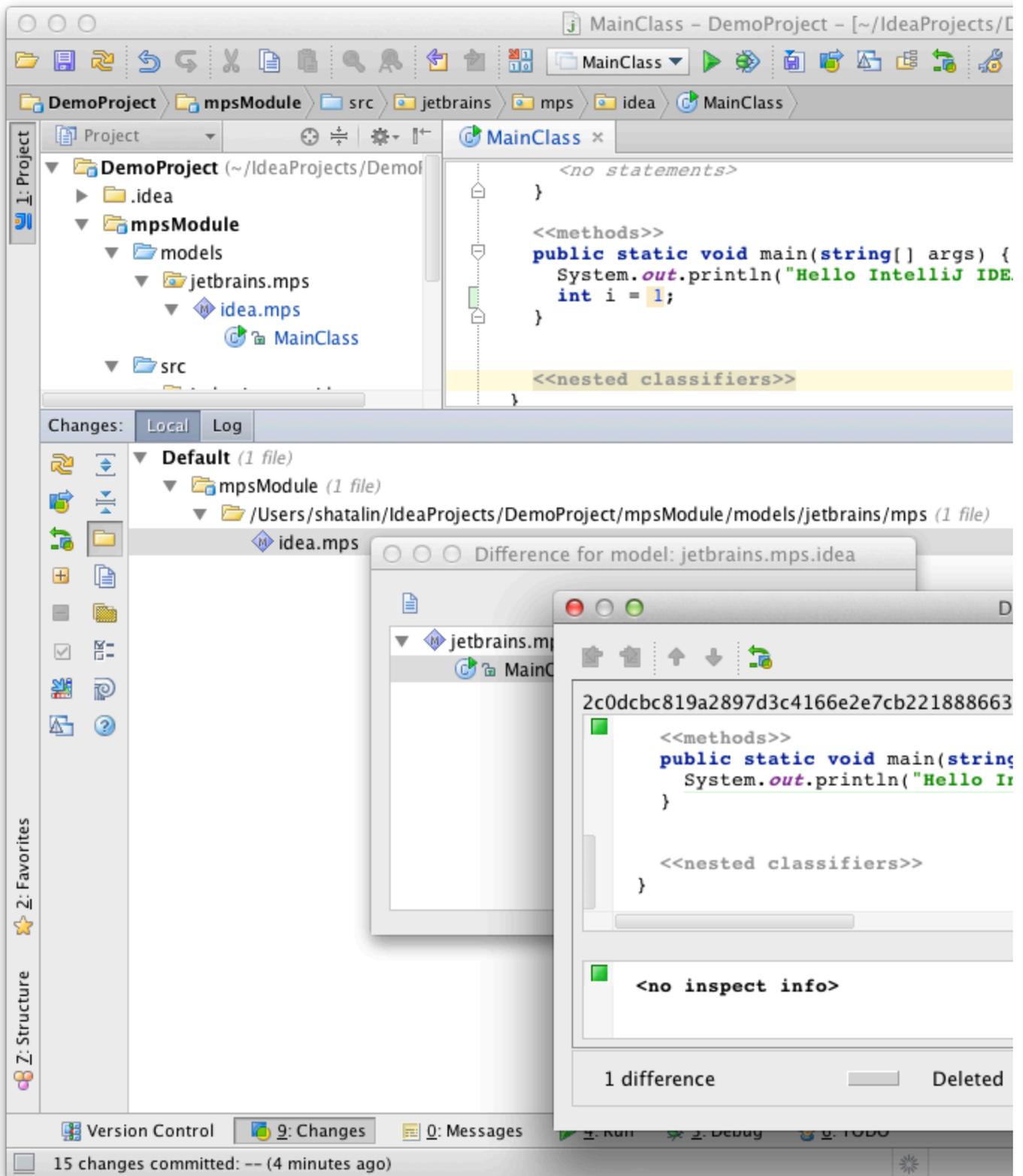
Debugger Integration

The MPS debugger has been integrated into IntelliJ IDEA as well. When debugging your Java code you can set breakpoints

directly inside the DSL code and so the IntelliJ IDEA debugger will be stopped at the appropriate place allowing you to explore the stack trace and the variables.

Distribution

The MPS plugin distribution contains 4 separate plugins at the moment. Some of the MPS functionality can be easily switched off by disabling the corresponding plugins in the Plugins configuration dialog. At the same time, user-specific DSLs can also be packaged as separate plugins and potentially distributed together with the MPS plugins to deliver your own powerful DSL features to the IntelliJ IDEA developers.