

JavaConnect := Java asSmalltalkValue

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1 About

JavaConnect is a Smalltalk library that allows a seamless interaction with Java code from within Smalltalk. A Smalltalk application can manipulate any Java object and send messages to it, just as if it were a Smalltalk object. Its implementation relies on a connection between the Smalltalk and Java environments through their respective foreign-function interfaces. The Java application thus executes on a regular Java VM and the Smalltalk application executes on the regular Smalltalk VM. JavaConnect is currently available for Visualworks only, but a port to Pharo/Squeak is being prepared.

JavaConnect was inspired by the work on JavaInSt¹ and JNIPort (for Dolphin) work. The JNIPort was also ported to Visualworks² but JavaConnect and JNIPort have remained independent libraries at this time. In addition, JavaConnect explores further language interoperability via translation of decompiled Java methods to Smalltalk and dynamic proxy generation in Java to support Smalltalk values in Java.

Website: <http://www.info.ucl.ac.be/~jbrichau/javaconnect.html>

Keywords: Language interoperability

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License: JavaConnect is released under the MIT License.

¹<http://www.smalltalking.net/Goodies/VisualSmalltalk/index.htm>

²<http://jniport.wikispaces.com/>

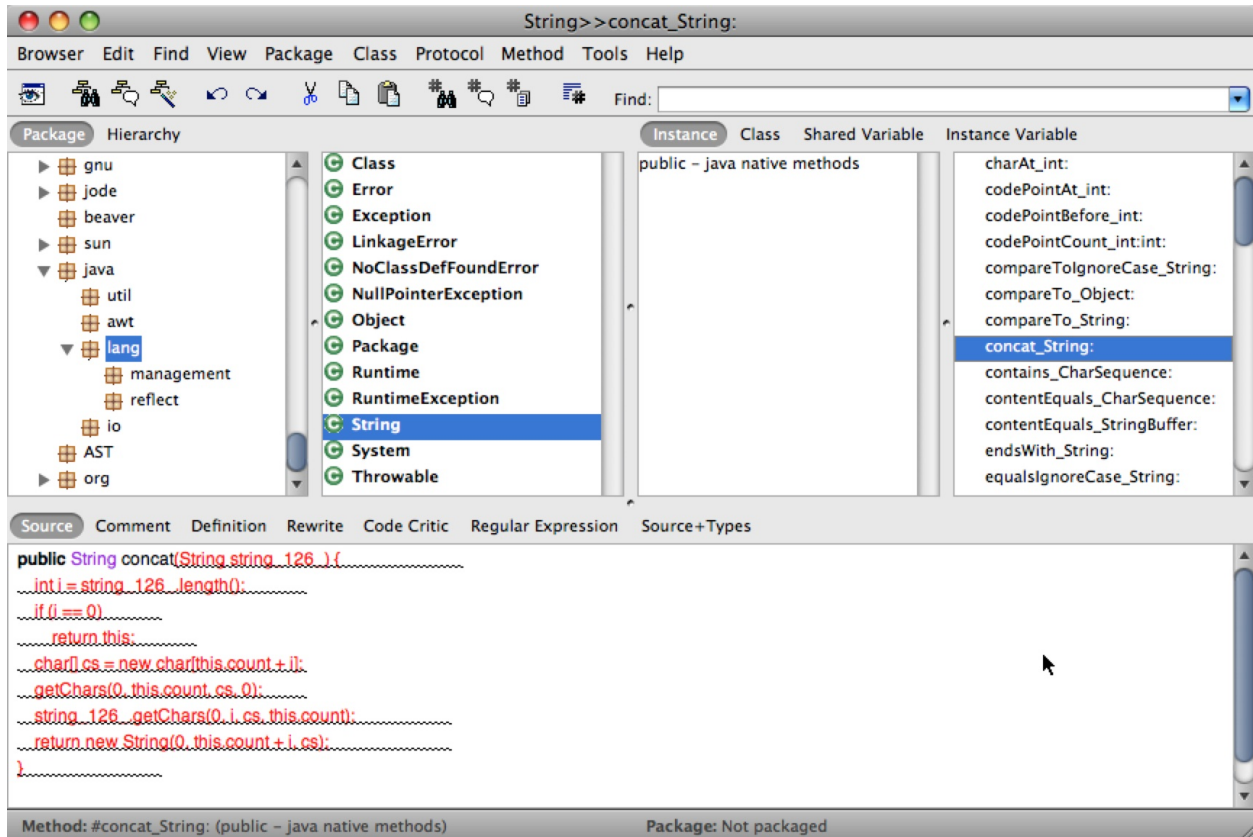


Figure 1: Java classes browsable in the Class Browser with decompiled Java source code methods.

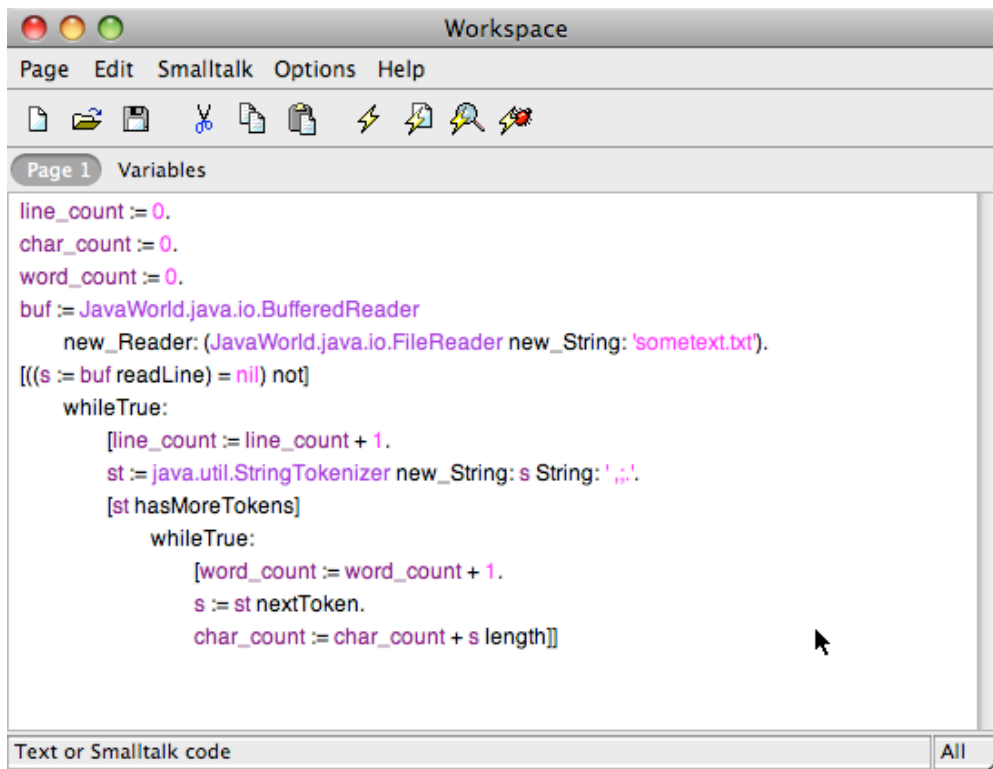


Figure 2: Workspace with code that uses Java libraries.

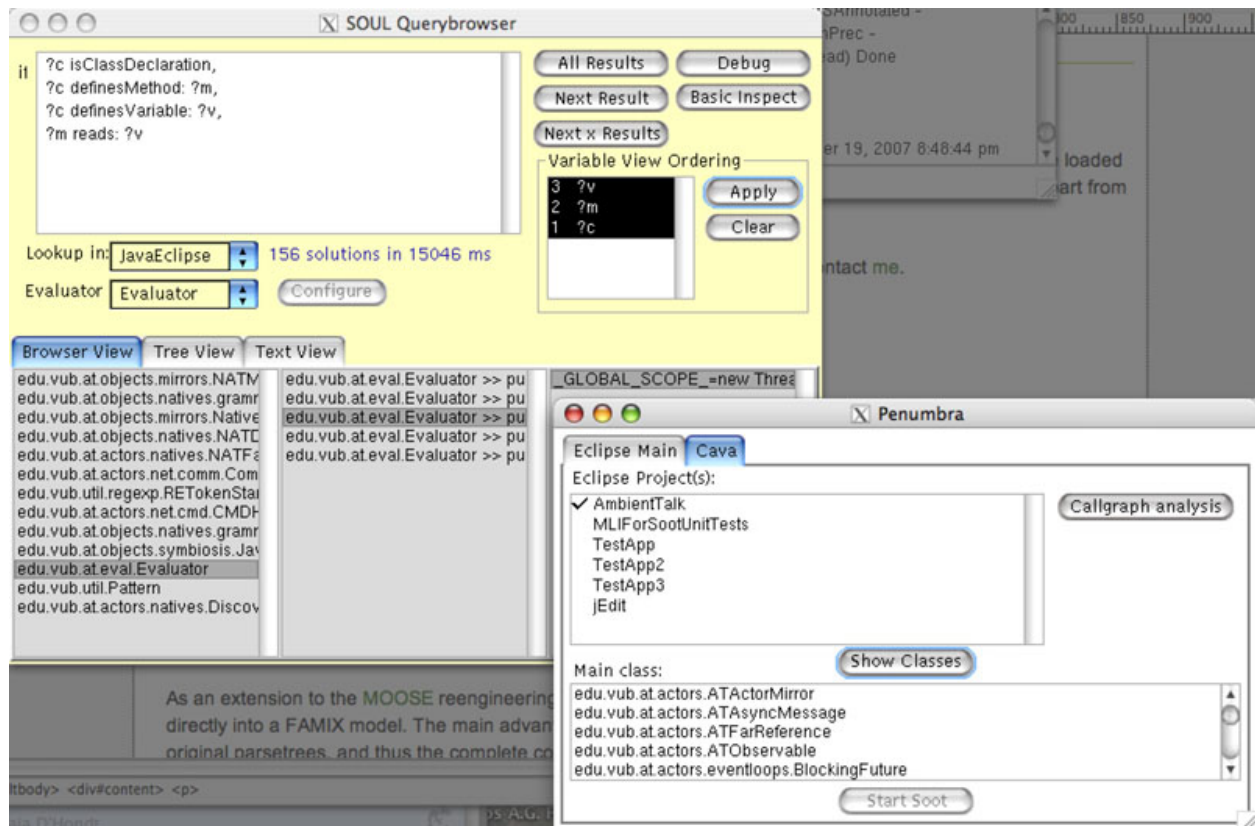


Figure 3: A JavaConnect application: SOUL reasoning over Eclipse-based Java source code.