

# Development Tools-Eclipse and WOLips

[Eclipse](#) is an open-source, cross-platform development environment developed by IBM in Java and designed around the concept of plugins and extensions. This fundamental architecture allows any number of additions to the core application to be integrated throughout the entire environment. Among the complaints about Java applications are that their user interfaces are slow, and that they neither look nor feel like other native apps. IBM addressed this complaint by developing SWT (Standard Widget Toolkit) as part of the Eclipse project to be an alternative to both Swing and AWT. SWT is more closely related to AWT in that it is designed around the concept of native widgets. However, there are two major design differences. The first is that AWT was designed for the lowest common denominator, which means that there are a large number of widgets missing from the framework that many people expect in a modern user interface (trees, tables, etc). Secondly, SWT is designed on a principal that native resources (like colors and fonts) can not be efficiently handled by the standard Java GC mechanism, and thus requires that these resources be managed in a more traditional claim-and-dispose manner. The end result is that Eclipse's user interface is generally accepted as being much faster than traditional Java user interfaces.

[WOLips](#) is a set of open-source Eclipse plugins that are designed to enable the development, debugging, and deployment of WebObjects applications. Because it is built on top of the Eclipse platform, all the standard productivity-enhancing features of Eclipse are available - extensive code completion, context-aware refactoring, incremental compiling, hot code replacement, local and remote revisioning, and many other capabilities that make Eclipse the leading development environment for Java. Additionally, WOLips provides many extensions to the core platform, including plugins for:

- Building, Launching, Debugging, and Deploying WO Applications and Frameworks
- A syntax-colored HTML and CSS editor with code completion based on the Eclipse Web Tools Project
- A form-based .API file editor
- A .WOD file editor with syntax coloring, code completion, and error-checking (based on component bindings, API files, class path, and HTML template definitions)
- Incremental compilers for .xcode, .xcodeproj, and PB.project files for backwards compatibility with Apple WO tools (like EOModeler and WOBUILDER)
- WO Application, WO Component, and WO Framework wizards
- .. and much more

For more information on WOLips, you can visit the [WOLips Wiki](#), or subscribe to the [woproject-dev Mailing List](#).

For a tutorial on installing the entire toolset and getting started with Project Wonder and WOLips, take a look at [Project Wonder Installation](#).