Introducing Eclipse

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Introduction to Eclipse
- Eclipse is a kind of universal tool platform.
- Developed by IBM and donated to the open source community in 2001. Now, it is managed by the Eclipse Foundation.
- An open extensible IDE for anything and nothing in particular.

Introduction to Eclipse
- Eclipse is modular. Almost everything is a plug-in. It contains a small kernel (the plug-in loader) and hundreds of plug-ins.
- It uses an open standard plug-in architecture (OSGi) for the Eclipse Rich Client Platform and the IDE platform.
Eclipse Plug-ins

- Programming languages: PHP, Perl, Ruby, Mathematica, etc.
- Typesetting: Latex, HTML
- Network: SSH client, VNC viewer
- Games: Minesweeper, Tetris

Standard Widget Toolkit

- Eclipse utilizes the Standard Widget Toolkit (SWT), a graphical widget toolkit for Java that uses the native GUI libraries of the underlying operating systems.
- Pros: fast, native look and feel, small system resource usage.
- Cons: platform specific, not really portable.

Perspectives, views, and editors

- A perspective is a saved layout containing any number of different editors and views.
- Eclipse ships with a number of default perspectives (Resource, Java, Debug, etc.) that can be customized, or you can create completely new perspectives.
- Only one perspective is visible at any time.
Perspectives, views, and editors

- Views are typically used to navigate resources and modify properties of a resource.
- Editors are used to view or modify a specific resource and follow the common open-save-close model.

Workspaces

- The Eclipse IDE displays and modifies files located in a workspace. The workspace is a directory hierarchy containing both user files such as projects, source code, and so on, and plug-in state information such as preferences.
- One user can have multiple workspaces.