

Developing Applications with Eclipse Mars

Wayne Beaton,
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Who we are and why we are here!

Wayne Beaton

@waynebeaton

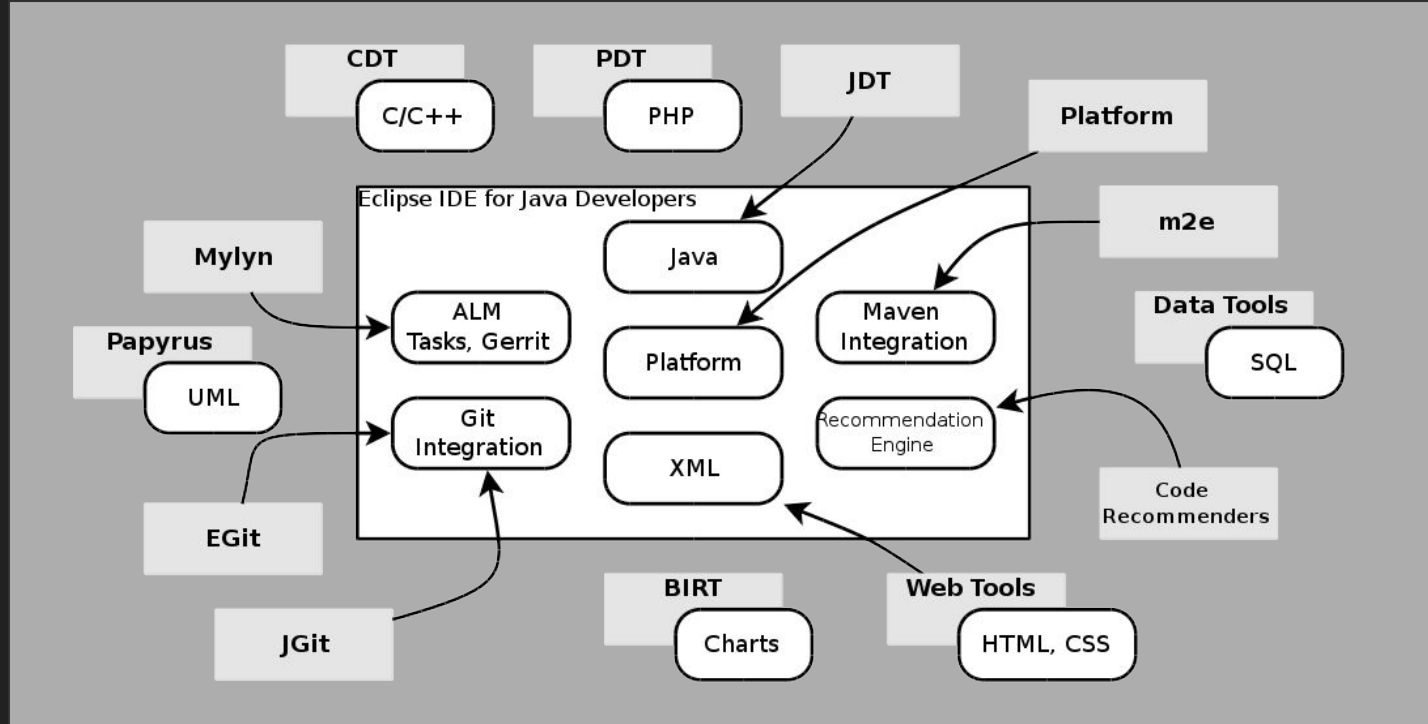
Director of Open Source Projects
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@guw

Director Engineering,
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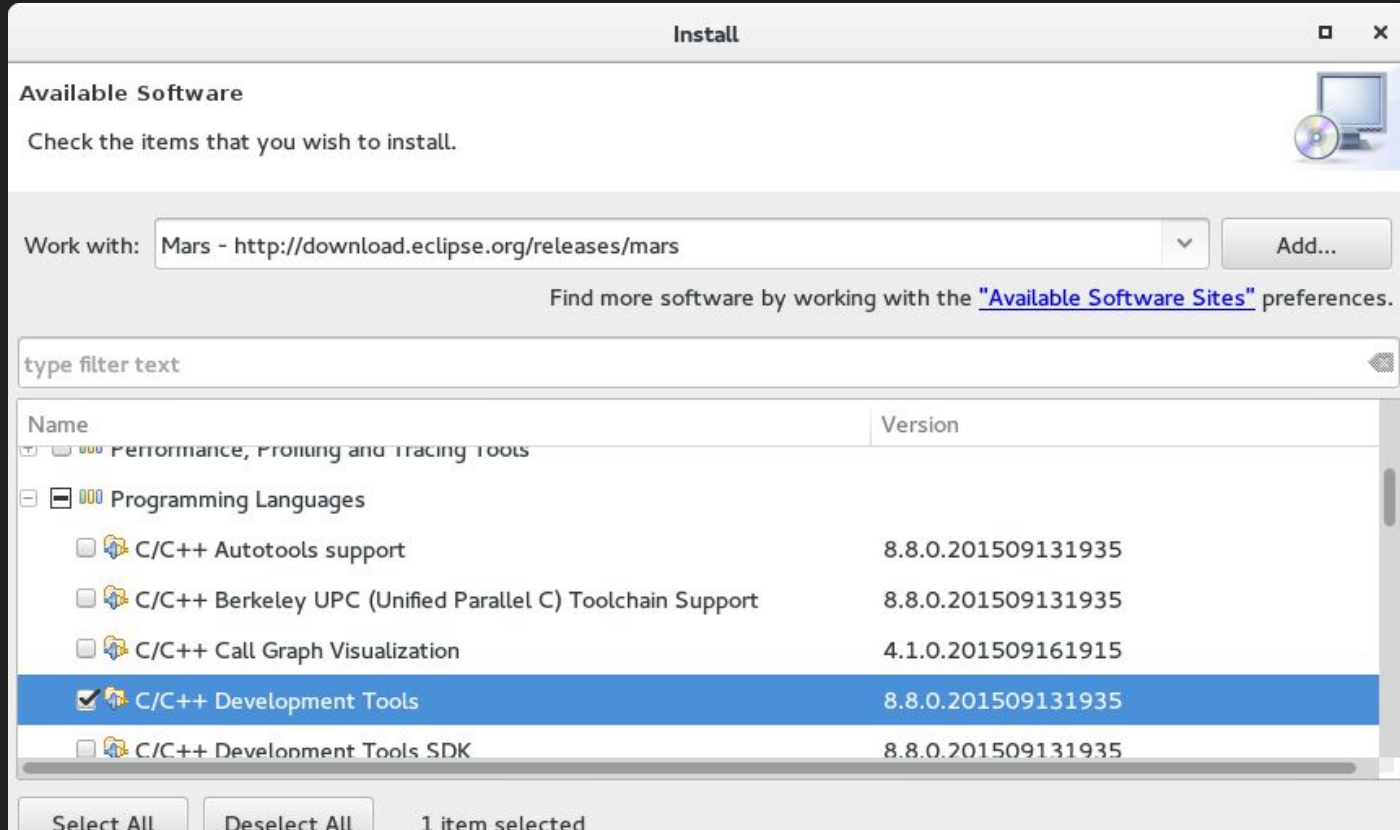
What is an Eclipse IDE?



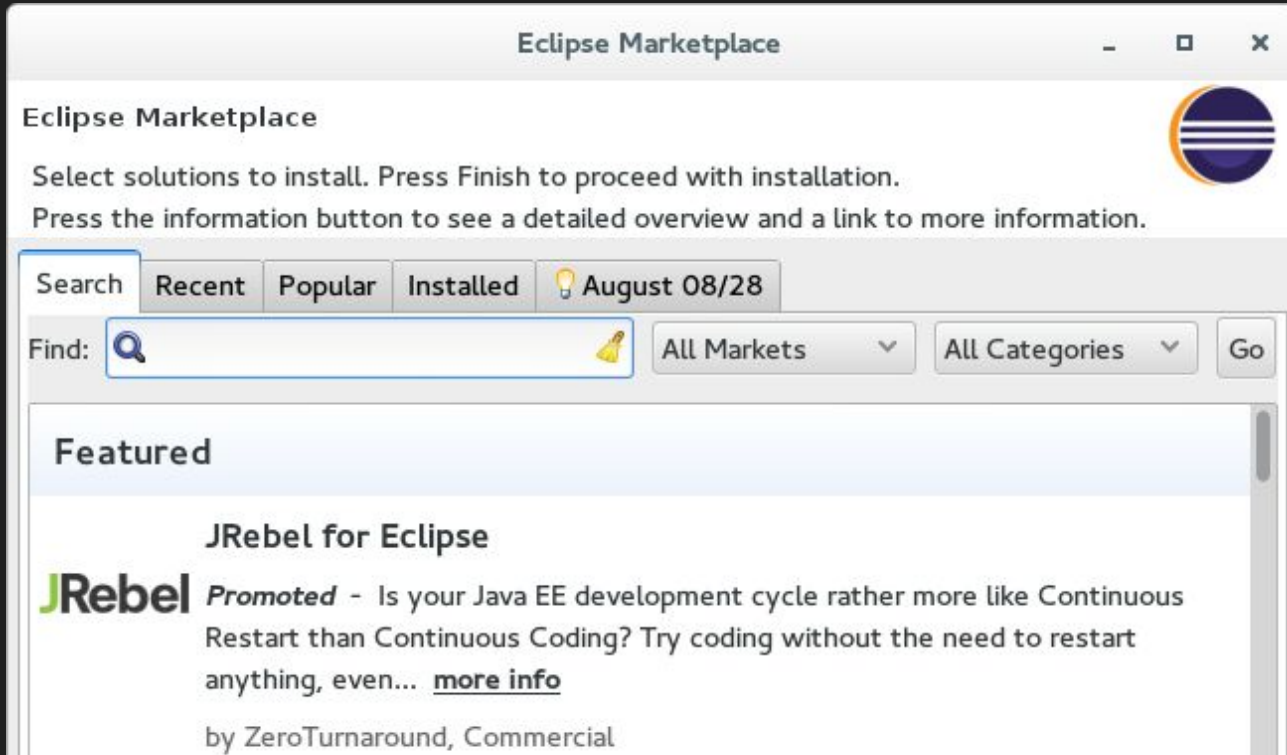
What is Mars?

- Neon, June 2016
- **Mars, June 24, 2015**
- Luna, June 25, 2014
- Kepler, June 26, 2013
- Juno, June 27, 2012
- Indigo, June 22, 2011
- Helios, June 23, 2010
- Galileo, June 24, 2009
- Ganymede, June 25, 2008
- Europa, June 27, 2007
- Callisto, June 26, 2006

Adding Mars Features to your Eclipse IDE



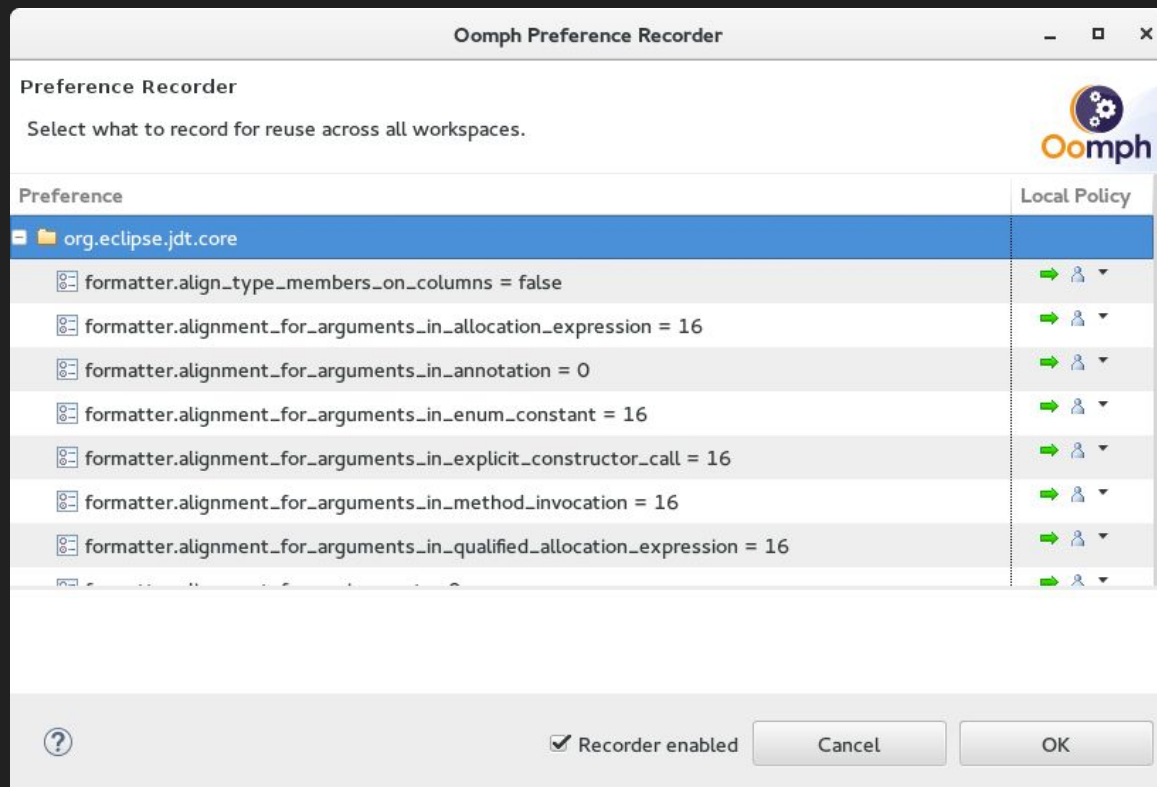
Eclipse Marketplace Client



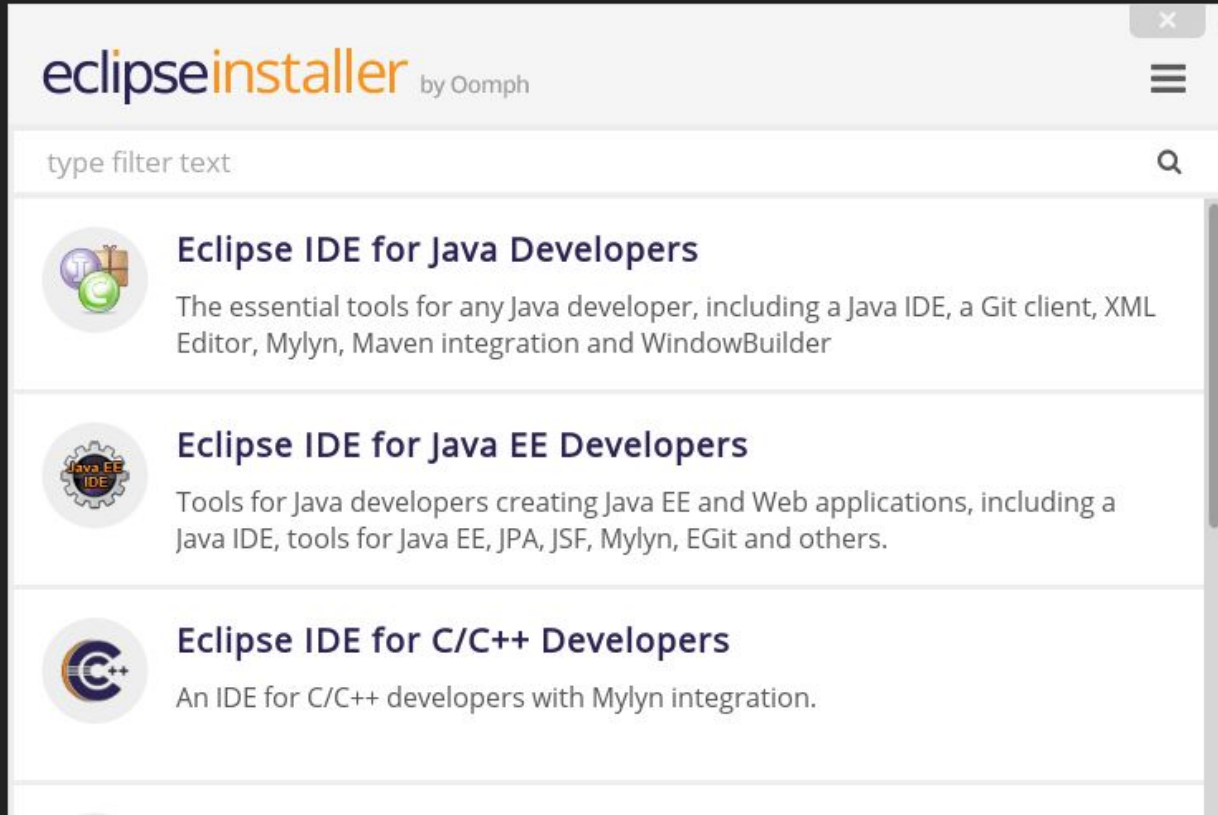
Big Things in Mars

- Installer/Workspace configurer
- Buildmore Gradle builds in Eclipse
- SWTBot, RCP Testing Tool
- e(fx)clipse: e4 + JavaFX
- Error reporter
- Preferences recorder
- Eclipse bundled as a proper "Mac App"
- New Java code formatter
- SWT/GTK 3.x support
- Andmore Android Development Tools*

Preferences Recorder




An Installer with Oomph



Demo: Configure for Development

Progress

Wait for the setup to complete, or cancel the progress indicator and press Back to make changes.



/instance/org.eclipse.jdt.core/org.eclipse.jdt.core.formatter.join_lines_in_comments = false

/instance/org.eclipse.jdt.core/org.eclipse.jdt.core.formatter.tabulation.char = space

/instance/org.eclipse.jdt.core/org.eclipse.jdt.core.formatter.use_on_off_tags = true

Text Modify configuration:/config.ini

JavaSE-1.7 = /usr/lib/jvm/java-openjdk

<https://github.com/openhab/openhab2.git> (master)

Projects Import

openHAB 2 Target Platform

Receiving objects: 47% (52845/112435)

Receiving objects: 48% (53969/112435)

Receiving objects: 49% (55094/112435)

Receiving objects: 50% (56218/112435)

Receiving objects: 51% (57342/112435)

Gradle Integration...

Version 1.0 (Mars)

- Import an existing Gradle project or create a new one
- Gradle Tasks View shows tasks parsed out of the build script
- Create and launch Gradle Run Configurations, execute Gradle builds
- Visualize progress in the Gradle Executions View

Version 2.0 (Neon, June 2016)

- Test debugging
- Syntax highlighting, code completion
- Dependency lookup

Gradle Integration in Mars

The screenshot displays an IDE interface with the following components:

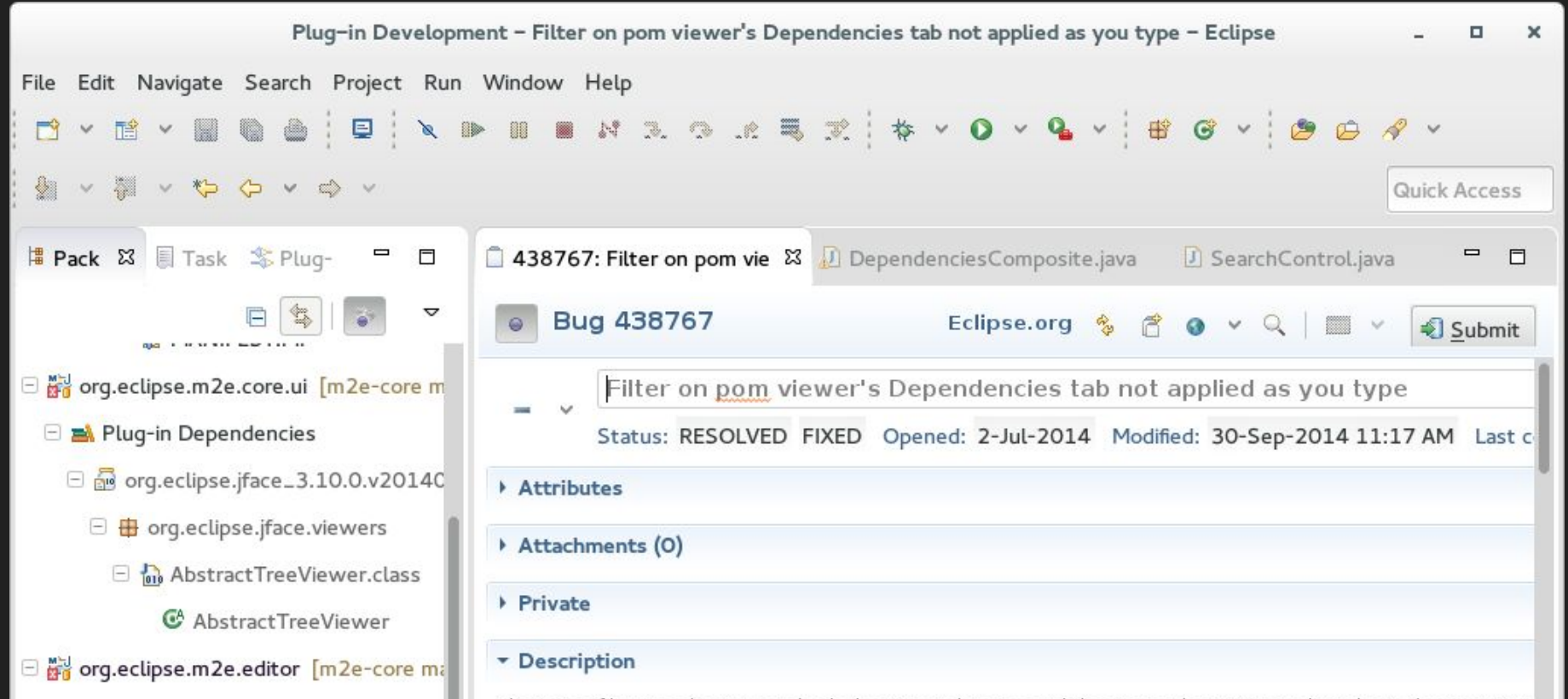
- Package Explorer:** Shows a project structure with folders like `testing-crossversion`, `testing-junit`, and `tooling-commons`. The `build.gradle` file is selected under `tooling-commons`.
- Project Explorer:** Shows the same project structure, highlighting the `build.gradle` file.
- Code Editor:** Displays the content of `build.gradle`, which includes imports for `org.gradle.internal.os.OperatingSystem` and `java.text.SimpleDateFormat`, a description, group, version, and subprojects configuration.
- Properties Panel:** Shows the properties of the selected `build.gradle` file, including `derived`, `editable`, `last modified`, `linked`, `location`, `name`, `path`, and `size`.
- Gradle Tasks Panel:** Lists the tasks available for the project, including `tooling-commons`, `testing-crossversion`, `testing-junit`, `toolingclient`, `assemble`, `build`, and `buildDependencies`.

```
1 import org.gradle.internal.os.OperatingSystem
2 import java.text.SimpleDateFormat
3
4 description = "Root project of the Commons project of the Gradle Tooling Platform."
5
6 // define the group of the GAV
7 group = 'com.gradleware.tooling'
8
9 // define the version of the GAV
10 version = file('version.txt').text.trim()
11
12 // in case this is not a final release, add a timestamp to the version for unique identification of 'snapshot' versions
13 if (!project.hasProperty('build.type') || project.property('build.type') != 'release') {
14     if (project.hasProperty('build.invoker') && project.property('build.invoker') == 'ci') {
15         // in case of CI builds, add the full date and time to the version timestamp
16         version = version + '-' + new SimpleDateFormat("yyyyMMddkmmssZ").format(new Date())
17     } else {
18         // in case of local builds, do not add the time to the version timestamp to ensure incremental updates apply when building
19         version = version + '-' + new SimpleDateFormat("yyyyMMdd").format(new Date())
20     }
21 }
22
23 wrapper.gradleVersion = '2.3'
24
25 subprojects {
26
27     group = rootProject.group
28     version = rootProject.version
29 }
```

Property	Value
derived	false
editable	true
last modified	March 23, 2015 at 2:02:45 PM
linked	false
location	/Users/etiennestuder/Development/git/gradleware/tooling-commons/build.gradle
name	build.gradle
path	/tooling-commons/build.gradle
size	5,897 bytes

Name	Description
tooling-commons	Root project of the Commons project of the Gradle Tooling Platform.
testing-crossversion	IDE-agnostic Testing component of the Commons project of the Gradle Tooling Platform.
testing-junit	IDE-agnostic JUnit Testing component of the Commons project of the Gradle Tooling Platform.
toolingclient	IDE-agnostic Tooling API component of the Commons project of the Gradle Tooling Platform.
assemble	Assembles the outputs of this project.
build	Assembles and tests this project.
buildDependencies	Assembles and tests this project and all projects that depend on it.

Task-Focused Development



Gerrit Integration

The screenshot shows the Eclipse IDE interface with a window titled "PHP - 448158: Hidden local files and folders are not hidden on Linux [I6e805644] - Eclipse". The window displays the details of a Gerrit change, 35369, titled "448158: Hidden local files and folders are not hidden on Linux". The change is in the "NEW" status, created on 22-Oct-2014, and last commented on 13 months ago. The owner is Wayne Beaton, and the branch is master. The project is tm/org.eclipse.tm. The change ID is I6e8056444ce64f39d25ec4e08d9704448dea2703. The description of the change is "448158: Hidden local files and folders are not hidden on Linux".

PHP - 448158: Hidden local files and folders are not hidden on Linux [I6e805644] - Eclipse

File Edit Navigate Search Project Run Window Help

35369: 448158: Hidden local files and folders are not hidden... ✕

Change 35369 git.eclipse.org/r

448158: Hidden local files and folders are not hidden on Linux

Status NEW Created 22-Oct-2014 Modified 22-Oct-2014 10:58 PM Last commented: 13 month ago

Attributes

Owner	Wayne Beaton	Branch	master
Topic			
Project	tm/org.eclipse.tm		
Change-Id	I6e8056444ce64f39d25ec4e08d9704448dea2703		

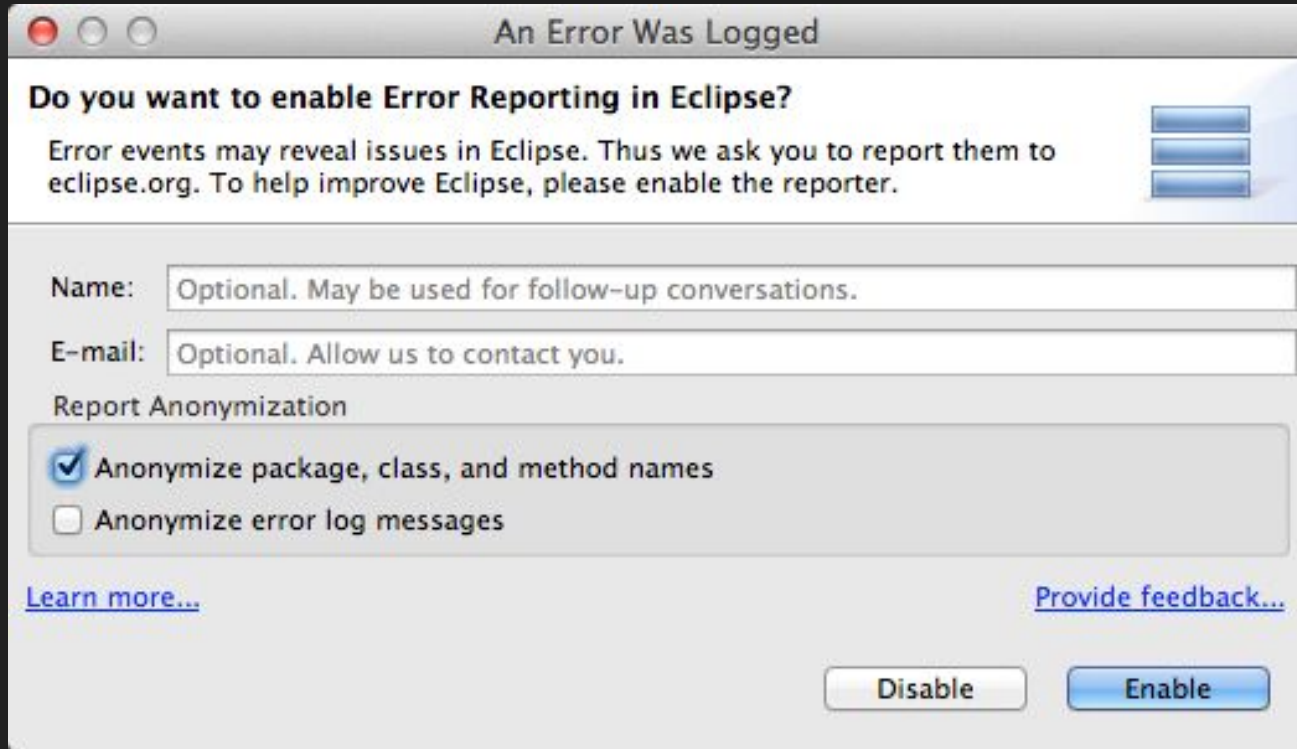
Private

Description

448158: Hidden local files and folders are not hidden on Linux

Change-Id: I6e8056444ce64f39d25ec4e08d9704448dea2703

Error Reporter



The image shows a screenshot of the Eclipse IDE's 'An Error Was Logged' dialog box. The window has a title bar with standard macOS window controls (red, yellow, green buttons) and the title 'An Error Was Logged'. The main content area is divided into sections. The first section asks 'Do you want to enable Error Reporting in Eclipse?' and explains that error events may reveal issues in Eclipse and that the user is asked to report them to eclipse.org to help improve Eclipse. To the right of this text are three stacked blue buttons. The second section contains two text input fields: 'Name:' with a placeholder 'Optional. May be used for follow-up conversations.' and 'E-mail:' with a placeholder 'Optional. Allow us to contact you.'. The third section is titled 'Report Anonymization' and contains two checkboxes: 'Anonymize package, class, and method names' (which is checked) and 'Anonymize error log messages' (which is unchecked). At the bottom left is a blue hyperlink 'Learn more...' and at the bottom right is a blue hyperlink 'Provide feedback...'. The bottom of the dialog features two buttons: 'Disable' and 'Enable'.

An Error Was Logged

Do you want to enable Error Reporting in Eclipse?

Error events may reveal issues in Eclipse. Thus we ask you to report them to eclipse.org. To help improve Eclipse, please enable the reporter.

Name: Optional. May be used for follow-up conversations.

E-mail: Optional. Allow us to contact you.

Report Anonymization

☒ Anonymize package, class, and method names

☐ Anonymize error log messages






[Learn more...](#) [Provide feedback...](#)

Disable Enable

Demo: Intelligent Recommendations

- Completion recommendations based on common use cases
 - Bases recommendations on what other developers in a similar situation have done

```
Text text = new Text(parent, SWT.NONE);  
text.
```

-  `setLayoutData(Object layoutData) : void - Control - 83 %`
-  `setText(String string) : void - Text - 48 %`
-  `addModifyListener(ModifyListener listener) : void - Text - 36 %`
-  `getText() : String - Text - 15 %`
-  `setEnabled(boolean enabled) : void - Control - 10 %`

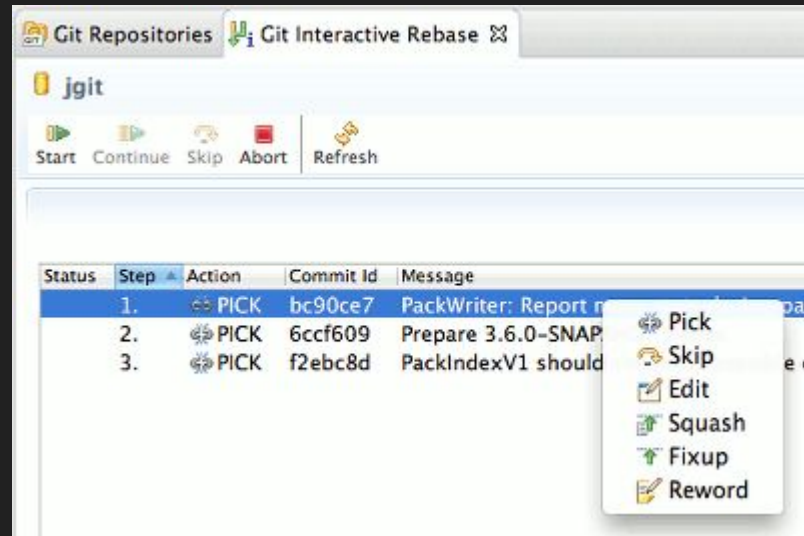
Press '^Space' to show Java Proposals

Maven Integration

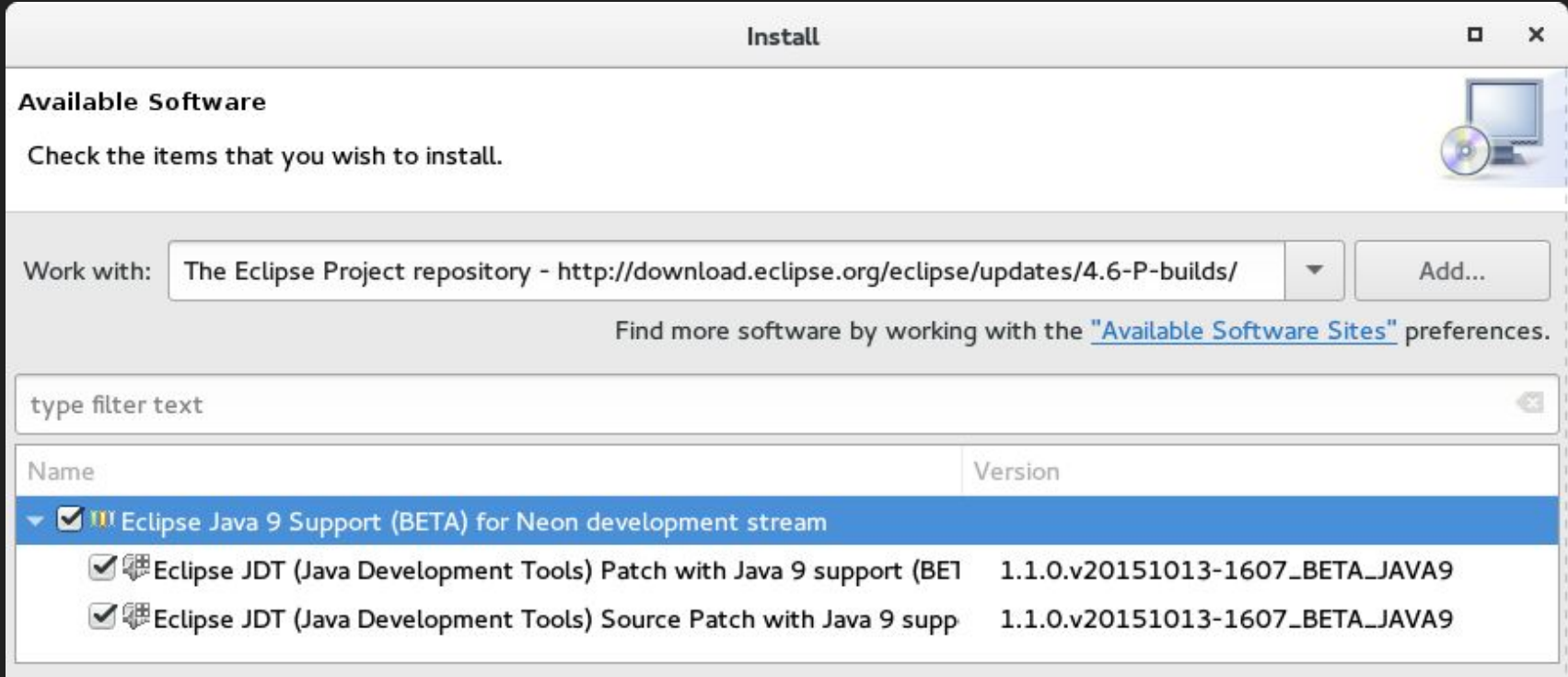
- Launch Maven builds from within Eclipse
- Dependency management based on pom.xml
- Resolve dependencies from the workspace
- Automatic download of the required dependencies
- Wizards for creating new Maven projects, pom.xml
- Quick search for dependencies in Maven remote repositories
- Quick fixes in the Java editor for looking up required dependencies/jars by the class or package name

Git Integration

- Interactive rebase view
- Cherry-pick multiple commits at once
- Stash support
- Usability improvements



Eclipse Java™ 9 Support (BETA) for Neon



<https://waynebeaton.wordpress.com/2015/10/18/eclipse-java-9-support-beta-for-mars/>

Thank you!