What is the Eclipse platform project?

Everything else in the IDE

Platform
How did we get here?

Internal work

Stuff you will like
Disclaimer: No topics about Java 9 support
Eclipse 4.2
Once upon a time
Eclipse Mars 4.5.2 startup of IDE: 8.4s total

Eclipse Neon 4.6M5 startup: 7.1s total
Java 8 support

QuickAccess can be hidden

Major improvements in CSS

DnD color

Less whitespace usage

New icon set

Removed annoying splash screen message

ToolBar can be hidden

Line numbers

New Splashscreen and logo

PerspectiveSwitcher can be hidden

UI Installation performance much better

Performance

Dark theme

Eclipse 4.4

Improve default styling (colors)
Eclipse 4.5

Better GTK3 support

Closing projects removes the "dead" editors

Hierarchical project view in Project Explorer

Closes tabs to the right / left

IDE supports e4 views

NewSplashscreen and logo

Even better dark theme

Customize perspective dialogs works again

More new icons

Faster code completion in JDT

Better performance with parallel jobs and interactive UI freeze monitor
Non user facing things in Eclipse 4.6 (Neon)
New committers and contributors

Committers

Alexander Kurtakov – Redhat
Sergey Prigogin – Google
Stefan Xenos – Google
Simon Scholz – vogella GmbH
Tony McCrary – independent
Jonas Helmig – EclipseSource
Dirk Fauth – Bosch
Andrey Loskutov – independent

Contributors

`git shortlog -s --pretty=format:"%an" --since "1 year ago" | wc -l`

87 contributors in the last year
Total platform work including release engineering

**Individual Contribution Activity:**
Commits on this project by individuals over the last three months.

- **25.5%** - David Williams
- **18.9%** - Arun Thondapu
- **16.5%** - Lars Vogel
- **12.5%** - Markus Keller
- **10%** - e4Build
- **5%** - Stefan Xenos

1/7
Java Versions for Neon

SWT  Java 7
Platform  Java 8
A big code cleanup

Simplified API
Remove dead internal code
Remove Eclipse 2.0 compatibility layer
Use annotations in code
Update of all plug-ins to relevant Java Versions (Java 7 or Java 8)
Usage of Java 8 lambdas
Update of the tests (partial to Junit 4)
How does a code cleanup help?
I want to help and contribute!

- Simplified API
- Making our tests run in the Gerrit build validation
- Convert platform tests to JUnit 4
- Remove deprecated API usage
- Delete unnecessary whitespace
- Deprecated outdated API
- Remove deprecated API usage
- Delete outdated examples
- Removed unused internal methods
- Provide a fresh Java 8 API
- I want to help and contribute!
Platform Text

Contribution Activity:
Commits on this project (last 12 months).

Overview  Downloads  Who's Involved  Developer Resources

2015-07
Commits: 9

0 2.5 5.0 7.5 10.0

eclipse.platform.ui
User facing things in Eclipse Neon (4.6)
Word-Wrap in text editors supported

/*
 * This Java source file was auto generated by running 'gradle buildInit --type java-library'
 * by 'simon' at '2/14/16 10:11 PM' with Gradle 2.11
 * @author simon, @date 2/14/16 10:11 PM
 */

public class Library {
    public boolean someLibraryMethod() {
        return true;
    }
}
Shortcuts for text editor font size

Available for Mars via the saneclipse plug-in: saneclipse.vogella.com
Saving some time

Usability is Important!
Ability to hide the toolbars of the main window

Available for Mars via the saneclipse plug-in: saneclipse.vogella.com
Finally make GTK3 as good as GTK2
Faster Eclipse without Styling
Faster Eclipse

- Remove unnecessary activators
- ImageDescriptors avoid to hit the file system
- Solving memory leaks
- Avoiding object creation
- New split() method on Submonitor class
Databinding Enhancements

Generics<T>

WritableValue<String> taskSummary =
    new WritableValue<>("Learn Databinding", String.class);
WritableList<Task> task = new WritableList<>();
Databinding Enhancements

Generics<T>

Convenience Methods

```csharp
IObservableValue<Boolean> isOk = ComputedValue.create(() =>
    Boolean.valueOf(validationStatus getValue().isOK()));

IConverter lowerCaseConv =
    IConverter.create(String.class, String.class,
    t -> ((String) t).toLowerCase());

UpdateValueStrategy.create(lowerCaseConv)
    .setAfterConvertValidator(value => ValidationStatus.ok());
```
Databinding Enhancements

Generics<T>
Convenience Methods
ISideEffect class

```java
IObservableValue<Boolean> showDescription = WidgetProperties.selection().observe(showDescriptionButton);

// create a conditional ISideEffect
ISideEffect modelToTarget = ISideEffect.create(() -> {
    String name = showDescription.getValue() ? person.getFirstName() + " " + person.getLastName() :
        person.getFirstName();
    personNameText.setText(name);
});

// dispose the ISideEffect object on dispose
personNameText.addDisposeListener(e -> {
    modelToTarget.dispose();
});
```

tracked getter
Databinding Enhancements

Generics<T>

Convenience Methods

ISideEffect class

New Example Code

```java
ISWTObserveableValue textModifyObservable = WidgetProperties.text(SWT.Modify).observe(summaryText);

ISideEffect modelToTarget = ISideEffect.create(task::getSummary, summaryText::setText);
ISideEffect targetToModel = ISideEffect.create(() -> (String) textModifyObservable.getValue(),
    task::setSummary);

textModifyObservable.getWidget().addDisposeListener(e -> {
    modelToTarget.dispose();
    targetToModel.dispose();
});
```

@ See org.eclipse.jface.examples.databinding
PDE support for OSGi declarative services

```java
@Component(name="TodoService", service=IContextFunction.class,
property="service.context.key=com.example.e4.rcp.todo.model.ITodoService")
public class TodoServiceContextFunction extends ContextFunction {

Bundle-ActivationPolicy: lazy
Service-Component: OSGI-INF/TodoService.xml
```
Unknown text files handling
Subwords completion and code highlighting in JDT

Google summer of code project from
Gábor Kövesdán coached by Noopur Gupta and Lars Vogel
Templates

- Word Selection Variable: `\${word_selection("default")}`
- New E4 Templates
- Custom Date format
Potential cool things?
Better DnD feedback for views and editors
Provide a smart import wizard
Filters

![Diagram of Project Explorer and Outline windows with filters applied.](image)
Maybe Bugzilla feels super old?

Allow editing of your comments in bug reports

All depends on this Guy: Denis Roy
Webmaster at Eclipse
Postfix completion in JDT

More usage of plain e4 API in the IDE

Non blocking asynchronous content assist

Outline that shows Annotations
Hey, that is cool code. I would like to contribute to it.
Contributing to the Eclipse IDE, Second Edition

http://www.vogella.com/books/eclipsecontribution.html

As of today, available as free download and paper book
Questions?
Thank you

For further questions:

http://www.vogella.com

Need commercial support:
sales@vogella.com
Evaluate the Sessions

Sign in and vote at eclipsecon.org

-1 0 +1