

Mylyn

From Stack Trace to Scrum



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AspectJ Project, 1999

The screenshot displays a multi-windowed development environment. On the left, the Eclipse IDE is open to the 'Figure.java' file, showing a package explorer on the left and a code editor in the center. The code editor contains the following Java code:

```
protected boolean getFlag(int flag) {  
    return (flag & flag) != 0;  
}  
  
/**  
 * see IFigure#getFont()  
 */  
public Font getFont() {  
    if (font != null)  
        return font;  
    if (getParent() != null)  
        return getParent().getFont();  
    return null;  
}
```

Below the code editor, the 'Problems' view shows 366 references in the workspace. On the right, a Microsoft Outlook window displays a Google Alert message for 'mylyn'. The message includes a link to a blog post titled 'Session restore (sort of) in Eclipse with Mylyn' by Nicholas Chen. Below the Outlook window, a Mozilla Firefox browser window shows the Bugzilla bug list for Eclipse. The bug list is titled 'Bugzilla - Bug List' and shows a table of 210 bugs found. The table has columns for ID, Sev, Pri, OS, Assignee, Status, Resolution, and Summary. The bugs listed include:

ID	Sev	Pri	OS	Assignee	Status	Resolution	Summary
271252	nor	P1	Wind	mylyn-triaged@eclipse.org	NEW		[content assist] Insertion of best guessed arguments not working
212704	min	P1	Linu	mylyn-triaged@eclipse.org	NEW		[performance] notifications are causing slowing down
198501	enh	P1	Wind	mylyn-triaged@eclipse.org	NEW		[editor] make incoming and outgoing changes more prominent in the task editor
248377	enh	P1	All	mylyn-triaged@eclipse.org	NEW		redesign task list content provider
264584	enh	P1	All	mylyn-triaged@eclipse.org	RESO	DUPL	[editor] improve presentation of incoming/outgoing attributes
286963	enh	P1	All	mylyn-triaged@eclipse.org	NEW		add support for ignoring incoming notification on specified fields
243900	maj	P2	Wind	mylyn-triaged@eclipse.org	NEW		remove of Eclipse task repository undone after Eclipse restart
247863	maj	P2	All	mylyn-triaged@eclipse.org	NEW		[team] deadlock while creating a class
177626	nor	P2	Wind	mylyn-triaged@eclipse.org	NEW		do not blindly accept all certificates
266496	nor	P2	All	mylyn-triaged@eclipse.org	NEW		[CCombo] product drop down box should support some sort of filtering or fast selection by key
118542	min	P2	All	mylyn-triaged@eclipse.org	NEW		[context] open/close Java files leave interest on packages
150331	min	P2	All	mylyn-triaged@eclipse.org	NEW		[context] libraries lose interest too quickly
265046	min	P2	All	mylyn-triaged@eclipse.org	NEW		new task added to uncategorized warning always when gone into a query (via 'go into')
266496	min	P2	All	mylyn-triaged@eclipse.org	NEW		[team] Open Corresponding Task enabled for non context change sets
278143	min	P2	Mac	mylyn-triaged@eclipse.org	NEW		content assist shows all elements as ranked high (bar always at bottom of content assists popup)
284317	min	P2	Wind	mylyn-triaged@eclipse.org	NEW		support shared due dates for unsubmitted tasks
216167	in	P2	All	mylyn-triaged@eclipse.org	NEW		resolve class us actions for automatic containers

90% Irrelevant

The screenshot shows the Eclipse IDE interface. The main editor displays the following code for the `getFont()` method in `Figure.java`:

```
protected boolean getFlag(int flag) {  
    return (flags & flag) != 0;  
}  
  
/**  
 * @see IFigure#getFont()  
 */  
public Font getFont() {  
    if (font != null)  
        return font;  
    if (getParent() != null)  
        return getParent().getFont();  
    return null;  
}
```

The `Problems` window below the editor shows 298 references to the `Figure` class:

- (default package) - sandbox - org.eclipse.draw2d.examples
 - Bug23147
 - main(String[]) (2 matches)
 - EllipseTest
 - main(String[]) (2 matches)
 - FlowLayoutTest
 - main(String[]) (3 matches)
 - new Figure() {...}
- org.eclipse.draw2d.examples.cg - src - org.eclipse.draw2d.examples
 - ObstructionExample
 - getContents()
 - TestFigure
- org.eclipse.draw2d.examples.connections - src - org.eclipse.draw2d.examples
- org.eclipse.draw2d.examples.graph - src - org.eclipse.draw2d.examples
- org.eclipse.draw2d.examples.layouts - src - org.eclipse.draw2d.examples
- org.eclipse.draw2d.examples.printing - src - org.eclipse.draw2d.examples

The `Package Explorer` on the left lists various Java files, including `Figure.java`. The `Outline` and `Hierarchy` views on the right show the class structure, with `Figure` at the top of the hierarchy.

ALM Disconnect

Uninformed
Manager

Program Mgmt

Portfolio Mgmt

Project Management



Manual updates, constant friction

Annoyed
Developer

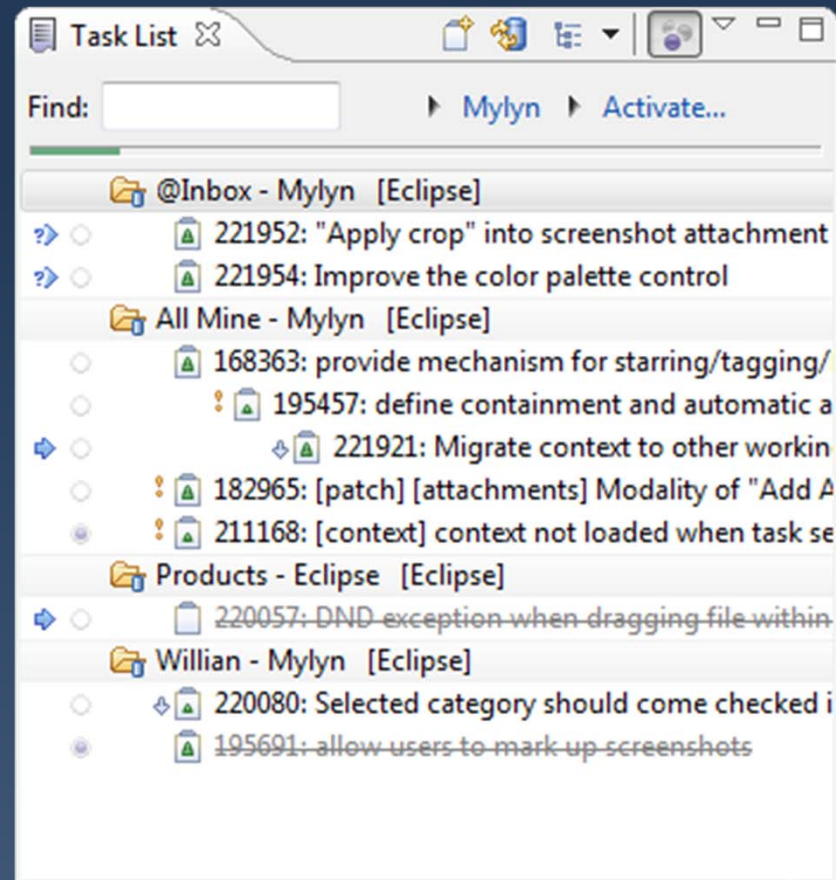
Issues

Source

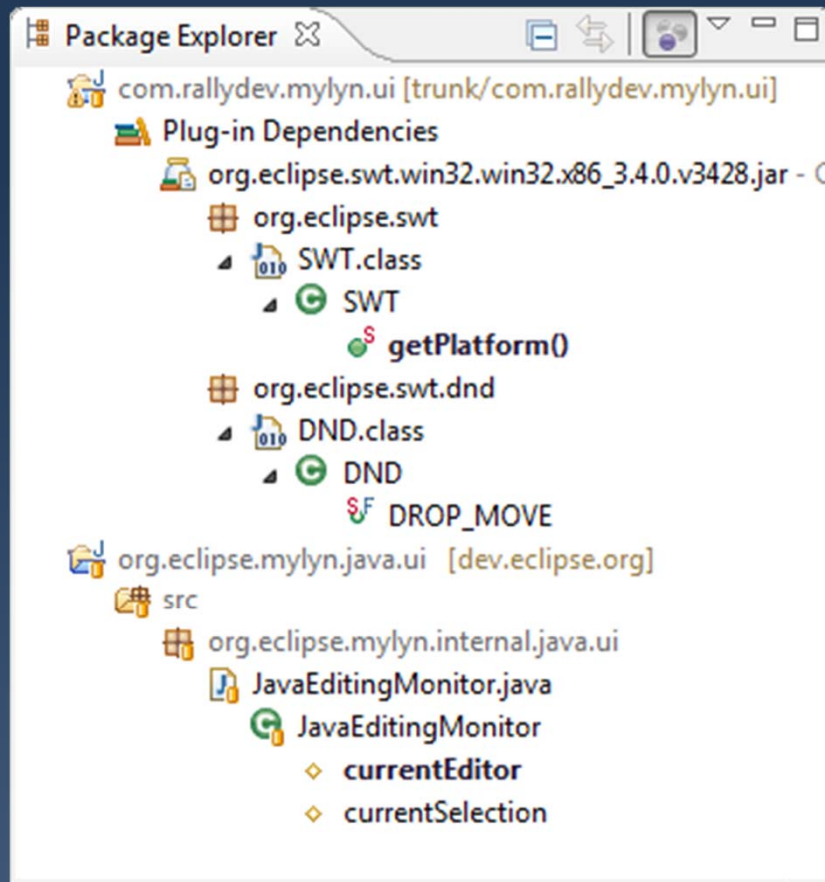
Builds

Tests

Demo: Collaboration



Demo: Context



IDE Evolution



Tools



Language



Framework



Build



Test

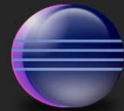


Sources



Tasks

X



IDE

Completion

Refactoring

Designers

X



Focus

Tasks

Context

Collaboration






Flow





I = integrated





Focus





I = you





Mylyn Extensions

  Bugzilla  Trac  Mantis  Outlook ...

 Rally  VersionOne  ThoughtWorks  JIRA

 ClearQuest  RTC  HP QC  CollabNet

  CVS  SVN  ClearCase  Perforce  Git ...

  Cruise  Bamboo  Hudson

  Java  Spring  C/C++  PHP





Structure

Conversation

Context



Process



Workflow



Asynchronous



Synchronous



Social



Code



Documents

Mylyn Evolution



Tasks

Bugzilla

Trac

OSLC



Context

Java

C/C++



SCM

Subversive

EGit

OSLC



Build

EHudson

OSLC



Review

Cross-repository

IEEE



Docs

WikiText

RichText

Tasktop®

From experiment to enterprise

2004

- › Task-focused interface ideas on UBC whiteboard

2006

- › v1.0, early adopters help evolve the UI

2007

- › v2.0, API grows from integration needs, increasing

2008

- › v3.0, API solidifies, extensions increase

2009

- › v3.3, de facto ALM integration for Eclipse, dozens of extensions

2010

- › Expansion, new project creation, enterprise adoption

Tasks

Reference Implementations

- › Bugzilla
- › Trac
- › OSLC

Framework & API

- › Improved reusability for RCP applications
- › Commons will be consumable by integrators
- › Generalized Repositories view in Commons

The screenshot shows a web browser window displaying a Bugzilla bug report form. The browser title is "305782: restructure Mylyn features and update sites". The page title is "Bug 305782" and the browser's address bar shows "Eclipse". The form is titled "restructure Mylyn features and update sites" and has a status of "NEW", opened on "13-Mar-2010", and modified on "15-Mar-2010 5:23 AM".

The form is divided into several sections:

- Attributes:** A section containing various fields for describing the bug. Fields include: Resolution (empty), Platform (PC), Product (Mylyn), OS (Linux), Component (Core), Version (unspecified), Priority (P3), Severity (enhancement), Target milestone (3.4), Depends on (S... 248371, 260666, 280826, 296436, 304755), Blocks (empty), URL (empty), Keywords (empty), Status Whitebo... (empty), documentation (dropdown), iplog (dropdown), pmc_approved (dropdown), and review (dropdown).
- Associations:** A section for linking related bugs.
- Time Tracking:** A section for tracking time spent on the bug.
- Private:** A section for private information.
- Context:** A section for context, currently showing "Bugzilla".

Context

Reference Implementations

- › Resource
- › Java
- › C/C++

Framework & API

- › Decouple from Tasks
- › Improved extensibility to support tracking of additional state
- › Asynchronous processing of events

```
Java - org.eclipse.myllyn.monitor.core/src/org/eclipse/mylyn/monitor/core/InteractionEvent.java - Eclipse SDK
File Edit Source Refactor Navigate Search Project Run Window Help
Packag... Debug Synchrono... JUnit
Mylyn
  org.eclipse.myllyn.context.core [dev.eclipse.org]
    src
      org.eclipse.myllyn.internal.context.core
        DegreeOfSeparation.java 1.6
        DegreeOfSeparation 1.6
        InteractionContextManager.java 1.84
        InteractionContextManager 1.84
      org.eclipse.myllyn.monitor.core [dev.eclipse.org]
        src
          org.eclipse.myllyn.monitor.core
            InteractionEvent.java 1.16
            InteractionEvent 1.16
Breakpoints
org.eclipse.myllyn.monitor.cor...clipse.myllyn.monitor.core/src
361M of 480M Mar 24: 2 All Day Events
```

```
/**
 * Immutable. Encapsulates interaction made by the user
 * Also see: http://wiki.eclipse.org/index.php/Mylyn\_Inte
 *
 * @author Mik Kersten
 * @since 2.0
 */
public class InteractionEvent {

    /**
     * Determines the type of interaction that took place
     */
    public enum Kind {
        /**
         * User selection of elements, issued by the Eclipse IDE
         */
        SELECTION,

        /**
         * Edit events that are created by text selection
         */
        EDIT,

        /**
         * Commands and actions invoked via buttons, menus, etc.
         */
        COMMAND,

        /**
         * Workbench preference changes, sometimes made by the IDE
         */
    }
}
```

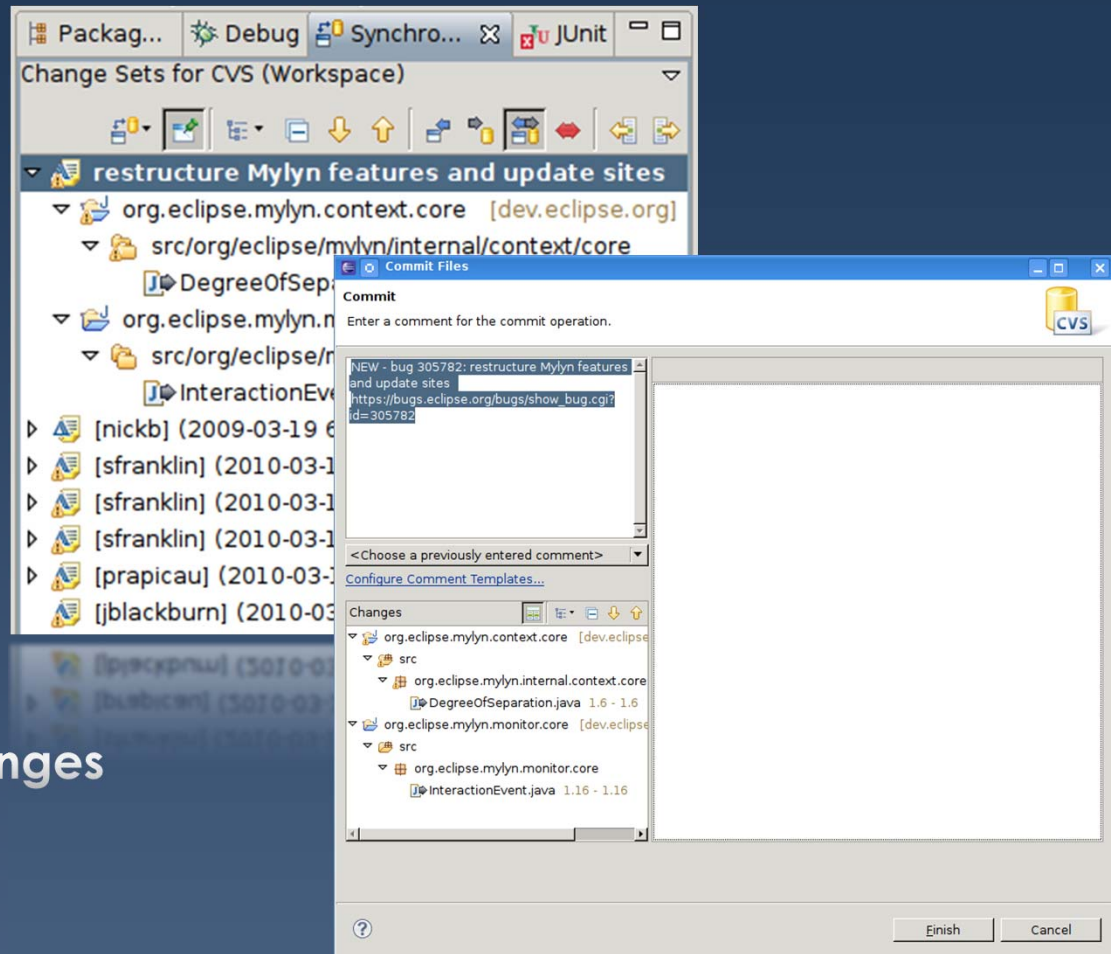
SCM

Reference Implementations

- › CVS
- › OSLC

Framework & API

- › Common abstraction for team providers
- › Supports change set management and reviews
- › Remote change sets
- › Per-task staging of changes



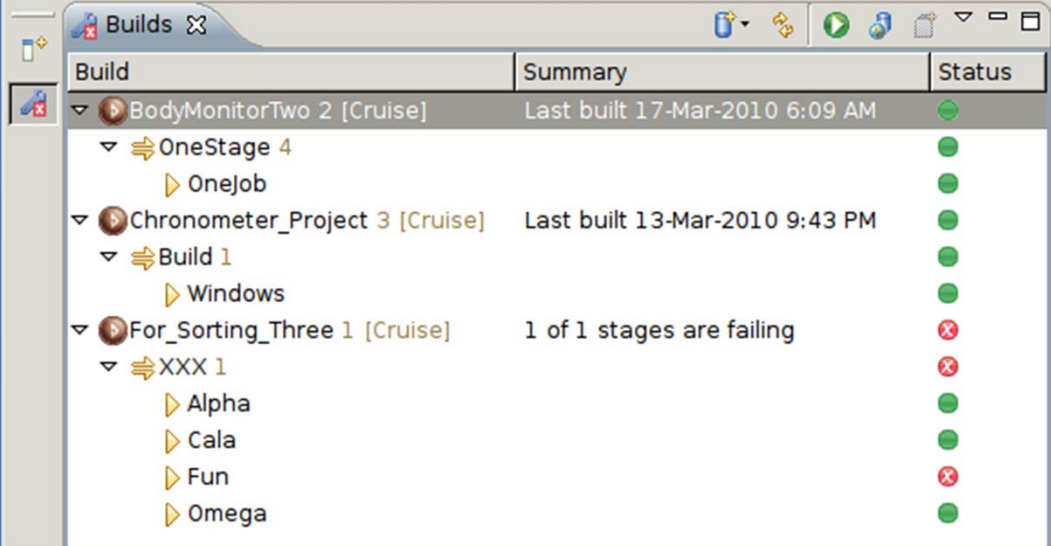
Build

Reference Implementations

- › Hudson
- › OSLC

Framework & API

- › Infrastructure for CI servers
- › Form based UI
- › Integration for console and JUnit view



The screenshot shows a web browser window displaying the Hudson build console. The window title is 'Builds'. The main content is a table with three columns: 'Build', 'Summary', and 'Status'. The table lists several build jobs and their stages.

Build	Summary	Status
BodyMonitorTwo 2 [Cruise]	Last built 17-Mar-2010 6:09 AM	●
OneStage 4		●
OneJob		●
Chronometer_Project 3 [Cruise]	Last built 13-Mar-2010 9:43 PM	●
Build 1		●
Windows		●
For_Sorting_Three 1 [Cruise]	1 of 1 stages are failing	✖
XXX 1		✖
Alpha		●
Cala		●
Fun		✖
Omega		●

Review

Reference Implementations

- › Mylyn Review
- › Gerrit?

Framework & API

- › Extends Tasks for managing review tasks
- › Annotations and compare integration
- › Uses SCM to access source repositories

The screenshot shows the Eclipse Review Editor interface. At the top, it displays the project name 'test.sharedproject1' and the editor title 'Review Editor (chris)'. Below this, there are filters for 'From' (01.12.08), 'To' (31.03.09), 'Author', 'Reviewer', 'Rating', and 'Message'. The main area is titled 'Changesets under Review' and contains a table with the following data:

R.	T.	Rev...	Author	Reviewer	Timestamp	Message
⊖	🔗	236	john	chris	29.01.09 13:57	[test] FetchUsersAction usw.
ⓘ	🔗	235	john	chris	29.01.09 13:56	[test] Methode in Schnittstelle und Klasse hinzugefuegt
⊕	🔗	205	mike	chris	23.01.09 19:57	[test] neue Klasse und aenderung
	🔗	204	chris	mike	23.01.09 19:23	[test] system exit added
	🔗	134	chris	mike	07.01.09 18:11	sharedproject modified for test
	🔗	101	chris	mike	17.12.08 19:11	history.xml model modified
ⓘ	🔗	97	mike	chris	16.12.08 08:56	review.xml removed
	🔗	90	chris	mike	13.12.08 10:50	dev moved to trunk
	🔗	81	chris	mike	12.12.08 11:21	history.xml updated in test project

Below the table, there are two panels: 'Files' and 'Review'. The 'Files' panel shows the location '/trunk/dev/projects/test.sharedproject1' and a list of files: 'src/org/reviewclipse/action/UpdateUsersAction.java', 'src/org/test/ITestAction.java', 'src/org/test/impl/TestAction.java', and 'test.properties'. The 'Review' panel shows a 'Rating' of 'Warning', a 'Created' date of '14.02.09 14:54', and a 'Text' field containing 'Code ok, please more comments for javadoc!'.

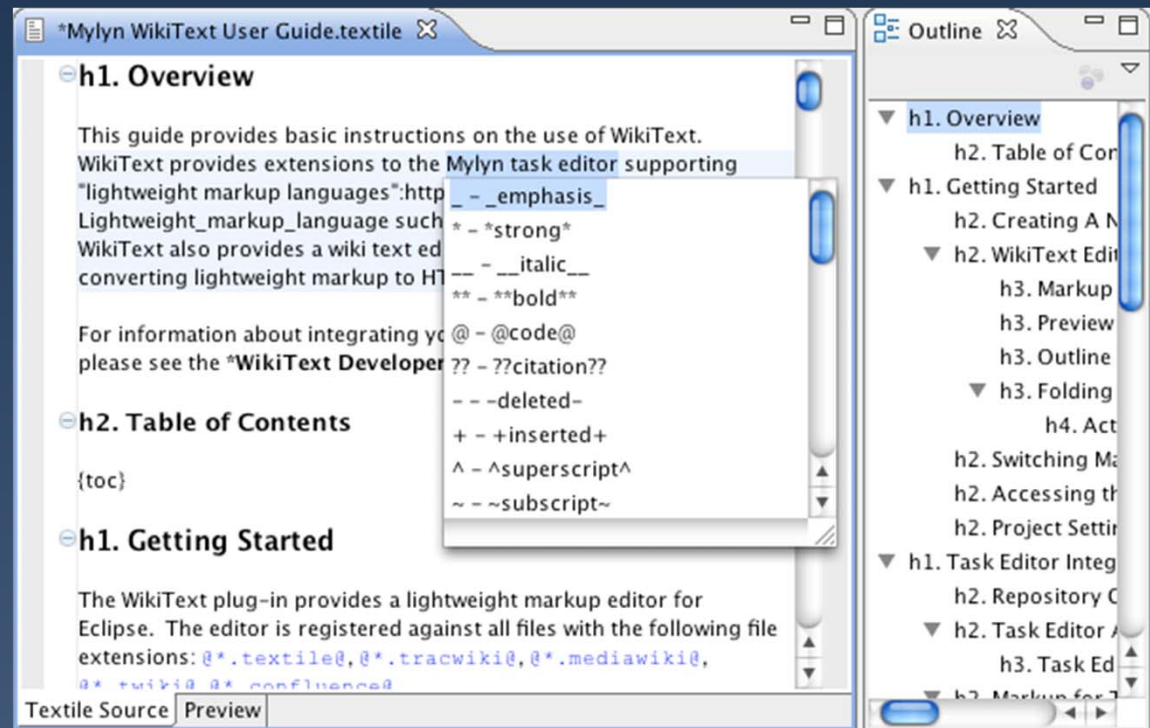
Docs

Reference Implementations

- › WikiText
- › Rich Text?

Framework & API

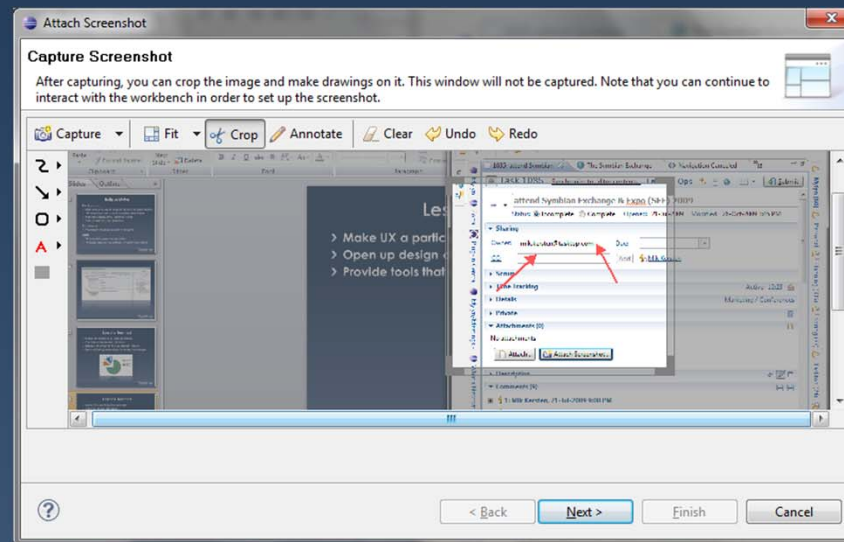
- › Extensibility for Wiki dialects
- › Reusable text editing components



Building on Community

One of the most transparent and permeable OSS projects

1/7th of tasks resolved by patch contributions, nearing 900





eclipse.org/mylyn

tasktop.com/blog

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