

Eclipse Developing with RCP Training

COURSE OUTLINE



Description

The Developing with RCP course will help you understand how to implement your own application based on Eclipse RCP. It will explain the core frameworks in Eclipse, the plug-in architecture, extension points, and scenarios for building on the common configurations of Eclipse technology. Participants will begin working with simple examples, which will become more complex as the course progresses.

Audience

Software developers and architects

Prerequisites

Experience with Eclipse, strong knowledge of Java and design patterns, GUI development experience and XML

Duration and Format

Four-day instructor-led class with at least 50% hands-on labs and tutorials

1. Introduction to RCP

- Brief history
- Benefits / examples
- Anatomy of an RCP application
- Internal architecture
- Concept of Plug-in based modularization
- First glance at PDE
- Related links and resources
- Optional: introductory demos (plug-ins/minimal RCP)

2. RCP Application lifecycle

- Physical artifacts
- Runtime artifacts
- Development time artifacts

3. Internal structure

- Runtime and OSGi
- Generic Workbench
- Plug-ins
- Start-up sequence
- Extension points, extensions, contributions
- SWT / JFace
- Related links and resources

4. Workbench

- Eclipse's UI-metaphor
- Launching : IApplication
- Windowing: window, menu, page, part
- Advisor classes
- Related links and resources

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5. Publishing

- Plug-in publication
- Products
- Features
- Update Site
- Update Manager
- Branding, themes, and customizations
- Related links and resources

6. Plug-ins

- Identity
- Configuration (MANIFEST.MF, plugin.xml)
- Lifecycle
- Related links and resources

7. Contributing to Workbench

- Extension points
- Extensions
- Contributions to the Workbench
- First examples of Contributions
 - Perspectives
 - Views
- Using ActionBarAdvisor versus extension points
- Create your own extension point
- Related links and resources

8. Introduction to SWT

- About SWT
- Ideas behind SWT
- SWT packages
- Basic structure of an SWT application
- Threading in SWT
- SWT widgets / controls
- SWT custom widgets
- SWT events
- Layouts
- Resource management: colors, fonts, images
- SWT / AWT bridging
- Related links and resources

9. Introduction to JFace

- Introduction
- JFace structured viewers
- JFace dialogs and wizards
- Selection services
- Preference pages
- Related links and resources

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10. Views

- Introduction / concept of a view
- Views: the general-purpose Workbench Part
- How to create a custom view
- Linking with the properties view
- Related links and resources

11. Eclipse e4 and the Future

- Introduction / concept of Eclipse e4

12. Commands and Actions

- Introduction
- Menus, Commands, and Handlers
- Key bindings
- Types of Actions
- Lazy loading
- Contributing actions to Views
- Visibility and enablement
- Actions and selections
- Related links and resources

13. Editors

- Introduction / concept of an Editor
- Difference between a View and an Editor
- Types of Editors
- Implementing an Editor
- Dirty state management
- Contribution and opening of an Editor
- Related links and resources

14. Wizards

- Contributing wizards
- Defining a wizard extension
- Implementing a Wizard
- Implementing a Wizard Page
- Customizing a wizard
- Controlling wizard page progression
- Reusable specialized wizard pages
- Related links and resources

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15. Help

- Structure of Eclipse help system
- Table of contents
- Context sensitive help
- Help contexts
- Dynamic Help
- Active Help
- Related links and resources

16. **New and Noteworthy Features of Expected in Indigo**

- Overview
- Features