

Title: **Developing workflow-driven client-server applications with Eclipse**

Target audience: Programmers, system designers

Duration: 3 days, 8 hours/day

Description This advanced course shows how to create flexible web applications with Eclipse RAP. The audience will get an overview of workflow-driven application design in general, and the JBoss jBPM workflow server and modeling language in particular. Participants will be shown how third-party components can be integrated into an OSGi/Eclipse-based software architecture. The course also offers a hands-on lab part that provides ready-to-use working knowledge about advanced RAP programming and client-server OSGi/Eclipse application design.

Learning objectives At the end of the course, students will be able to:

- Understand the basic concepts of workflow-driven application design
- Use server-side Eclipse Equinox technology and integrate third-party libraries to Eclipse-based software architectures
- Develop advanced and complex RAP applications

Outline

Day 1: INTRODUCING workflow-driven development of client-server applications

1. Introduction, concepts, the workflow-driven approach
2. Supporting technologies for client-server applications in- and outside of Eclipse (HTTP, Web Services, RESTful WS)
3. RAP introduction RAP-based UI design, limitations of RAP and browser-based client applications, RAP vs., J2EE technologies, Branding in RAP (CSS, etc.)
4. Hands-on lab: RAP basics, managing and developing RCP and RAP applications concurrently

Day 2: JBoss jBPM, Eclipse Equinox

1. Workflow technologies, outlook (BPEL, BPMN, supporting tools and technologies)
2. JBoss AS, jBPM introduction
3. Designing workflows in jPDL
4. Optional: OSGi and Eclipse Equinox, Integrating third party libraries with Eclipse technology
5. Hands-on lab: OSGi-based business logic, jPDL process model debugging with JBoss AS & jBPM, OSGi-jBPM integration

Day 3: Designing and creating a workflow-driven client-server application

1. Model-driven architectural design, RUP-based design patterns for web applications
2. Reusability of existing applications, Comparison of RCP and RAP, Migrating RCP apps to RAP
3. Hands-on lab: RAP UI – OSGi BL – jPDL – jBPM integration

Prerequisites To complete this course, you need:

- A Pentium IV, 1 GB RAM computer with Java SDK 5.0 or later
- Eclipse 3.4
- Java knowledge
- Eclipse plugin development knowledge
- Eclipse RCP development knowledge