Menu

*Topics may target users, developers, or both.*

# Introduction to Eclipse.

Eclipse plug-in architecture.

Extensions and extension points.

Project Natures and Builders.

Eclipse Resources, manipulating Projects, Folders and files.

### What's in a plug-in?

The Declarative parts:

Manifest.MF (name, version, dependencies, activator class)

Plugin.xml (extensions, extension points etc.)

build.properties

plugin.properties

sources and libraries.

### The plug-in manifest:

Descriptions, versioning, dependencies, runtime (downstream package visibility), (using existing) extensions, (creating new) extension points, builds and libraries.

### Writing Eclipse plug-ins (Developer).

Using the new plug-in wizard (Practical?).

Using Extension Points to make extensions.

Workspaces.

Creating projects, folders and files programmatically (Practical).

# Setting up for development with Rodin.

Managing Workspaces, working sets

Preferences: platform target, install sites.

Build targets.

Importing/Exporting to/from the workspace.

The workspace: git vs svn.

### The Eclipse Modelling Framework:

Metamodels and Ecore,

Generating code: genmodels, sample editors. (Could create a small model?)

GMF and Diagrams.

### Releasing Plug-ins.

Features and update sites.

# Rodin Specifics:

### Using Rodin (mostly practical).

The Rodin UI: Modelling and Proof.

Proof Tactics.

Theories.

iUML-B/State-machines.

Decomposition.

### The Rodin database:

bum, bcm, bpo, bpr and bps.

buc, bcc, bpo, bpr, and bps

The API: IInternalElement, IRodinDB, IRodinProject, IRodinFile,

IEventBProject, IMachineRoot, IContextRoot .... (Developer)

EventB Formulas, Predicate and Expressions (Developer)

Extracting Data (Practical?)

# Plug-in Development.

### Extending the Rodin UI:

org.rodinp.core.attributeTypes, org.eventb.ui.editorItems, IAttributeManipilation.

### EMF:

Event-B EMF core.

+ Serialisation with RodinDB (Persistence Synchronizers).

Event-B EMF Extensions

Rose Editor.

iUML-B. Event-B Diagrams, generator

# Others Technologies:

Xtext-based machine editor.

Generic Instantiation.

ProB model checker.

Camille development.

Code generation.

Using the Java Development Toolkit.

Using the C Development Toolkit.