Rich Client Platform Overview

An introduction to creating applications using the Eclipse Rich Client Platform (RCP).

What is RCP?

- RCP stands for Rich Client Platform
  - A *Platform* for building *Client* applications with *Rich* functionality.
- Open Source / Free
- Available since Eclipse 2.1 (2003)

What do you get with RCP?

- Runtime Components
  - OSGI – Open System Gateway Initiative
    - Applications / Bundles
  - Extensions / Extension Points
    - Contract for the Extensions

What do you get with RCP?

- User Interface Components
  - SWT – Standard Widget Toolkit
  - JFace – Framework for UI Abstractions
  - Workbench UI
  - Views / Editors / Actions / Perspectives…
  - Text / Forms / Graphical Editing Framework (GEF)
    - GEF allows developers to take an existing application model and quickly create a rich graphical editor.

What do you get with RCP?

- User Experience / Assistance
  - Intro Plugin
    - "Welcome to the product" Experience
  - Cheat Sheets
    - "Show me how to do it" Experience
  - Eclipse Help
    - XML / XHTML Based

What do you get with RCP?

- **Deployment and Update**
  - Deployment
    - Supports Java Network Launch Protocol (JNLP) and Java Web Start
  - Programmatic Update
  - Update UI
  - Feature Update

Why use RCP?

- Native User Experience

Why use RCP?

- Smart Applications
  - Tight Desktop Integration
    - Drag and Drop
    - System Tray
  - Easy Deployment (Update Site Mechanism)
 - Runs on Multiple Platforms / Devices

Why Use RCP?

- Reusability / Portability
  - Everything is a plugin
  - Component libraries
  - Don't need to start from scratch
  - It's Java!

What can you do with RCP?

- My Tourbook
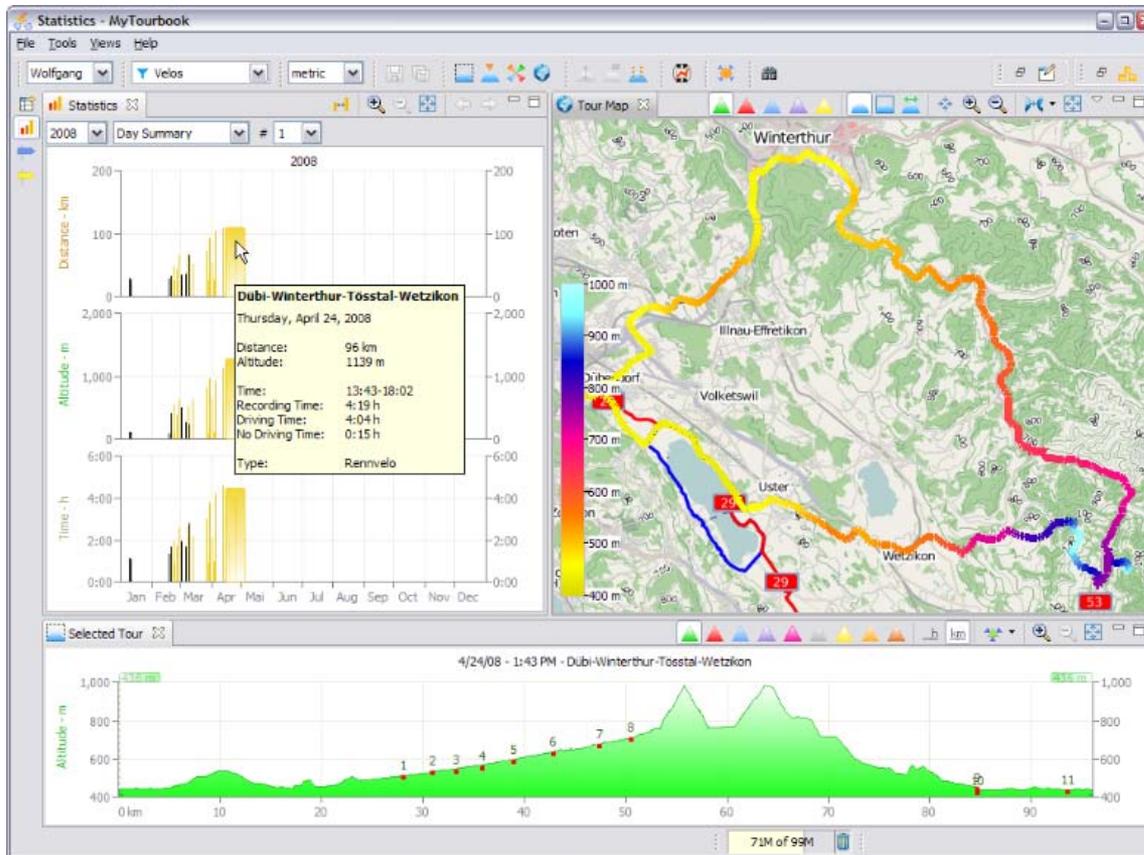
What can you do with RCP?

- Zhongwen Development Tool (ZDT)

What can you do with RCP?

- Schoolclipse
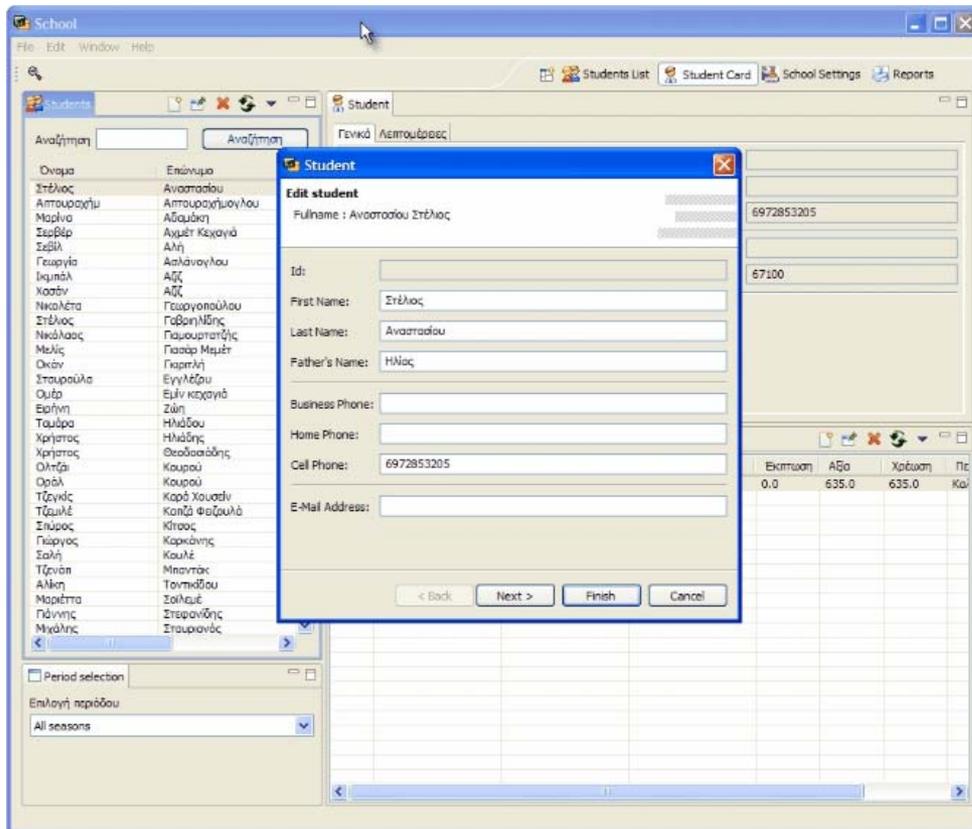
What can you do with RCP?

- Mango Software - XMIND
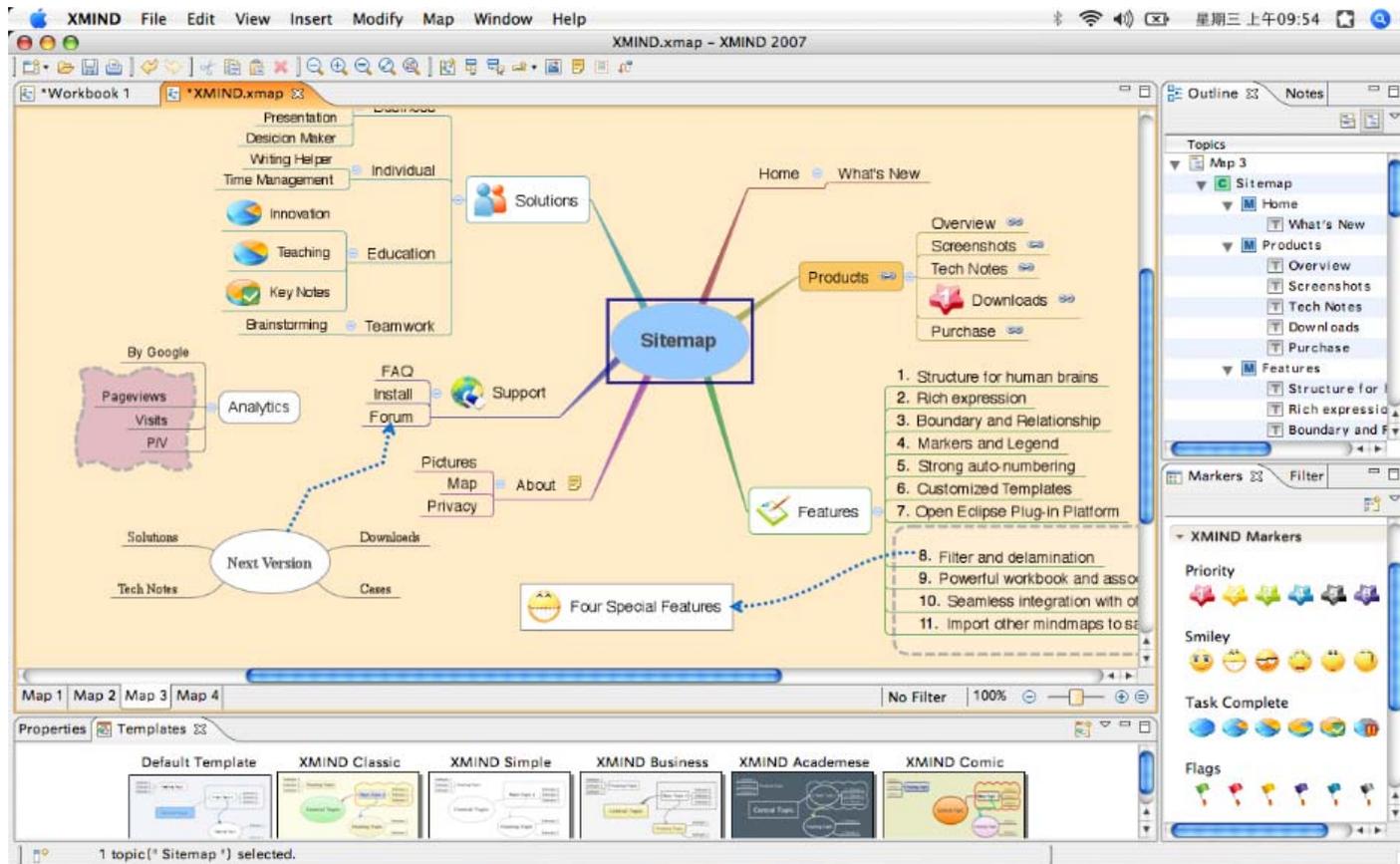
What can you do with RCP?

- SilverCurve – ForeFlight

What can you do with RCP?

- Global Vision Systems - EasyMonitoring

How do I get RCP?

1. Go to http://www.eclipse.org/downloads/
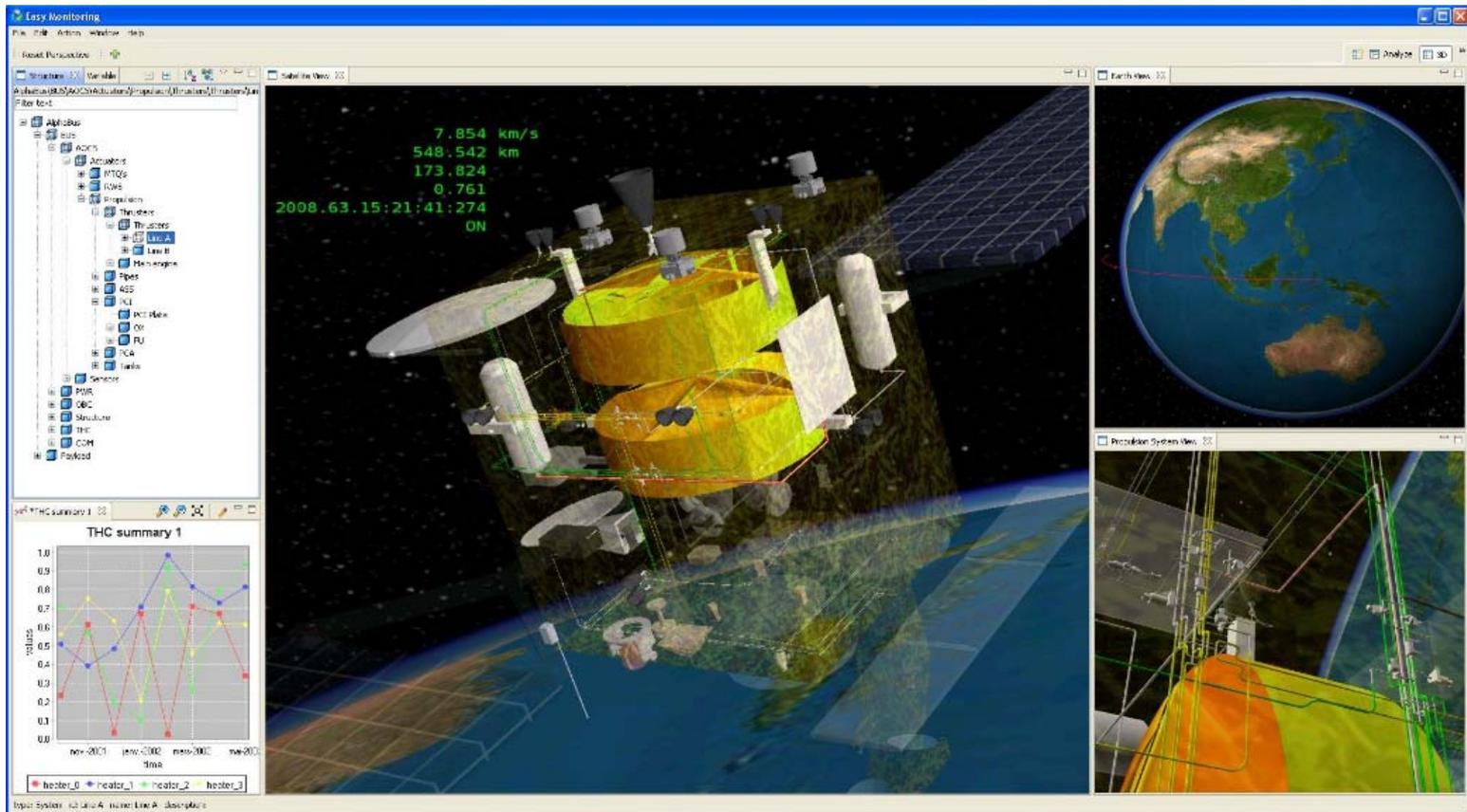
2. Download and install the Eclipse for RCP/Plug-in Developers (175 MB) package.

Eclipse for RCP/Plug-in Developers (175 MB)
A complete set of tools for developers who want to create Eclipse plug-ins or Rich Client Applications. It includes a complete SDK, developer tools and source code, plus Mylyn, an XML editor and the Eclipse Communication Framework. More...

Downloads: 28,874

Windows
Mac OS X
Linux 32bit
Linux 64bit

Let's create an RCP Application!

- Live Eclipse Portion of Presentation.

Pros and Cons of RCP

Pros

- Free powerful Workbench UI
- Plug-In Architecture
- Advanced features such as help, update manager, preferences, problem markers, etc.

Cons

- Steep learning curve
- Memory intensive
- Larger deployment packages

Want to know more?

- URLs / Newsgroups
  - http://www.eclipse.org
  - http://wiki.eclipse.org/index.php/Rich_Client_Platform
  - http://www.eclipsecon.org
  - http://www.javaref.com
  - news://news.eclipse.org/eclipse.platform.rcp
  - news://news.eclipse.org/eclipse.platform

Want to know more?

- Books
  - Eclipse Rich Client Platform: Designing, Coding, and Packaging Java Applications
    - Jeff McAffer, Jean-Michel Lemieux
  - Eclipse: Building Commercial-Quality Plug-Ins
    - Eric Clayberg, Dan Rubel
  - SWT / Jface in Action
    - Scarpino, Holder, Ng, and Mihalkovic

Questions?