Powerful UI Framework = Eclipse RCP a sub-set of Eclipse Platform

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ICIS workshop 2006, CIMMYT

Select a Framework for your App

- Focus on your domain rather than infrastructure -more logic programmin
- Help to reduce time of development, reuse constructions and enhance
- Improve the user experience
- Support componentization for adaptation to changing requirements
- Have a good level of control and responsibility when writing an app
- Support the framework an active and strong community
- Support the framework a leader in the informatics industrial field

Eclipse Platform Overview -1

– Provides building blocks(plug-ins) and a foundation for creating other blocks or tools.

– Plug-ins are independent subsystems that contribute functionality to your application.

– The plug-ins interact together

– Everything in Eclipse is a plug-in (menu, windows, libraries)

– The plug-in is the basic unit in the platform

Eclipse Platform Overview -2

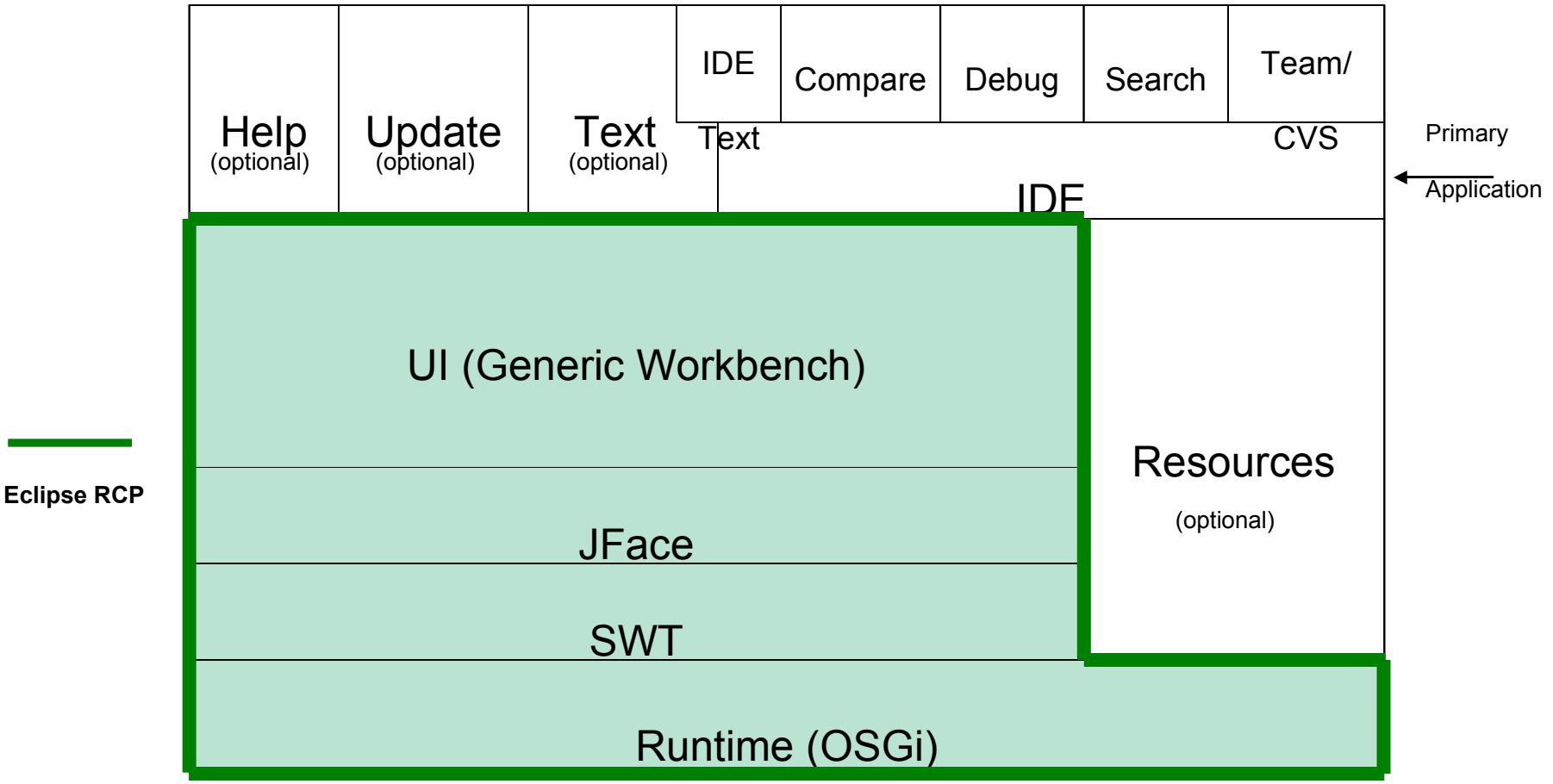
– The platform provides an inherently extensible application framework to your application, allowing other developers to build in your work.

– Easy deployment and server-centric management -> lower TCO

– The IDE is integrated with the platform and can be extensible (C, PHP, Perl, Cobol, Fortran, y R)

– Is Open Source, free and Java Based

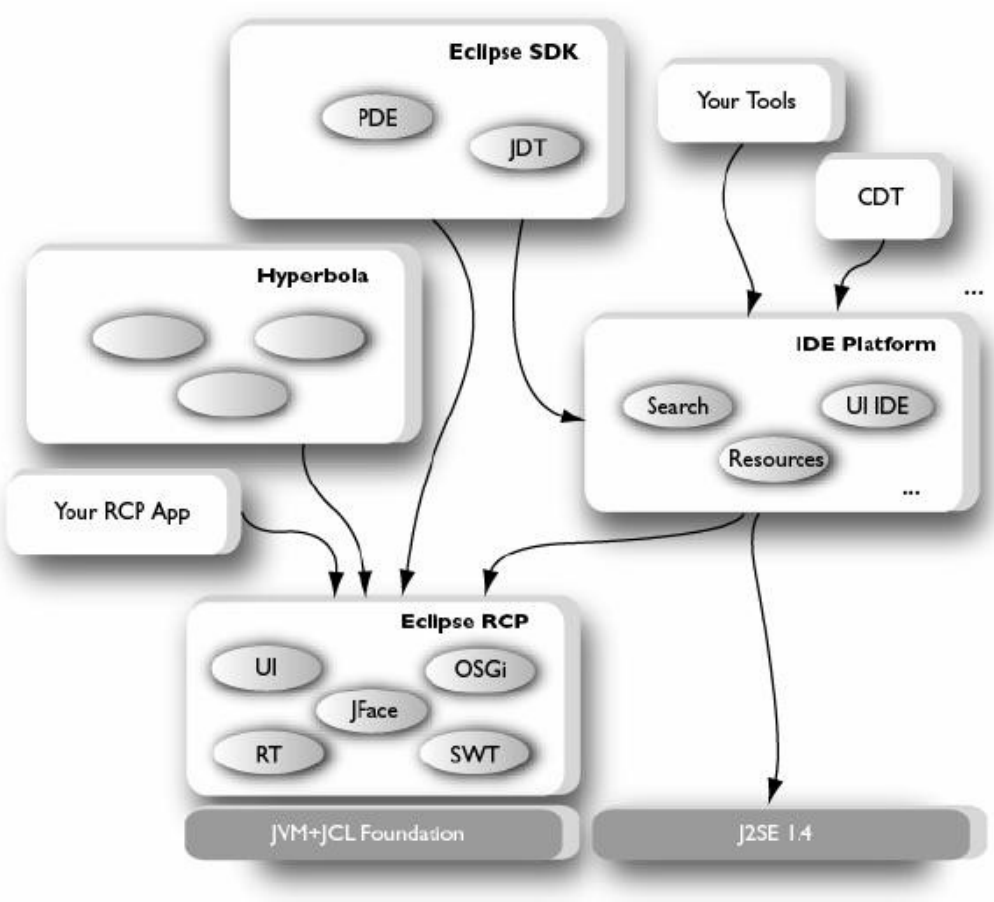
Eclipse Platform Architecture



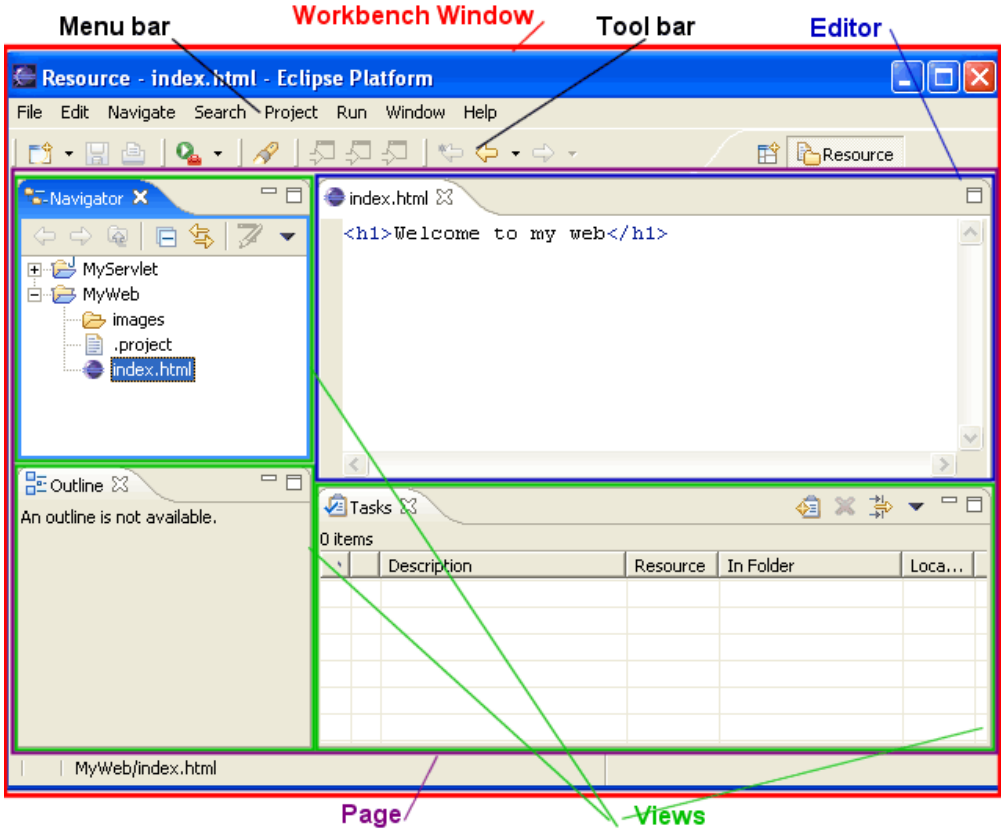
Eclipse RCP Overview

- A subset of the full platform
- For building client applications with Rich functionality
- There are other subsets (EMF, GEF, ..)
- Provide a module reusability(plug-ins) not just class reusability
- Run in multiple platforms (Windows, Linux,..)
- Common interface for apps to reduces user training costs
- The Rich functionality provide are :
    - Intro Support - Provides the “welcome experience” for your product
    - Dialogs and Wizards
    - Cheat sheets - Guides the user through a series of complex tasks to achieve a goal
    - Eclipse Help - Help UI on top of an extensible help content model
    - UI - Framework for building forms-based views and editors

Community of Plug-ins



Eclipse RCP UI – The Workbench



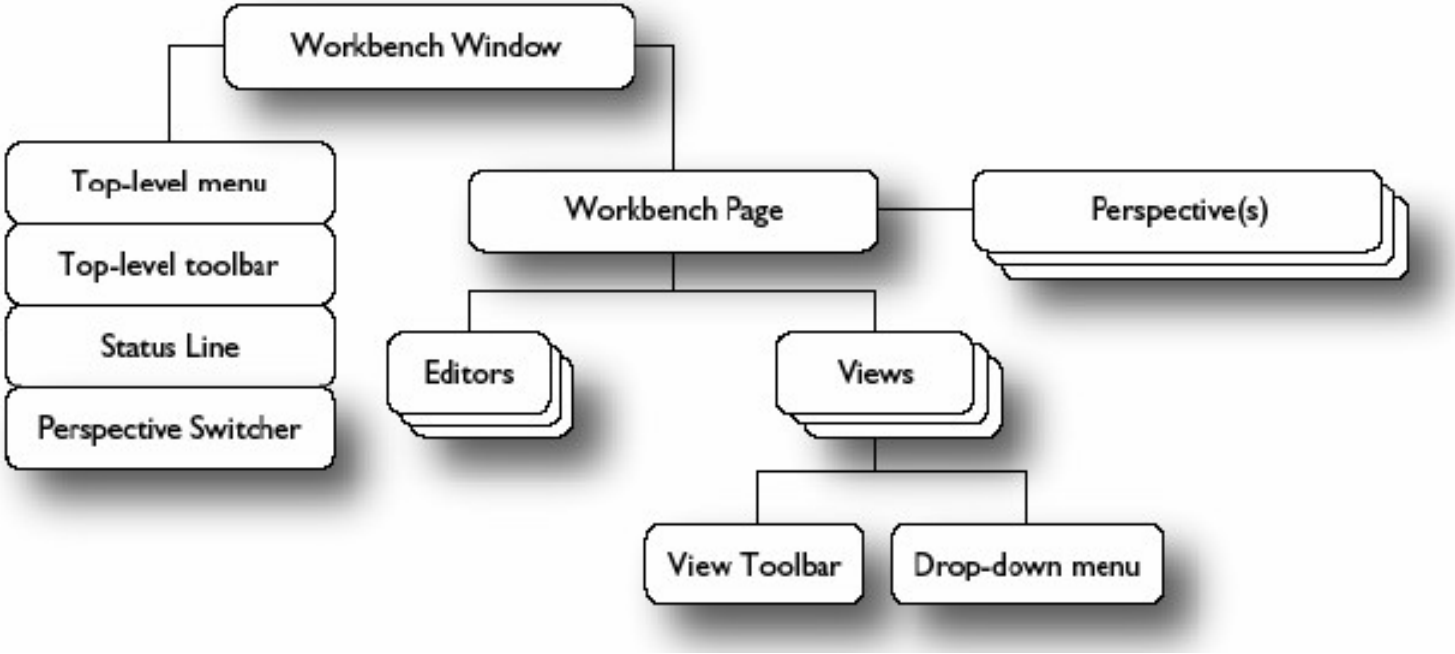
⇨ **Defines reusable and extensible UI metaphors**

Provides:

-Views
-Editors
-Action sets
-Perspectives
-Wizards
-Preference pages
-Commands and Key Bindings
-Undo/Redo support
-Presentations and Themes
--…

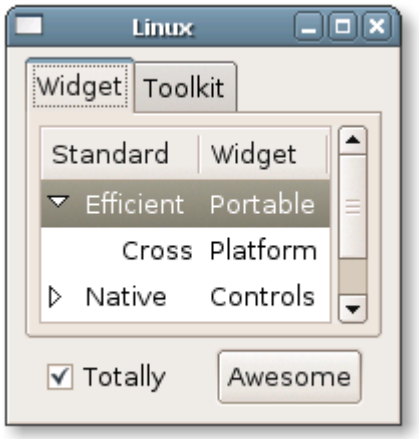
Is **Dynamic-aware**: responds to registry changes and adds/removes views, action sets, etc. accordingly

Eclipse RCP Model



SWT, for Platform Independent

⇨ **To enable platform-independent native widget toolkit**

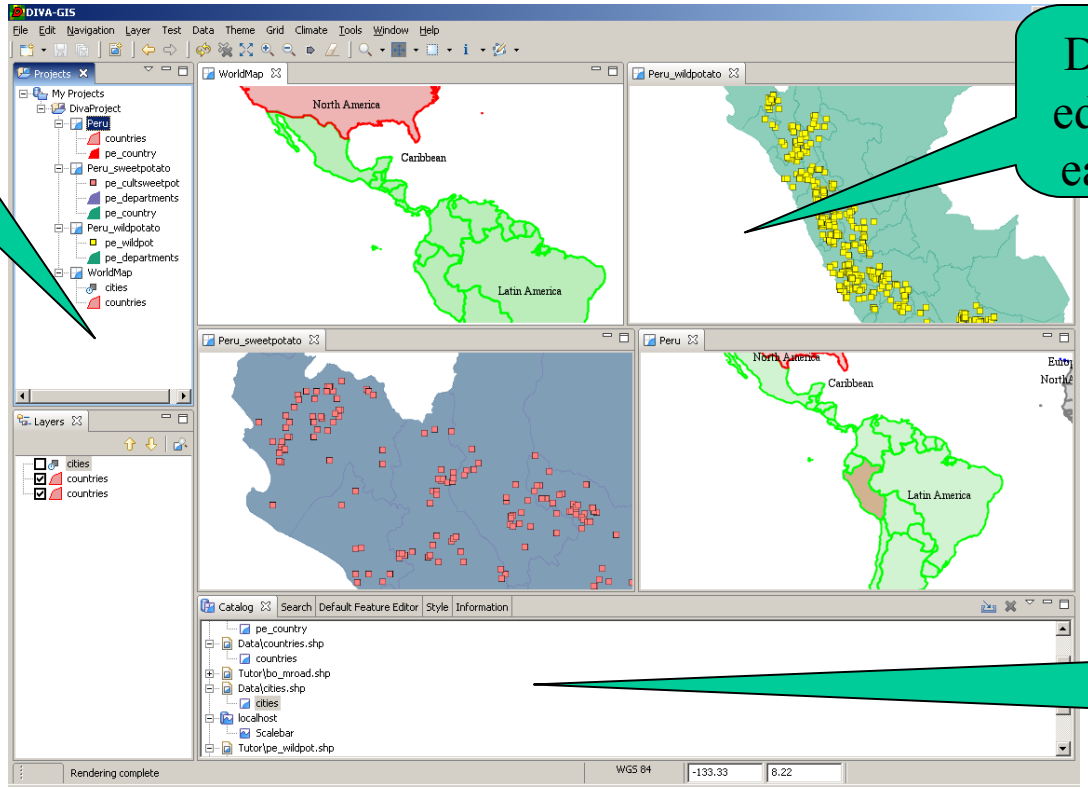


Web or Local Application ??

	Web App	Local App with **Eclipse Platform**
Deployment and maintenance facilities to reduce cost	Centralized App in a web server	Centralized components with on-line and automatic update to local client
Provide Rich UI features	Hard and long time to implement	Rich with Eclipse RCP, set of components
High-speed interactions users	Is slow, depend of band width and use request and response model	Fast, Is a local execution
Domains, applications and user became more sophisticated or complex	Hard and slow change to support requirements	Rich UI and plug-in model reuse or extend
Take advantage of the local hardware	Less or nothing	All local resources
??		
??		

DIVA-GIS and Eclipse RCP, part 1

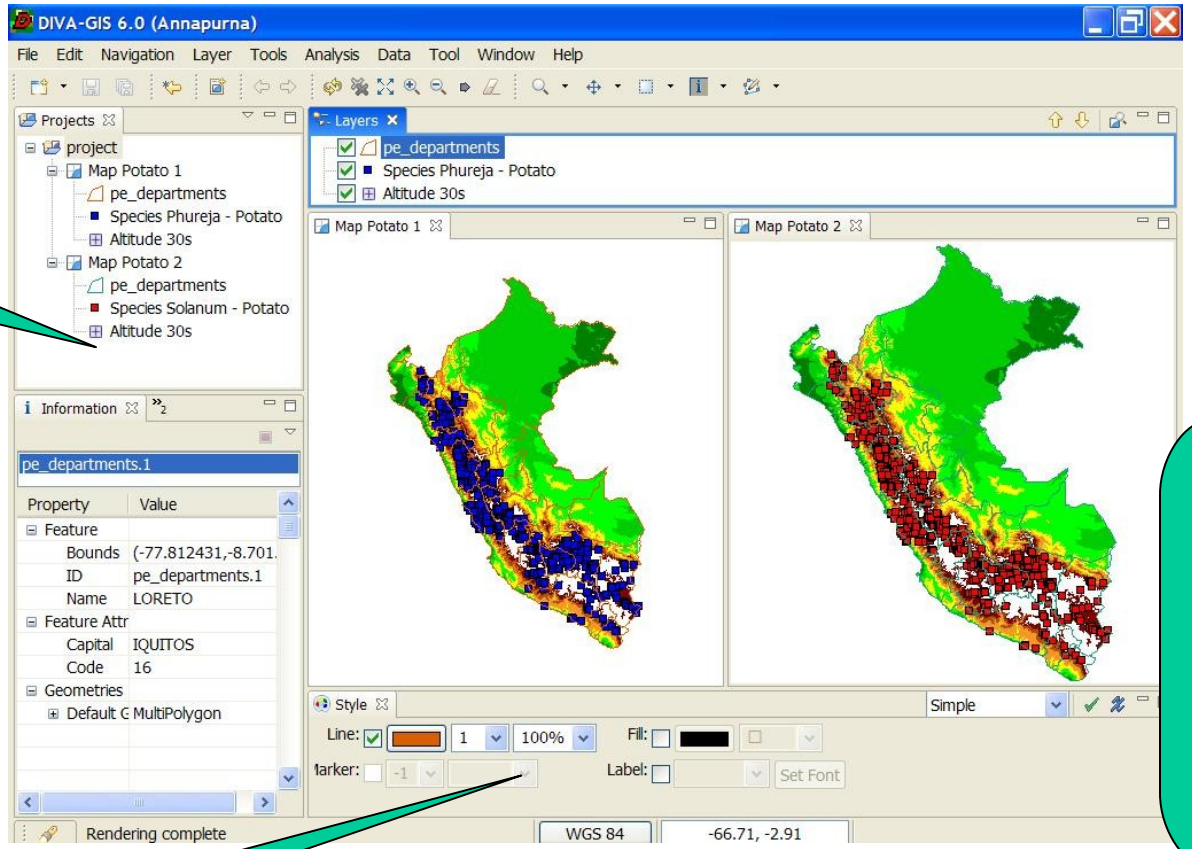
A view listing maps



Different editors for each map

A view showing catalog maps

DIVA-GIS and Eclipse RCP, part 2

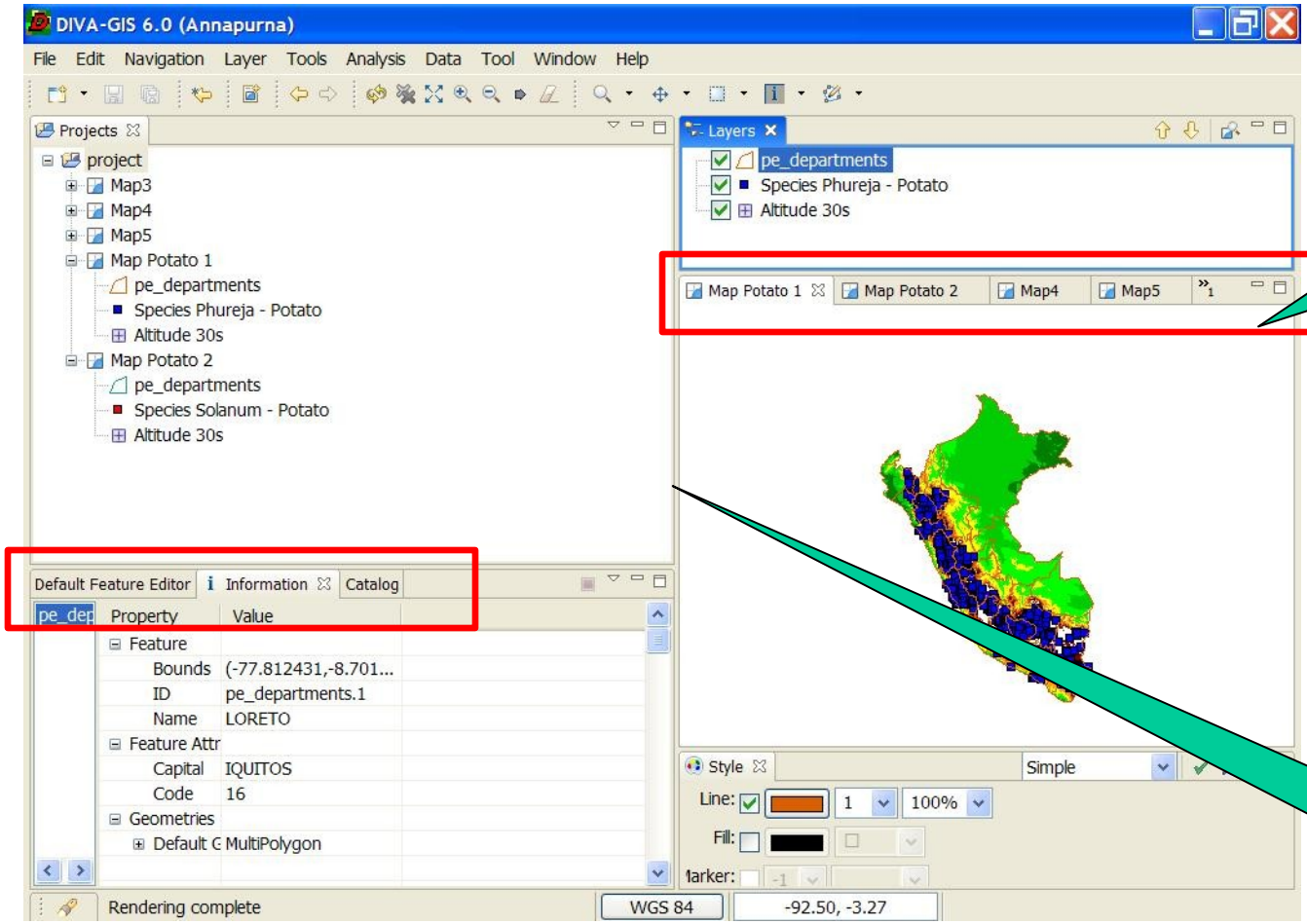


A view type tree

A view type table with controls

The views and editors can be reorganized (moved in other part of the window)

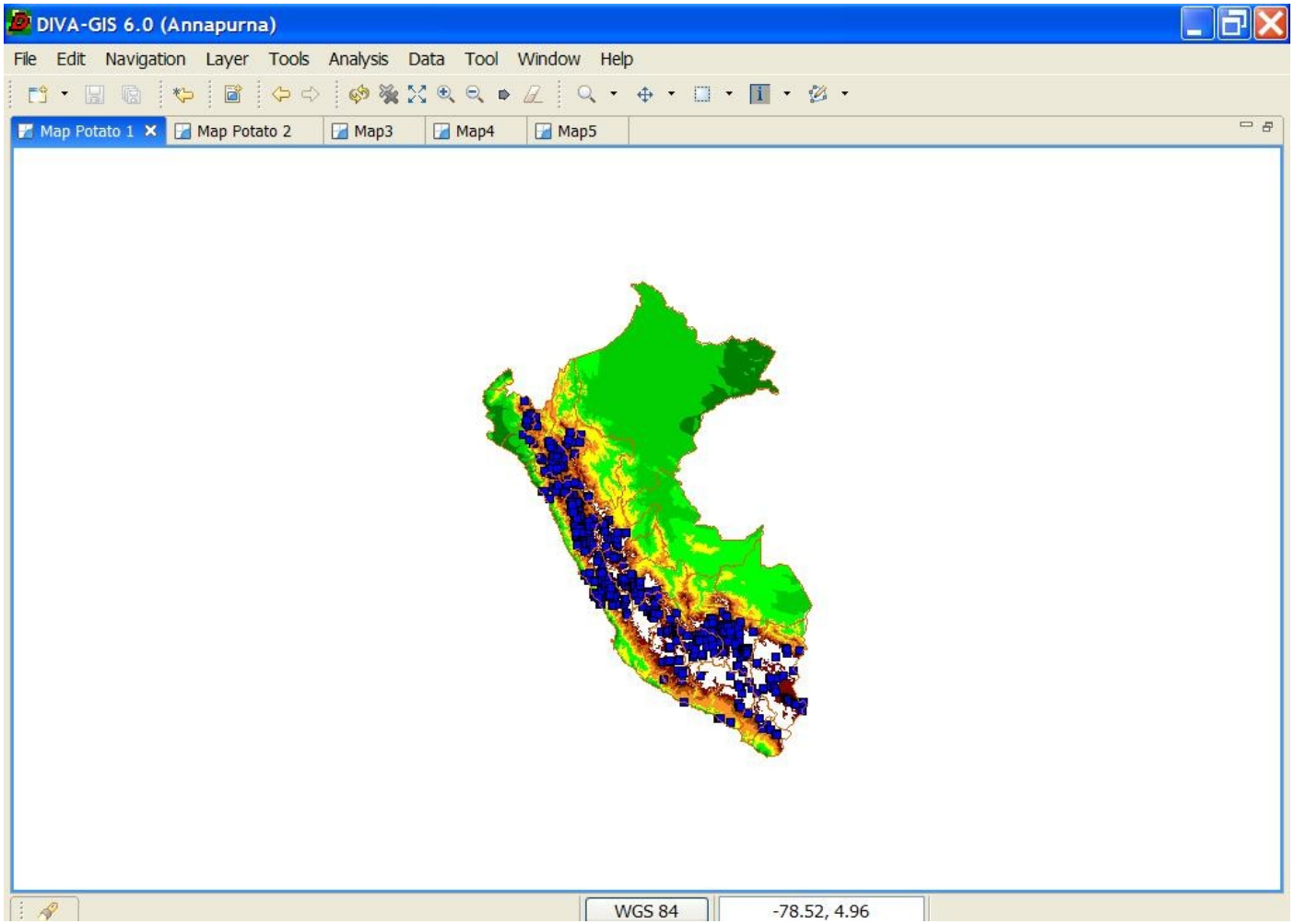
DIVA-GIS and Eclipse RCP, part 3



The views and editors can be organized in tabs

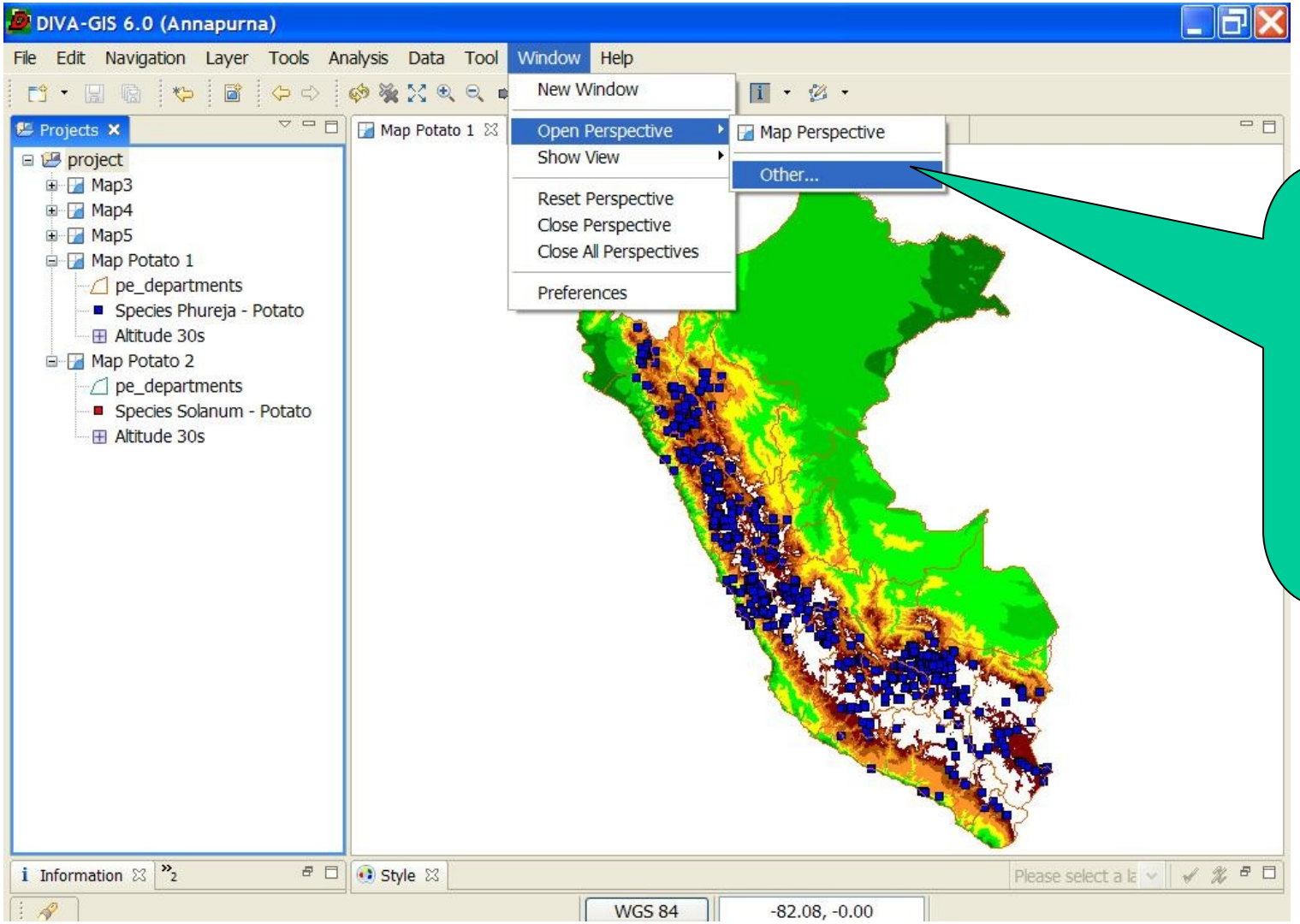
The views and editors borders can be resized the height and width

DIVA-GIS and Eclipse RCP, part 4



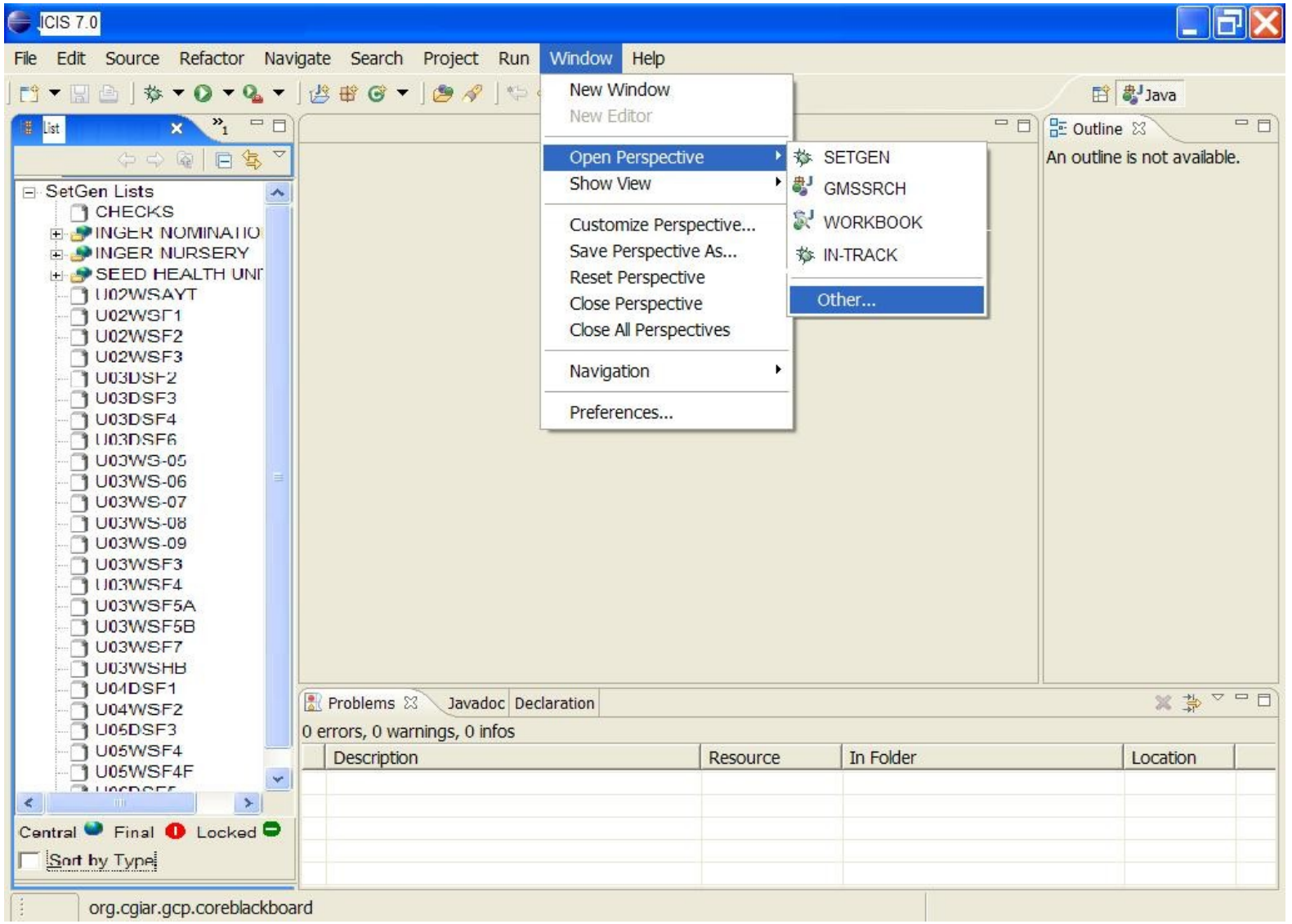
One view or editor can be maximized and the others minimized

DIVA-GIS and Eclipse RCP, part 5

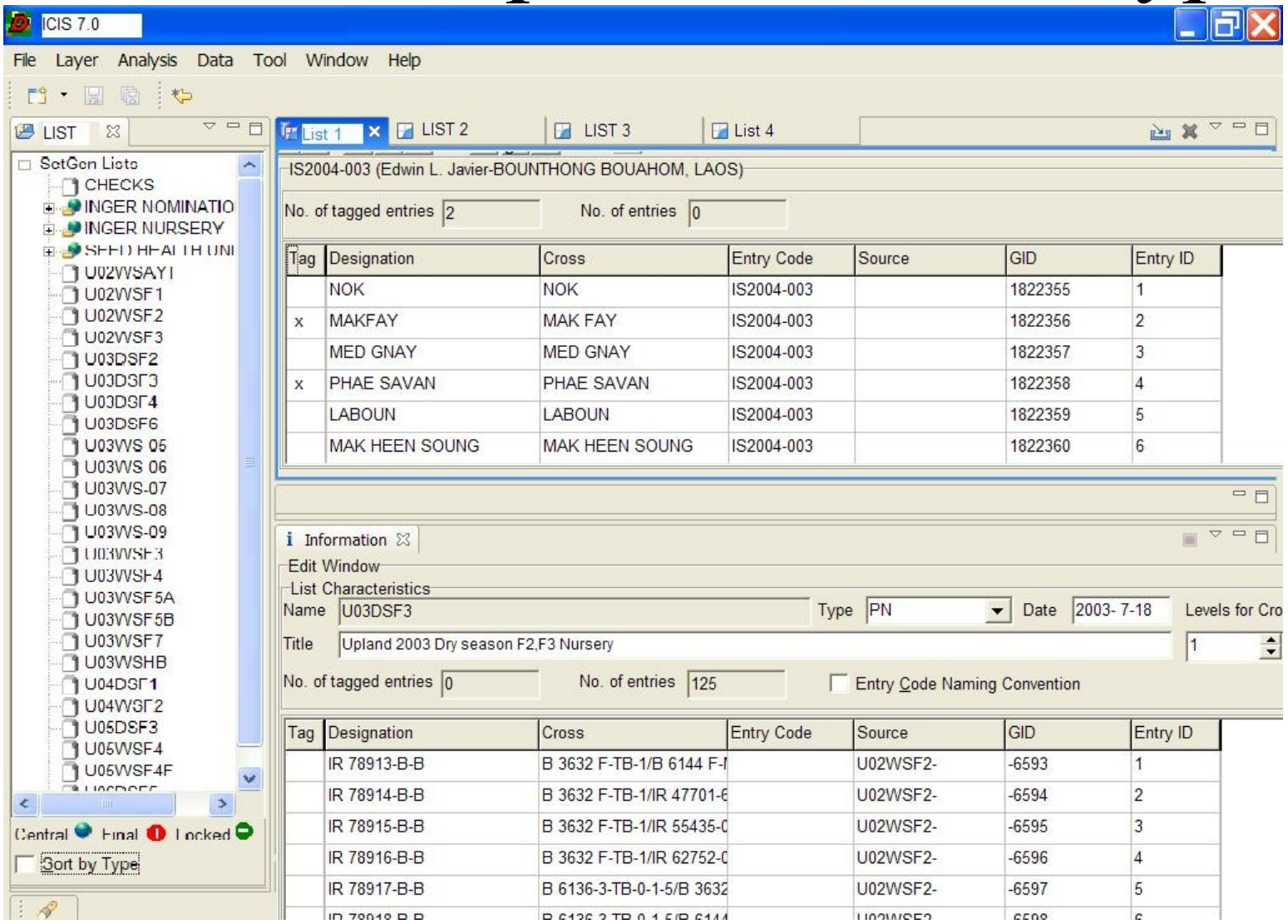


Different views and editors can be grouped in perspectives, normally this is used to access the different modules of a system

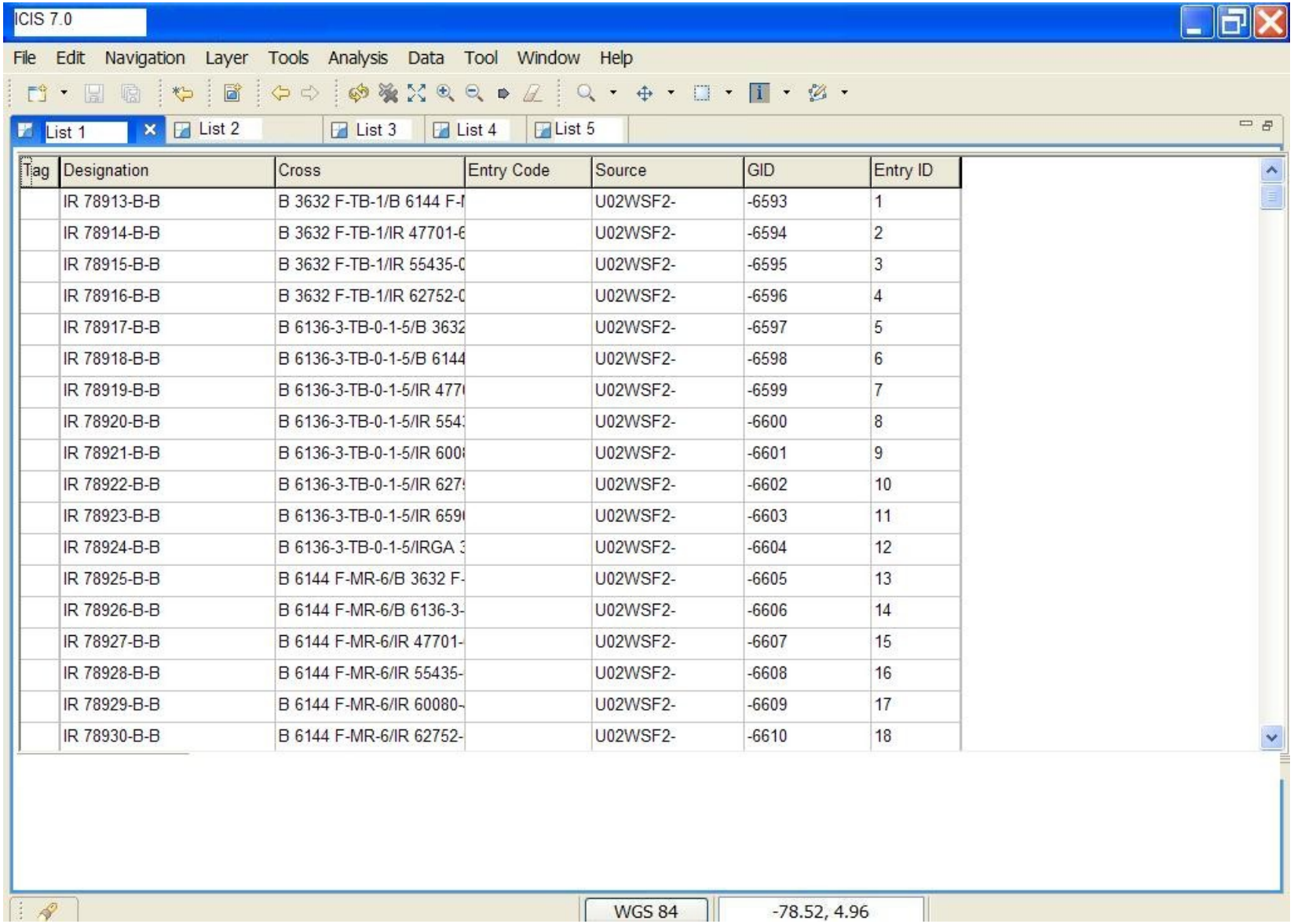
ICIS and Eclipse RCP, Prototype 1



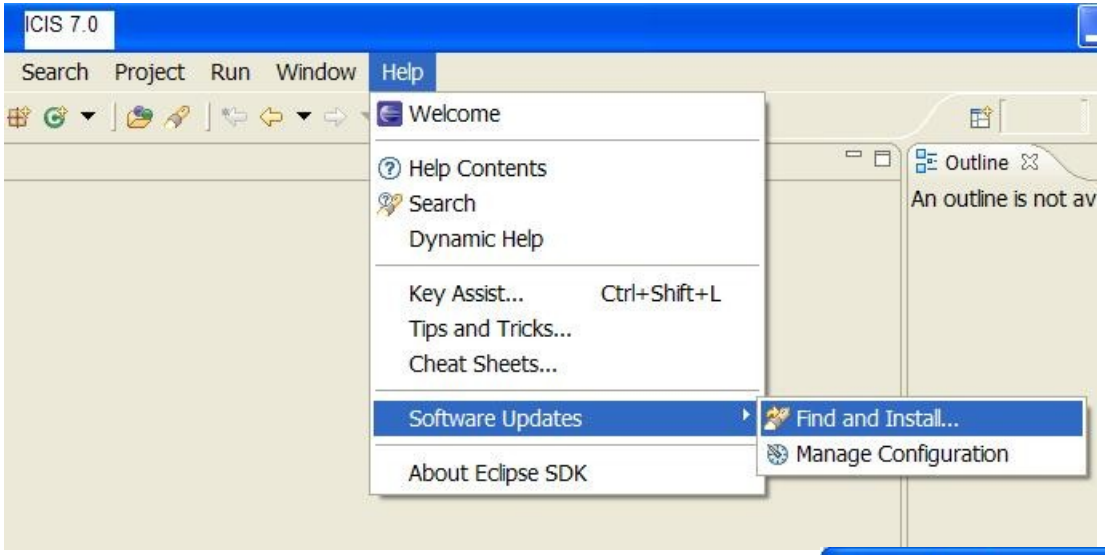
ICIS and Eclipse RCP, Prototype 2

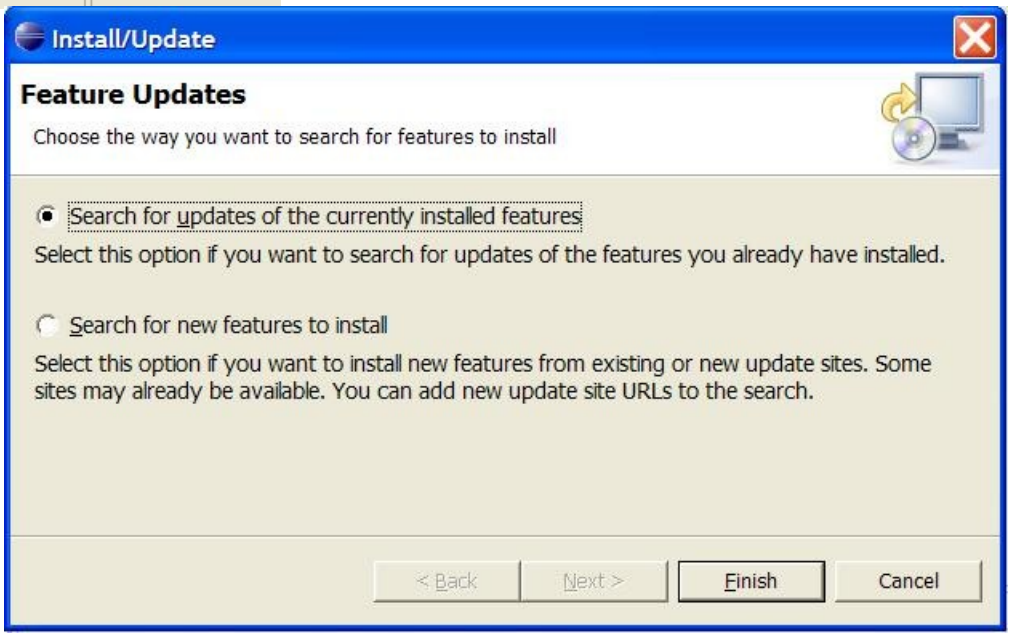


ICIS and Eclipse RCP, Prototype 3

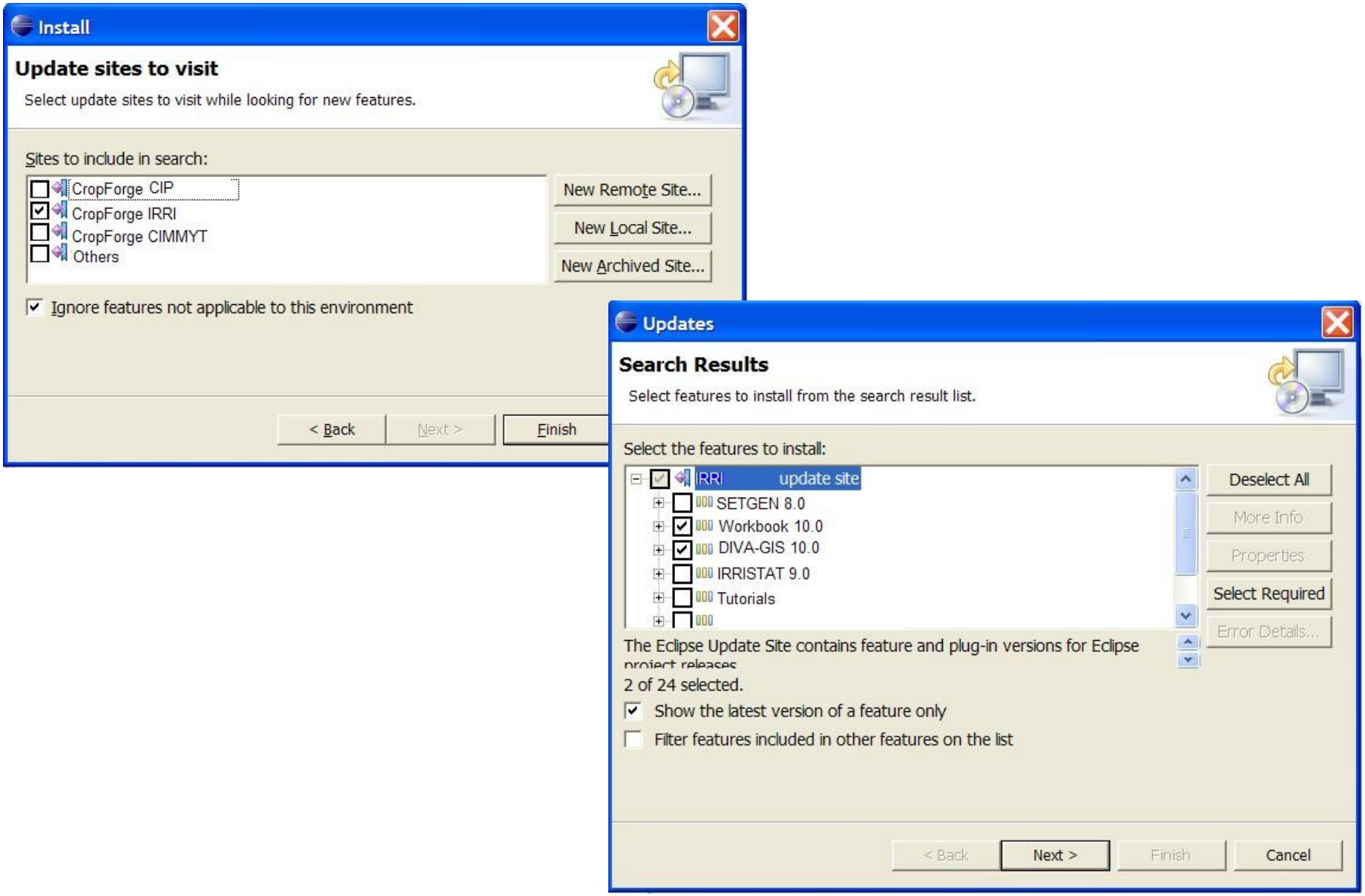


ICIS and Eclipse Platform, Prototype 4-1





ICIS and Eclipse Platform, Prototype 4-2



Links

- Eclipse RCP home page, app gallery, and newsgroup
  - http://eclipse.org/rcp
  - http://eclipse.org/community/rcp.html
  - news://news.eclipse.org/eclipse.platform.rcp
- Eclipse Series books
  - “Eclipse Rich Client Platform” by Jeff McAffer, Jean-Michel Lemieux
  - “The Java Developer's Guide to Eclipse” by Jim d’Anjou et al
  - “SWT: The Standard Widget Toolkit, Vol 1” by Steve Northover, Mike Wilson
  - “Official Eclipse 3.0 FAQs” by John Arthorne and Chris Laffra
- Other recent Eclipse Projects and Proposals (http://eclipse.org/proposals/)
  - BIRT (Reporting and Charting)
  - Data Tools
  - JavaServer Faces Tooling
  - SOA Tools
  - Supplemental Widgets for SWT