



CSI & CIP

Presentation at CSI meeting 2005

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Oct 03th 2005, Nairobi

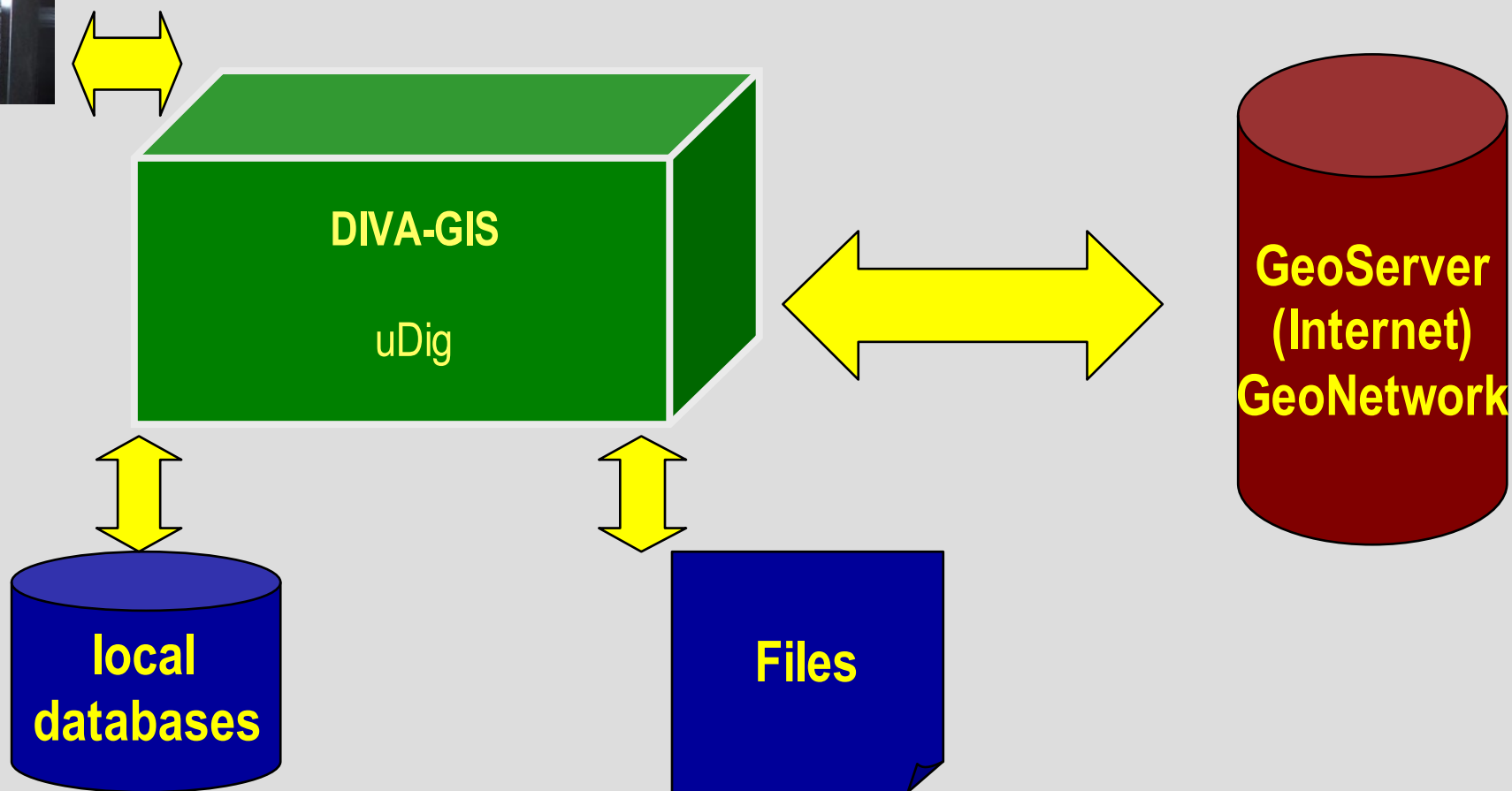
Kenya



Status meta-data

- On-going: ~1500 files
- Arc editor
- GeoNetwork/GeoServer pair

GIS infrastructure





GIS at CIP

Impact
Enhancement

Genetic Resources
CC

GR Enhancement CI

Integrated Crop M

Natural Resource M

Agriculture &
Health

GILB

GMP

Papandina

UrbanHarvest

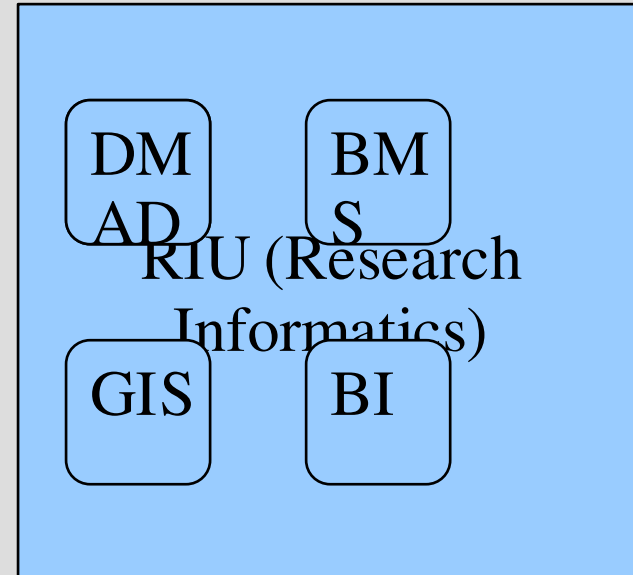
CONDESAL

VITAA

PRAPACE

UPWARD

Central Service Units



IT

Train
ing

GIS at CIP: themes & apps

- Impact targeting and assessment
- Biodiversity documentation and analysis:
DIVA-GIS
(genetic erosion and vulnerability)
- Variety deployment (Breeding: Generation,
HarvestPlus)
- Pest and Disease models (climate change)
- Crop models
- Urban growth
- Market monitoring
- Climate models



GIS services at CIP: staff

- 1 international staff (all part time)
 - 1 local staff
 - 3 consultants
 - 4-5 trainees
-
- Apart: GIS research lab in NRM

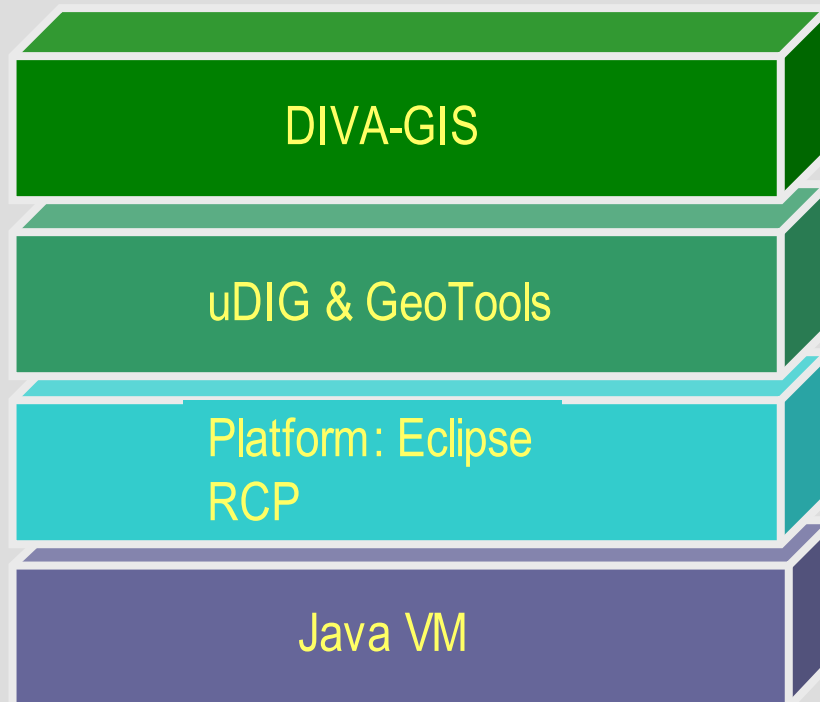


Managing tools for GIS and beyond: some criteria

- Open source: best of breed, sharing with NARS
- Cross platform
- Branding: common look at feel
- Usability: common “idioms” for user; int18n
- Minimal clutter
- Composability
- Use along with DM, statistical and bioinformatic tools
- Extended developer community: avoid lock-in



A solution



A layered solution: Eclipse RCP

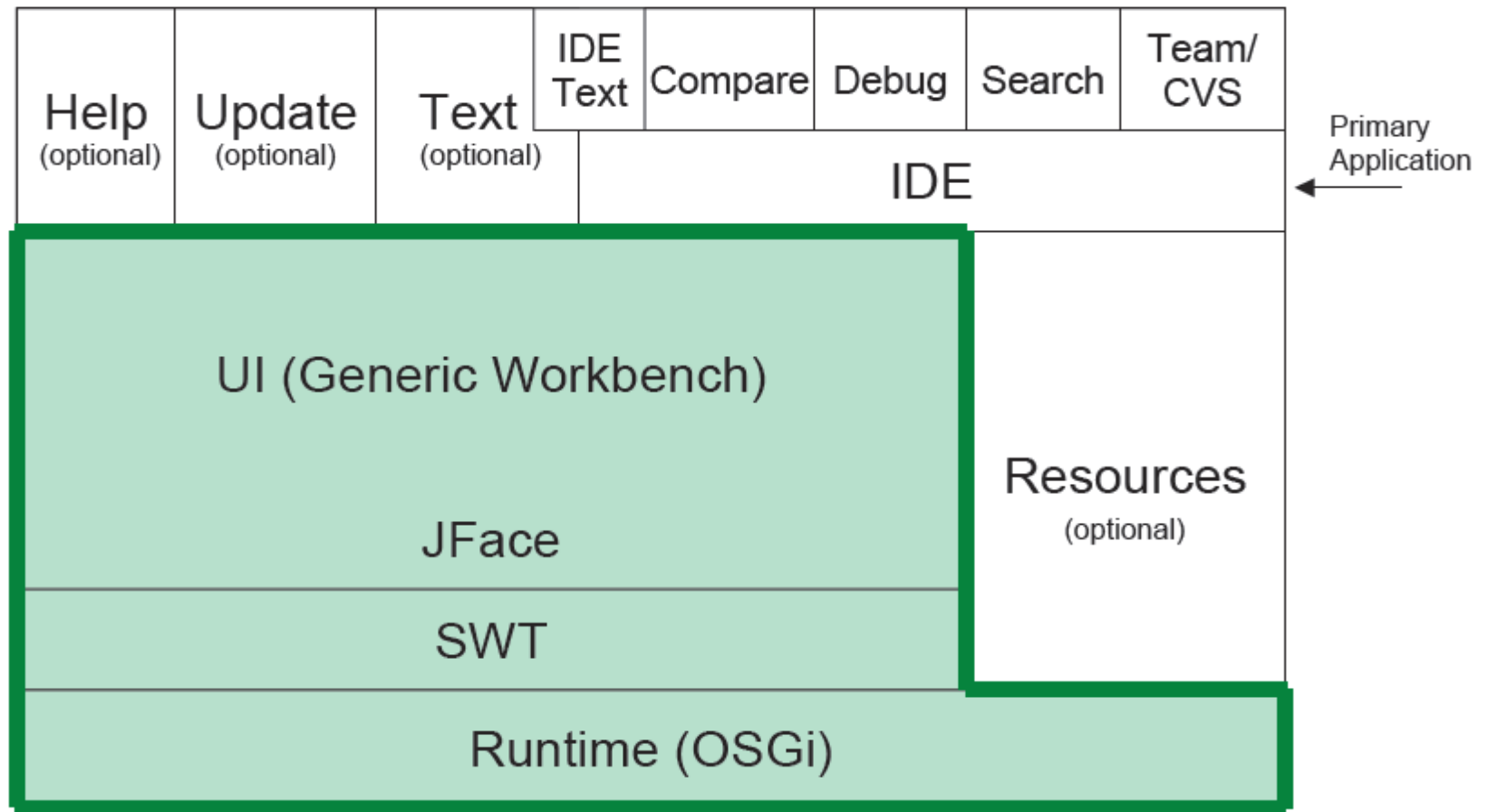
- IBM donation 2000: ~10 years, 40 Mio\$
- Java, open source
- Supported by more than 100 companies and public, government institutions:
IBM, Borland, NASA, Los Alamos,
Macromedia, Oracle, SAP, Fraunhofer
Institute for Information Tec., ...

A layered solution: Eclipse RCP

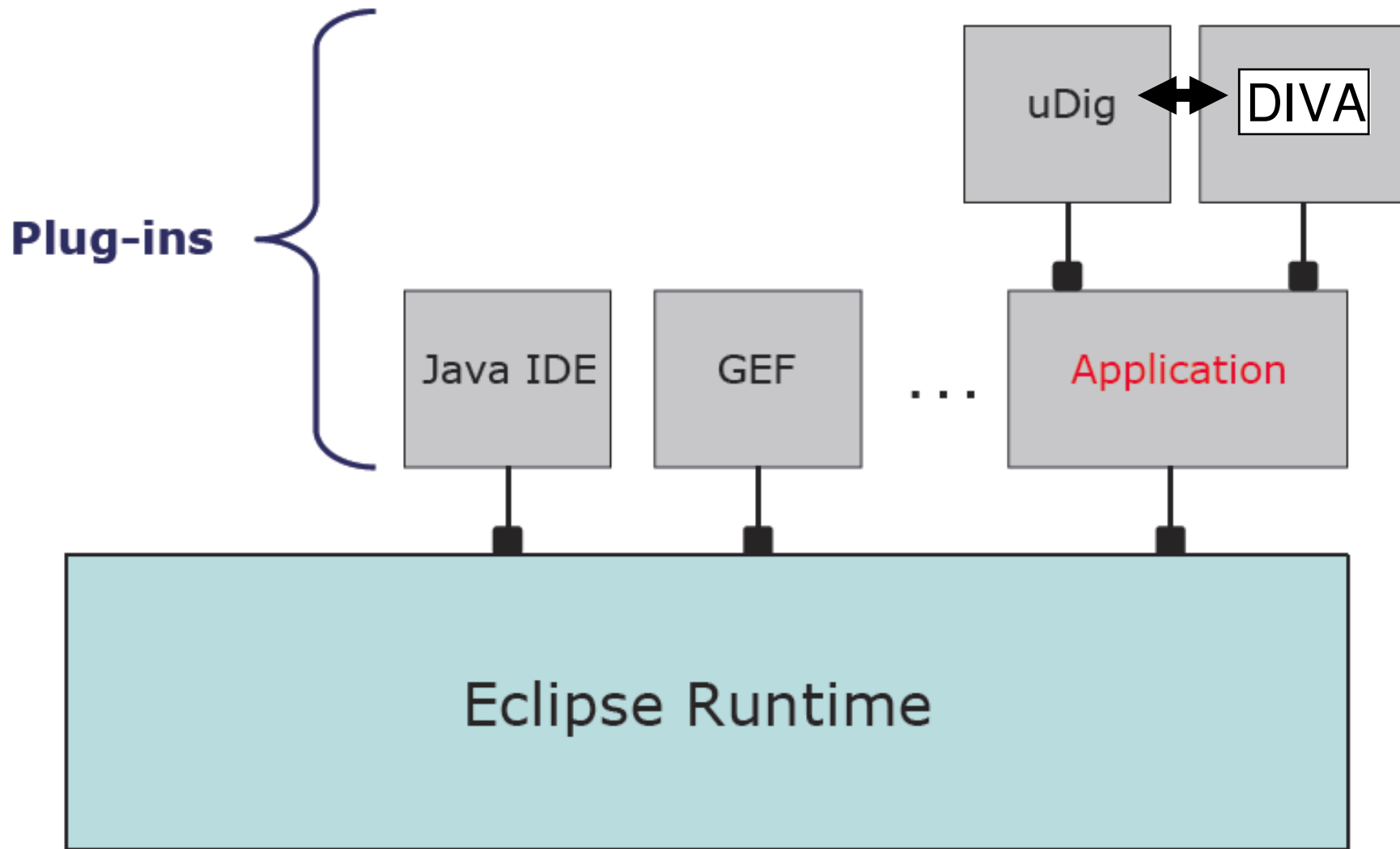
- Now the Eclipse RCP based Java IDE is tool of choice (also within GCP)
- E-RCP: everything is a plugin and non-invasive (minimal lock-in)
- Promotes best practices for sw development and management:
donation of RUP (Rational Unified Process)



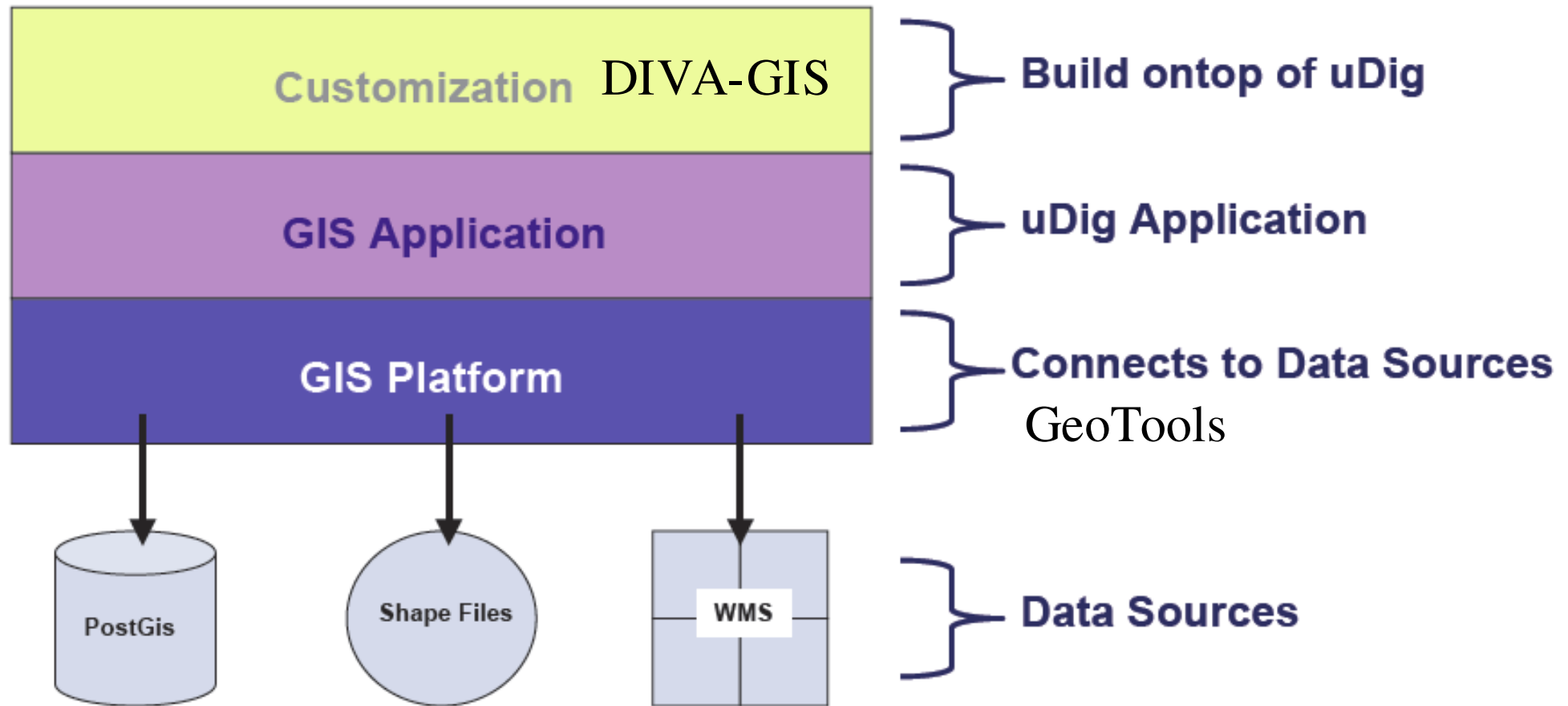
Eclipse RCP architecture

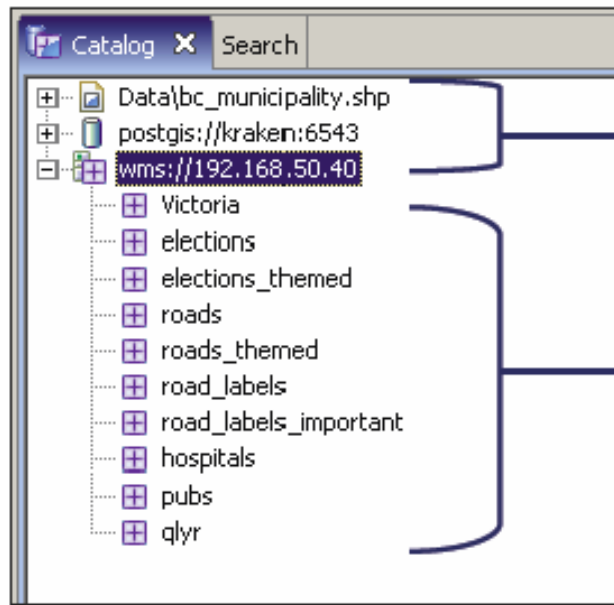


Eclipse RCP/uDIG/DIVA-GIS/etc



The uDIG layer





Services

Resources



Services

Resources

Shape File

PostGis

WMS

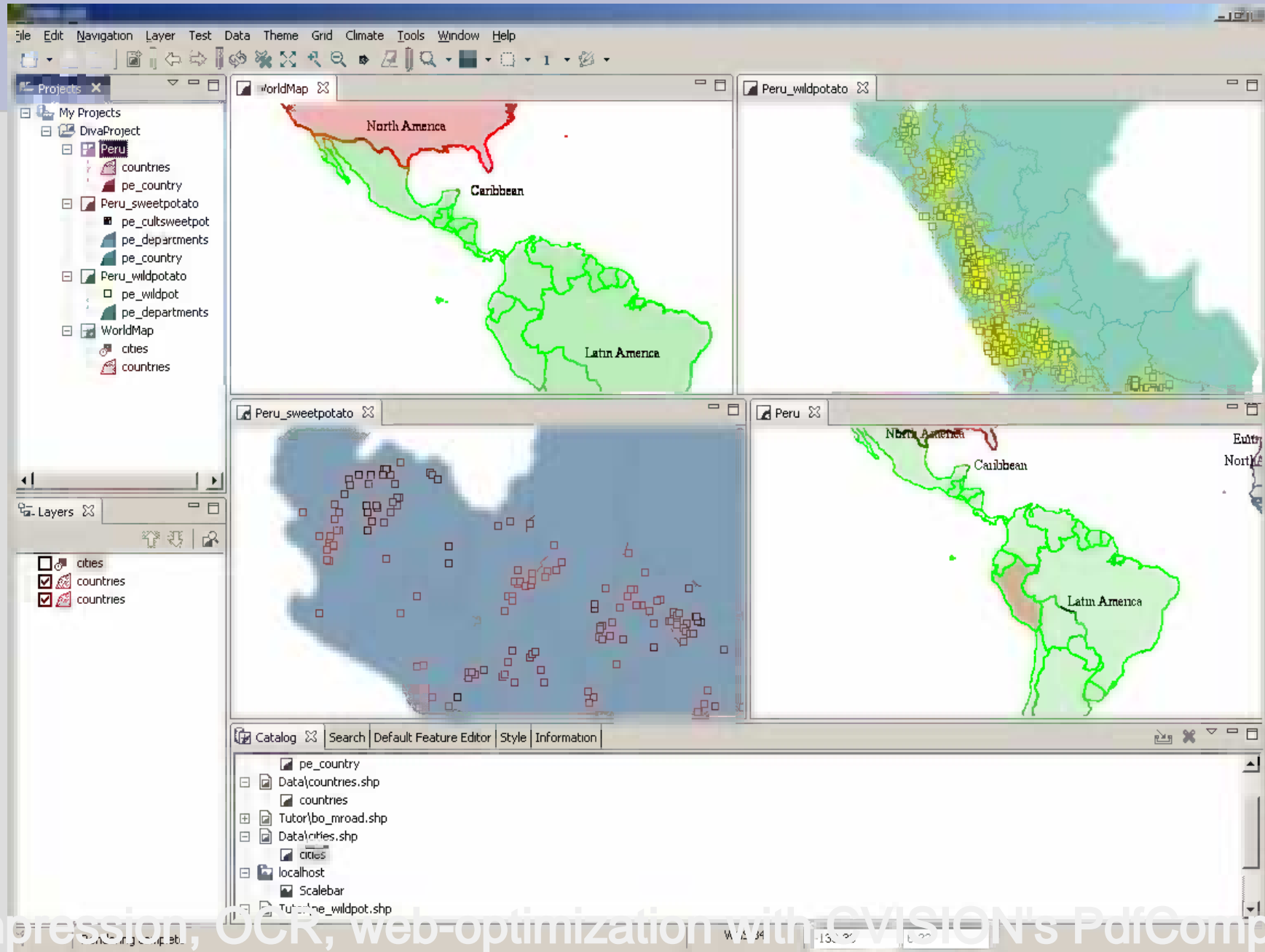
Features

Tables

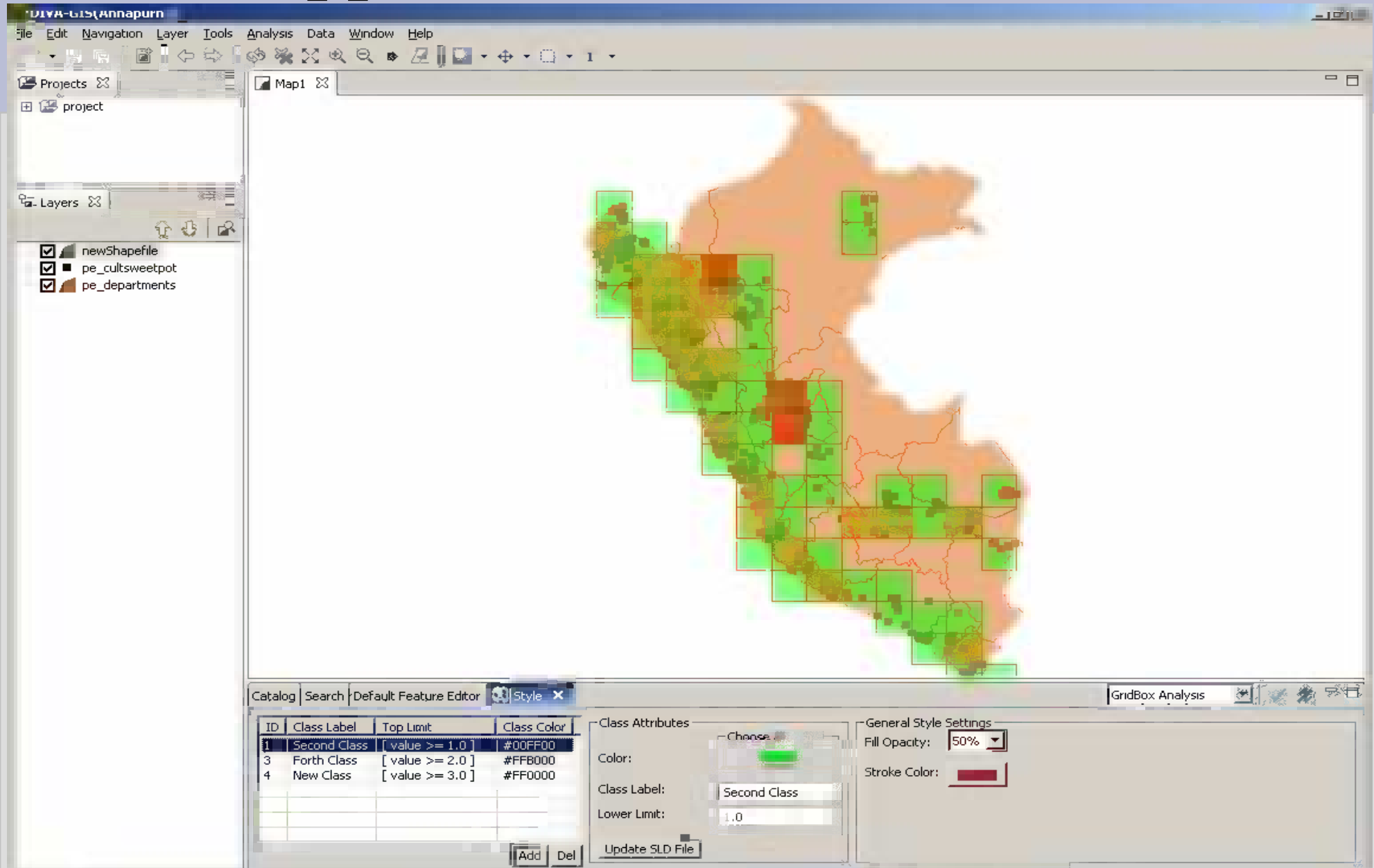
Layers



DIG app: DIVA-GIS



DIG app: DIVA-GIS

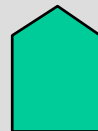
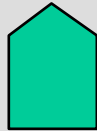


5th layer: DIVA-GIS



diva.diversityanalysis
.Analysis

The extension point



The plugins

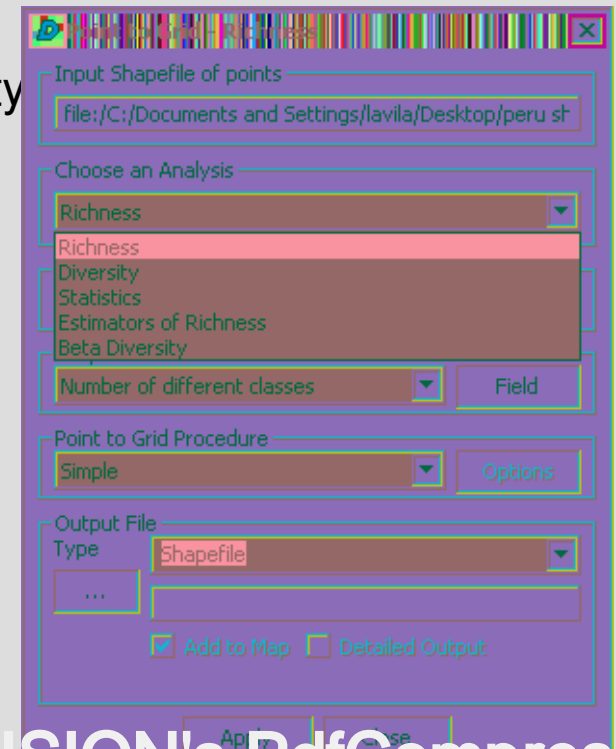
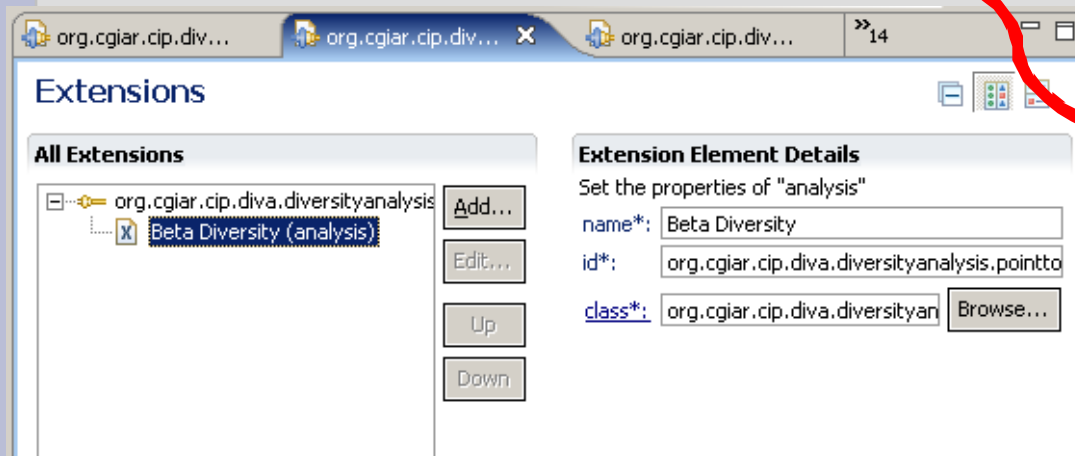
Richness

Diversit

Statistics

Beta Diversity

y



1st layer: GCP domain model Location & Env. module

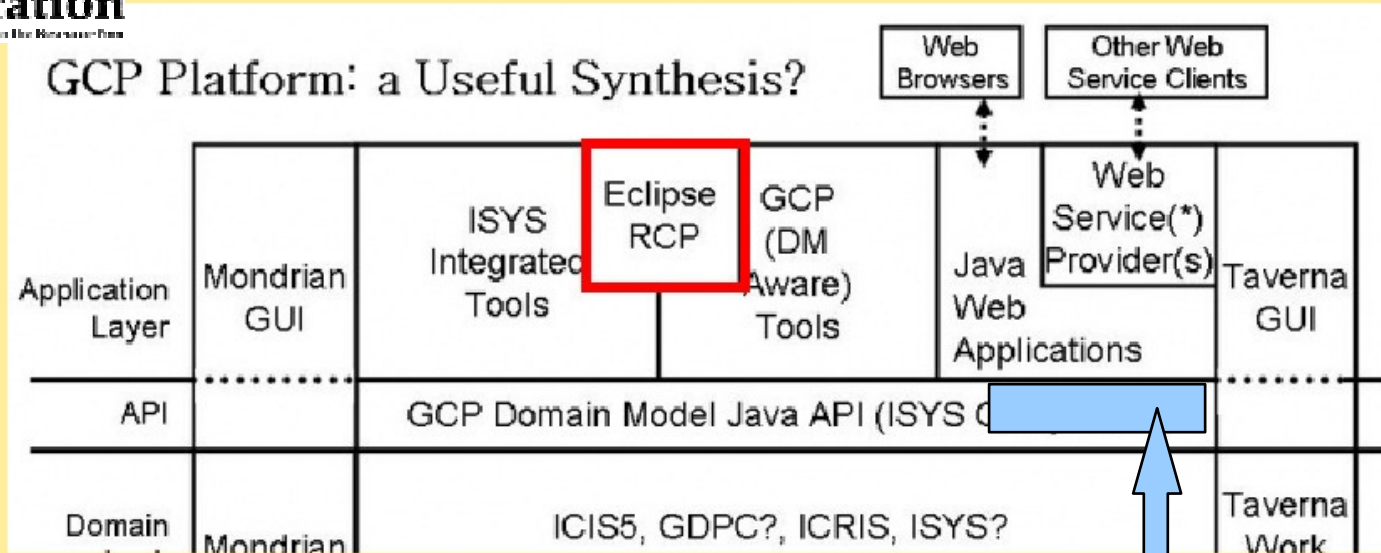
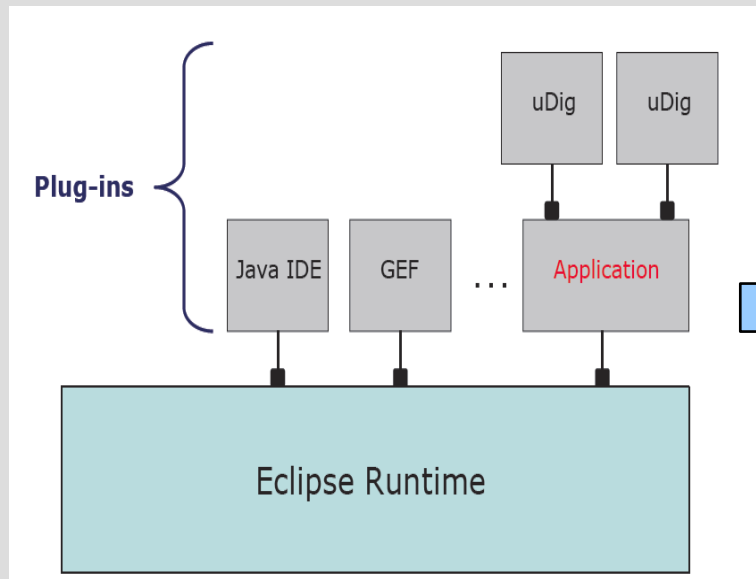


Figure 1. The GCP platform. (partially)

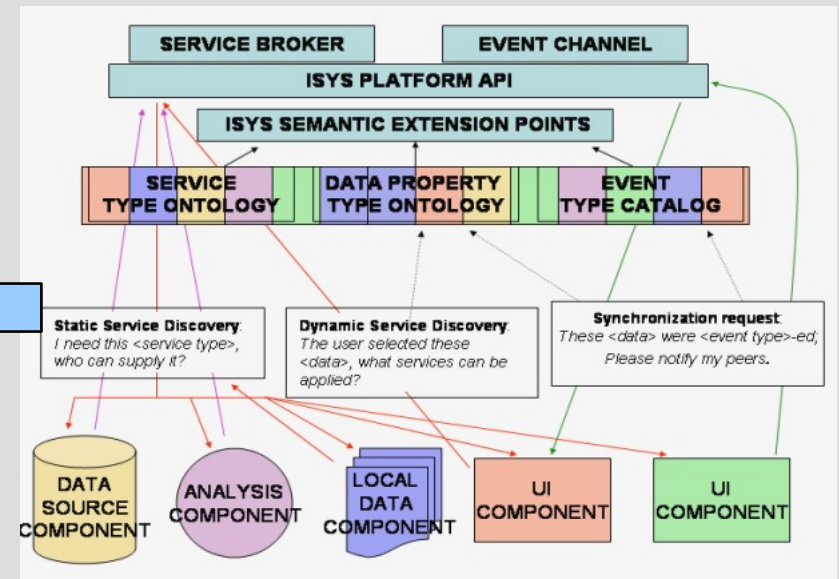
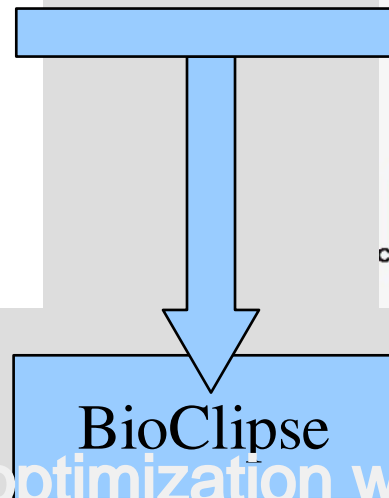
Location and Environment
Semantic model (+
Ontology)



Outlook: BioClipse



Eclipse architecture:
Courtesy:



ISYS architecture:
Courtesy: