Diligent

A **DI**gital **L**ibrary **I**nfrastructure
on **G**rid **EN**abled **T**echnology

DILIGENT as an Early ETICS adopter

Integration Experiences

By

Andrea Manieri (Engineering Ing.Inf. S.p.a.)

Pedro Andrade (CERN)

DILIGENT in a nutshell

From documents onto computers

to

content in the eInfrastructure

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DILIGENT objectives

Develop a Digital Library Test-bed Infrastructure that will allow members of dynamic virtual research organizations to create on-demand transient digital libraries based on shared computing, storage, multimedia, multi-type content and application resources

"Digital libraries are not ends in themselves; rather they are enabling technologies for digital asset management, electronic commerce, electronic publishing, teaching and learning, and other activities."

Fourth DELOS Workshop, Budapest, 2002

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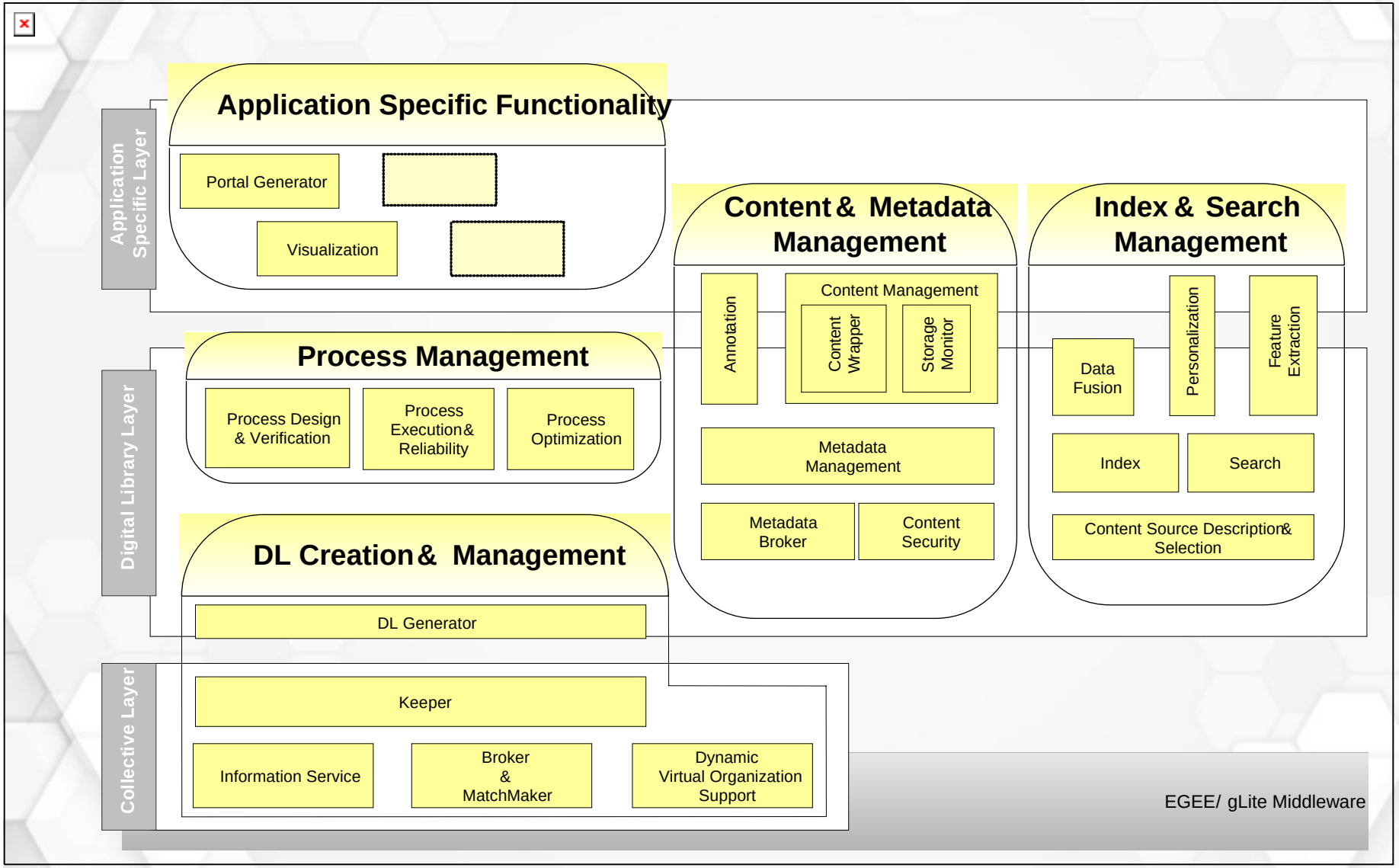
DILIGENT Architecture



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DILIGENT Development Environment

- Java 1.5 and Eclipse (mostly)
- Aim to be compliant with WSRF
- A versioning system per partner (Subversion and CVS)
- Savannah for bug-tracking and current development status

- As Build system initially was proposed (?)Source

- Currently have been developed 16 subsystems and about 180 components (an estimation of 18 classes, 250 loc per classes).

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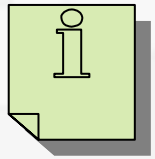
DILIGENT plans for using ETICS

WP1.2-6

T1.8.1 T1.8.2 T1.8.4 T1.8.3

Manuals
Integration
&Check



Licenses
Check &
Packaging

some
CVS

Development
Debug
Unit&Component Tests
Build script creation

ETICS

Build
Run

Deployment
testing

WP1.7 System &
Functional Testing

Deployment
On User
Infrastracture

T1.8.5 User support & feedback

WP2.X
Validation

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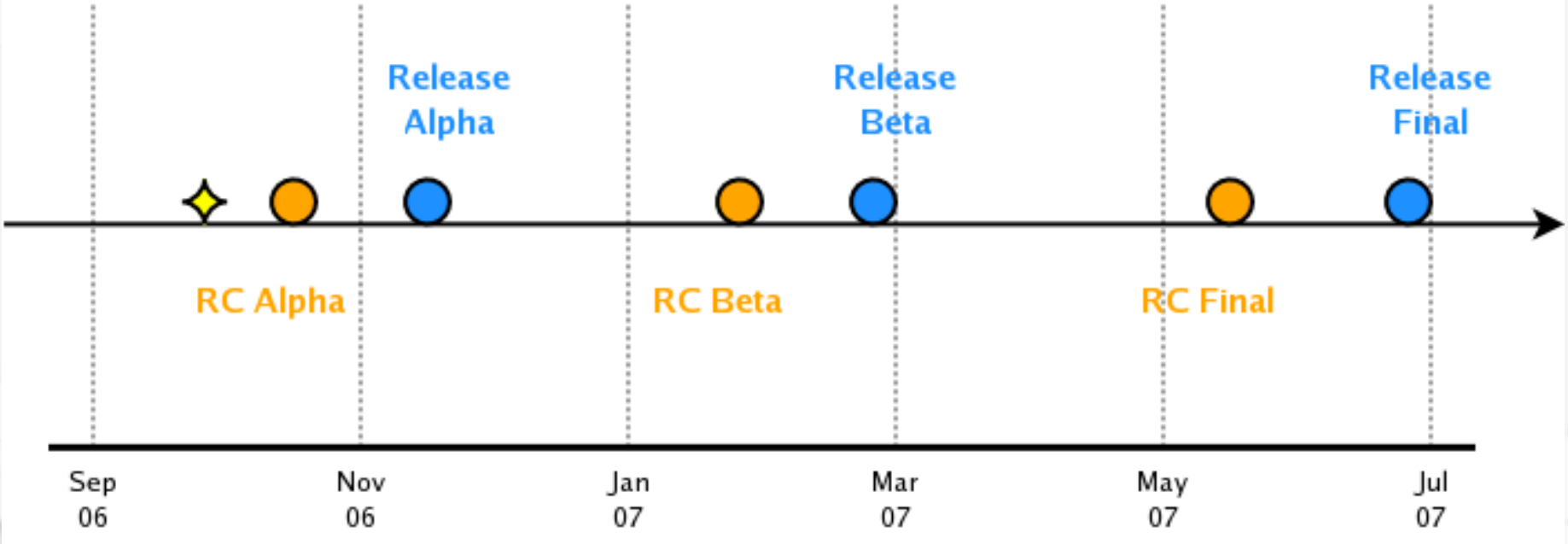
Release Plan



DILIGENT VCSs Status

Currently 5 VCS are in use within the DILIGENT project;

- 3 of them are published in ETICS:
  - CNR (Subversion), hosting:
    - DIS, Keeper, VDLGenerator, IndexService, Process* (by UNIBAS)
  - ENG (CVS), hosting:
    - DVOS
  - UoA (CVS), hosting:
    - Portlets, ProcessOptimisation, SearchSerivce
- Not published yet in ETICS:
  - USG
  - FhG\IPSI

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Building the DVOS

- Re-structure DVOS project on VCS based on ETICS guidelines (0.5MM) – not mandatory
- model DVOS in ETICS (0.5MM)
  - Create project structure
  - identify dependencies
  - Create configurations
  - Create VCS/Build commands
- Run build (0.0025MM)

Initial feedbacks on Build

- Some concern with confidentiality of code
- Strict related to the possibility to have Commercial projects building with ETICS (the Engineering case)
- The license automatic check (not foreseen by ETICS)
  - In DILIGENT we have
    - Mostly Apache 2.0
    - Many LGPL
    - One GPL
    - Some other OS like (CDDL, BC LA, BSD)
    - One commercial.

Results from Build experience

- Saved planned Effort
  - 2 MM over 3MM allocated to set-up the build infrastructure
  - 2 MM over 4MM for managing the builds (estimation over 18Months of elapsed)
- New activities/ extra effort
  - 1 MM for experimentation
  - 0,5MM to explore and analyse other (very few indeed) solutions
  - 0,5MM in the period March-August for delays due to ETICS bugs (estimation)

Deployment Testing overview

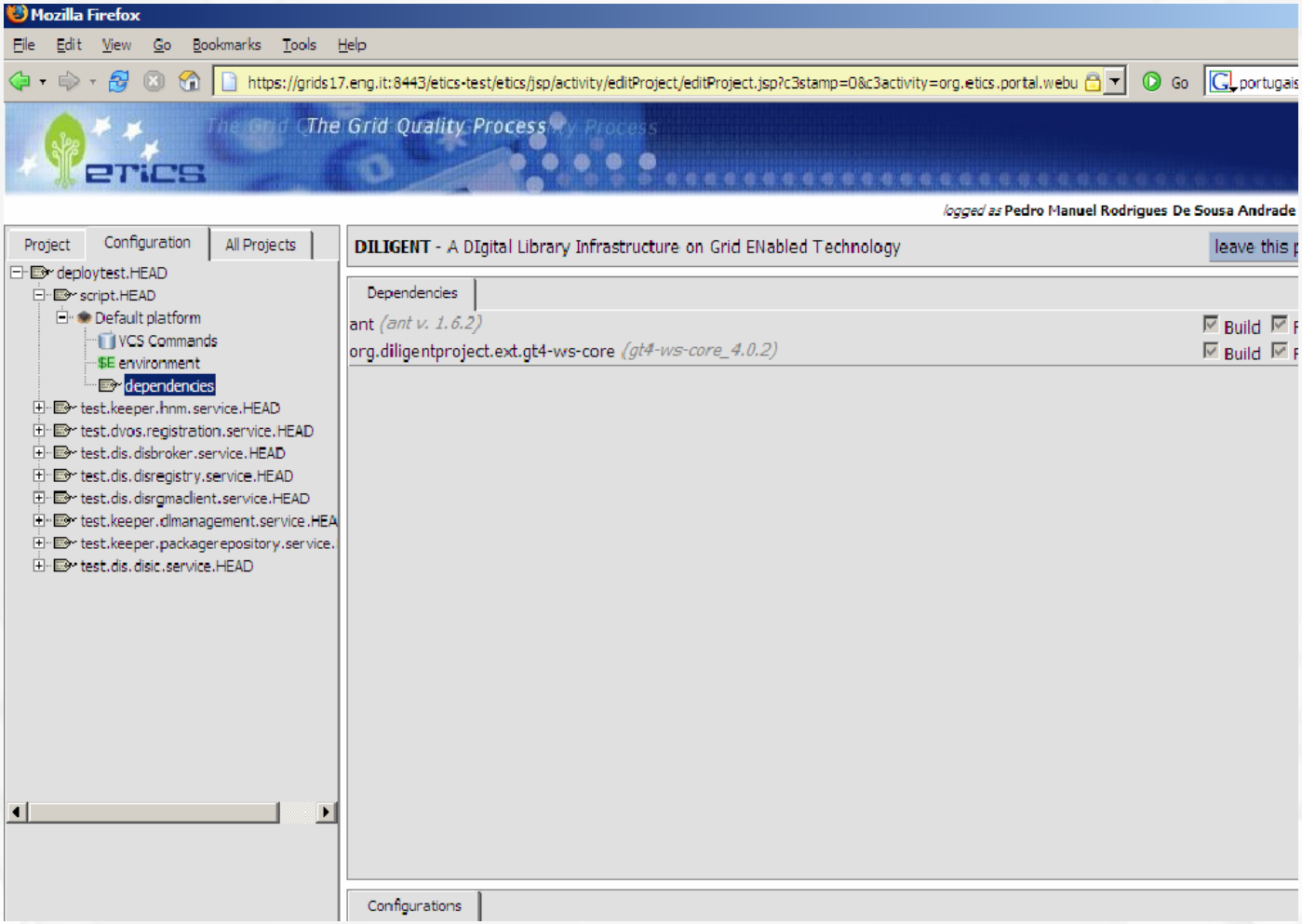
- Goals:
  - ensure the DILIGENT software is deployable
  - report and document all the bugs found

- Procedure:
  - Identify the configuration to be tested:
    - functionalities > services > ETICS build modules
    - gather deployment dependencies
  - Model the identifies configuration into ETICS:
    - one ETICS deployment module for each DILIGENT service
    - configuration of the modules dependencies
  - Test if all modules are deployable
  - Report all problems found in Savane

ETICS Configuration

- All deployment testing modules are grouped under one common sub-system - “deploytest”. This includes:
  - DILIGENT services modules:
    - one module for each service to be tested describing the service specific information
  - Generic deployment script:
    - copies the libraries to the right place
    - starts the container
    - downloads the WSDL file
    - stops the container

ETICS Configuration



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ETICS Clients

- ETICS python script (temporary solution):
  - Allowed the creation of the deployment testing system
  - Useful to start working with ETICS, understanding:
    - the system organization and parameters
    - the ETICS databases (etics and etics-cern)
  - Updates based on sending SQL files not practical !
- CLI
  - Simple to use (easy to learn how to work)
  - More functionalities then in the WebApp (august/06)
    - mainly the edit functionalities
  - Possibility to use templates
  - [problem] No batch execution option available

ETICS Clients

- WebApp
  - More user friendly
  - Late availability of WebApp edit mode
    - always useful to browse ☺
  - Set dependences between modules functionality:
    - available few weeks ago
    - essential to our purposes
  - [problem] Session expires too quickly
  - [problem] Navigation sometimes is not intuitive

ETICS Reports

- The automatic generation of deployment testing reports is an important tool for DILIGENT
- Experimentation just started
- Feedback will be provided

Advantages

- Easy browsing of all modelled DILIGENT services and therefore easy identification of the deployment testing configurations
- Defined dependencies are automatically solved
- Allows the deployment testing of all DILIGENT services in one execution
- Provides automatic report generation
- Effective support from the ETICS team

Problems

- Progressive availability of ETICS clients functionalities
- Difficulties linked to early adoption
  - Different functionalities available through different interfaces
  - Planned functionalities not yet available
  - Lack of documentation
- Clients can be improved (problems highlighted before)

Plans and Wish List

- Plans:
  - Oct06: start deployment testing for Release Candidate Alpha
  - Oct06: bug reporting / Report generation

- Wish List:
  - ETICS scheduler to periodically execute etics-* commands
  - Report generation:
    - fully automatic
    - also available in local execution
  - Authorization:
    - at command level (not configuration level)
    - webapp to display user permissions/roles
  - Creation of modules/configurations from template in WebApp

Thank you !!!

Questions ??

Visit our stand at the demo and poster session !!

http://www.diligentproject.org

pedro.andrade@cern.ch
Andrea.manieri@eng.it