



ETICS
The Grid Quality Process

ETICS: E-infrastructure for Testing, Integration and Configuration of Software

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Project Manager

www.eu-etics.org



- **Vision:** A dependable, reliable, stable grid infrastructure requires high-quality, thoroughly tested, interoperable software middleware and applications
- **Mission:** Provide a generic service that other projects can use to efficiently and easily build and test their grid and distributed software. Set up the foundations for a certification process to help increasing the quality and interoperability of such software



Build system, software configuration, service infrastructure, dissemination, EGEE, gLite, project coord.

Software configuration, service infrastructure, dissemination

The Condor batch system, distributed testing tools, service infrastructure, NMI

Web portals and tools, quality process, dissemination, DILIGENT

Test methods and metrics, unit testing tools, EBIT



- **Objective 1 (technical)**

- Provide a comprehensive build and test management and execution layer especially designed for grid and distributed software
- Support multi-platform, distributed operations to build software and run complex test cases (functional, regression, performance, stress, benchmarks, interoperability, etc)

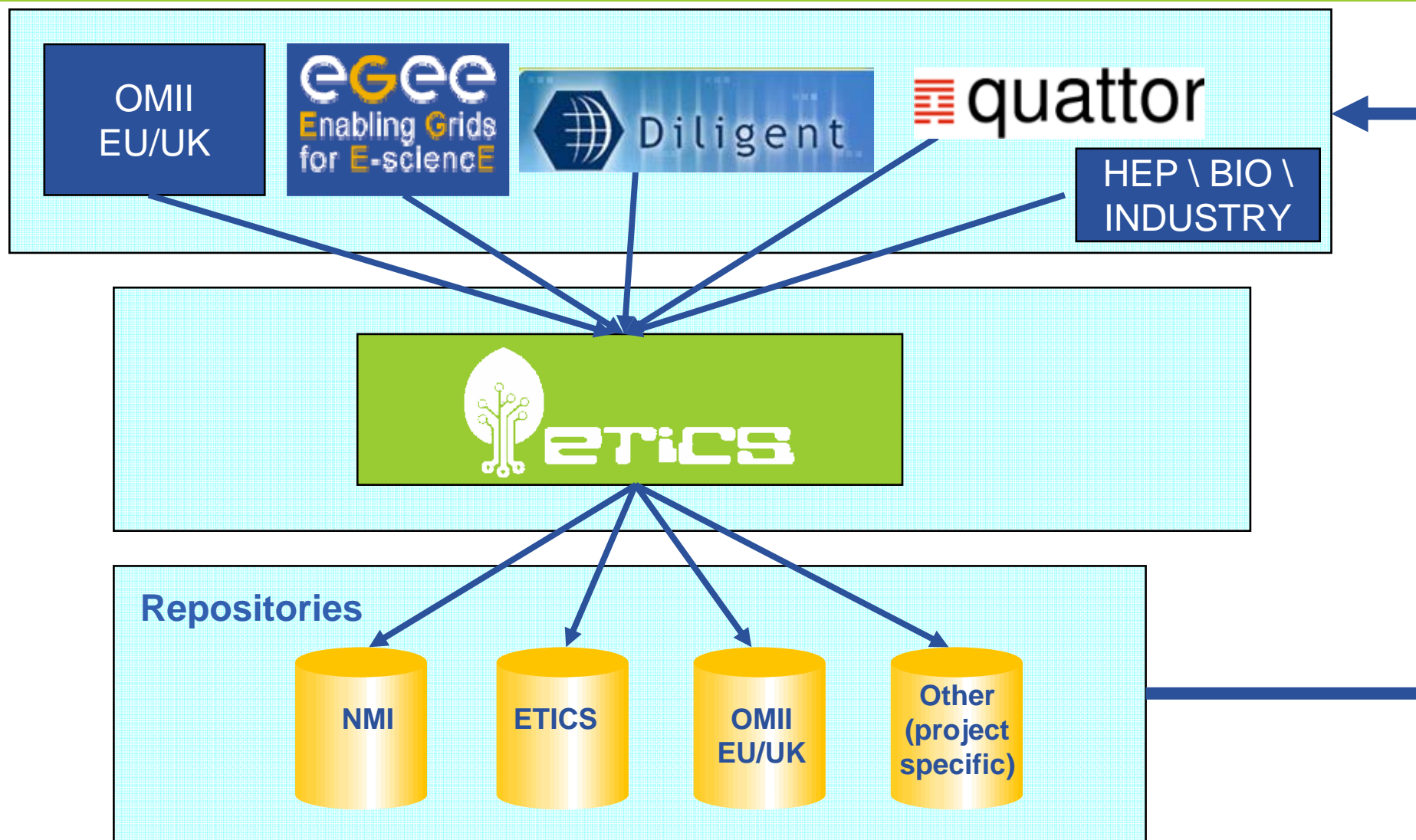
- **Objective 2 (coordination, policies)**

- Establish the foundations for a certification process
- Contribute to interoperability of grid middleware and applications by promoting consistent build and test procedures and by easing the verification of compliance to standards
- Promote sound QA principles adapted to grid environment through the participation to conferences, workshops, computing training events (GGF, CSC, ICEAGE)

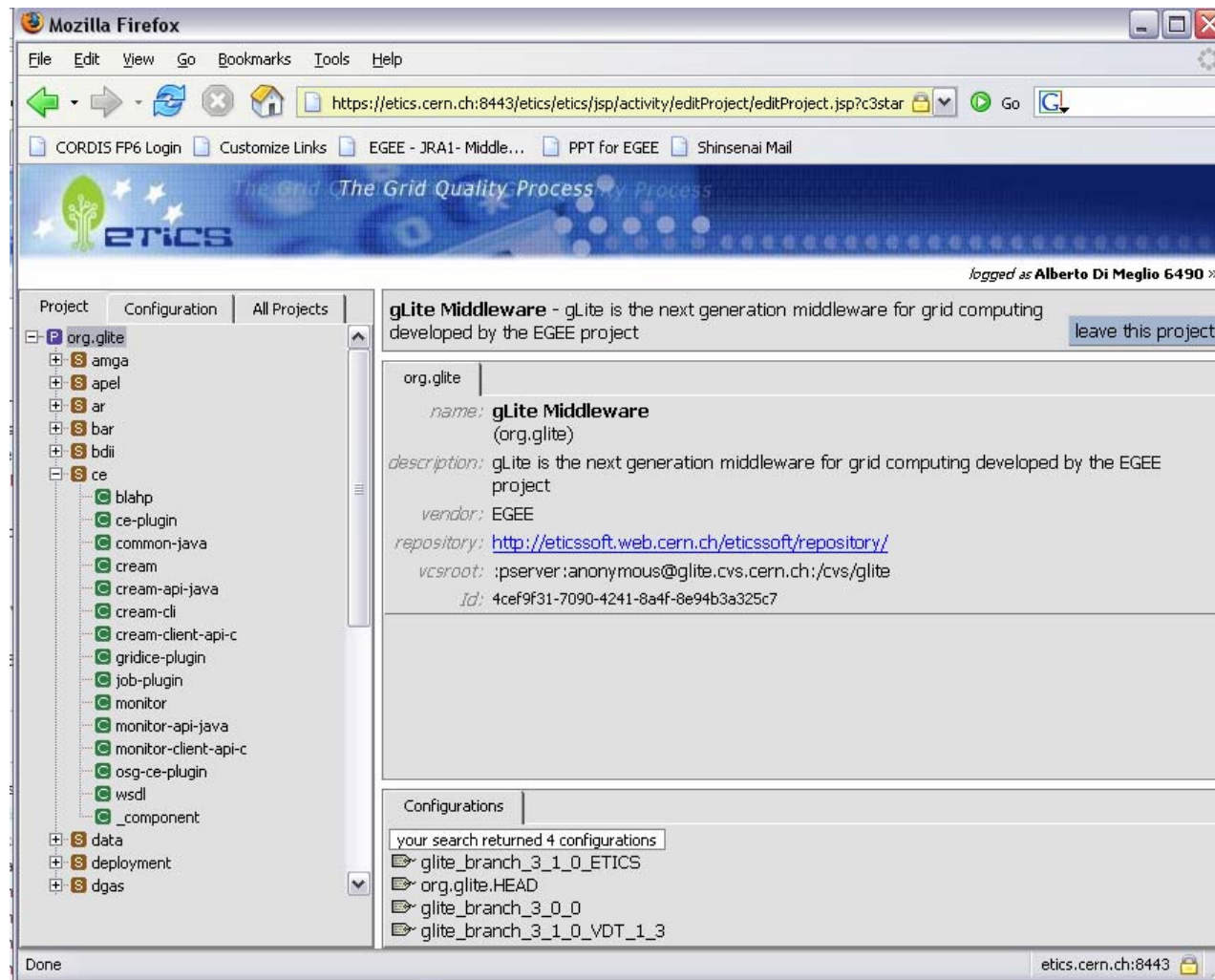


- It's the other major goal of the project
- ETICS must deliver a **feasibility study** for the implementation of a QA certification process for grid and distributed software
- Not just a document, but a **full assessment** of what procedures, tools and rules maximize the chances of project of delivering reliable, interoperable software based on the real data collected in two years of activity
- We will propose it as the starting point of a coordinated **QA Certification activity** in the context of a more permanent grid infrastructure initiative
- Will be done in close collaboration with the ETICS Experts Board to make sure it is practical and realistic

Typical ETICS working scenario



- Web Application layout (project structure)



- **The WA gives now access to read and edit functionality**
- **Modules and configurations can be fully create/modified/removed from the WA**
- **Possibility of setting static and dynamic dependencies, dependency scope (build-time, run-time, both)**
- **Secure access based on X506 client certificates**
- **If you need write access to a project, you can register you standard grid certificate (or any other valid X509 certificate) by sending us a request**

```

bxsic3.cern.ch - PuTTY
[lxplus074] ~/temp > etics-
Downloading the project 'org.etics.build-system.client-py'

Done!

[lxplus074] ~/temp > etics-
Downloading the configuration
Checking out module 'client-py'
[checkout]: cvs -d :pserver:
org.etics.build-system.client-py
cvs checkout: Updating org.etics.build-system.client-py/src
cvs checkout: Updating org.etics.build-system.client-py/src/WebClient
cvs checkout: Updating org.etics.build-system.client-py/test

Configuration 'build-system.HEADID' doesn't have a platform
Nothing to checkout for 'build-system.HEADID'
Configuration 'org.etics.HEADID' doesn't have a platform
Nothing to checkout for 'org.etics.HEADID'
Done!

[lxplus074] ~/temp >
[lxplus074] ~/temp >

```

```

C:\ Command Prompt

Downloading and installing external dependencies...
Warning: File exists 'repository', you should run this command in a blank direct
ory
ZSI already installed
Downloading log4py...
http://puzzle.dl.sourceforge.net/sourceforge/log4py/log4py-1.3.tar.gz -> log4py-
1.3.tar.gz
Done!
Installing log4py...
Done!

Downloading testtools.TestManager...
http://meh.home.cern.ch/meh/Software/Download/TestManager-1.4.0.tar.gz -> TestMa
nager-1.4.0.tar.gz
Done!
Installing testtools.TestManager...
Done!

Done setting-up the workspace!

Enjoy using ETICS :->

C:\Temp\etics-try>

```

- **All operations can also be performed using the command-line client tools**
- **In addition, the client provides the possibility of submitting remote builds to the ETICS Service**
- **Can be used as APIs to script complex configuration management tasks**
- **Secure access based on X509 certificates**

- **etics.cern.ch**
 - Official ETICS submission node - production host
 - 2250+ build/test jobs (as of 22 Sept 2006)
 - 15 32/64 bit platform
- **etics-01.cnaf.infn.it**
 - 200+ build/test jobs (as of 22 Sept 2006)
 - 5 platforms
- **“Grand Central” at University of Wisconsin**
 - Hundred Thousands jobs used by several projects
 - 20+ platforms
- **Future job migration between testbeds to cover the largest possible platform spectrum and increase resource availability**



NMI Build & Test System

Tasks Statistics

Total Tasks:	8	
Completed:	6	75.00%
Running:	0	0.00%
Queued:	2	25.00%
Failed:	0	0.00%

File Information

Run Directory:	View
Archived:	Yes
Pinned Until:	-

• Home > Runs Overview > Run Details

Run Details - Build and test of the org.etics project

Run ID:	17628	GID:	meh_grandcentral...
User:	meh	Run Type:	BUILD
Project:	org.etics	Project Version:	alpha-1.0
Component:	org.etics	Component Version:	alpha-1.0
Start:	Jan-16-2006 21:08	Finish:	-
Submission Host:	grandcentral.cs.wisc.edu	Duration:	In Progress
Result:	Running		

Task Results

ID	Result	Output	Platform	Name	Host	
1133318	Complete		x86_rh_9	remote_task	nmi-build17.cs.wisc.edu	Jk
1133268	Complete		ia64_slc_3	remote_task	nmi-ia64-1.cs.wisc.edu	Jk
1133266	Queued	-	x86_winnt_5.1	platform_job		Jk
1133265	Queued	-	x86_slc_3	platform_job		Jk
1133264	Complete	-	ia64_slc_3	platform_job		Jk
1133263	Complete	-	x86_rh_9	platform_job		Jk
1133257	Complete		local	pre_all	grandcentral.cs.wisc.edu	Jk
1133256	Complete		local	fetch.etics-workspace-...	grandcentral.cs.wisc.edu	Jk

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Row

ETICS Reports - Windows Internet Explorer

http://etics.cern.ch:8080/reportBrowser/

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The Grid The Grid Quality Process

ETICS

Powered by ETICS

Reports

- externals
- org.etics
 - etics-build-system-client-py
 - org.etics.HEAD
 - org.etics.HEAD_x86_slc_3
 - org.etics.build-system.client
 - org.etics.build-system.client
 - org.etics.build-system.webs
 - org.etics.build-system.webs
- org.glite
 - glite_branch_3_1_0_ETICS
 - glite_branch_3_1_0_ETICS_
 - glite_branch_3_1_0_ETICS_
- quattor
 - quattor.HEAD
 - quattor.HEAD_x86_slc_3
 - quattor.HEAD_x86_slc_4
- tutorialProject

Home

Build Logs

Style Checks

Unit Tests

Coverage

QA Metrics

APIs

Package Summary

Project name: org.etics

Module name: org.etics

Description: ETICS Toolkit v. 0.3.0

Version: 0.3.0

Release: 1

Vendor: ETICS

Licence: Apache License 2.0

Build Summary

Result: Success

Build ratio: 100% (21/21)

Start time: 26/09/2006 01:03:01

End time: 26/09/2006 01:04:01

Duration: 00:01:00

Configuration: org.etics.HEAD

Tag: HEAD

VCS Root: pserver:anonymous@etics.cvs.cern.ch:/cvs/etics

Platform: slc3_ia32_gcc323

Dynamic

Environment Properties

Internet 100%

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Project name: org.etics
Project config: org.etics.HEAD
Build start time: 26/09/2006 01:03:01
Build type: Nightly build
Success rate: 100% (21 / 21)
Status: Success

Page generated at Tu

Component name	Configuration name	Last build t
ant	ant v. 1.6.2	26/09/2006 01:
mysql-jdbc	mysql-jdbc v. 3.1.10	26/09/2006 01:
jdk	jdk v. 1.5.0_06	26/09/2006 01:
org.etics.build-system.java-utils	org.etics.build-system.java-utils.HEAD	26/09/2006 01:
tomcat	tomcat v. 5.0.28	26/09/2006 01:
commons-dbc	commons-dbc v. 1.2.1	26/09/2006 01:
commons-pool	commons-pool v. 1.3	26/09/2006 01:
axis	axis v. 1.2.1	26/09/2006 01:
org.etics.build-system.webservice	org.etics.build-system.webservice.HEAD	26/09/2006 01:
org.etics.build-system.packager	org.etics.build-system.packager.HEAD	26/09/2006 01:
org.etics.build-system.build-reactor	org.etics.build-system.build-reactor.HEAD	26/09/2006 01:
org.etics.build-system.client.py	org.etics.build-system.client.py.HEAD	26/09/2006 01:

Done

Internet 100%

ETICS Repository - Windows Internet Explorer

http://etics.cern.ch:8080/repositoryBrowser/

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ETICS

Any Platforms

repository

- etics-workspace-setup.py
- externals
- myproject
- org.etics
 - logo.jpg
 - org.etics.build-system.client-py
 - org.etics.build-system.java-utils
 - org.etics.build-system.webservice
 - 0.0.0
 - 1.0.8
 - org.etics.nmi.scripts
 - testmanager
- org.glite
 - logo.jpg
 - org.glite.bdii.server
 - org.glite.build-system.tools
- quattor
- tutorialProject

ETICS Repository

GLite

org.glite.bdii.server

Project:	org.glite
Package:	org.glite.bdii.server
Version:	
Platform:	
Type:	Folder
Last Modified:	Thu Sep 14 05:44:51 CEST 2006

Done

Internet 100%



<http://www.eu-etics.org>