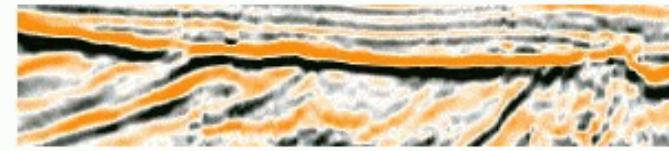


g-Eclipse avec EGEODE

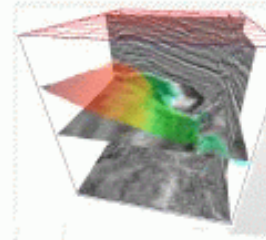


gerald.vetois@cggveritas.com

 EGEODE VO



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Geocluster, the leading industry seismic application successfully running on the Production Service, within the Expanded Virtual Organisation (VO). EGEODE is a public and private industrial research
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3ème rencontre EGEODE – Villefranche-sur-Mer – 29 May 2009

Sommaire

- Introduction
- Installation
- Configuration
- Utilisation
- Parties évaluées

The screenshot displays the g-Eclipse IDE interface. The left sidebar shows a project tree with 'TestGrid' selected, containing sub-items like 'Benchmark Descriptions', 'Connections', 'Files', 'Job Descriptions', 'Jobs', and 'egeoode'. The main editor shows a job configuration script for 'TestJob.sh'. The 'Job Details' window is open, showing the job's status as 'DONE' and a 'Status History' table. The 'Connections' window at the bottom shows a table of job connections.

```
[
  Type = "Job";
  JobType = "Normal";
  RetryCount = 3;
  Executable = "testjob.sh";
  Arguments = "file1toWorld";
  InputSandbox = { "file:/disk1/home/cgg/gvetois/Job/GeoAzur/Geclipse/workspace/TestGrid/Script/testjob.sh" };
  InputSandboxDestFileName = { "testjob.sh" };
  DeleteOnTermination = { "testjob.sh" };
  StdOutput = "testjob.out";
  StdError = "testjob.err";
  OutputSandbox = ("testjob.out", "testjob.err");
  Requirements = other.GlueCEStateStatus == "Production";
  Rank = -other.GlueCEStateEstimatedResponseTime;
]
```

General	Status History
Name: Test	SUBMITTED Apr 29, 2009 2:53:47 PM
Id: https://grid02.lal.in2p3.fr:9000/VF8XhFheehdCj	WAITING Apr 29, 2009 2:53:49 PM
Status: DONE	READY Apr 29, 2009 2:53:51 PM
Reason: Job terminated successfully	SCHEDULED Apr 29, 2009 2:54:06 PM
Last update time: Apr 29, 2009 3:05:24 PM	RUNNING Apr 29, 2009 2:57:39 PM
	DONE Apr 29, 2009 2:58:33 PM

Name	Project	Status	Reason	Submitted	Last refresh
Test	TestGrid	DONE	Job terminated successfully	Apr 29, 2009 2:53:49 PM	Apr 29, 2009 2:58:33 PM
Test[1]	TestGrid	SCHEDULED	Job successfully submitted to G	Apr 29, 2009 2:48:26 PM	Apr 29, 2009 2:58:33 PM

Introduction

- Eclipse plateforme de developpement
- g-Eclipse plugins grille
 - Gestion de son projet
 - Gestion et suivi de ces jobs
 - Gestion de données
 - Multi-grille
 - Workflow
 - Interactif
 - Multiplate-forme
(Win, Linux, MacOS)

Installation (cas Linux 64bits)

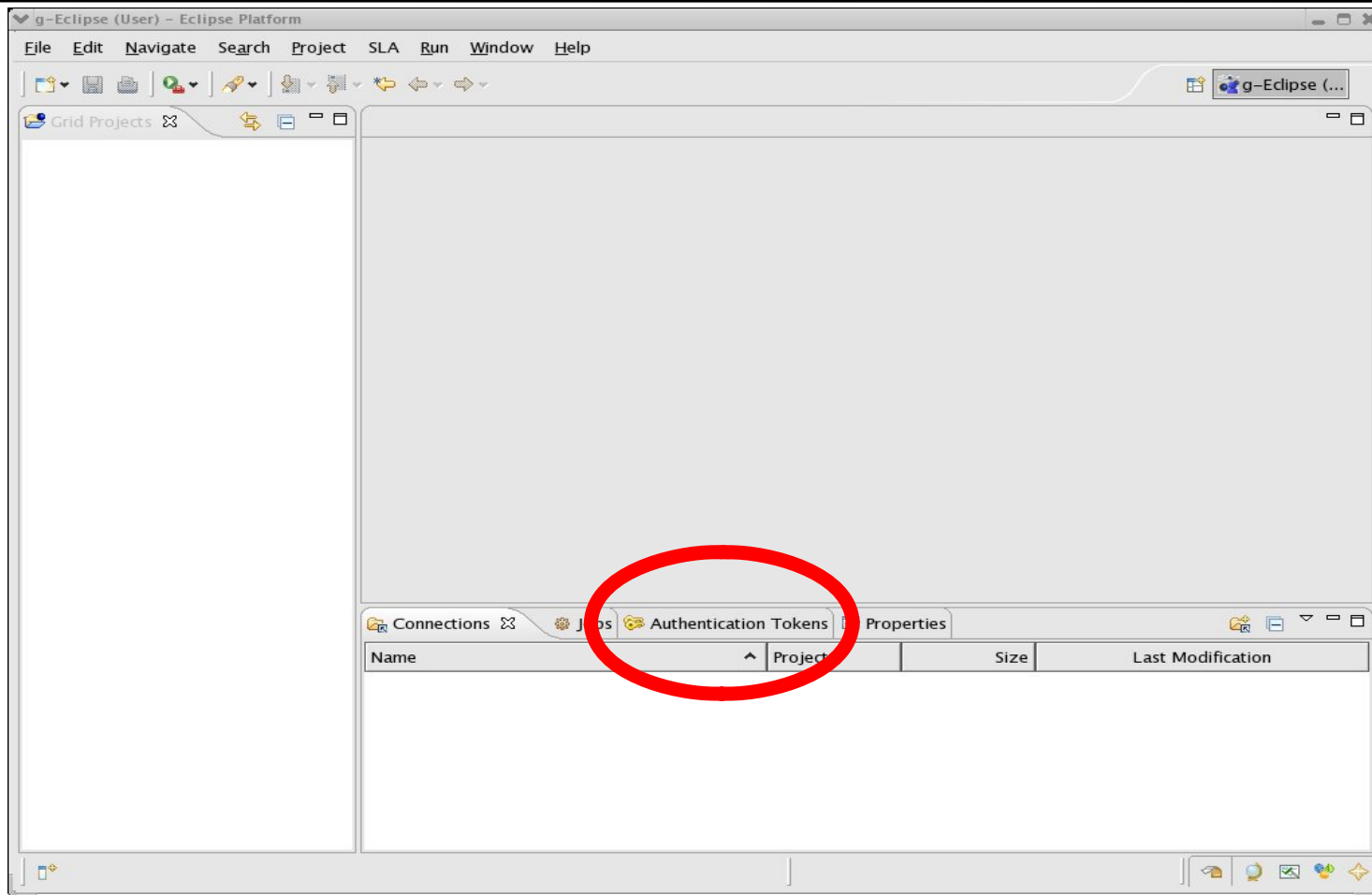
- Download jdk (cas jdk1.6.0_13)
- [jdk-6u13](#)
- Installation du JDK
 - Export
 `JAVA_HOME=/usr/java/jdk1.6.0_13`
- Download g-Eclipse:
<http://www.geclipse.eu/index.php?id=downloads>
- Installation de g-Eclipse

Lancement

- Commande:
`/opt/EGEODE/eclipse/eclipse`

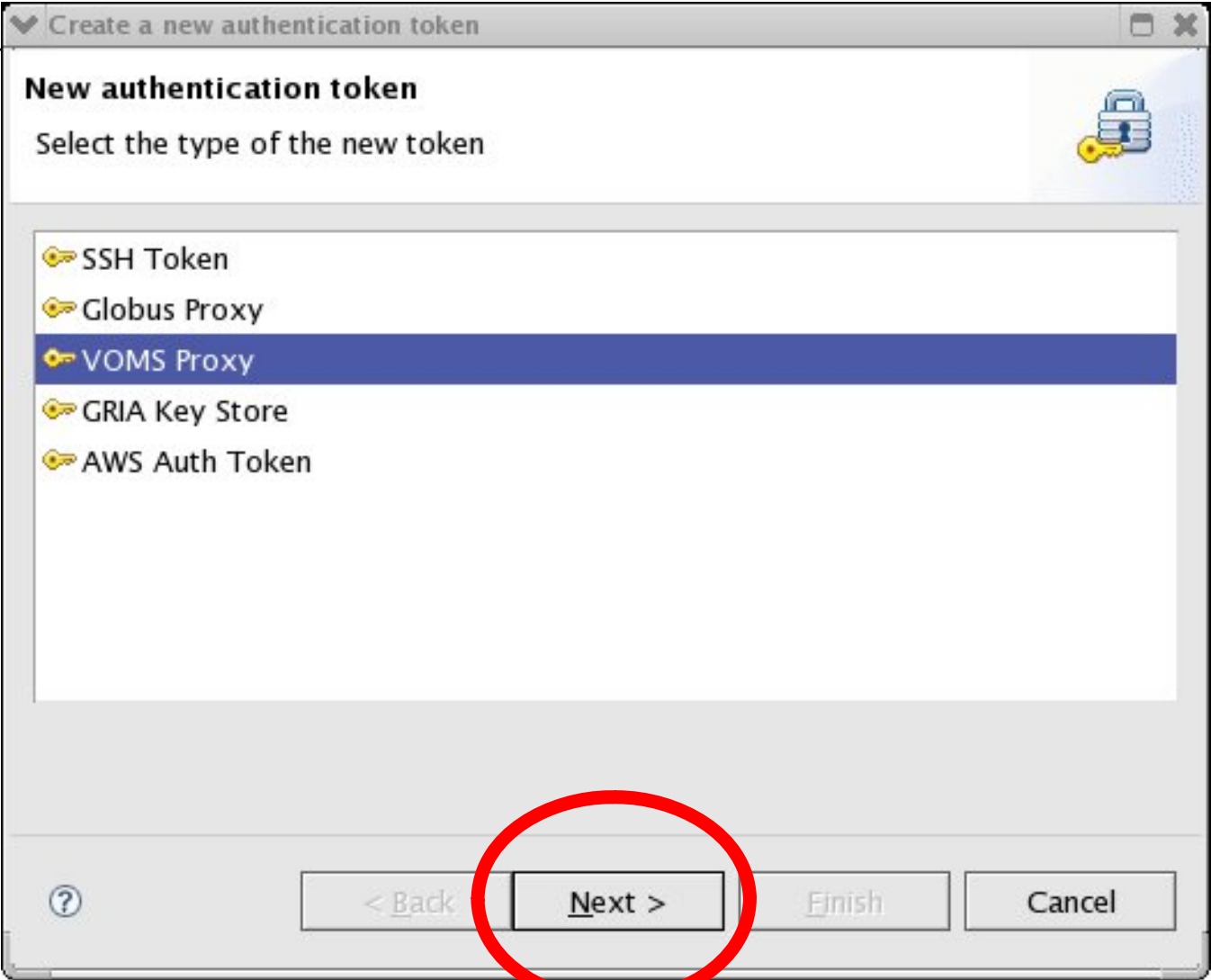


Vue de travail

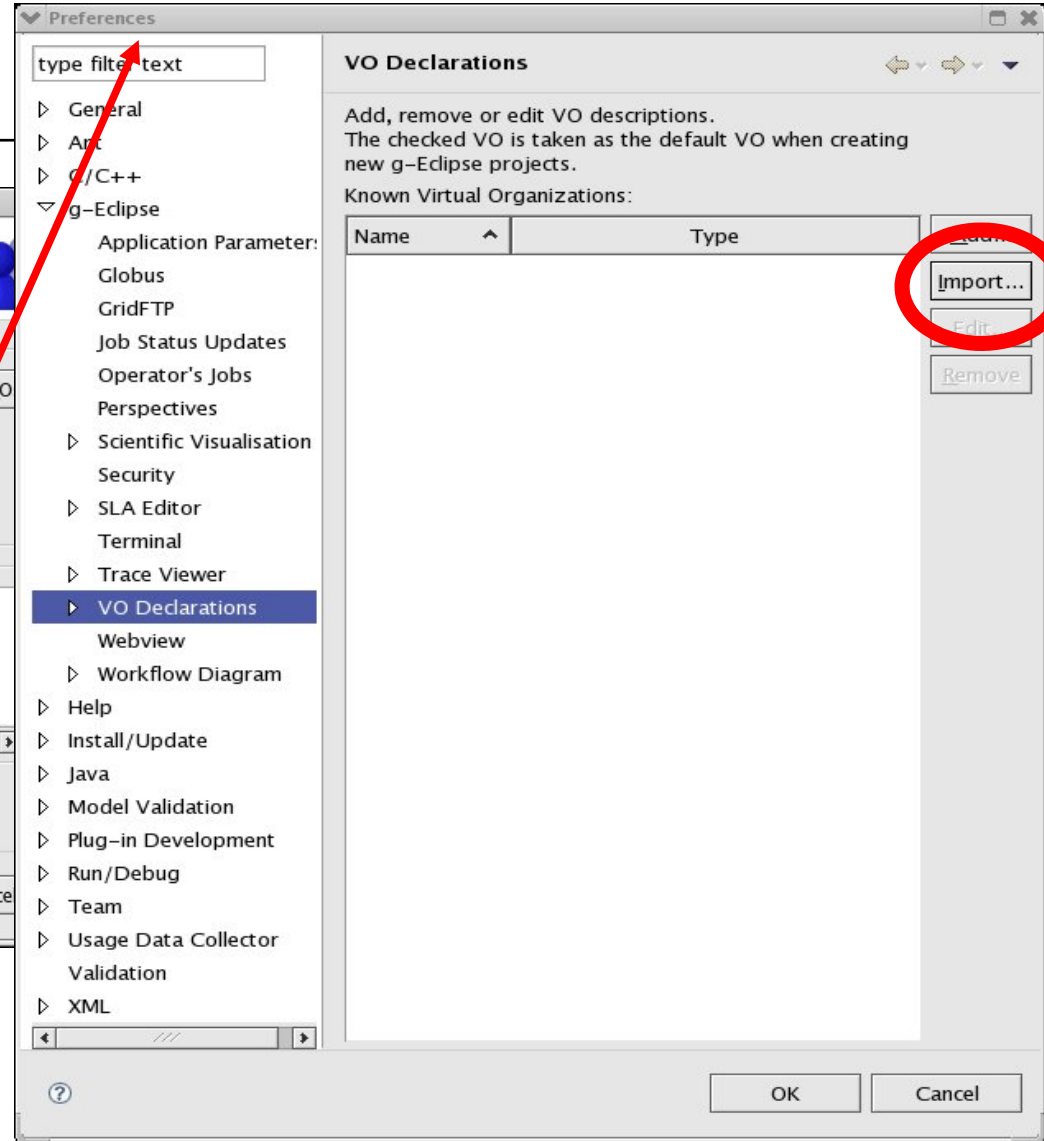
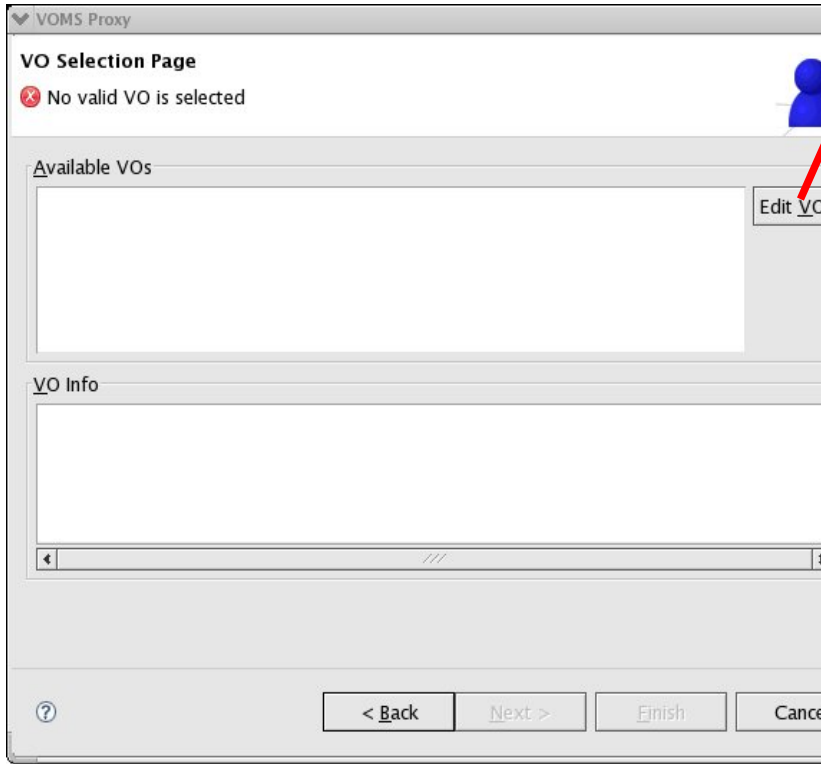


Commencez par créer un nouveau proxy, cliquez bouton droit --> New --> VOMS proxy

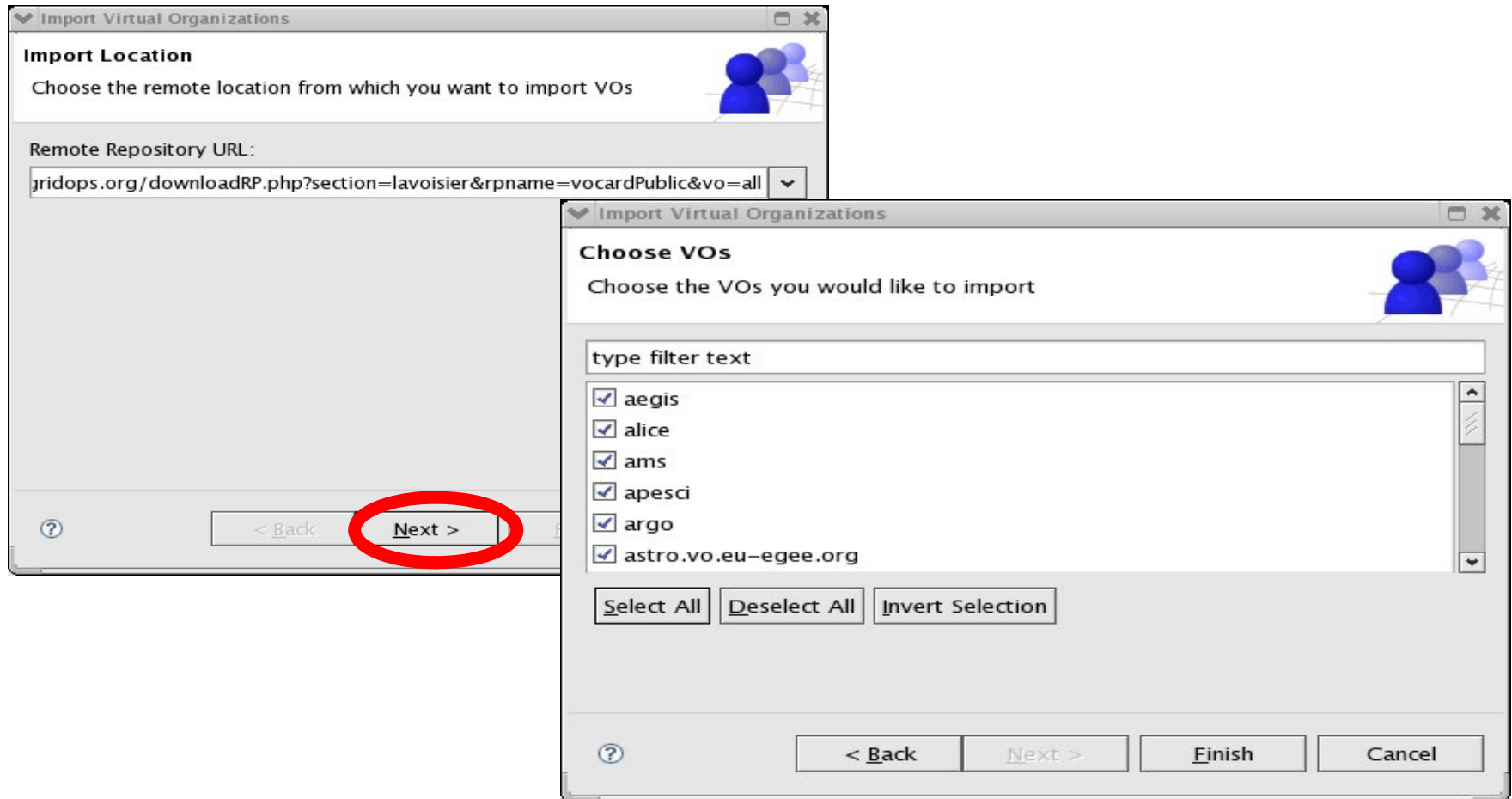
Authentication



VO selection



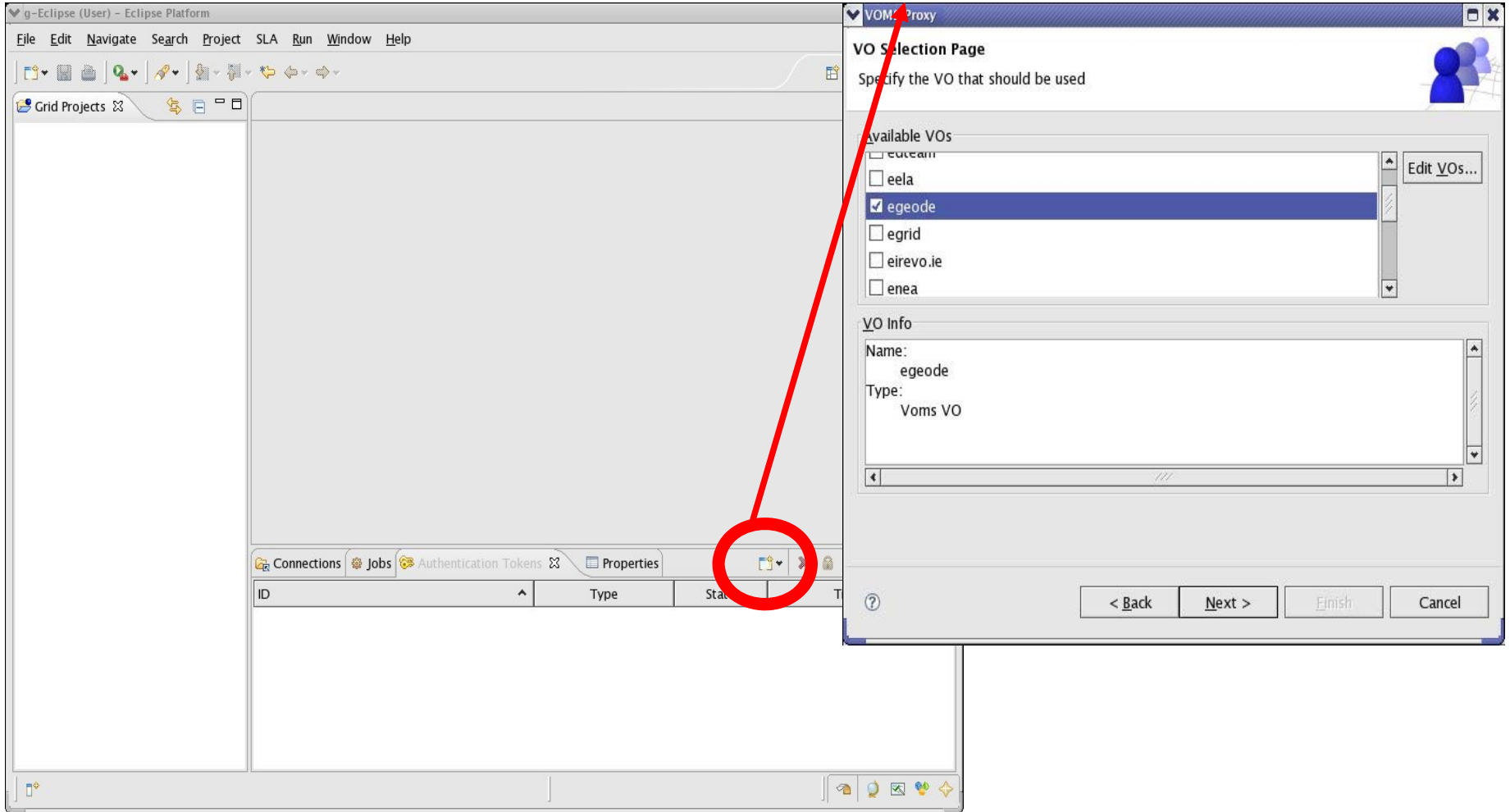
VO selection : seulement EGEODE



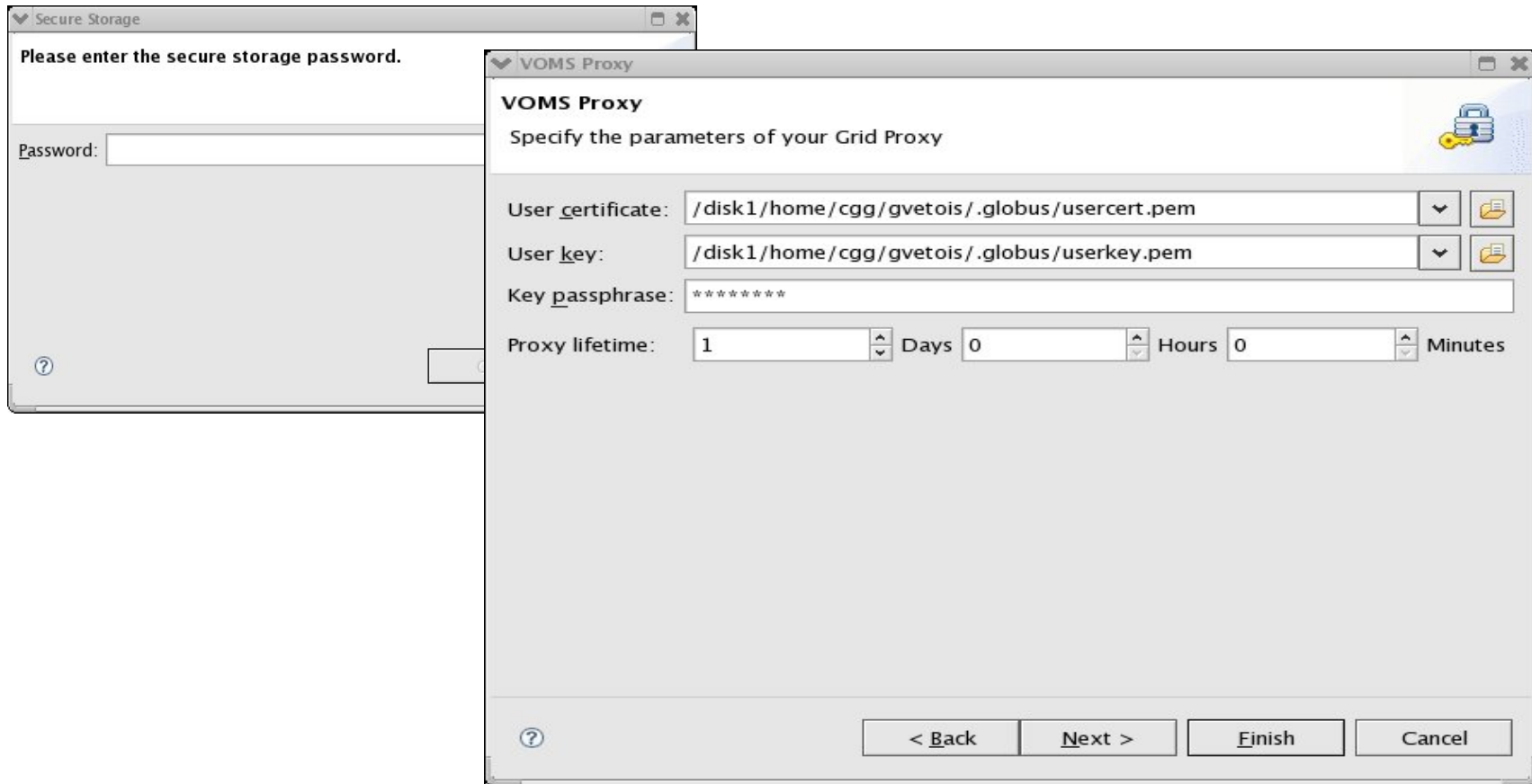
VO configuration : <ldap://topbdii.grid.fr:2170> ou <ldap://bdii.egee.fr.cgge.com:2170>

The image shows two overlapping dialog boxes in the Eclipse IDE. The background dialog is titled 'VO import notification' and contains a red 'X' icon and a message: 'At least one issue appeared while importing the selected VOs. Some VOs may not have been imported, some others may have missing fields.' Below the message, it lists 'Reasons:' with several error messages, including 'The VO import was incomplete for one or more VOs' and 'alice: Optional field for the info service endpoint seems to be empty'. A red oval highlights the 'Solutions:' section, which includes links for 'Specify a default info service for VOMS VOs', 'Log exception', and 'Create problem report'. The 'OK' button is highlighted with a red arrow pointing to the 'Specify a default info service for VOMS VOs' link. The foreground dialog is titled 'VOMS VO Preferences' and has a tree view on the left with 'VOMS VO Preferences' selected. The main area of this dialog is titled 'Specify the VOMS specific preferences' and contains a section for 'Information System' with a dropdown menu set to 'ldap://topbdii.grid.fr:2170' and a checked checkbox for 'Replace missing information systems by default'. A red arrow points from the 'Specify a default info service for VOMS VOs' link in the background dialog to the dropdown menu in the foreground dialog.

Vaildation voms proxy



Validation voms proxy



The image shows two overlapping dialog boxes. The background dialog is titled "Secure Storage" and contains the text "Please enter the secure storage password." with a "Password:" label and an empty text input field. The foreground dialog is titled "VOMS Proxy" and contains the text "Specify the parameters of your Grid Proxy". It features several input fields: "User_certificate:" with the value "/disk1/home/cgg/gvetois/.globus/usercert.pem", "User_key:" with the value "/disk1/home/cgg/gvetois/.globus/userkey.pem", and "Key_phrase:" with the value "*****". Below these is a "Proxy lifetime:" section with three spinners: "1" for Days, "0" for Hours, and "0" for Minutes. At the bottom of the "VOMS Proxy" dialog are four buttons: "< Back", "Next >", "Finish", and "Cancel".

Secure Storage
Please enter the secure storage password.
Password:

VOMS Proxy
Specify the parameters of your Grid Proxy

User_certificate: /disk1/home/cgg/gvetois/.globus/usercert.pem

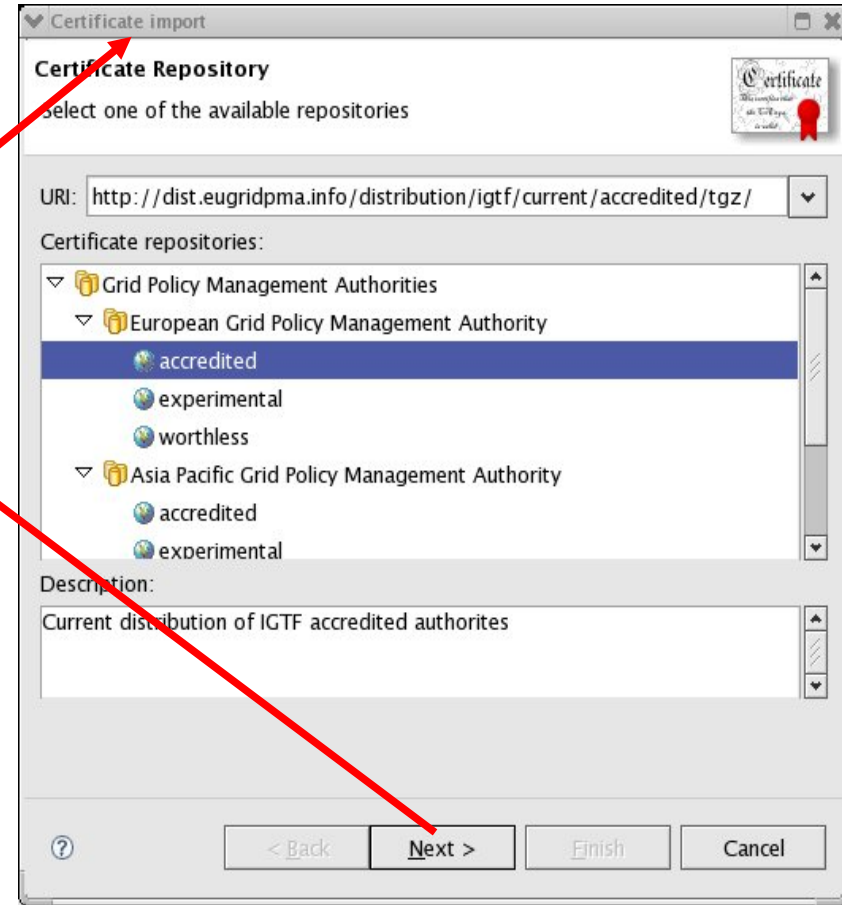
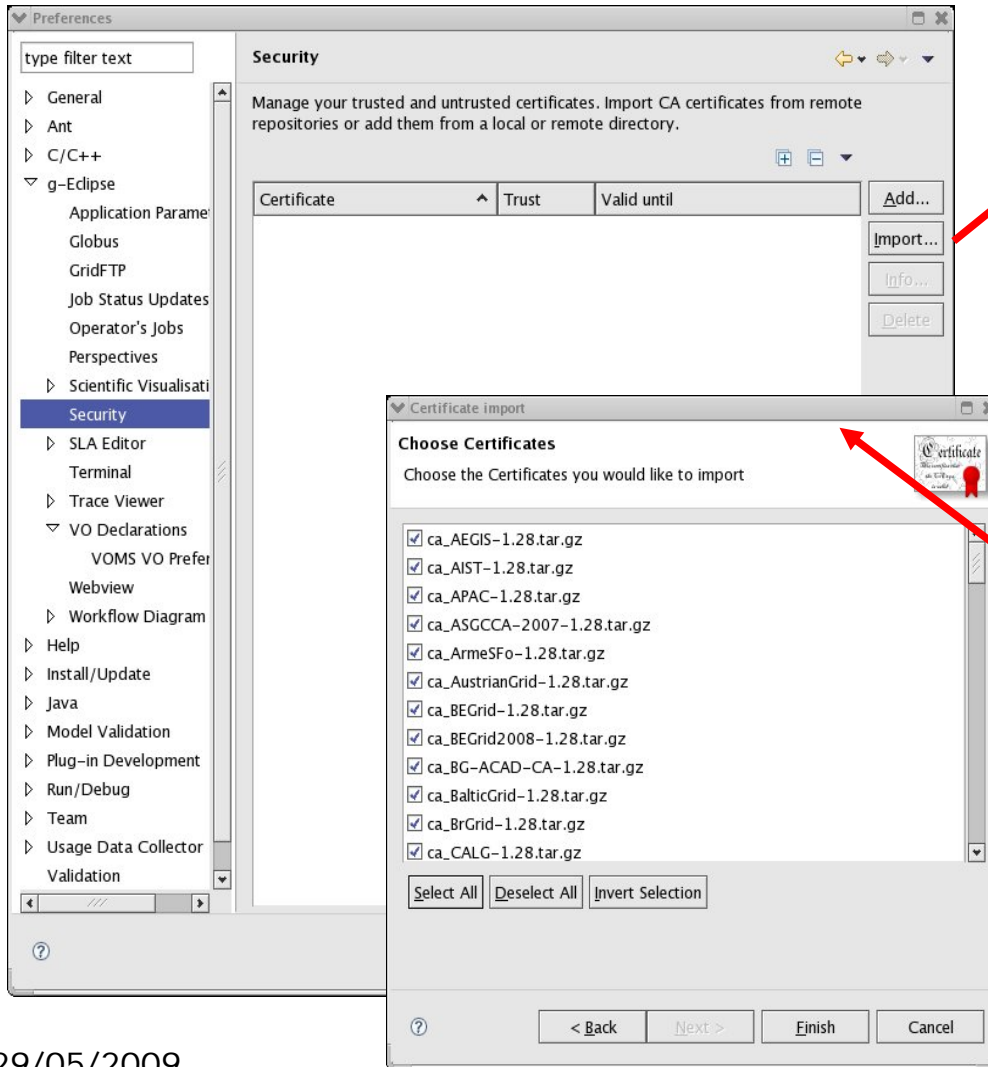
User_key: /disk1/home/cgg/gvetois/.globus/userkey.pem

Key_phrase: *****

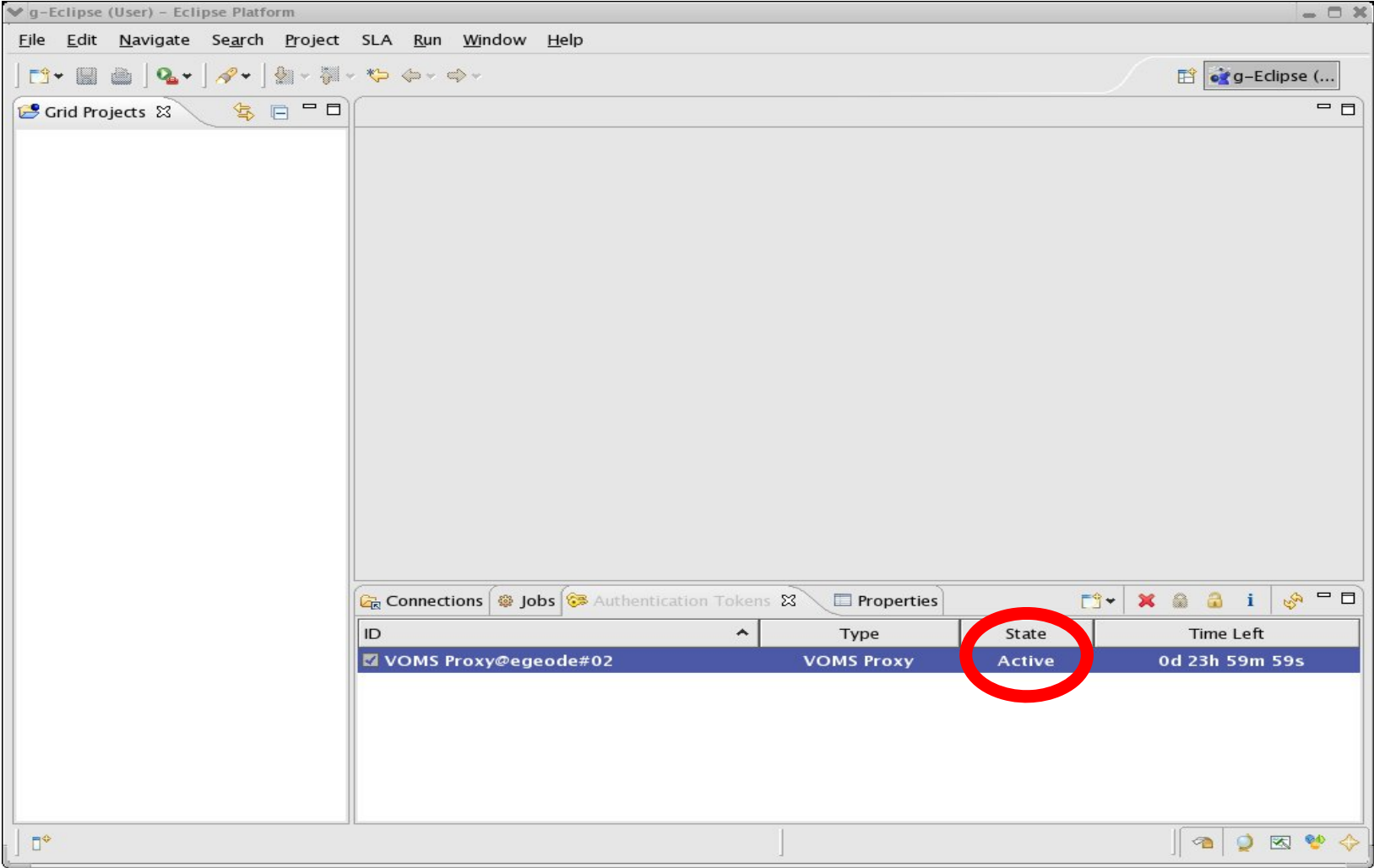
Proxy lifetime: 1 Days 0 Hours 0 Minutes

< Back Next > Finish Cancel

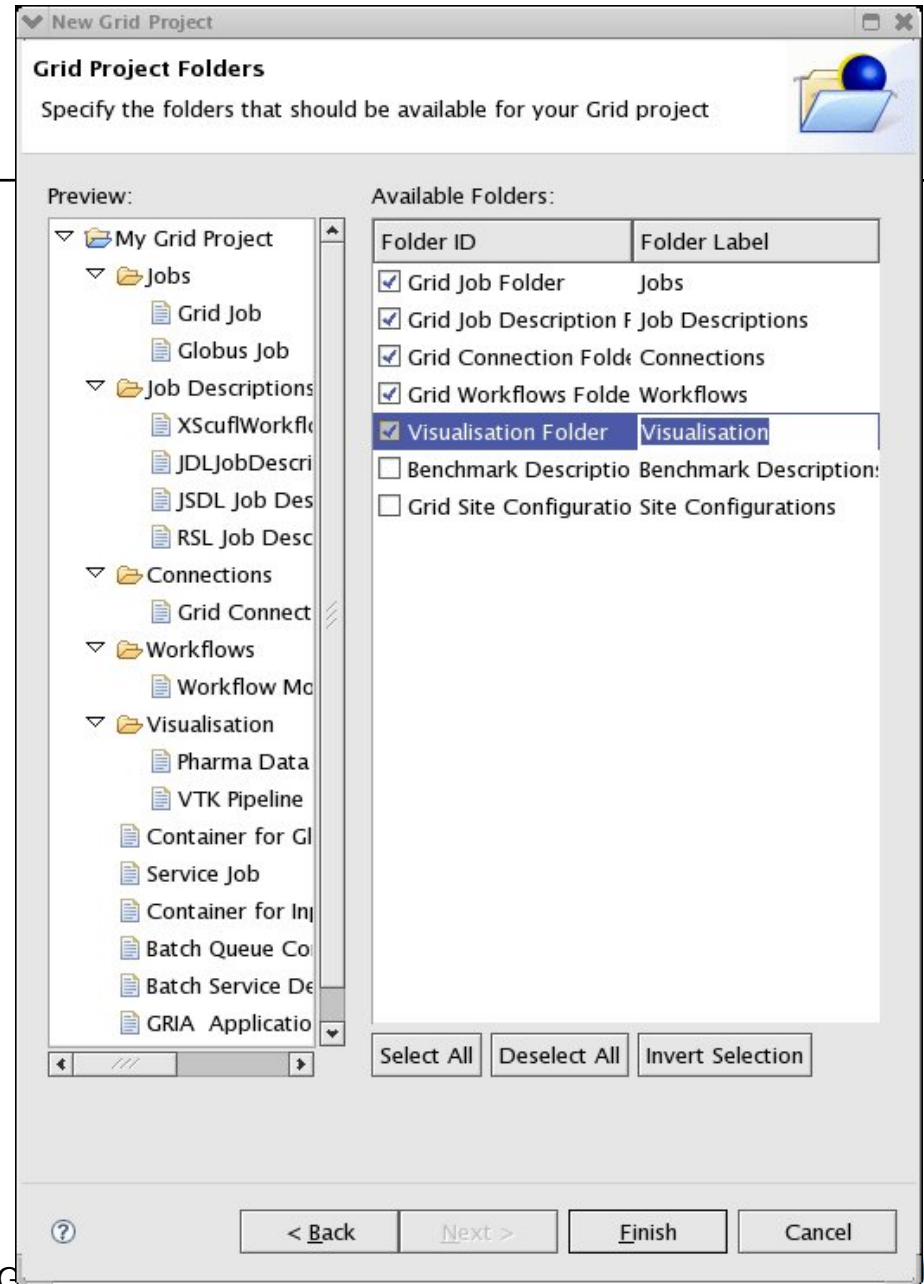
CA à mettre à jour



Proxy valid



Nouveau projet

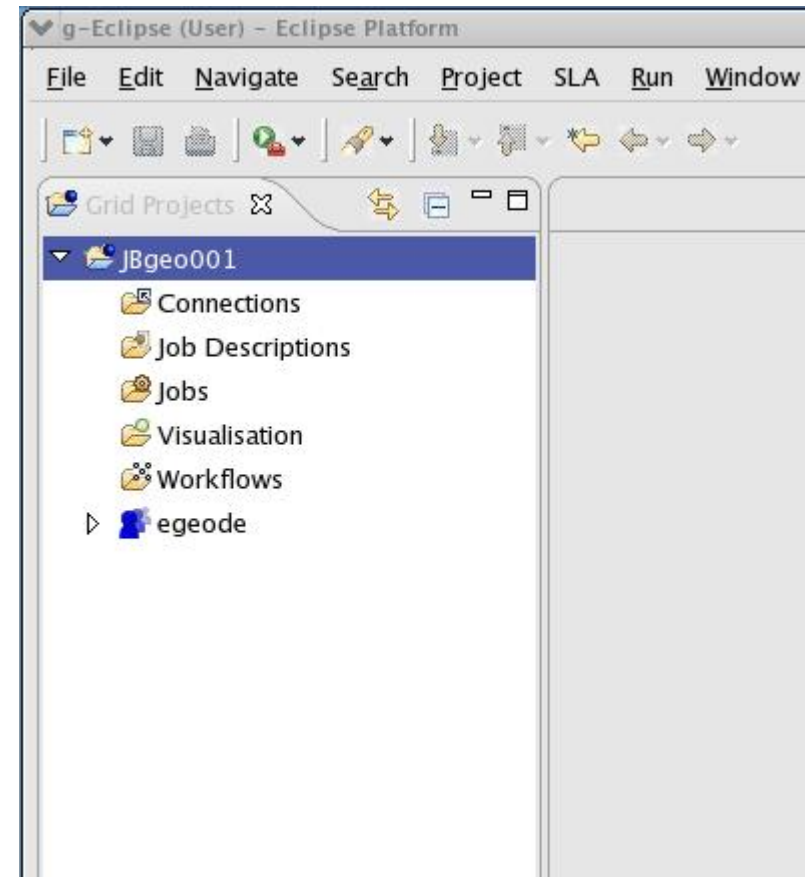


Préférence

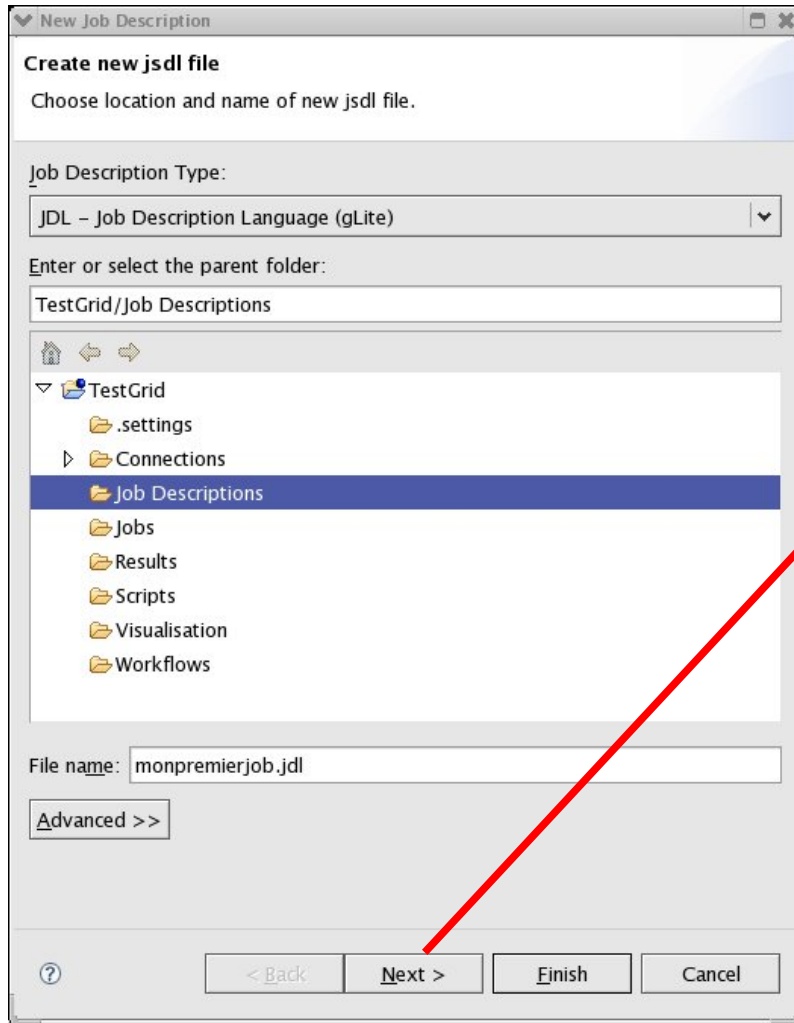
The image shows two overlapping dialog boxes from the Eclipse IDE. The background dialog is the 'Preferences' window, with the 'Webview' category selected in the left sidebar. The 'Webview' section contains three text fields: 'Project Home URL' (http://www.geclipse.eu/), 'User Support URL' (http://www.gggus.org/), and 'Project VOMS URL' (https://cdclgvomsli01.in2p3.fr:8443/voms/egeode/). The 'Project VOMS URL' field is circled in red. The foreground dialog is the 'VOMS VO' configuration window, titled 'Specify the attributes of your VOMS VO'. It has a 'Name' field (egeode) and 'VO settings' section with 'Host' (cdclgvomsli01.in2p3.fr), 'Port' (15001), and 'Host DN' (/O=GRID-FR/C=FR/O=CNRS/OU=CC-LYON/CN=cdclgvomsli01.in2p3.f). The 'Services' section includes a dropdown for 'Information system end-point' (ldap://topbdii.grif.fr:2170), which is also circled in red. Below this is an 'Additional Services' table with columns 'Type/Name' and 'Endpoint', and buttons 'Add...' and 'Remove'. Navigation buttons '< Back', 'Next >', 'Finish', and 'Cancel' are at the bottom.

Structure du projet

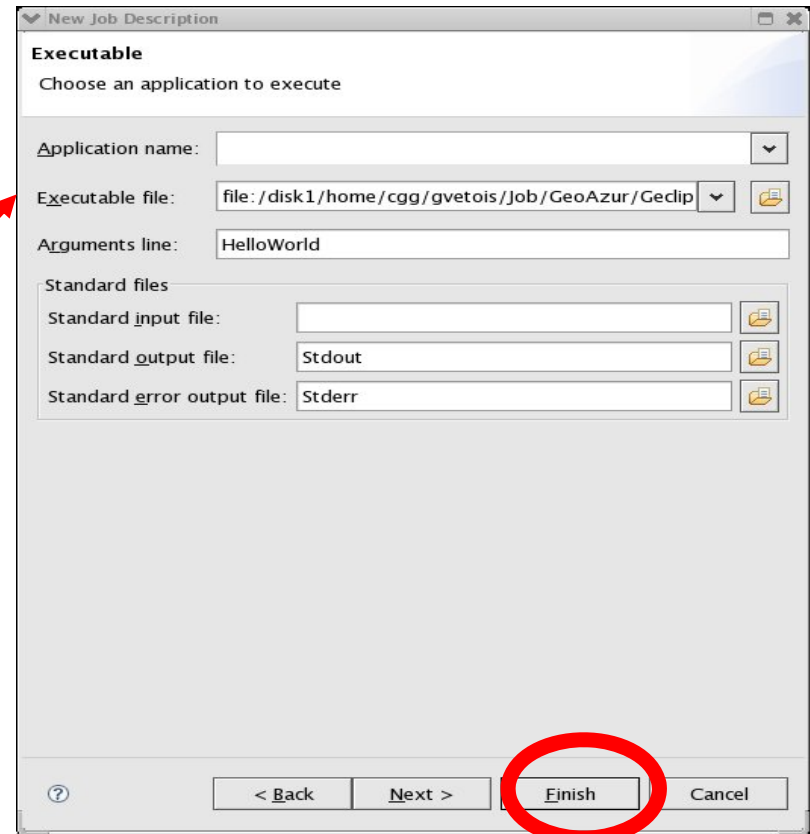
- Ajouter un répertoire pour votre application
- Connexions (LFC ou SE)
- Jobs Description (qui seront soumis)
- Jobs (les soumis)
- Site Configurations (pour les admins)
- Visualisation (non expérimenté)
- Workflows (non expérimenté)



Création d'un job JDL (pas JSDL)



Choix d'une application: ici un script préalablement écrit



Job : mon premier job

```
[  
Type = "Job";  
JobType = "Normal";  
RetryCount = 3;  
Executable = "script1.sh";  
Arguments = "HelloWorld";  
StdOutput = "stdOut";  
StdError = "stdErr";  
InputSandbox = {  
"file: /disk1/home/cgg/gvetois/Job/GeoAzur/Geclipse/workspace/TestGrid/Scripts/script1.sh" };  
InputSandboxDestFileName = { "script1.sh" };  
OutputSandbox = { "stdOut", "stdErr" };  
OutputSandboxDestURI = { "Stdout", "Stderr" };  
DeleteOnTermination = { "script1.sh" };  
Requirements = other.GlueCEStateStatus == "Production" &&  
RegExp("ce1.egee.fr.cgg.com", other.GlueCEUniqueID);  
Rank = -other.GlueCEStateEstimatedResponseTime;  
]
```

Submit et control

The screenshot displays the g-Eclipse IDE interface. On the left, the 'Grid Projects' tree shows a project named 'TestGrid' with a sub-project 'Test'. The main editor shows a JDL file with the following content:

```
[
  Type = "Job";
  JobType = "Normal";
  RetryCount = 3;
  Executable = "testjob.sh";
  Arguments = "HelloWorld";
  InputSandbox = { "file:/disk1/home/cgg/gvetois/Job/GeoAzur/Gecclipse/workspace/TestGrid/Script/testjob.sh" };
  InputSandboxDestFileName = { "testjob.sh" };
  DeleteOnTermination = { "testjob.sh" };
  StdOutput = "testjob.out";
  StdError = "testjob.err";
  OutputSandbox = { "testjob.out", "testjob.err" };
  Requirements = other.GlueCEStateStatus == "Production";
  Rank = -other.GlueCEStateEstimatedResponseTime;
]
```

Below the JDL editor, the 'Job Details' panel shows the following information:

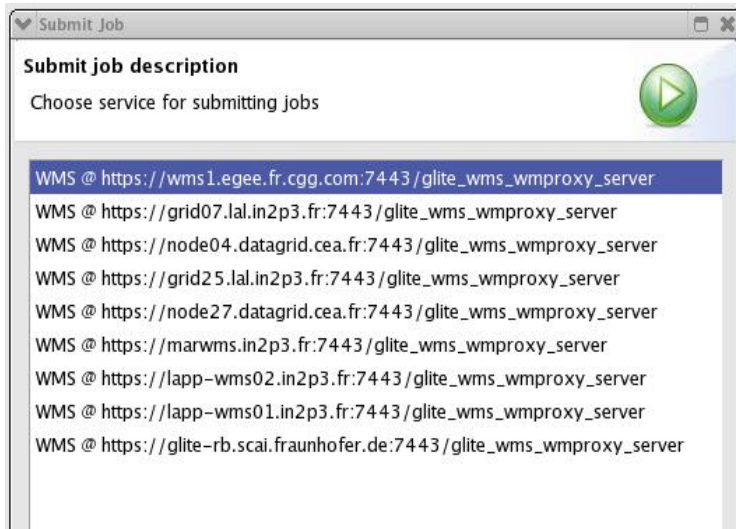
- General:** Name: Test, Id: https://grid02.lal.in2p3.fr:9000/VF8XHfheohdCJ, Status: DONE, Reason: Job terminated successfully, Last update time: Apr 29, 2009 3:05:24 PM.
- gLite WMS Specific Data:** Worker node: gt2.gridgate.cs.tcd.ie:2119/jobmanager-pbs, Cpu Time: 0, Destination: gridgate.cs.tcd.ie:2119/jobmanager-pbs-cone.
- Status History:** SUBMITTED Apr 29, 2009 2:53:47 PM, WAITING Apr 29, 2009 2:53:49 PM, READY Apr 29, 2009 2:53:51 PM, SCHEDULED Apr 29, 2009 2:54:06 PM, RUNNING Apr 29, 2009 2:57:39 PM, DONE Apr 29, 2009 2:58:33 PM.
- Condor:** Id: 511721, ClassAd: stream_error = False, +edg_jobid = "https://grid02.lal.in2p3.f".

At the bottom, a table lists the jobs:

Name	Project	Status	Reason	Submitted	Last refresh
Test	TestGrid	DONE	Job terminated successfully	Apr 29, 2009 2:53:49 PM	Apr 29, 2009 2:58:33 PM
Test[1]	TestGrid	SCHEDULED	Job successfully submitted to G	Apr 29, 2009 2:48:26 PM	Apr 29, 2009 2:58:33 PM

Pour soumettre le job, sélectionnez votre JDL puis cliquez bouton droit New --> Submit... --> Job et choisissez votre gestionnaire de ressource (WMS) ex: wms1.egee.fr.cgg.com

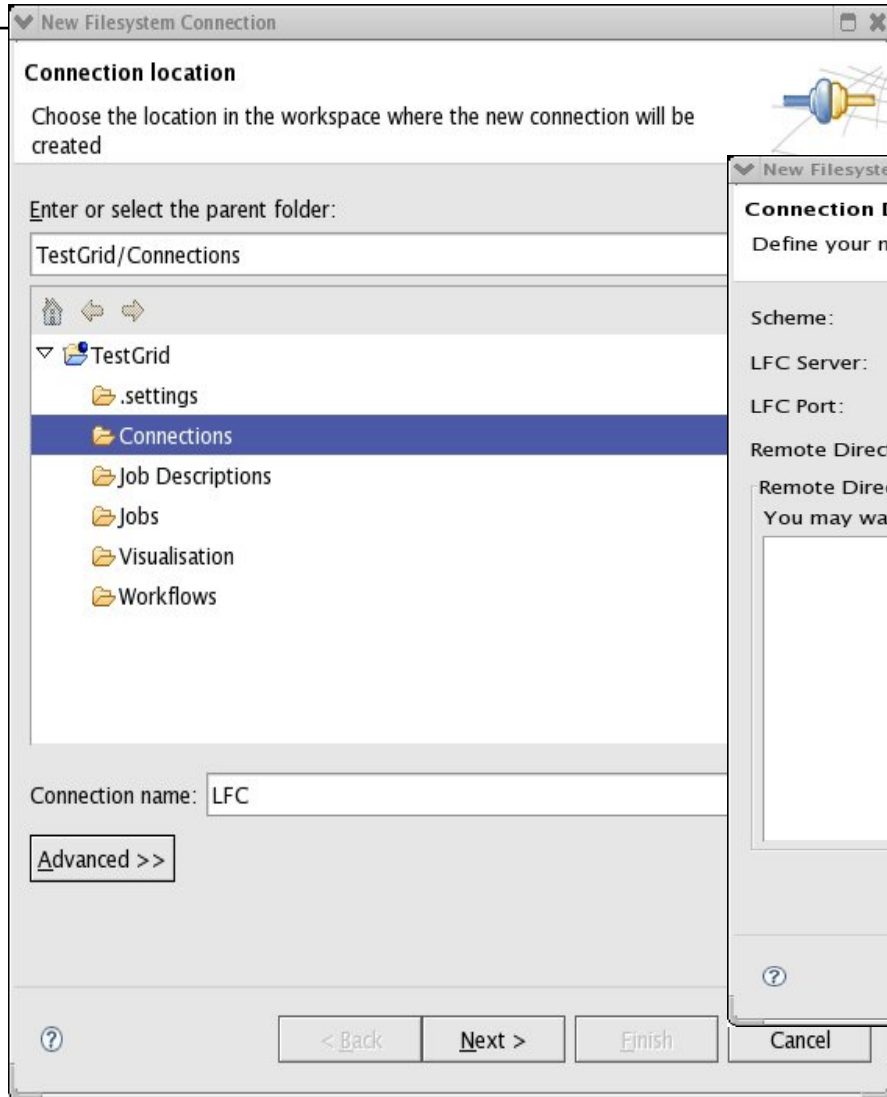
Suivi de job



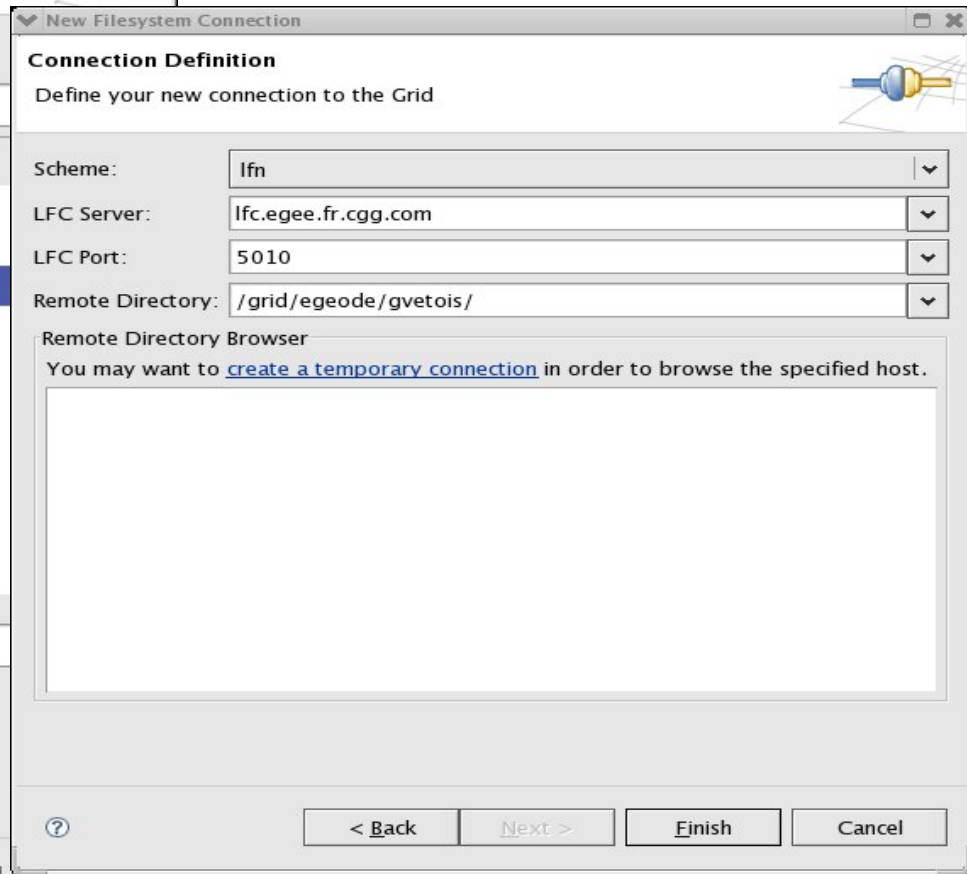
Pour le suivi du job, sélectionnez le job dans le panneau d'état en bas de la figure, puis cliquez sur Open F3



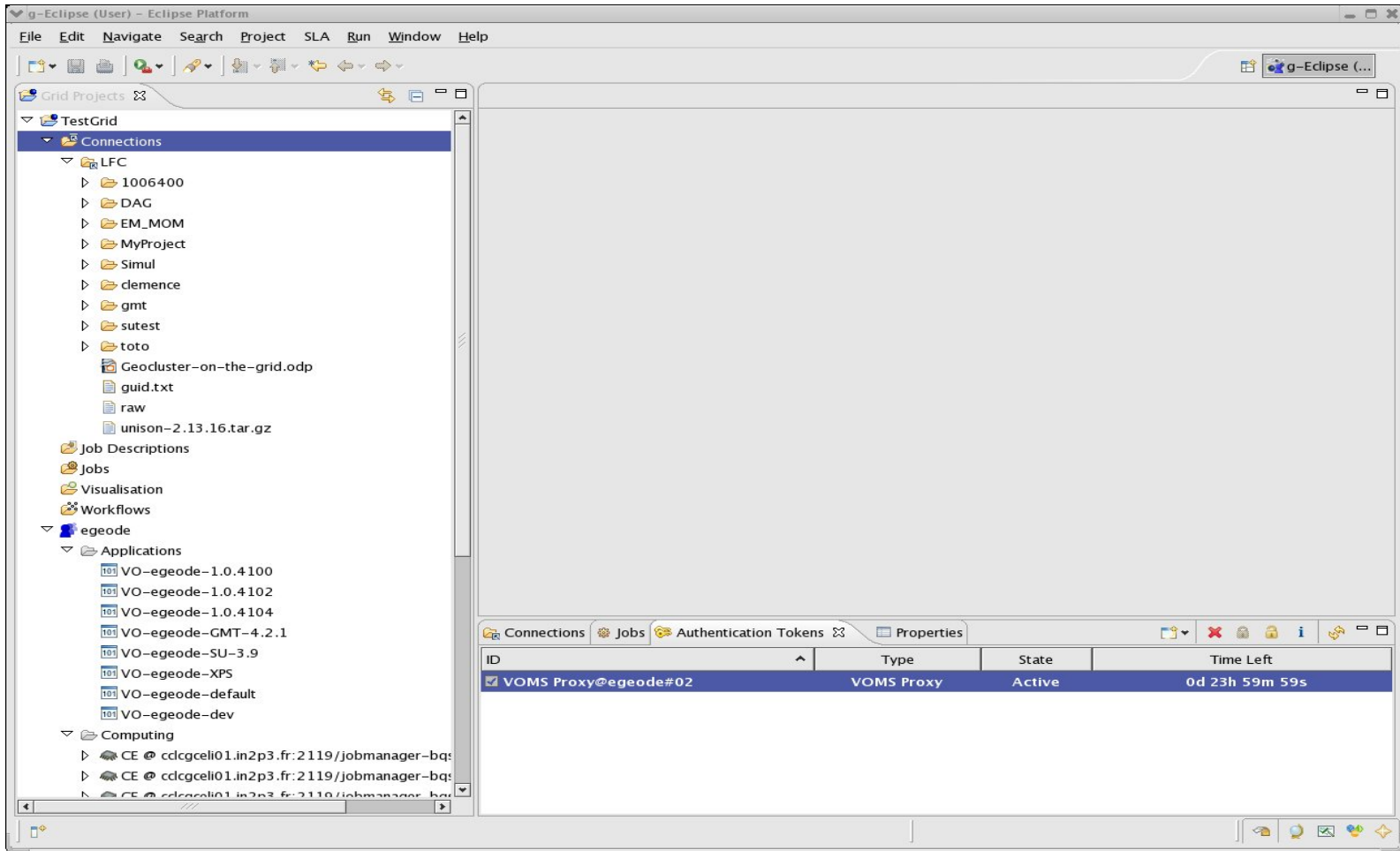
LFC : New connection (option)



menu File --> New --> Grid connexion



LFC : affichage



Parties évaluées

- Suivi de jobs (séquentiel et parallèle)
- MPI avec site lcgpbs :
 - lrms_type = "pbs";
 - SubmitTo =
"ce1.egee.fr.cgg.com:2119/jobmanager-lcgpbs-egeode6gb";
- LFC :
 - Upload OK
 - Download **KO** (en cours de résolution)
 - Utilisation de KEREON en attendant
- Suivi d'activité d'un site

Différences entre les JDL

- Les fichiers jobs générés peuvent être lancés avec la commande en ligne `glite-wms-job-submit` en supprimant les mots clé « file: »
- ...