



Enabling Grids for  
E-science in Europe

[www.eu-egee.org](http://www.eu-egee.org)

*EGEE tutorial, 03.02.2005 Roma*

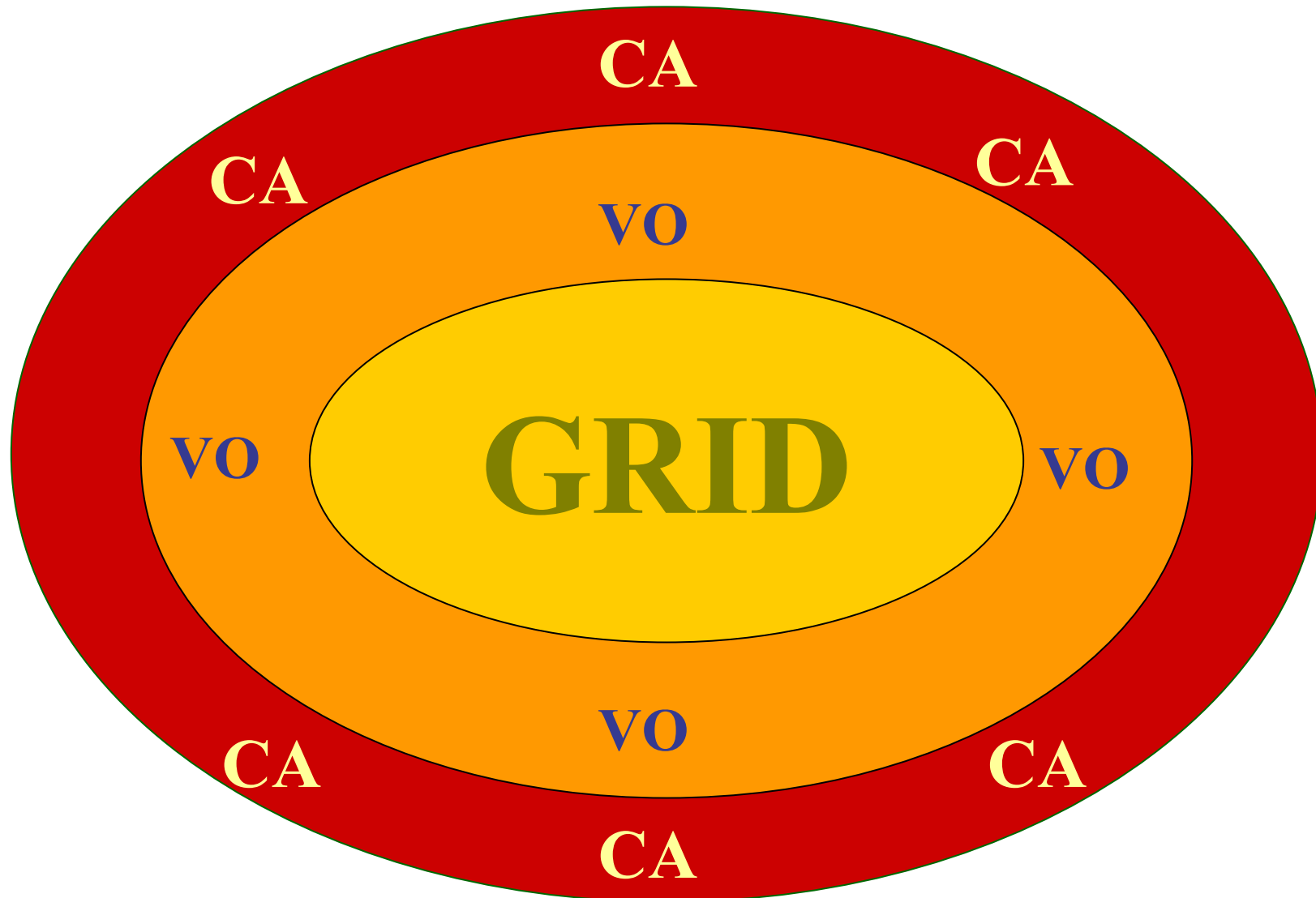
# The GILDA Testbed

Valeria Ardizzone  
INFN Catania



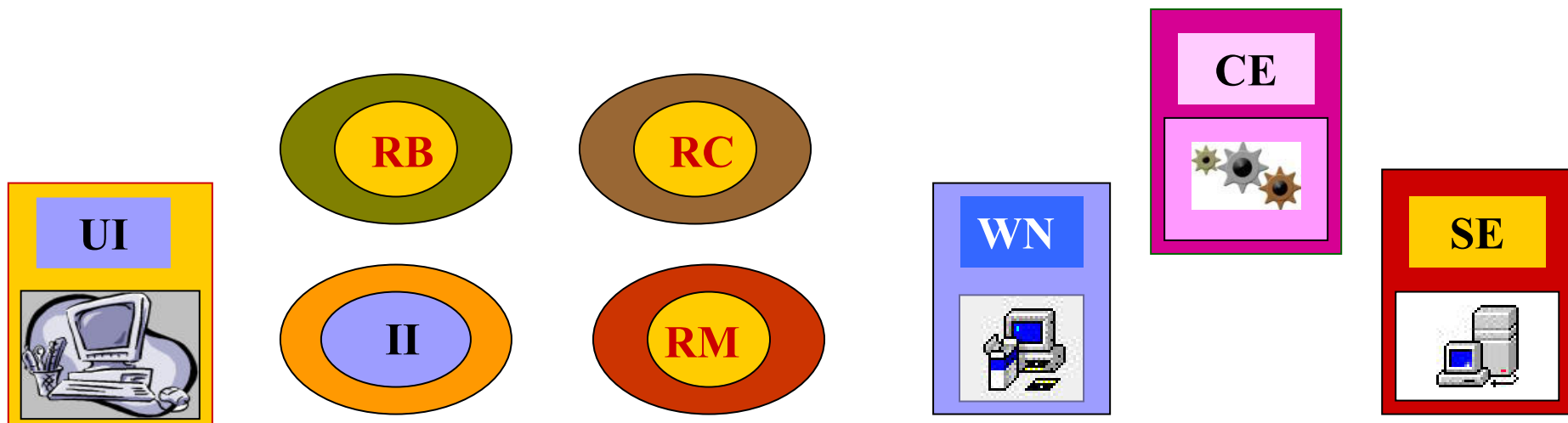
EGEE is a project funded by the European Union under contract IST-2003-508833

# Testbed (1/2)



## Testbed (2/2)

- A Testbed is “**real grid**” implemented to test the middleware;
- Its main limit is “**restrict access**” to small group of developers and scientists for a limited period of time.
- A testbed, is made up of one or more **nodes** which may be playing different roles.



# The GILDA project (<https://gilda.ct.infn.it>)



**GILDA ( Grid Infn L aboratory for D issemination A ctivities )**


is a virtual laboratory to demonstrate/disseminate the strong capabilities of grid computing.

GILDA consists of the following elements:

- [the GILDA Testbed](#): a series of sites and services (Resource Broker, Information Index, Replica Location Server, Monitoring tool, Computing Elements, and Storage Elements) spread all over Italy on which the last version of the [INFN Grid](#) middle-ware (fully compatible with [LCG](#) middle-ware) is installed;
- [the Grid Demonstrator](#): a customized version of the full [GENIUS web portal](#), jointly developed by INFN and [NICE](#), from where **everybody** can submit a pre-defined set of applications to the GILDA Testbed;
- [the GILDA Certification Authority](#): a fully functional Certification Authority which issues 14-days X.509 certificates to everybody wanting to experience grid computing on the GILDA Testbed;
- [the GILDA Virtual Organization](#): a Virtual Organization gathering all people wanting to experience grid computing on the GILDA Testbed;
- [the Grid Tutor](#): based on a full version of the [GENIUS web portal](#), to be used only during [grid tutorials](#);
- [the monitoring system](#): a versatile monitoring system completely based on [GridICE](#), the grid monitoring tool developed by INFN;
- [the GILDA mailing list](#): [gilda@infn.it](mailto:gilda@infn.it), also archived on the web [here](#).

GILDA is an activity of the Italian [Istituto Nazionale di Fisica Nucleare \(INFN\)](#) carried on

# The GILDA Test-bed (<https://gilda.ct.infn.it/testbed.html>)



**Grid services**

This is a table of the general Grid Services available on GILDA.

SERVICE	HOST
Resource Broker (RB)	<a href="https://grid004.ct.infn.it">grid004.ct.infn.it</a>
Backup Resource Broker (RB)	<a href="https://grid007.ct.infn.it">grid007.ct.infn.it</a>
Information Index (BDI)	<a href="https://grid017.ct.infn.it">grid017.ct.infn.it</a>
Backup Information Index (BDI)	<a href="https://grid018.ct.infn.it">grid018.ct.infn.it</a>
GILDA VO server	grid-vo.cnaf.infn.it:10389
GridICE Monitoring System	<a href="https://alifarm7.ct.infn.it:50080">alifarm7.ct.infn.it:50080</a>
Replica Location Service (RLS)	<a href="https://grid008.ct.infn.it">grid008.ct.infn.it</a>

# The GILDA Monitoring System (1/3)

(<http://alifarm7.ct.infn.it:50080/gridice>)

The screenshot displays the GILDA Grid Monitoring Service interface. At the top, there is a navigation menu with options: Site view, VO view, Job Monitoring, Geo view, Grid view, Help, and about. Below the menu is a search bar with the text "Select Site" and "and/or Role" followed by a "Show" button. The main content area is a table titled "Computing Resources" and "Storage Resources". The table lists various sites and their resource usage, including Q#, Slot#, SlotFree, SlotLoad, RunJob, WaitJob, JobLoad, Power, WN#, CPU#, CPULoad, Available, Total, and %.

Site	Computing Resources							Storage Resources						
	Q#	Slot#	SlotFree	SlotLoad	RunJob	WaitJob	JobLoad	Power	WN#	CPU#	CPULoad	Available	Total	%
cecalc.ula.ve	3	6	6	0%	0	0	0%	-	-	-	-	15.1 Gb	16.9 Gb	11%
cesnet.cz	1	56	55	2%	0	0	0%	-	14	0	100%	-	-	-
cnaf.infn.it	3	6	6	0%	0	0	0%	3K	1	2	0%	13.5 Gb	15.3 Gb	12%
ct.infn.it	3	42	30	29%	4	0	12%	26K	8	16	26%	1.5 Tb	2 Tb	27%
gl2006europe.com	3	6	6	0%	0	0	0%	10K	2	2	0%	15.8 Gb	16.3 Gb	3%
grid.unipg.it	3	78	63	19%	5	0	7%	52K	13	26	19%	-	-	-
mporzio.astro.it	3	3	3	0%	0	0	0%	4K	1	1	0%	30 Gb	30.4 Gb	1%
na.astro.it	3	9	9	0%	0	0	0%	-	-	-	-	215.2 Gb	217 Gb	1%
pd.infn.it	3	12	12	0%	0	0	0%	8K	2	4	0%	498.9 Gb	499.3 Gb	0%
pri.univie.ac.at	3	6	6	0%	0	0	0%	7K	2	2	0%	3.5 Gb	4.1 Gb	13%
tilab.com	3	9	3	67%	2	0	0%	3K	2	2	0%	7.6 Gb	8.1 Gb	6%
ui.savba.sk	3	12	12	0%	0	0	0%	19K	4	4	0%	18.3 Gb	18.3 Gb	0%
<b>TOTAL</b>	<b>34</b>	<b>245</b>	<b>211</b>	<b>10%</b>	<b>11</b>	<b>0</b>	<b>5%</b>	<b>131K</b>	<b>49</b>	<b>59</b>	<b>15%</b>	<b>2.3 Tb</b>	<b>2.8 Tb</b>	<b>7%</b>

GridICE Homepage

# The GILDA Monitoring System (2/3)

The screenshot displays the GILDA Grid Monitoring Service interface in a Mozilla browser window. The main window shows a list of sites under the domain 'ct.infn.it'. The list includes columns for site name, role, uptime, load, and files. A 'Full Host View' window is open for 'grid004.ct.infn.it', displaying system metrics such as CPU Vendor (GenuineIntel), CPU Model (Pentium III), CPU Version, CPU ClockSpeed (997), CPU Load (1Min: 0.3, 5Min: 0.4, 15Min: 0.4), CPU User (3), CPU Nice (0), CPU System (0), CPU Idle (97), RAM Size (1006), RAM Available (384), RAM Used (622), RAM Cached (347), RAM Shared (0), RAM Buffer (85), Virtual Size (1523), Virtual Available (900), Virtual Used (623), MPage Frequency (0), MPage Frequency Read (0), MPage Frequency Write (11), and MPage Last Read (0). A 'GridICE HELP' window is also visible, titled 'GridICE HELP Full Host View', providing a table of attributes and their descriptions.

Attribute	Unit	Description
CPU Vendor		Name of the CPU vendor
CPU Model		Model of the CPU
CPU Version		Version of the CPU
CPU ClockSpeed	Hz	CPU clock in MHz
CPU Load1Min		1-minute average processor availability for a single node (the difference between the available CPUs and the average runnable CPUs)

# The GILDA Monitoring System (3/3)

The screenshot shows a Mozilla browser window displaying the GILDA monitoring system. The main window is titled "INFN - GridICE - Grid Monitoring Service - Mozilla" and shows the URL "http://alfarm7.ct.infn.it:50080/gridice/vo/vo.php?VOname=gilda#". The page features the GILDA logo (Grid INFN LABORATORY for DISSEMINATION ACTIVITIES) and the GridICE logo (the eyes of the Grid). Navigation links include "Site view", "VO view", "Job Monitoring", "Geo view", "Gris view", "Help", and "about". A dropdown menu shows "gilda" selected, with a "VO select" button next to it.

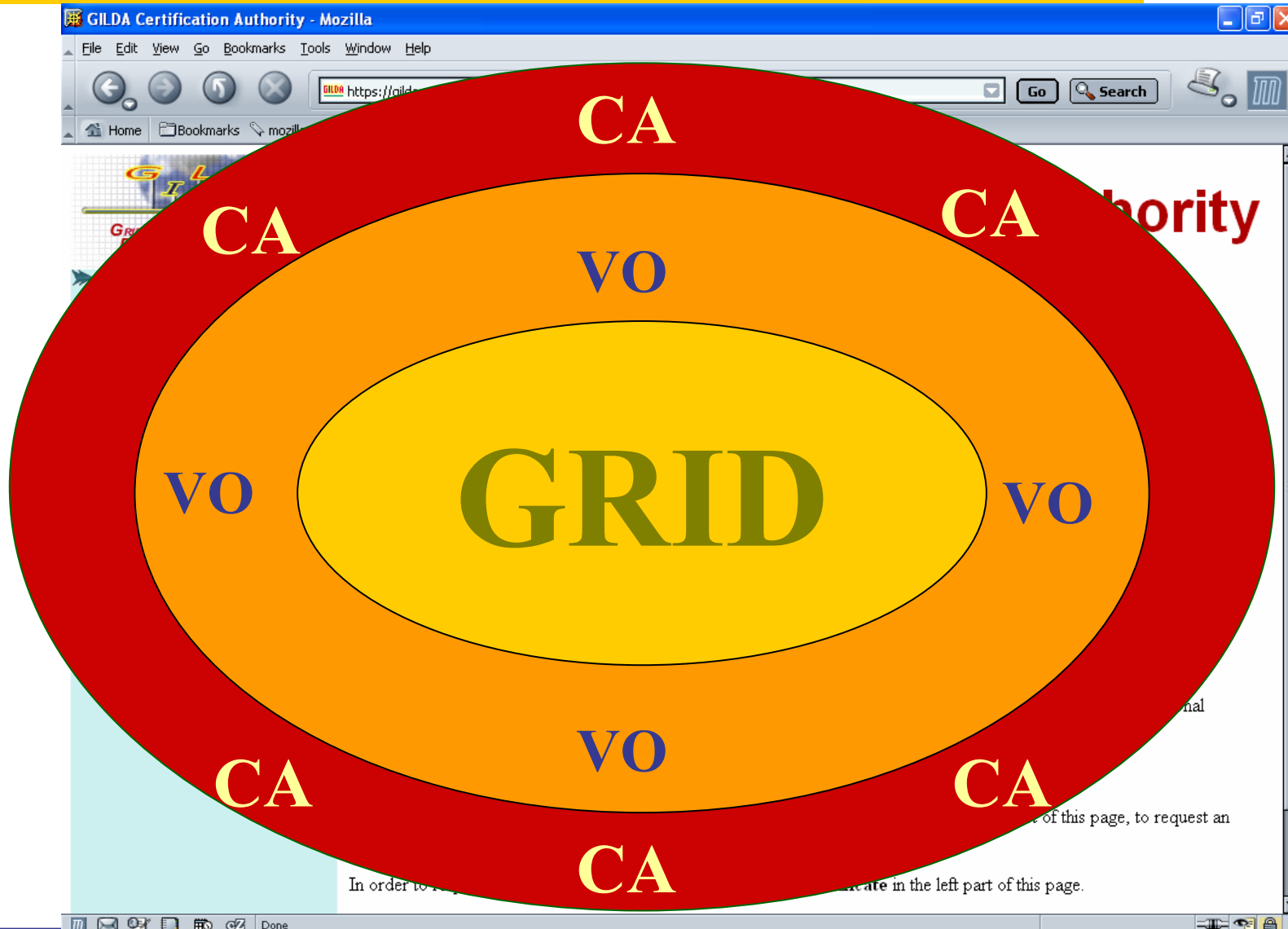
A secondary window titled "VO gilda jobs graph - Mozilla" is open, showing a "Virtual Organization: gilda" and a "browseable jobs graph | history jobs graphs" section. Below this, there are controls for "offset: [-1 day]" and "zoom: [2 hours] [1 day] [1 week] [1 month]". The main graph displays job status over time, with a legend for "Run" (red) and "Wait" (yellow). The graph title is "Start: Wed, 10 Nov 2004 00:00:00 +0100 -- Range: 1 Day". The x-axis shows time from 01:00 to 23:00, and the y-axis shows the number of jobs from 0 to 20. The graph shows a significant number of jobs in the "Run" state, with some "Wait" jobs appearing in the afternoon and evening.

On the left side of the main window, there is a list of sites and their computing element IDs, including:

- Site: **cecalc.ula.ve**  
Computing Element ID  
grid002.cecalc.ula.ve:2119/jobmanager-  
grid002.cecalc.ula.ve:2119/jobmanager-  
grid002.cecalc.ula.ve:2119/jobmanager-  
Storage Element ID - Storage Space ID  
grid003.cecalc.ula.ve - gilda:gilda
- Site: **cesnet.cz**  
Computing Element ID  
skurut1.cesnet.cz:2119/jobmanager-loc
- Site: **cnaf.infn.it**  
Computing Element ID  
grid011f.cnaf.infn.it:2119/jobmanager-loc  
grid011f.cnaf.infn.it:2119/jobmanager-loc  
grid011f.cnaf.infn.it:2119/jobmanager-loc  
Storage Element ID - Storage Space ID  
testbed005.cnaf.infn.it - gilda:gilda
- Site: **ct.infn.it**  
Computing Element ID  
grid010.ct.infn.it:2119/jobmanager-locpt  
grid010.ct.infn.it:2119/jobmanager-locpt  
grid010.ct.infn.it:2119/jobmanager-locpt  
Storage Element ID - Storage Space ID  
grid009.ct.infn.it - gilda:gilda
- Site: **gl2006.gurong.com**



# The GILDA Certification Authority (1/4) (<https://gilda.ct.infn.it/CA>)



# The GILDA Certification Authority (2/4)

The screenshot shows a Mozilla browser window titled "Request a GILDA CA personal certificate - Mozilla". The address bar contains the URL "https://gilda.ct.infn.it/CA/mgt/restricted/ucert.php". The page content includes a navigation menu on the left with links: "Request an account", "Request a host certificate", "Check a personal certificate", and "Certificate Revocation List". The main content area contains instructions and a form with the following fields:

- Institute/University/Company:
- First name and last name:
- Account username (max 8 characters; only not-accented letters and digits are allowed, both lowercase and uppercase):
- Account password (only not-accented letters and digits are allowed, both lowercase and uppercase):
- Confirm account password (only not-accented letters and digits are allowed, both lowercase and uppercase):
- E-mail:
- KeySize: 2048 (High Grade)

At the bottom of the form are two buttons: "Submit the request" and "Clear form".

# The GILDA Certification Authority (3/4)

Date: Wed, 31 Mar 2004 09:32:47 +0200  
From: gilda-ca@ct.infn.it  
To: roberto.barbera@ct.infn.it  
Subject: GILDA Personal Certificate for Roberto Barbera

Dear User,

you can download your GILDA Personal Certificate going,  
\*with the same browser you used to submit the request\*,  
to the URL:

<https://gilda.ct.infn.it/cgi-bin/gucert.pl?07>

(remember that your certificate is valid only for 14 days).  
After that you can go to:

<https://grid-vo.cnaf.infn.it/subscribe-gilda.php>

and register to the GILDA VO (usually, registration takes a working day).

Then, you can go to the GENIUS Grid Portal at the URL:

<https://grid-tutor.ct.infn.it>

and access the GILDA Testbed to submit jobs to it.  
Remember that:

- 1) when you are prompted for the Operating System, use the username and the password you have chosen when you requested the GILDA Personal Certificate as username and as password;
- 2) when you are prompted for the GRID username and password and the passphrase of your GILDA Personal Certificate as password.

Best Regards

--

GILDA Certification Authority  
Tel: +39 095 378 5469  
Fax: +39 095 378 5231  
Via S. Sofia, 64  
I-95123 Catania  
ITALY  
<https://gilda.ct.infn.it/CA/>

# The GILDA Certification Authority (4/4)

**The GILDA Certification Authority**

**Request a GILDA host certificate**

When the certificate will be signed by the GILDA CA manager you will be notified by e-mail with the instructions to download your GILDA host certificate.

Institute/University/Company:	<input type="text"/>
Full server hostname (do not use generic names from Internet Providers):	<input type="text"/>
E-mail address of server administrator (do not use generic addresses but only personal ones):	<input type="text"/>

- General information
- GILDA CA certificate
- Request a personal certificate
- Request an account
- Request a host certificate
- Check a personal certificate
- Certificate Revocation List

# The GILDA Virtual Organization

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://gilda.ct.infn.it/ Search

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

**INFN GRID** **GILDA** **eGEE**  
Enabling Grids for E-science in Europe

**GRID INFN LABORATORY for DISSEMINATION ACTIVITIES**

HOME TESTBED 1) CERTIFICATION AUTHORITY 2) REGISTER to the GILDA VO 3) Go to the GRID DEMONSTRATOR GENIUS PORTAL MONITORING CONTACTS

➤ Grid tutorials  
➤ Instructions for users  
➤ Instructions for sites  
➤ Useful links

➤ Usage Statistics

**INFN**

Registration Form

Nome e cognome / First name and family name:

Istituto/Institute:

Telefono/Phone number:

E-mail:

Selezione V0 / V0 choice:

La sottomissione della domanda implica l'obbligo ad un corretto uso delle risorse messe a disposizione dell'utente.

Clear Form Register

Done

# The Grid Demonstrator (1/2) (<https://grid-demo.ct.infn.it>)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

enginframe

**genius**

eGEE  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to the **GILDA Grid Demonstrator**  
powered by **GENIUS**

GILDA Grid Demonstrator User's Guide ([html](#), [pdf](#))  
[Credits](#)

This portal is best viewed with Mozilla 1.6.  
Netscape (4.79, 4.80, 6 and higher) and Internet  
Explorer (5 or higher) can also be used.  
The use of any other web browsers could induce some  
visualization mismatches and is not currently suggested.  
Last update: **Fri 3 Sep 2004**

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

File Services  
Security Services  
Info Services  
Monitoring Services  
**VO Services**  
Logout

**Demonstrator Applications**

Done

# The Grid Demonstrator (2/2)

(<https://grid-demo.ct.infn.it>)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

enginframe

**genius**

eGEE  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

**Login to the GRID**

Username: demo43

MyProxy Passphrase: [masked]

Validity (hours): 4

Login

powered by  
EnginFrame 3.2  
compliant with  
LCG-2  
GRID.IT

- Demo users
- No personal certificate needed
- Usable by **everybody!**

# Grid Demonstrator applications (1/3)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

EnginFrame

**genius**

**eGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

**Welcome to GILDA Services**

**GILDA**

**GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES**

- HadronTherapy Services
- Video on Demand
- Raster-3D
- SCILAB
- GEANT4 Examples
- Other Job Services
- Data Services
- GATE
- Back Home

powered by  
EnginFrame 3.2  
compliant with  
LCG-2  
GRID.IT



# Grid Demonstrator applications (2/3)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

**enginframe**

**genius**

**eGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

RB: gilda VO: gilda RLS: GILDA Logout

Please, select a Group Type to submit.

Group Type

- 01. Sound Creation.
- 02. Virtual Reality.
- 03. 3D-Rendering of static images.
- 04. Cyclic Animation.
- 05. Simple examples.
- 06. ENVISAT Satellite MERIS applications.
- 07. ENVISAT Satellite ASAR applications.
- 08. MPI applications.
- 09. F90/F95 examples with G95.

Other Job Services  
up  
▶ Job Submission  
▶ Job Queue  
▶ Job Data  
▶ Clean Job Queue

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

# Grid Demonstrator applications (3/3)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale di Fisica Nucleare

**enginframe**

**genius**

**egee**  
Enabling Grids for E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

RB: gilda VO: gilda RLS: GILDA Logout

Please, select a Job Type to submit.

Job Type

08. 3-D rendering of a cubic lattice of spherical objects and cylindrical segments (povray\_cubo.jdl - exec. time: 7 min.)

09. 3-D rendering of a city (povray\_defcity.jdl - exec. time: 6 min.)

10. 3-D rendering of the human DNA (povray\_dna.jdl - exec. time: 18 min.)

11. 3-D rendering of a human heart (povray\_heart.jdl - exec. time: 7 min.)

12. 3-D rendering of a concatenation of two ring objects joined with a sphere (povray\_loop74.jdl - exec. time: 7 min.)

13. 3-D rendering of a circular object (povray\_loop7f1.jdl - exec. time: 11 min.)

14. 3-D rendering of a ring of two objects (povray\_loop7g1.jdl - exec. time: 7 min.)

15. 3-D rendering of a pressed ring of two objects (povray\_loop7g3.jdl - exec. time: 7 min.)

16. 3-D rendering of two helicoidal objects (povray\_loop7h1.jdl - exec. time: 7 min.)

17. 3-D rendering of a ring spherical object reflected in a mirror (povray\_loop7k.jdl - exec. time: 11 min.)

18. 3-D rendering of spherical objects with tetragonal function (povray\_pblb3e.jdl - exec. time: 6 min.)

19. 3-D rendering of a pyramidal lattice of spherical objects and cylindrical segments (povray\_pyranet.jdl - exec. time: 13 min.)

20. 3-D rendering of a sinusoidal function (povray\_sinus0.jdl - exec. time: 5 min.)

21. 3-D rendering of a mechanic valve (povray\_valve.jdl - exec. time: 5 min.)

22. 3-D rendering of a hyperbole with rhombus meshes (povray\_hyper.jdl - exec. time: 6 min.)

powered by  
**EnginFrame 3.2**  
compliant with  
**LCG-2**  
**GRID.IT**

# Some functionalities of GILDA

- **Complete support for MPI jobs**
- **Complete support for DAG jobs**
  - DAG UI: [grid-demo1.ct.infn.it](http://grid-demo1.ct.infn.it)
  - DAG RB: [grid007.ct.infn.it](http://grid007.ct.infn.it)
- **SciLab (<http://www.scilab.org>, a MathLab clone) installed on all sites and successfully tested**
- **GEANT4 installed on all sites and successfully tested**
- **GNU G95 Fortran 90/95 compiler (<http://www.g95.org>) available on all sites**
- **Complete support for DGAS accounting system very soon**

# MPI example

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

**enginframe**

**genius**

**EGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

```
Process 0 of 2 on testbed010.cnaf.infn.it  
pi is approximately 3.1415926544231318, Error is 0.0000000008333387  
wall clock time = 10.010470  
Process 1 of 2 on grid011f.cnaf.infn.it
```

Other Job Services  
up  
▶ Job Submission  
▶ Job Queue  
▶ Job Data  
▶ Clean Job Queue

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

# Raster-3D example

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

**enginframe**

**genius**

**EGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

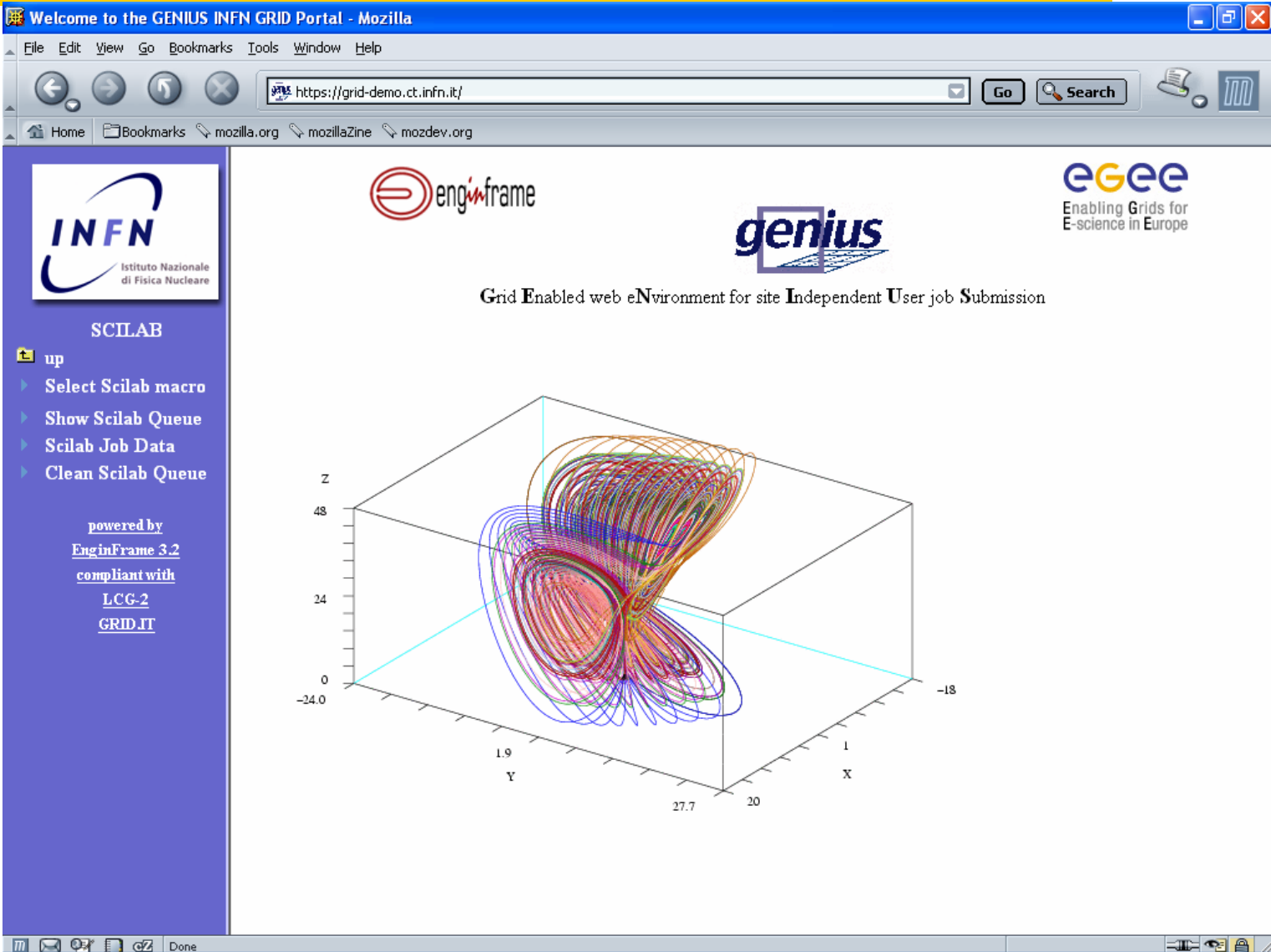
**Raster-3D**

- up
- Generate a Raster Image
- Show Raster Queue
- Raster Job Data
- Clean Raster Queue

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

Done

# SciLab example



Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

**enginframe**

**genius**

**EGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

**SCILAB**

- up
- Select Scilab macro
- Show Scilab Queue
- Scilab Job Data
- Clean Scilab Queue

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

Z  
48  
24  
0  
-24.0

Y  
1.9  
27.7

X  
-18  
20

Done

# GEANT4 example

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN**  
Istituto Nazionale  
di Fisica Nucleare

**enginframe**

**genius**

**eGEE**  
Enabling Grids for  
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

RB: gilda	VO: gilda	RLS: GILDA	Logout
Destroy	hits.out.txt		
	g4_00.wrl		

powered by  
[EnginFrame 3.2](#)  
compliant with  
[LCG-2](#)  
[GRID.IT](#)

Directory contents - 20041012 130557 eX81nsM 7L0vPI9Cvffr4A

C:\Documents and Settings\barbera\Impostazioni locali\Temp\g4\_00.wrl - Microso...

File Modifica Visualizza Preferiti Strumenti ?

Indirizzo C:\Documents and Settings\barbera\Impostazioni locali\Temp\g4\_00.wrl Vai Collegamenti

Google Search Web 0 blocked AutoFill Options

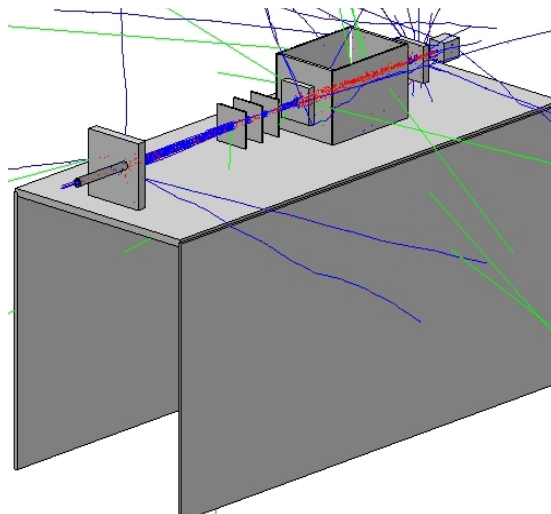
Operazione completata Risorse del computer

# hadronTherapy example

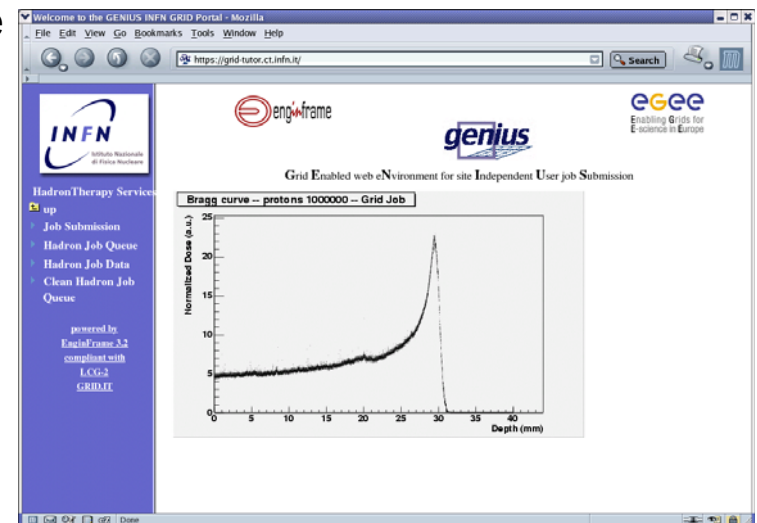
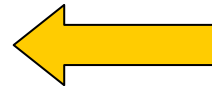
CATANA beam  
line in reality



hadronTherapy in  
GENIUS



CATANA beam line  
simulated by  
*hadronTherapy*





# GATE example

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-tutor.ct.infn.it/

Home Bookmarks Red Hat, Inc. Red Hat Network Support Shop Products Training

**INFN**  
Istituto Nazionale di Fisica Nucleare

**enginframe**

**genius**

**EGEE**  
Enabling Grids for E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

RB: gilda VO: gilda RLS: GILDA Your Data Logout

Destroy Directory contents - tmp1100001761583.ef/gate\_job\_list\_20041109\_123955

RelDoseTree.gif (GIF Image, 606x302 pixels) - Mozilla

https://grid-tutor.ct.infn.it/ef/download/RelDoseTree.gif

isodoses Relatives Plan y=5.0 mm

isodoses Relatives Plan y=2.5 mm

isodoses Relatives Plan y=0 mm

isodoses Relatives Plan y=-2.5 mm

isodoses Relatives Plan y=-5.0 mm

Done

# “Video on demand” example

The screenshot shows a web browser window displaying the GENIE interface. The page title is "Welcome to the GENIE (INFN) Grid Portal". The interface includes logos for INFN, eng@frame, genius, and eGEE. A navigation menu on the left lists "Video on Demand" options: "Request a Video", "Video Queue", and "Clean Video Queue". The main content area features a "Job Queue" table and a "VLC media player" window showing a video titled "Alien Song" with a green alien character in a red cape. The video player shows a progress bar at 01:00.

Job ID	Job Name	Last Update	Destination	Status	Exit Code	Action
1	ALIENSONG	Wed, Jan 23 17:45:57 2004	gfd10101.inf.it:2119/jobmanager-vgp-ke-ef66	Running		Cancel

The screenshot shows the same GENIE web interface as the previous one, but the "VLC media player" window now displays a different video titled "Moby" featuring a cartoon mouse character. The video player shows a progress bar at 01:00. The "Job Queue" table and other interface elements remain the same.

Job ID	Job Name	Last Update	Destination	Status	Exit Code	Action
1	Moby	Wed, Jan 23 17:55:22 2004	gfd10101.inf.it:2119/jobmanager-vgp-ke-ef66	Running		Cancel

# Earth Science example

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid019.ct.infn.it/ Search

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

INFN enginframe genius EGEE Enabling Grids for E-science in Europe

C:\Documents and Settings\barbera\Impostazioni locali\Temp\mount\_sainte\_helens\_WA...  
File Modifica Visualizza Preferiti Strumenti ?

Indietro Cerca Preferiti Multimedia

Indirizzo C:\Documents and Settings\barbera\Impostazioni locali\Temp\mount\_sainte\_helens\_WA... Vai Collegamenti

Google Cerca nel Web Cerca nel sito PageRank Info sulla pagina

Operazione completata Risorse del computer

User job Submission

Your Data	Logout
9_2pWUxVIg-e5Ej9ZBup4QtQ	
<a href="#">sainte_helens_WA.ppm</a>	1,404,771
<a href="#">sainte_helens_WA.wrl</a>	837,421
<a href="#">ols.out.txt</a>	2,394

# Computational Chemistry Example

The screenshot displays a web browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla". The address bar shows the URL <https://genius.cnaf.infn.it/>. The browser's bookmark bar includes "Home", "Bookmarks", "Red Hat, Inc.", "Red Hat Network", "Support", "Shop", "Products", and "Training".

The main content area is divided into several sections:

- Left Sidebar:** Features the INFN logo (Istituto Nazionale di Fisica Nucleare) and a "Simbex" section with a "up" arrow and "Atom-diatom simulation" link. It also lists "powered by EnginFrame 3.2" and "compliant with LCG-2 GRID.IT".
- Top Center:** A "enginframe" logo and the text "Grid Enabled web eNvironment for simulation".
- Form Area:** A configuration form for a simulation. It includes fields for "RB: gilda", "VO: gilda", and "RLS:". The form contains several dropdown menus and input fields:
  - Collision energy: Distribution with  $v^{*3}$
  - Energy: [input field]
  - T: [input field]
  - Vibrational energy: Quantum distribution
  - Energy: [input field]
  - T: [input field]
  - Vibrational phase: Random
  - Phase: [input field]
  - Rotational energy: Quantum distribution
  - Energy: [input field]
  - T: [input field]
  - Impact parameter: L-1
  - bmax: [input field]
  - L: [input field]
  - Orientation angle: Random
  - Beta: [input field]
  - Theta angle: Random
  - Theta: [input field]
  - Phi angle: Random
  - Phi: [input field]A "Next" button is located at the bottom of the form.
- 3D Model:** A large 3D molecular model of a diatomic molecule is shown on the right. The atoms are represented as spheres, with one atom highlighted in pink. The model is set against a blue background.
- Navigation Panel:** A vertical toolbar on the right side of the 3D model contains icons and labels for "walk", "fly", "study", "plan", "pan", "goto", "align", "view", "restore", and "fit".

# The GILDA Live User Interface (2/2)



# The GILDA Tutorials/Demonstrations (<https://gilda.ct.infn.it/tutorials.html>)

Edinburgh, 7 April 2004, [slides](#), [pictures](#)  
Tunis, 22-23 April 2004, [pictures](#)  
Edinburgh, 26-28 April 2004, [slides](#), [pictures](#)  
CERN, 17-19 May 2004, [pictures](#)  
Catania, 24-25 May 2004, [home page](#), [pictures](#)  
Dubna, 29 June - 2 July 2004, [agenda](#)  
Edinburgh, 6 July 2004, [home page](#)  
Catania, 14-16 July 2004, [home page](#), [pictures](#)  
Vico Equense, 19 July 2004, [slides](#), [pictures](#)  
Vico Equense, 6-10 September 2004, [home page](#)  
Catania, 4-8 October 2004, [home page](#), [agenda](#)  
Vilnius, 5-6 October 2004, [agenda](#)  
London, 6 October 2004  
Madrid, 6-7 October 2004, [agenda](#)  
Heidelberg, 11-14 October 2004  
CERN, 16 October 2004  
Prague, 26 October 2004, [home page](#)  
Warsaw, 4-6 November 2004, [home page](#), [agenda](#)  
Lyon, 9-10 November 2004, [agenda](#)  
The Hague, 15-17 November 2004  
Merida, 15-20 November 2004, [home page](#), [agenda](#), [slides](#)  
Tunis, 20 November 2004  
Rio de Janeiro, 22-23 November 2004, [home page](#), [agenda](#)  
The Hague, 24 November 2004, [agenda](#)  
CERN, 29-30 November 2004, [agenda](#)  
Bochum, 7-10 December 2004  
Istanbul, 9-10 December 2004



# The GILDA Video Tutorials (<https://gilda.ct.infn.it/video.html>)

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/ Go Search

Home Bookmarks mozilla.org mozillaZine mozdev.org

**INFN GRID**

**GILDA**

**eGEE**  
Enabling Grids for  
E-science in Europe

HOME TESTBED GRID DEMONSTRATOR 1) CERTIFICATION AUTHORITY 2) VIRTUAL ORGANIZATION 3) GRID TUTOR MONITORING CONTACTS

The INFN Grid Video **NEW**

- Real stream (voice in italian, faster but lower quality)
- MPEG movie (voice in italian, slower but higher quality, 620MB!)

How to join GILDA

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

Certificate: conversion and manipulation

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

The GILDA Grid Demonstrator

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

The GILDA Grid Tutor: how to install it

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

The GILDA Grid Tutor: how to use it

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

Grid tutorials

**Video tutorials** **NEW**

Live User Interface **NEW**

Instructions for users

Instructions for sites

Useful links

Sponsors

Usage Statistics

Old Usage Statistics

# Conclusions and outlook for GILDA

- GILDA is a real virtual laboratory for dissemination of grid computing.
- It is a complete suite of grid elements (test-bed, CA, VO, monitoring system, web portal, live user interface) and applications fully dedicated to dissemination purposes and pre-porting of new applications to EGEE Infrastructure.
- GILDA runs and will run the last production (stable) version of the grid middleware (currently Grid.it 2.2.0 based on LCG 2.2.0).