



*First Latinamerican Grid Workshop, 15-20.11.2004*

Enabling Grids for  
E-science in Europe

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

# The GILDA testbed

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University of Catania and INFN



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

**GILDA ( Grid Inf n 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

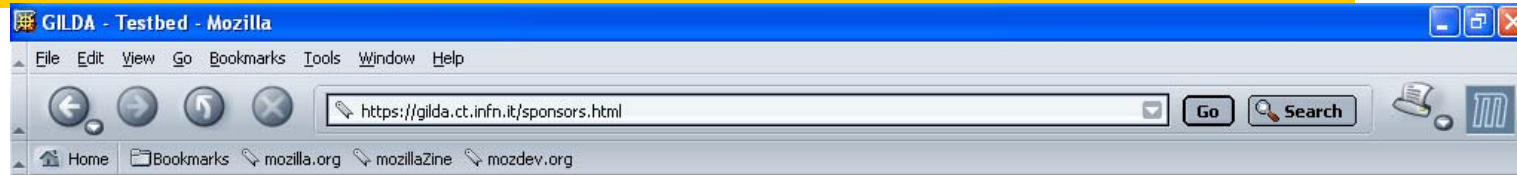
# The GILDA Test-bed (<https://gilda.ct.infn.it/testbed.html>)

**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 (BDII)	<a href="https://grid017.ct.infn.it">grid017.ct.infn.it</a>
Backup Information Index (BDII)	<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 Sponsors (<https://gilda.ct.infn.it/sponsors.html>)



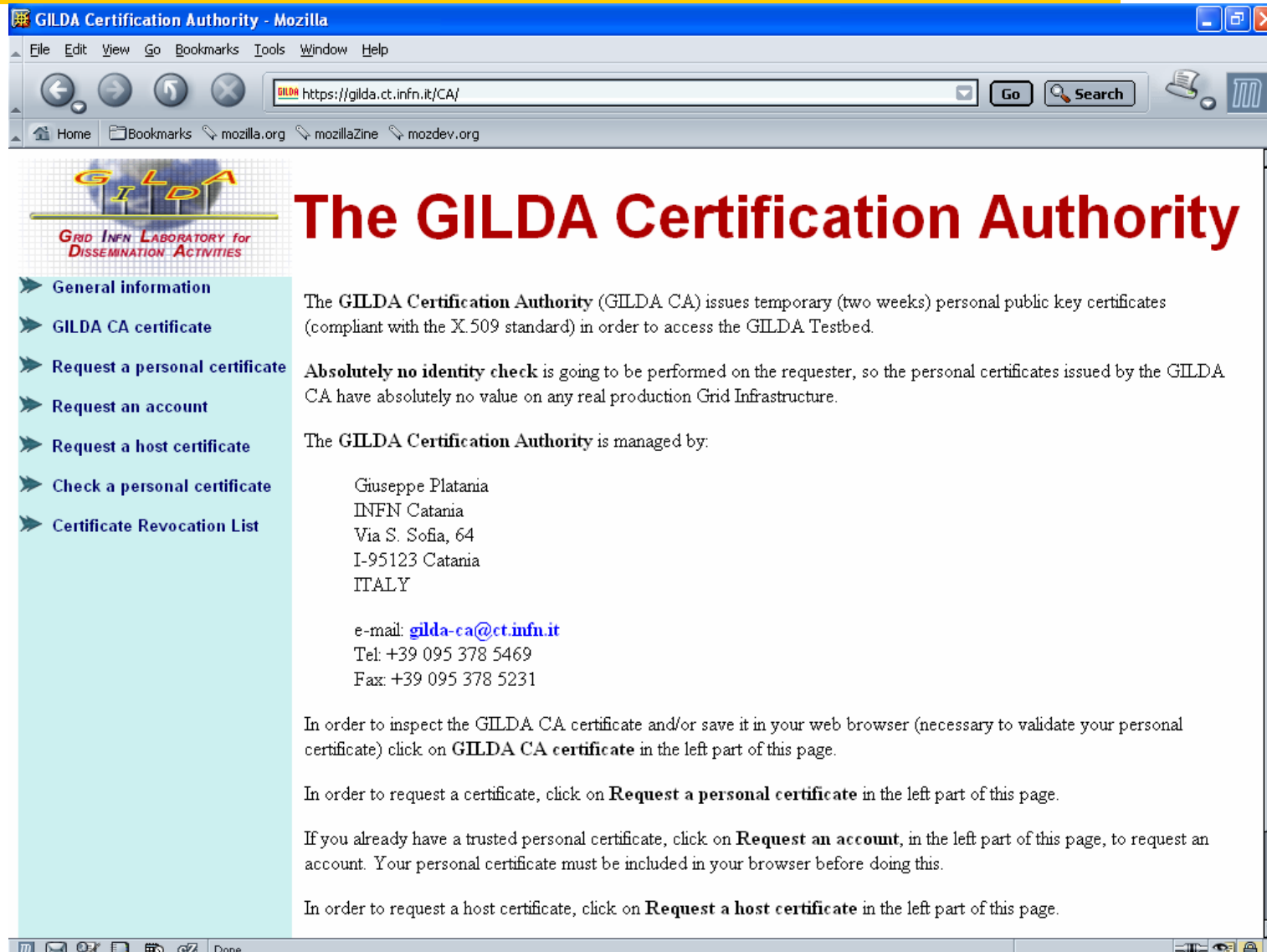
GILDA is sponsored by:





# The GILDA Certification Authority (1/4)

## (<https://gilda.ct.infn.it/CA/>)



The screenshot shows a Mozilla browser window titled "GILDA Certification Authority - Mozilla". The address bar contains "https://gilda.ct.infn.it/CA/". The page content includes the GILDA logo (Grid INFN Laboratory for Dissemination Activities) and a navigation menu on the left with items like "General information", "GILDA CA certificate", "Request a personal certificate", "Request an account", "Request a host certificate", "Check a personal certificate", and "Certificate Revocation List". The main content area features the title "The GILDA Certification Authority" in red, followed by text explaining the authority's role in issuing temporary certificates, a warning that no identity check is performed, and contact information for Giuseppe Platania in Catania, Italy. It also provides instructions on how to inspect certificates, request certificates, request accounts, and request host certificates.

**The GILDA Certification Authority**

The **GILDA Certification Authority** (GILDA CA) issues temporary (two weeks) personal public key certificates (compliant with the X.509 standard) in order to access the GILDA Testbed.

**Absolutely no identity check** is going to be performed on the requester, so the personal certificates issued by the GILDA CA have absolutely no value on any real production Grid Infrastructure.

The **GILDA Certification Authority** is managed by:

Giuseppe Platania  
INFN Catania  
Via S. Sofia, 64  
I-95123 Catania  
ITALY

e-mail: [gilda-ca@ct.infn.it](mailto:gilda-ca@ct.infn.it)  
Tel: +39 095 378 5469  
Fax: +39 095 378 5231

In order to inspect the GILDA CA certificate and/or save it in your web browser (necessary to validate your personal certificate) click on **GILDA CA certificate** in the left part of this page.

In order to request a certificate, click on **Request a personal certificate** in the left part of this page.

If you already have a trusted personal certificate, click on **Request an account**, in the left part of this page, to request an account. Your personal certificate must be included in your browser before doing this.

In order to request a host certificate, click on **Request a host certificate** in the left part of this page.

# The GILDA Certification Authority (2/4)

Request a GILDA CA personal certificate - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/CA/mgt/restricted/ucert.php

Home Bookmarks mozilla.org mozillaZine mozdev.org

- Request an account
- Request a host certificate
- Check a personal certificate
- Certificate Revocation List

In order to correctly generate a request it is mandatory to fill **all** fields in the form below. Please, double check the correctness of the e-mail address that you are going to provide since **no verification** will be performed by the server.

The password you are prompted about in the form below is the password of your personal account on the **GENIUS Portal** from where you will access the GILDA Testbed and it is **NOT** the passphrase of your personal 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 CA personal certificate and access the GILDA Testbed.

Institute/University/Company:	<input type="text"/>
First name and last name:	<input type="text"/>
Account username (max 8 characters; only not-accented letters and digits are allowed, both lowercase and uppercase):	<input type="text"/>
Account password (only not-accented letters and digits are allowed, both lowercase and uppercase):	<input type="password"/>
Confirm account password (only not-accented letters and digits are allowed, both lowercase and uppercase):	<input type="password"/>
E-mail:	<input type="text"/>
KeySize:	2048 (High Grade) <input type="button" value="v"/>

# 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)

**Mozilla**  
File Edit View Go Bookmarks Tools Window Help  
https://gilda.ct.infn.it/CA/mgt/restricted/srvreq.php  
Home Bookmarks mozilla.org mozillaZine mozdev.org

**GILDA**  
GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES

## The GILDA Certification Authority

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

### 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"/>

Done



# The GILDA Virtual Organization (1/2)

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**  
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**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 VO / VO choice:

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

Clear Form Register

Done

## The GILDA Virtual Organization (2/2)



Date: Wed, 31 Mar 2004 16:16:36 +0200  
From: grid-prod@ct.infn.it  
To: rosanna.catania@ct.infn.it  
Subject: Request no. 206 accepted

Your request to be registered  
in the GILDA VO has been accepted  
so you are now a member of this VO.  
You can now go to:  
<https://gilda.ct.infn.it>.

and follow the link to the GILDA Grid Tutor to submit jobs to the GILDA Testbed.

Best regards,

The GILDA VO Manager

# The GILDA Monitoring System (1/3)

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

The screenshot shows the GILDA Grid Monitoring Service interface. At the top, there are logos for GILDA (GRID INFN LABORATORY for DISSEMINATION ACTIVITIES), GridICE (the eyes of the Grid), and INFN GRID (a product of DataTAC). Below the logos is a navigation menu with options: Site view, VO view, Job Monitoring, Geo view, Grid view, Help, and about. A search bar allows users to select a site and/or role, with a 'Show' button. The main content area displays a table of resources, categorized into Computing Resources and Storage Resources. The table lists various sites and their associated metrics.

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)

Site view VO view Job Monitoring Geo view Grid view

Select Site  and/or Role

ct.infn.it				
grid017.ct.infn.it	BD	UpTime: 58-10:15	Load: 0.1-0.2-0.2	Files.: 33
grid018.ct.infn.it	BD	UpTime: 0-0:30	Load: 0.0-0.0-0.0	Files.: 31
grid004.ct.infn.it	RB	UpTime: 2-4:34	Load: 0.3-0.4-0.4	Files.: 34
grid007.ct.infn.it	RB	UpTime: 12-7:3	Load: 0.0-0.0-0.0	Files.: 35
grid010.ct.infn.it	CE	UpTime: 42-10:2	Load: 0.1-0.1-0.1	Files.: 24
grid009.ct.infn.it	SE	UpTime: 58-6:47	Load: 0.0-0.0-0.0	Files.: 36
grid020.ct.infn.it	WN			
grid021.ct.infn.it	WN			
grid022.ct.infn.it	WN			
grid023.ct.infn.it	WN			
grid024.ct.infn.it	WN			
grid025.ct.infn.it	WN			
grid026.ct.infn.it	WN			
grid027.ct.infn.it	WN			

Generated: Wed, 10 Nov 2004

## GridICE HELP

### Full Host View

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 service. The main 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, and Grid view. A dropdown menu shows the selected Virtual Organization (VO) as 'gilda'. Below the navigation, there is a list of sites with their Computing Element IDs and Storage Element IDs. The main content area displays a 'browseable jobs graph' for the 'gilda' VO, showing the number of jobs in the queues where the VO can run. The graph is a stacked area chart with 'Run' (red) and 'Wait' (yellow) states. The x-axis represents time from 01:00 to 23:00, and the y-axis represents the number of jobs (0 to 20). The graph shows a significant number of jobs in the 'Run' state, with some peaks in the 'Wait' state. The legend indicates 'Run' (red) and 'Wait' (yellow).

Virtual Organization: **gilda** [VO jobs graph] [VO storage graph] gilda VO select

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-log

Site: **cnaf.infn.it**  
Computing Element ID  
grid011f.cnaf.infn.it:2119/jobmanager-lo  
grid011f.cnaf.infn.it:2119/jobmanager-lo  
grid011f.cnaf.infn.it:2119/jobmanager-lo  
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-lcgpt  
grid010.ct.infn.it:2119/jobmanager-lcgpt  
grid010.ct.infn.it:2119/jobmanager-lcgpt  
Storage Element ID - Storage Space ID  
grid009.ct.infn.it - gilda:gilda

Site: **gl2006.gurong.com**

Virtual Organization: **gilda**

browseable jobs graph | history jobs graphs switch to advanced mode

offset: [-1 day]  
zoom: [2 hours] [1 day] [1 week] [1 month]

Start: **Hed, 10 Nov 2004 00:00:00 +0100** -- Range: 1 Day

Number of jobs in the queues where the **gilda** VO can run.



# 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

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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**

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

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

**Demonstrator Applications**

# 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/ Go Search

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**Login to the GRID**

Username: demo43

MyProxy Passphrase: [masked]

Validity (hours): 4

Login

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

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# Grid Demonstrator applications (1/3)

Welcome to the GENIUS INFN GRID Portal - Mozilla

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**Welcome to GILDA Services**

**GILDA**

**GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES**

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

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GRID.IT

# Grid Demonstrator applications (2/3)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

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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

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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

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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.)

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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

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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

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compliant with  
[LCG-2](#)  
[GRID.IT](#)

# Raster-3D example

Welcome to the GENIUS INFN GRID Portal - Mozilla

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

Home Bookmarks mozilla.org mozillaZine mozdev.org

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**Raster-3D**

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

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[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

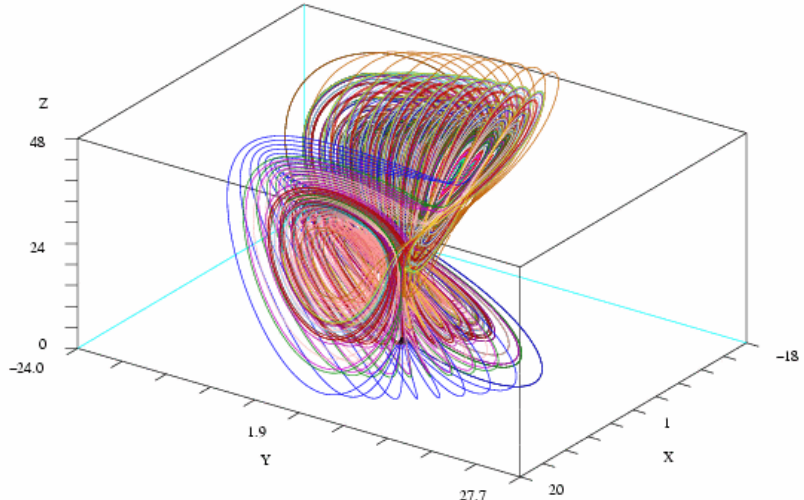
Grid Enabled web eNvironment for site Independent User job Submission

**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](#)



The figure shows a 3D plot of a complex, multi-colored trajectory in a 3D coordinate system. The axes are labeled X, Y, and Z. The Z-axis ranges from 0 to 48, with a tick at 24. The Y-axis ranges from -24.0 to 27.7, with a tick at 1.9. The X-axis ranges from -18 to 20, with a tick at 1. The trajectory is a dense, multi-colored (red, orange, yellow, green, blue) loop that appears to be a complex, chaotic path, possibly representing a solution to a differential equation or a simulation of a physical system.

# 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

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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

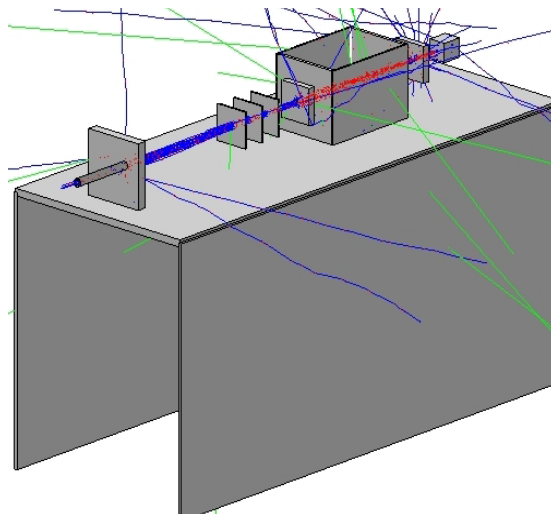


# hadronTherapy example

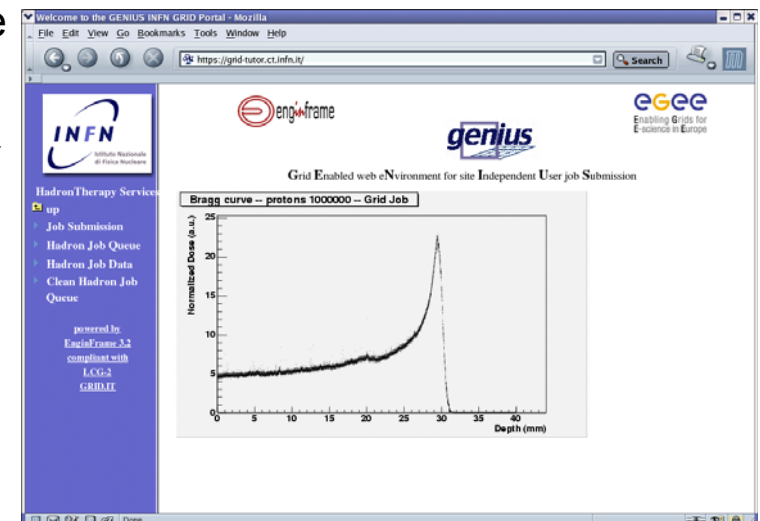
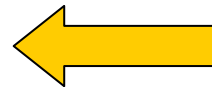
CATANA beam  
line in reality



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

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**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

ResultTOT  
giorgio lo  
RelDoseT  
RelDoseT

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

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

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

Isodoses Relative Plan y=5.0 mm

Isodoses Relative Plan y=2.5 mm

Isodoses Relative Plan y=0 mm

Isodoses Relative Plan y=-2.5 mm

Isodoses Relative Plan y=-5.0 mm

Done

# “Video on demand” example

Welcome to the GENIE 3.0.0 Grid Portal - [Logout](#) (Build ID: 2051013414)  
 Home Search Help Feedback

[INFN](#) [eng@frame](#) [genius](#) [eGEE](#)  
 Enabling Grids for E-science in Europe

Grid Enabled web interface for the Independent User job Submission

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-to-efrcs	Running		Cancel

[Request a Video](#)  
[Video Queue](#)  
[Clean Video Queue](#)

powered by  
 EnginFrame 3.2  
 Copyright © 2004  
 LCG-2  
 GRID.IT

VLC media player  
 File: /media/...  
 Alien Song  
 ©1999 victor navone

Welcome to the GENIE 3.0.0 Grid Portal - [Logout](#) (Build ID: 2051013414)  
 Home Search Help Feedback

[INFN](#) [eng@frame](#) [genius](#) [eGEE](#)  
 Enabling Grids for E-science in Europe

Grid Enabled web interface for the Independent User job Submission

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

[Request a Video](#)  
[Video Queue](#)  
[Clean Video Queue](#)

powered by  
 EnginFrame 3.2  
 Copyright © 2004  
 LCG-2  
 GRID.IT

VLC media player  
 File: /media/...  
 Monkey Song



# Earth Science example

The screenshot shows a Mozilla browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla" with the address bar set to "https://grid019.ct.infn.it/". The page content includes logos for INFN, enginframe, genius, and eGEE. A Windows Explorer window is overlaid on the browser, displaying a 3D topographic map of Mount Saint Helens. The Explorer window title is "C:\Documents and Settings\barbera\Impostazioni locali\Temp\mount\_sainte\_helens\_WA....". The Explorer's address bar shows the local file path "C:\Documents and Settings\barbera\Impostazioni locali\Temp\mount\_sainte\_helens\_WA...".

Below the Explorer window, a table titled "User job Submission" is visible. It contains a table with two columns: "Your Data" and "Logout".

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 shows a Mozilla browser window displaying the GENIUS INFN GRID Portal. The page is titled "Welcome to the GENIUS INFN GRID Portal - Mozilla" and the address bar shows "https://genius.cnaf.infn.it/". The page content includes a sidebar with the INFN logo and "Simbex Atom-diatom simulation" information, and a main content area with a form for simulation parameters. The form includes fields for "Collision energy", "Energy", "T", "Vibrational energy", "Vibrational phase", "Phase", "Rotational energy", "Impact parameter", "bmax", "L", "Orientation angle", "Beta", "Theta angle", "Theta", "Phi angle", and "Phi". A 3D molecular model is visible on the right side of the interface.

Grid Enabled web eNvironment for simulation

RB: gilda VO: gilda RLS:

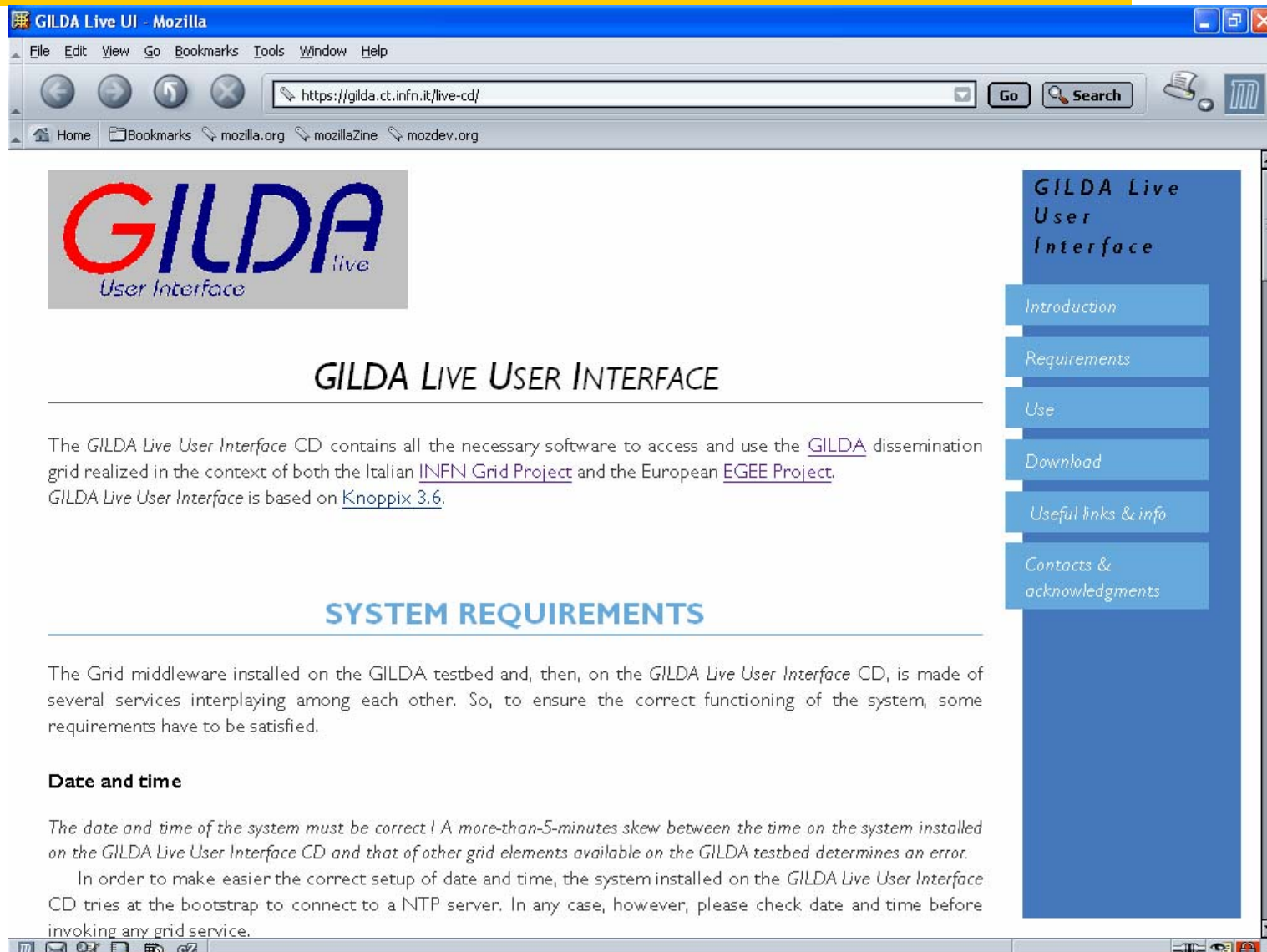
Collision energy	Distribution with $v^{*3}$
Energy	
T	
Vibrational energy	Quantum distribution
Energy	
T	
Vibrational phase	Random
Phase	
Rotational energy	Quantum distribution
Energy	
T	
Impact parameter	L-1
bmax	
L	
Orientation angle	Random
Beta	
Theta angle	Random
Theta	
Phi angle	Random
Phi	

Next



# The GILDA Live User Interface (1/2)

## (<https://gilda.ct.infn.it/live-cd/>)



The screenshot shows a Mozilla browser window titled "GILDA Live UI - Mozilla" with the address bar containing "https://gilda.ct.infn.it/live-cd/". The website content includes a logo for "GILDA live User Interface", a main heading "GILDA LIVE USER INTERFACE", and a paragraph explaining that the CD contains software for the GILDA dissemination grid, based on Knoppix 3.6. A sidebar on the right contains a navigation menu with links: Introduction, Requirements, Use, Download, Useful links & info, and Contacts & acknowledgments. Below the main heading is a section titled "SYSTEM REQUIREMENTS" with a paragraph about grid middleware and a sub-section "Date and time" with instructions on system time synchronization.

**GILDA Live User Interface**

## GILDA LIVE USER INTERFACE

The *GILDA Live User Interface* CD contains all the necessary software to access and use the [GILDA](#) dissemination grid realized in the context of both the Italian [INFN Grid Project](#) and the European [EGEE Project](#). *GILDA Live User Interface* is based on [Knoppix 3.6](#).

### SYSTEM REQUIREMENTS

The Grid middleware installed on the GILDA testbed and, then, on the *GILDA Live User Interface* CD, is made of several services interplaying among each other. So, to ensure the correct functioning of the system, some requirements have to be satisfied.

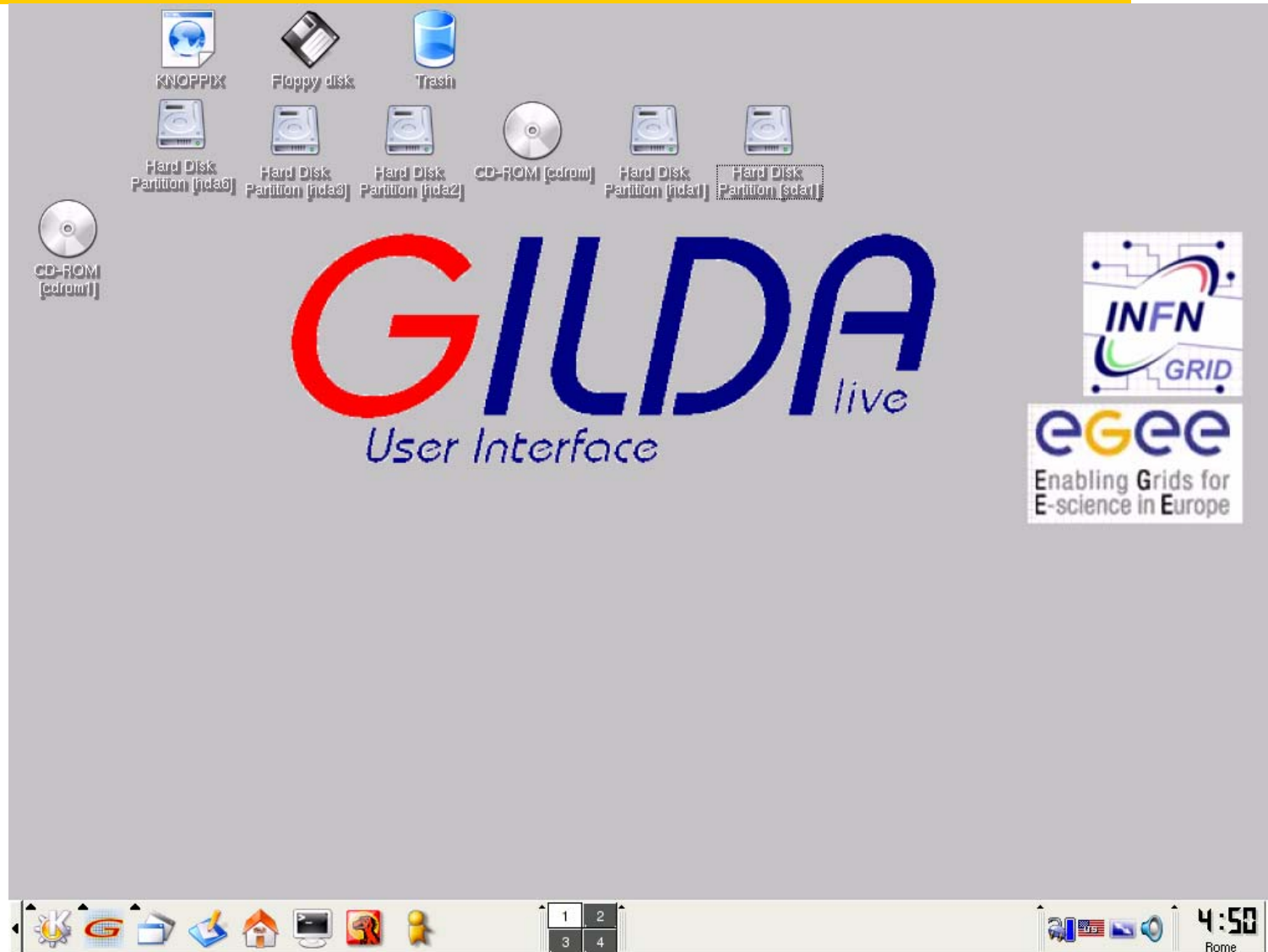
#### Date and time

*The date and time of the system must be correct! A more-than-5-minutes skew between the time on the system installed on the GILDA Live User Interface CD and that of other grid elements available on the GILDA testbed determines an error.*

In order to make easier the correct setup of date and time, the system installed on the *GILDA Live User Interface* CD tries at the bootstrap to connect to a NTP server. In any case, however, please check date and time before invoking any grid service.

- Introduction
- Requirements
- Use
- Download
- Useful links & info
- Contacts & acknowledgments

# The GILDA Live User Interface (2/2)



# The GILDA Tutorials/Demonstrations (1/2)

(<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 Tutorials/Demonstrations (2/2)

(<https://gilda.ct.infn.it/tutorials.html>)





# 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-portaling 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).