

CAGRID 1.2

Installer Guide



Center for Bioinformatics

Model caBIG™ Open Source Software License

v.2

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Revision History

The following is the revision history for this document.

<i>Date</i>	<i>Version</i>	<i>Description</i>	<i>Revised By</i>
3/23/2008	1.2.1	Formatted and Edited to Match NCI Documentation Standards	Carolyn Klinger
3/28/2008	1.2.2	Moved from wiki to Word Template	John Eisenschmidt
3/25/2008	1.2.1	Final Draft for wiki: caGrid 1.2	Scott Oster
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About This Guide

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- *Purpose on this page*
- *Release Schedule on this page*
- *Audience on this page*
- *Topics Covered on this page*
- *Document Text Conventions on this page*
- *Credits and Resources on page 3*

Purpose

The cancer Biomedical Informatics Grid, or caBIG™, is a voluntary virtual informatics infrastructure that connects data, research tools, scientists, and organizations to leverage their combined strengths and expertise in an open environment with common standards and shared tools. The current grid architecture of caBIG™ is dubbed caGrid. The software embodiment and corresponding documentation of this architecture constitute the caGrid release.

This guide describes the caGrid Installer, which simplifies the installation of caGrid. More information about caGrid can be found in the [User's Guide](#) and [Programmer's Guide](#).

Release Schedule

This guide has been updated for the caGrid 1.2 release. It may be updated between releases if errors or omissions are found. The current document refers to the 1.2 version of caGrid, released in March 2008 by caBIG.

Audience

The primary audience of this guide is the caGrid service developer, client application developer, and service administrator.

This guide assumes that you are familiar with the Java programming language and/or other programming languages, database concepts, and the Internet. If you intend to use caGrid resources in software applications, it assumes that you have experience with building and using complex data systems.

Topics Covered

This brief overview explains what you will find in each chapter and appendix of this guide.

- *About This Guide, this chapter, provides an overview of the guide.*
- *Chapter 1, Downloading, on page # describes where to get the caGrid installer and how to unpack it.*

- Chapter 2, *Running*, on page # describes the prerequisites for running the caGrid Installer, and how to invoke it.
- Chapter 3, *Usage*, on page # describes the installation phases, types of installations, container configuration, installing caGrid services, and installing the caGrid Portal.
- Chapter 4, *Step-by-Step: Install Secure Container*, on page # describes how to install caGrid components into a secure container.
- Chapter 5, *Environment Settings*, on page # describes the nuances on installing on Unix/Linux, Macintosh OS, and Microsoft Windows.
- Chapter 6, *Advanced Usage*, on page # describes off-line installation and choosing a custom target grid.
- Chapter 7, *Troubleshooting*, on page # describes

Document Text Conventions

The following table shows how text conventions are represented in this guide. The various typefaces differentiate between regular text and menu commands, keyboard keys, and text that you type.

Convention	Description	Example
Bold	Highlights names of option buttons, check boxes, drop-down menus, menu commands, command buttons, or icons.	Click Search .
<u>URL</u>	Indicates a Web address.	http://domain.com
text in SMALL CAPS	Indicates a keyboard shortcut.	Press ENTER.
text in SMALL CAPS + text in SMALL CAPS	Indicates keys that are pressed simultaneously.	Press SHIFT + CTRL.
<i>Italics</i>	Highlights references to other documents, sections, figures, and tables.	See <i>Figure 4.5</i> .
<i>Italic boldface monospace</i> type	Represents text that you type.	In the New Subset text box, enter <i>Proprietary Proteins</i> .
Note:	Highlights information of particular importance.	Note: This concept is used throughout this document.
{ }	Surrounds replaceable items.	Replace {last name, first name} with the Principal Investigator's name.

Table 1-1 Document Conventions

Credits and Resources

caGrid 1.2 Programmer's Guide Development and Management Teams		
Development	Support (Systems, QA, Documentation)	Management
Scott Oster (Lead Architect) ¹	Aynur Abdurazik ⁷	Avinash Shanbhag (Product Manager) ⁵
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Ian Foster ²	Gavin Brennan ⁹	Michael Keller ⁶
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Tahsin Kurc ¹	Wei Lu ⁹	Peter Yan ⁷
Manav Kher ³	Ye Wu ⁵	
Stephen Langella ¹		
Ravi Madduri ²		
Kunal Modi ⁴		
Joshua Phillips ³		
Joel Saltz ¹		
¹ . Ohio State University - Biomedical Informatics Department	² . University of Chicago/Argonne National Laboratory	³ . SemanticBits, LLC.
⁴ . Ekagra Software Technologies, Ltd.	⁵ . NCI - Center for Biomedical Informatics and Information Technology (CBIIT)	⁶ . Booz Allen Hamilton
⁷ . Science Application International Corporation (SAIC)	⁸ . Lockheed Martin Management System Designers	⁹ . Terrapin Systems LLC (TerpSys)
¹⁰ . 5AM Solutions		

Other Acknowledgements

GeneConnect – Project - Washington University

GridIMAGE – Project - Ohio State University

caBIO – Project - National Cancer Institute Center for Bioinformatics (NCICB)

caArray – Project - National Cancer Institute Center for Bioinformatics (NCICB)

caTRIP – Project – Duke Comprehensive Cancer Center

GenePattern – Project – Broad Institute

Other Acknowledgements	
geWorkbench – Columbia University	
caBioconductor – Project – Fred Hutchinson Cancer Research Center	

Contacts and Support	
NCICB Application Support	http://ncicbsupport.nci.nih.gov/sw/ Telephone: 301-451-4384 Toll free: 888-478-4423

LISTSERV Facilities Pertinent to caGrid		
LISTSERV	URL	Name
cagrid_users- l@list.nih.gov	https://list.nih.gov/archives/cagrid_users-l.html	caGrid Users Discussion Forum

Chapter 1 Downloading

This chapter provides an overview of the caGrid Installer, how to obtain it,

Topics in this chapter include:

- *Introduction on this page*
- *Downloading on this page*

Introduction

The caGrid installer provides a graphical, wizard-like interface for installing caGrid dependencies, source code, services, and applications. It was first introduced for caGrid 1.0, and overhauled for caGrid 1.1.

New features included in the 1.2 release:

- *Small download: under 3MB*
- *Component installers: install all caGrid services and applications*
- *Can be used to re-install or re-configure previous installations*
- *Installer now uses MD5 checksums to verify downloads*

Downloading

The caGrid Installer can only be obtained from the caGrid gforge project page. The caGrid 1.2 installer can be downloaded by clicking here: [caGrid-installer-1.2.zip](#)

The installer zip file must be saved to your file system. Unzip the file into a directory of your choosing, for example `/opt/cagrid/installer`. The contents of that directory should look like this:

```
caGrid-installer-1.2.jar
caGrid-installer-1.2.zip
lib/
  caGrid-1.2-wizard.jar
  cog-jglobus.jar
  commons-logging.jar
  jce-jdk13-125.jar
  log4j-1.2.8.jar
  mysql-connector-java-3.0.16-ga-bin.jar
  xmltask-v1.14.jar
scripts/
  build.xml
resources/
  spring-beans.dtd
  web-app_2_3.dtd
  web-facesconfig_1_1.dtd
```

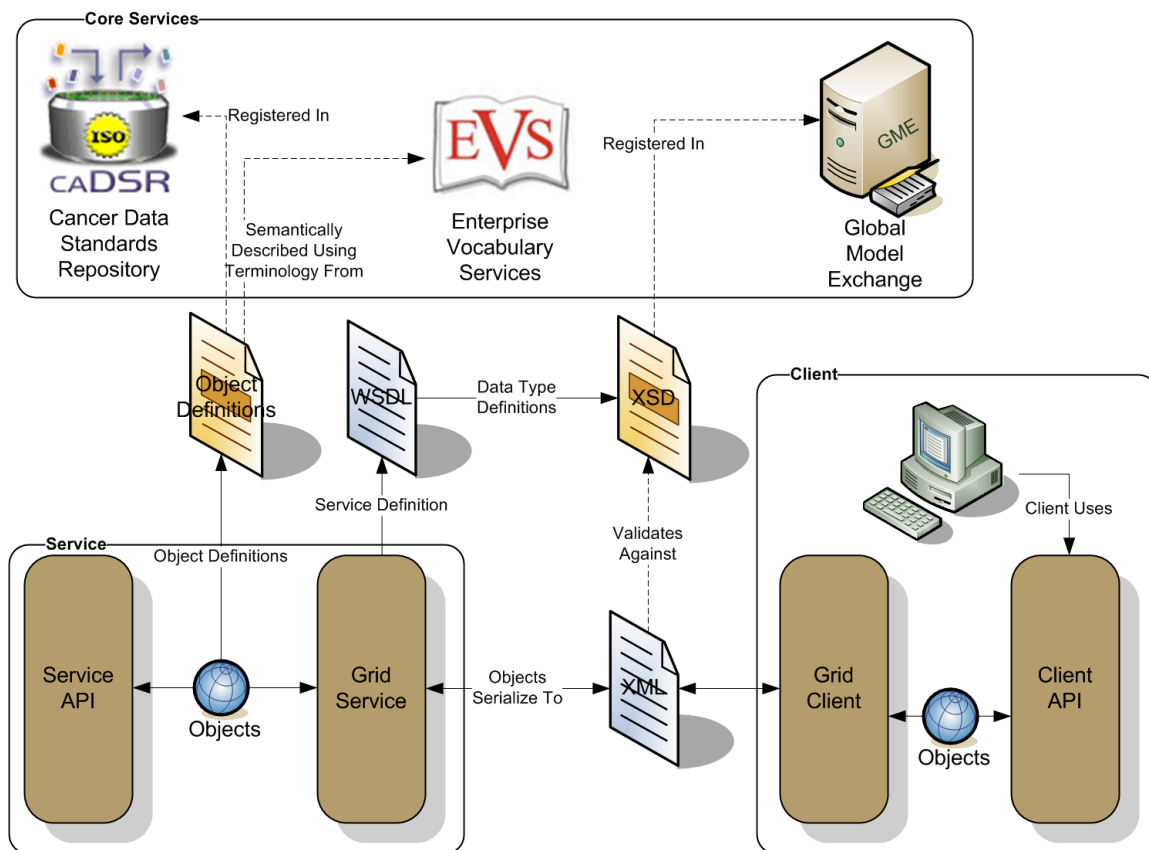


Figure 1-1 caGrid Data Description Infrastructure

Chapter 2 caGrid Release Structure

This chapter describes the basic layout of the caGrid release.

Topics in this chapter include:

- *Overview on this page*
- **Error! Reference source not found.** on this page

Overview

caGrid is released as a source release, as well as with an automated installer. In order to use any feature of caGrid or to develop applications with it, you must build caGrid. The installer will do this automatically for you, but if you are using the source release, you must build it yourself. You can find detailed instructions on building caGrid on the caGrid wiki: <http://www.cagrid.org/wiki/CaGrid:How-To:Build>. Generally you just need to type the following command from the caGrid directory:

```
ant all
```

The caGrid release is oriented around a number of individual projects and the build process manages inter-project dependencies. Each project provides a specific set of functionality, and is self-contained once caGrid is built. That is, once caGrid is built, each of the projects can be used independently. For example, if you are only interested in Introduce, you can safely copy around caGrid/projects/introduce as a standalone copy of Introduce. The same is true for core services; once caGrid is built, all their dependencies are copied into the lib and ext/lib directories of the service.

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