

JAVA COG KIT GUIDE TO THE JAVA COG KIT RELEASE PROCESS FOR DEVELOPERS

Gregor von Laszewski

Software Version: 4.1.3

Url: <http://www.cogkit.org/release/4.1.3/manual/release-dev.pdf>

Url: <http://www.cogkit.org/release/4.1.3/manual/release-dev/release-dev.html>

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1. ABOUT THIS DOCUMENT


This document includes basic information about the Java CoG Kit release process.

1.1. Viewing

The best way to read this document is to use the PDF version and read it with Adobe Acrobat Reader. Please make sure you configure Adobe Acrobat Reader appropriately so you can follow hyperlinks. This is the case if you follow the default installation. Acrobat Reader is available at <http://www.adobe.com/products/acrobat/readermain.html>. Because the hyperlinks are not available in the printed form of this manual and we support saving our environment we strongly discourage printing this document.

We recommend that you save this manual locally on your machine and use Acrobat Reader. This has the advantage that you do not lose your anchor points while switching back and forth between different hyperlinks. An HTML version of this manual is planned, but not available yet.

1.2. Format

We have augmented the document with some comments at places where we found issues. Our intend is to address these issues in a future release. The comments are marked by the icon  and the name of the person that will work on the removal of the issue.

2. REGISTRATION

Please be a team player and support us indirectly by registering with us or reporting your use of the Java CoG Kit. Although this software is free, we still need to justify to our funders the usefulness of the projects. If you want to help us with our efforts please take a few seconds to complete this information. We do not use this information for other purposes. If you have special needs or concerns please contact gregor@mcs.anl.gov. The registration form can filled out in a variety of formats. The online form can be found at

<http://www.cogkit.org/register>

This form is available also as ASCII text at

<http://www.cogkit.org/register/form.txt>

which you can FAX to

Gregor von Laszewski, Fax: 630 252 1997

3. INTRODUCTION

As we are an open source project, we like to present you with some information about our release process. This is important as we like you to contribute to our efforts and help us streamlining the process and be part of it.

The following list specifies the approximate steps of our release process.

1. decide that a release is necessary
2. decide for a release version
3. freeze the code, documentation, and Web development
4. derive a release tag for the CVS for the release version.
5. tag the CVS with a RC version
6. do a release candidate of the release and verify that the dryrun of the release works. This is done in a preliminary non public release space.
 - (a) generate the new bundles
 - (b) generate the new web page
 - (c) generate the new documentation
 - (d) test the release candidate
 - (e) goto Step 4 in case of failure
7. tag the CVS archives
8. remove the release candidate tags
9. publish the new code
10. add to the old release page the message that a new version has been released
11. publish the documentation
12. update the Web page
13. test the release
14. make announcements

4. DECIDE FOR A RELEASE

We will make a joint decision in the Java CoG Kit team when a release is necessary. Usually, we expect one major release per year, but in case major upgrades are done we will make additional releases available. Additionally, we like to align our release with the Globus Toolkit releases. However, in the past these releases have been irregular. Once a toolkit is release we attempt our best to produce a Java CoG Kit release within two month.

Even numbers at the end are considered to be production releases. Uneven numbers are considered development versions.

In the year 2005 we are currently planing the following releases:

(done) Mar: Java CoG Kit version 4.0.a

(done) June: A non public Java CoG kit version 4.0.1 for friends

(done) July: Java CoG Kit version 4.1.2

Oct: Java CoG Kit version 4.2

More information about the release plans are formulated within our development wiki http://www.cogkit.org/dev/index.php/Release_Status

5. CODE FREEZE

Before a release tag is assigned to the CVS a development freeze is announced to the development list at

gridnavts@globus.org and developers@cogkit.org

6. NAMING THE VERSION

The Java CoG Kit version number follows currently a simple pattern. We distinguish major, minor, and tiny release numbers. Major release numbers are done when major changes occur.

```
<major>.<minor>.<tiny>
<major>:= [4-9][0-9]*
<minor>:= [0-9]+
<tiny>:= [a-d]*[1-9][0-9]*
```

These numbers are also tags within the CVS and can be used to download the code. The tags are created as follows:

```
cog_<major>_<minor>_<tiny>
```

However, not every tag will be distributed as packages. All other versions must be retrieved from CVS at this time.

7. TAGGING THE CVS ARCHIVE

As we have a number of CVS modules we need to carefully tag them. This should only be done by Gregor and Mike and should be coordinated with them. Below we give the example on how to tag the release for the version 4.1.3.

```
USER='whoami'
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 www
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 doc
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 src/cog
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 src/tools
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 src/jglobus-fx
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 src/matlab
cvs -d$USER@cvs.cogkit.org:/cvs/cogkit rtag cog_4.1.3 jglobus
```

1

¹or `cvs -d$USER@wiggum.mcs.anl.gov:/home/dsl/cog/ CVS rtag cog_4.1.3 jglobus`

8. GENERATE A RELEASE BUNDLE

Release files are generated using the makefile in `src/cog/bin/release`. In order to get a release going, do the following:

- `cvs -d :pserver:anonymous@cvs.cogkit.org:/cvs/cogkit co src/cog/bin/release`
This will check out the release files
- `cd src/cog/bin/release`
- Edit the *Makefile*. You should probably edit the following variables:
 - TAG** the tag the release is going to be made of. Leave it at *now* to release the current CVS version.
 - EXCLUDEMODULES** what CoG modules to exclude from the release
 - PROVIDERS** the list of providers that will be compiled as separate providers. The names reflect module names.
 - PUBLISHHOST** the host things are going to be published on. Change to *username@www.cogkit.org* (since scp is going to be used for it). Keep it to *localhost* for testing purposes.
 - PUBLISHROOT** The directory where all releases are. Change to */www/www.cogkit.org/release*. The files will be published in `$PUBLISHROOT/$VERSION`
- `make release`
This will checkout the CoG and generate all packages and files, including documentation and release web pages in the out directory.
- `make publish`
Will publish all the files on the `$PUBLISHHOST` in `$PUBLISHROOT/$VERSION`. Be careful with this.
- `make lock`
This will make all files on `$PUBLISHHOST` in `$PUBLISHROOT/$VERSION` read-only. Run this after it's decided that the release is final.

9. UPDATE THE WIKI

We need to update our Wiki to reflect the new release. The following pages on the Wiki need to be modified:

- Put an announcement at in the [News category](#)
- Update the page [Java page](#)
- Update the [table](#)
- Update the http://www.cogkit.org/dev/index.php/Release_Status

10. GENERATE THE WEB PAGES

◆ Gregor: *need to spend more time on cleaning the web pages. Wwe may have a significant number of outdated pages on globus.org that need to be revisited. We have not made sure if all updates are in the CVS yet. Have some pages been modified directly such as the php scripts?*

◆ Gregor

The Java CoG Kit Web pages can be checked out as follows where where cog_4.1.3 is the release tag

1. `cvs -d:pserver:anonymous@cvs.cogkit.org:/cvs/cogkit login`
2. `cvs -d:pserver:anonymous@cvs.cogkit.org:/cvs/cogkit checkout -r cog_4.1.3 www/www-cogkit-org`
3. `cvs -d:pserver:anonymous@cvs.cogkit.org:/cvs/cogkit checkout -r cog_4.1.3 www/www-cogkits-org`
4. `cvs -d:pserver:anonymous@cvs.cogkit.org:/cvs/cogkit checkout -r cog_4.1.3 www/www-globus-org-cog`

www-cogkit-org This Web page contains the main cogkit web page at <http://www.cogkit.org>. However we maintain the current contents mostly in the Wiki at <http://www.cogkits.org/wiki>

www-cogkits-org <http://www.cogkits.org> is just a forward link to <http://www.cogkits.org>

www-globus-org-cog This is the very first CoG Kit web page which points mostly to <http://www.cogkit.org>

Most updates should be made on the Wiki. You can apply for accounts on the Wiki with gregor@mcs.anl.gov.

◆ Gregor: *write about make publish*

◆ Gregor

10.1. Set the current directory

The Web page contains a soft link to the current release. This softlink needs to be updated To do so

- `log into the cvs.cogkit.org`
- `cd /www/www.cogkit.org`
- `rm current`
- `ln -s release/4.1.3 current`

11. GENERATE THE DOCUMENTATION

The Java CoG Kit guides can be easily generated from scratch by using the following commands:

11.1. Checkout

First check out the documentation

```
1 #! /bin/bash
2 TAG=cog_`head -1 ../VERSION.txt`
3 CVS='whoami'@cvs.cogkit.org:/cvs/cogkit
4 mkdir cogkit
5 cd cogkit
6 cvs -d:pserver:$CVS login
7 cvs -d:pserver:$CVS checkout -r $TAG manual/guide
8 cvs -d:pserver:$CVS checkout -r $TAG papers/bib
```

11.2. Compile and Publish

Now you can compile the code. We assume you have changed to the cogkit directory and have checked out the code correctly

```
1 cd manual/guide
2 make clean
3 make release
4 make publish
```

12. UPDATE

```
1 cd manual/guide
2 emacs VERSION.txt # change appropriatly
3 make local
```

inspect changes.

13. SELECTIVE UPDATE

```
1 cd <guide dir>
2 make local
3 inspect by browsing guide.pdf
4 cd ..
5 see Section Compile and Publish
```

```
1 emacs VERSION.txt
2
3 publish a new index
4 make index
5 make publish
6
7 publish just one a new guide
8 make clean
9 cd <guidedir>
10 make remote
11 cd ..
12 make publish
13
```

```
14 | publish all guides
15 | make clean
16 | make remote
17 | make publish
18 |
```

14. ANNOUNCEMENTS

The following is a suggestion for an announcement:

The CoG Kit team is happy to announce a new version of the Java CoG Kit. The version is 4.1.3. More information about this version can be found at

<http://www.cogkit.org/release/4.1.3>

Some of the features included in this release are:

- Updates to the Karajan/GridAnt Grid workflow system
- Introduction of a provider concept that allows easy adaptation to different Grid middleware
- Execution providers for GT2, GT3, and SSH
- File transfer providers for GridFTP, FTP, WebDAV, and SSH

This release was tested with Java version 1.4.2.

14.1. Announcement Opportunities

14.1.1. freshmeat

The information for freshmeat is as follows:

Generic project information

Section to submit to:

Unix [x]

Full project name:

Java CoG Kit

Short project name:

cogkit

Full description:

The Java CoG Kit is provides convenient access to Grid middleware through the Java framework. It contains a Grid workflow programming paradigm, Grid middleware abstractions, a Grid shell, and graphical components. It can be used to build grid portals.

It is most useful for Grid users that focus on file transfer, job submission, and authentication.

Short description:

Simple access to Grid workflows and middleware through Java

Name of author: Gregor von Laszewski & CoG Team

Email address:
gregor@mcs.anl.gov

Default branch information

Branch name:
Branch description:

License:
Apache License

Homepage:
<http://www.cogkit.org>

Tar/GZ:
Tar/BZ2:
Zip:

Changelog:
<http://www.cogkit.org/viewcvs/viewcvs.cgi/src/cog/CHANGES.txt?rev=HEAD&content-type=text/v>

RPM package:
Debian package:
OS X package:
BSD Ports URL:

Purchase:
free

CVS tree (cvsweb):
<http://www.cogkit.org/viewcvs/viewcvs.cgi/src/cog/>

Bug tracker:
<http://www-unix.globus.org/cog/contact/bugs/>

Mailing list archive:
http://www-unix.globus.org/mail_archive/java/maillist.html

Mirror site:

Demo site:
<http://www.cogkit.org>

Version:
\COGVERSION

Release focus: 1

Changes:

* THIS NEEDS TO BE FILLED OUT

Hide from frontpage: no

15. OTHER ANNOUNCEMENTS

source forge
java@globus.org
cog-news@globus.org
discuss@globus.org
in case gt4 changes took place also
gt4-freinds@globus.org

²

16. RELEASE TAGS: JGLOBUS

Jglobus has two tags generated. those starting with globus_ are globus toolkit related releases. Those starting with cog_ correspond to releases that are related to the Java CoG Kit and are documented in this release guide.

Every time we decide for a release, we must also tag the jglobus library. This must be done in coordination with Gregor as he is ethe only one allowed to set the jglobus release tags.

The release tag for jglobus is done as follows:

```
1 TAG=cog_`head -1 ../VERSION.txt`  
2 cvs -d:pserver:$CVS checkout -r $TAG papers/bib
```

REFERENCES

- [1] G. von Laszewski, I. Foster, J. Gawor, and P. Lane, "A Java Commodity Grid Kit," *Concurrency and Computation: Practice and Experience*, vol. 13, no. 8-9, pp. 643–662, 2001. [Online]. Available: <http://www.mcs.anl.gov/~gregor/papers/vonLaszewski--cog-cpe-final.pdf>
- [2] "Java CoG Kit Wiki," 2004. [Online]. Available: <http://www.cogkit.org/wiki>
- [3] "Java CoG Kit Registration," 2004. [Online]. Available: <http://www.cogkit.org/register>

Additional publications about the Java CoG Kit can be found as part of the vita of Gregor von Laszewski <http://www-unix.mcs.anl.gov/~laszewsk/vita.pdf>. Most documents are available online if you follow the links. In future we intend to provide this information without Gregors vita data.

If you need to cite the Java CoG Kit, please use [1].

²GT makes an announcement such as this http://freshmeat.net/projects/globus/?branch_id=53688&release_id=189017

A. DOCUMENTATION

The Java CoG Kit documentation is distributed as a series of guides. These guides for version 4.1.3 include:

A.1. Java CoG Kit Guides

Short Title	Audience	Description	Format
Install	All	A guide to the different ways of installing the Java CoG Kit	[PDF] [HTML]
Commands	User	A guide to the command line tools of the Java CoG Kit	[PDF] [HTML]
Workflow	User	A guide to the Karajan Workflow	[PDF] [HTML]
Abstractions	User	A guide to the Java CoG Kit abstractions API	[PDF] [HTML]
MPI	User	A guide to execute MPI programs on the TeraGrid	[PDF] [HTML]
Coding	Developer	A guide to the Coding rules for the Java CoG Kit	[PDF] [HTML]

A.2. Java CoG Kit Guides Under Construction

More guides are under development. The following guides are not yet completed, but are listed here to help us improving these guides. Please, explore them and send us e-mail about improvement suggestions. If you like to contribute a guide yourself, please contact gregor@mcs.anl.gov.

Short Title	Audience	Description	Format
Writing Guides	Developer	A preliminary guide to document writing guides	[PDF] [HTML]
Examples	User	A preliminary guide to examples	[PDF] [HTML]
Release Process	Developer	A preliminary guide to document the release process	[PDF] [HTML]

A.3. API Documentation

- [JGlobus](#)
- [Common classes and interfaces for the Java CoG Kit abstraction layer](#)
- [Utility Classes](#)
- [Graph Editor](#)
- [Various examples for the Java COG Kit abstraction layer](#)
- [GT2 Provider for Java CoG Kit abstractions](#)
- [GT2 Provider for Java CoG Kit abstractions with fault tolerance](#)
- [GT3.0.2 provider for the abstraction layer](#)
- [GT3.2.0 provider for the abstractions](#)

- [GT3.2.1 provider for abstractions](#)
- [GT4.0.0 provider for abstractions](#)
- [Native Condor provider for the Java CoG Kit abstractions](#)
- [SSH provider for abstractions](#)
- [WebDav provider for abstractions](#)
- [Local provider for abstractions](#)
- [Karajan Workflow Engine](#)
- [Setup Wizard](#)
- [GridCertRequest Tool](#)
- [Certificate Management Applications](#)
- [GridShell](#)
- [GridFace Classes](#)

B. DOWNLOADS

Before downloading the Java CoG Kit, users should read the “Guide to Installing the Java CoG Kit” [\[PDF\]](#) [\[HTML\]](#). We hope that you will find this guide useful to decide which bundles you need. For the more experienced user, we provide the following index.

Binary Distributions • Complete (all providers) [\[tar.gz\]](#)[\[zip\]](#)

- Separate providers
 - Main package (includes GT2 providers) [\[tar.gz\]](#)[\[zip\]](#)
 - Common GT 3.x.x package [\[tar.gz\]](#)[\[zip\]](#) (required for all GT 3.x.x providers)
 - GT 3.0.2 provider [\[tar.gz\]](#)[\[zip\]](#)
 - GT 3.2.0 provider [\[tar.gz\]](#)[\[zip\]](#)
 - GT 3.2.1 provider [\[tar.gz\]](#)[\[zip\]](#)
 - GT 4.0.0 and 4.0.1 provider [\[tar.gz\]](#)[\[zip\]](#)
 - Condor provider [\[tar.gz\]](#)[\[zip\]](#)
 - SSH provider [\[tar.gz\]](#)[\[zip\]](#)
 - WebDAV provider [\[tar.gz\]](#)[\[zip\]](#)
 - Local provider [\[tar.gz\]](#)[\[zip\]](#)

Source Distributions • Source Distribution [\[tar.gz\]](#)[\[zip\]](#)

API Documentation • Complete API [\[tar.gz\]](#)[\[zip\]](#) [\[HTML\]](#)

Module List • Module list [\[HTML\]](#)

CVS • Please consult the Installation Guide [\[HTML\]](#) [\[PDF\]](#)

C. AVAILABILITY OF THE DOCUMENT

The newest version of this document can be downloaded by the developers from

1. `cvs -d:pserver:anonymous@cvs.cogkit.org:/cvs/cogkit checkout manual/guide`

It is not allowed to reproduce this document or the source. This documentation is copyrighted and is not distributed under the CoG Kit license.

D. BUGS

We use Bugzilla for tracking bugs and for enhancement suggestions. It is located in the bugzilla.globus.org, but you may find it easier to use one of the following quick links:

- [Submit new bug report](#)
- [List current bugs](#)
- [Make a simple query](#)
- [Make an advanced query](#)
- [Create a new account](#)

E. ADMINISTRATIVE CONTACT

The Java CoG Kit project has been initiated and is managed by Gregor von Laszewski. To contact him, please use the information below.

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