Gridscape II : Installation Guide

This guide is aimed at providing brief instruction on how to get the Gridscape II portal up and running.

Preparing your system

Before we can deploy and start working with our web portal, there are some other supporting technologies which need to be installed. These technologies are Java, Jakarta Tomcat and the Gridsphere Portlet Framework and MySQL database.

Java
- o Download the latest release of the Java Development Kit (J2SE SDK). It is recommended that you have a release version 1.4 or higher.
  - o http://java.sun.com/
- o Install according to instructions provided

Jakarta Tomcat
- o Download the latest release of Jakarta Tomcat. GridScape II was tested with version 5, so it is recommended that you use this release to reduce the possibility of encountering problems.
  - o http://jakarta.apache.org/tomcat/index.html
- o Install according to instructions provided.

Gridsphere Portal Framework
- o Download the latest release of Gridsphere Portlet Framework. 2.1.4 is recommended
- o http://www.gridsphere.org/gridsphere/gridsphere?cid=download
- o Deploy into Tomcat according to instructions provided.

MySQL Server
- o Download the latest release of MySQL.
  - o http://dev.mysql.com/downloads/
- o Install according to instructions provided.

Creating the Gridscape Database

An SQL script is provided with Gridscape which should be run in order to create the database. The script can be found in the file:

gridscapeII.sql

Currently Gridscape has been tested to work with the MySQL database, however, since JDBC is used, the use of other databases is possible.

Running the Resource Monitor

Prior to running the Gridscape Resource Monitor, the GridscapeDB.properties file must be configured based on your database settings required to access the Gridscape database that was created. Once the database has been configured, the Gridscape Resource Monitor is run from the command line as follows:

```
usage: java ResourceMonitor
-h,--help              prints this message
-p,--poll-time <time>  time to wait (in milliseconds) between queries to
                       the same resource.  Default 200000
```

The monitor will then run and continue to query all the Grid resources that have been configured within Gridscape (once every poll-interval).

Deploying the Portal

To start using the Gridscape portal the set of Gridscape portlets need to be deployed and configured in a JSR168 compatible portlet container. Gridscape has been tested with the Gridsphere Portlet Framework and an ant script is provided for deployment.

Deploying with Gridsphere:

- o Uncompress the Gridscape Portal archive.
- o Modify build.properties to suit your environment.
- o Run "ant deploy".

Further Information

Further information about the design of Gridscape II and an overview on how it is used can be found in the Gridscape II technical report "Gridscape II : A Customisable and Pluggable Grid Monitoring Portal and its Integration with Google Maps".