

Gridbus Workflow Engine User Manual

Prerequisites

- IBM TSpace
A tspaces server is used as a workflow event server. It can be downloaded on <http://www.almaden.ibm.com/cs/TSpaces/>
- MySQL
It is used to recode workflow execution status. It can be downloaded on <http://www.mysql.com/>
- Gridbus Market Directory
It is used as directory service for Grid resource publication and discovery. It can be downloaded on <http://www.gridbus.org/gmd>
- Grid middleware support
Globus toolkit 2.4 (<http://www.globus.org>)
- Others
We also use many other free Java libraries which are packaged with this distribution.
 - CoG 1.1 <http://www-unix.globus.org/cog/java/index.php>
 - Dom4j <http://www.dom4j.org/>
 - jGraph <http://www.jgraph.com/>

Installation

1. Un-tar the distribution `gridbusworkflow.tar`.
2. Change into GridbusWF directory.
3. Config property file `WEProperties`
[Where to store intermediate data]
 STORAGEHOST // host name
 STORAGEDIR //the dicrectory
 STORAGEPORT //gridftp port no for remote access
[TSpaces]
 TSPACESHOST // host name
 TSPACESPORT // access port
[Mysql]
 MYSQLURL //database access url (e.g. jdbc:mysql://localhost/WE)
 MYSQLUSER //user name
 MYSQLPASSWORD //password
[Tuple space name for workflow engine]
 WORKFLOWEVENT //tuple space for workflow engine (e.g. WorkflowEvent)

Quick start

1. Run workflow engine
 [GridbusWF] . setenv.sh
 [GridbusWF] java org.gridbus.workflowengine.monitor.WorkflowMonitor

The main window (see Figure 1) will be display.

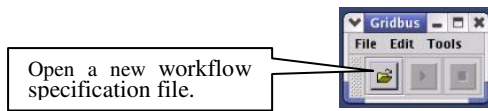
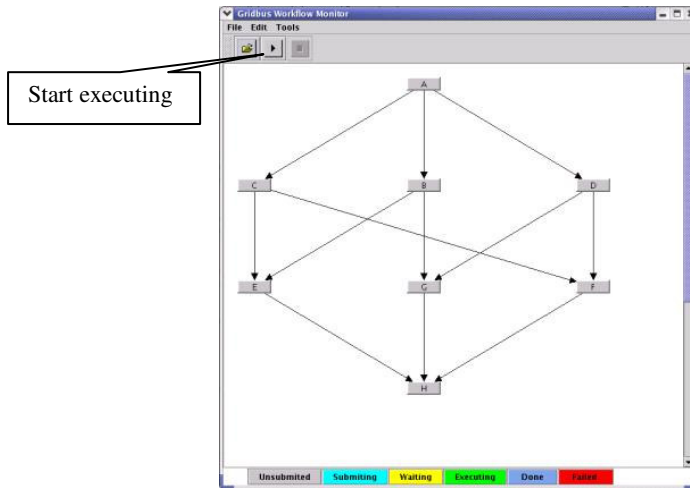
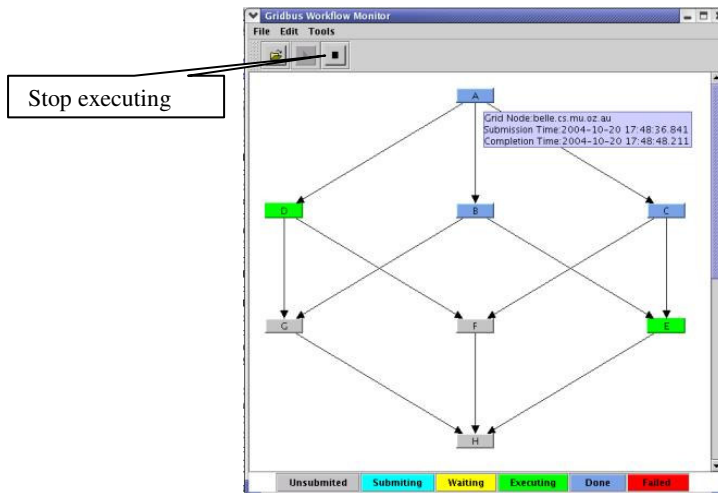


Figure 1. Main Window

2. Open a workflow description file



3. Execute the workflow on the Grid



Example

We provide some synthetic workflows and task processing programs for testing purpose. Workflow description and related workflow applications can be found in example directory.