



P-GRADE Portal hands-on

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www.portal.p-grade.hu

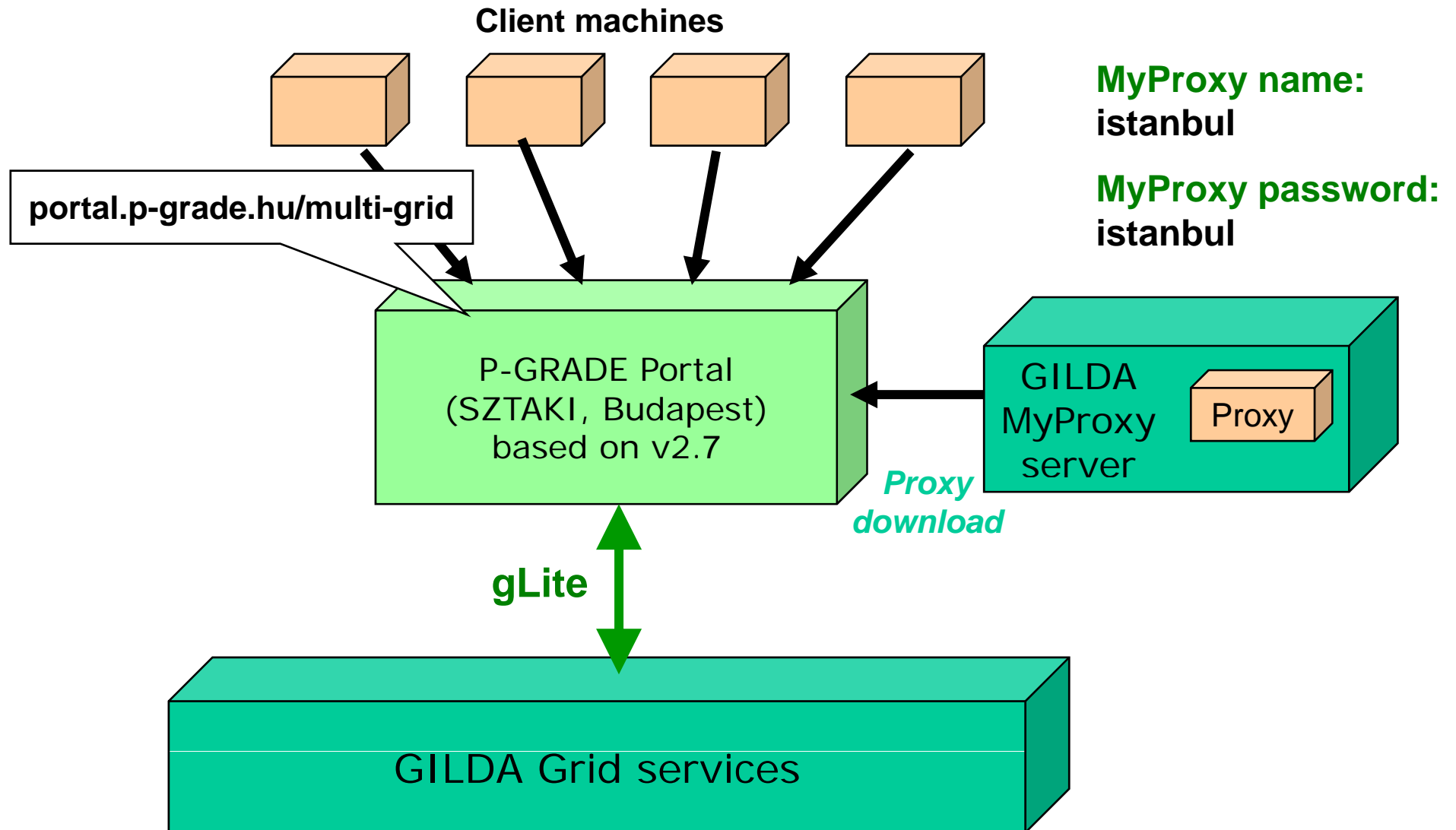


Open the tutorial sheets from event webpage

<http://indico.cern.ch/conferenceDisplay.py?confId=34654>



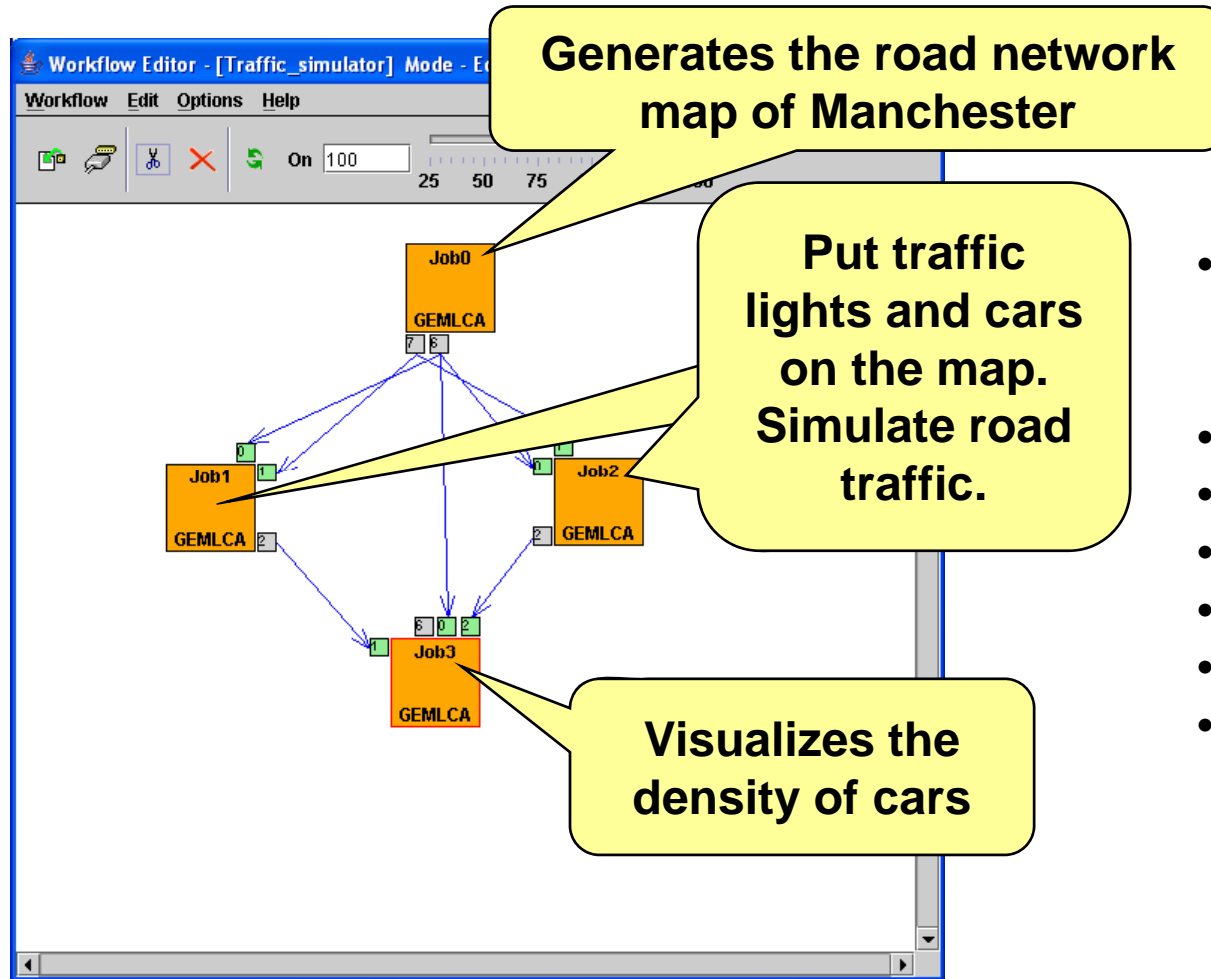
Infrastructure





Exercise 1

Import and execute a pre-defined application Traffic simulation



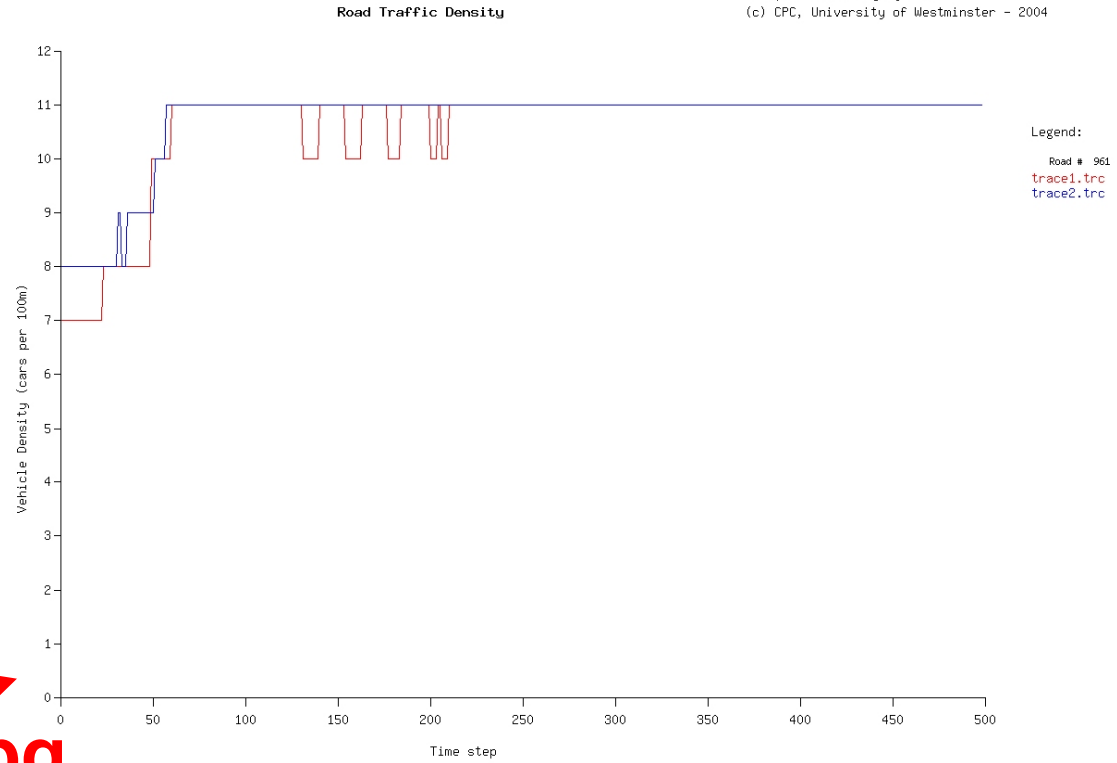
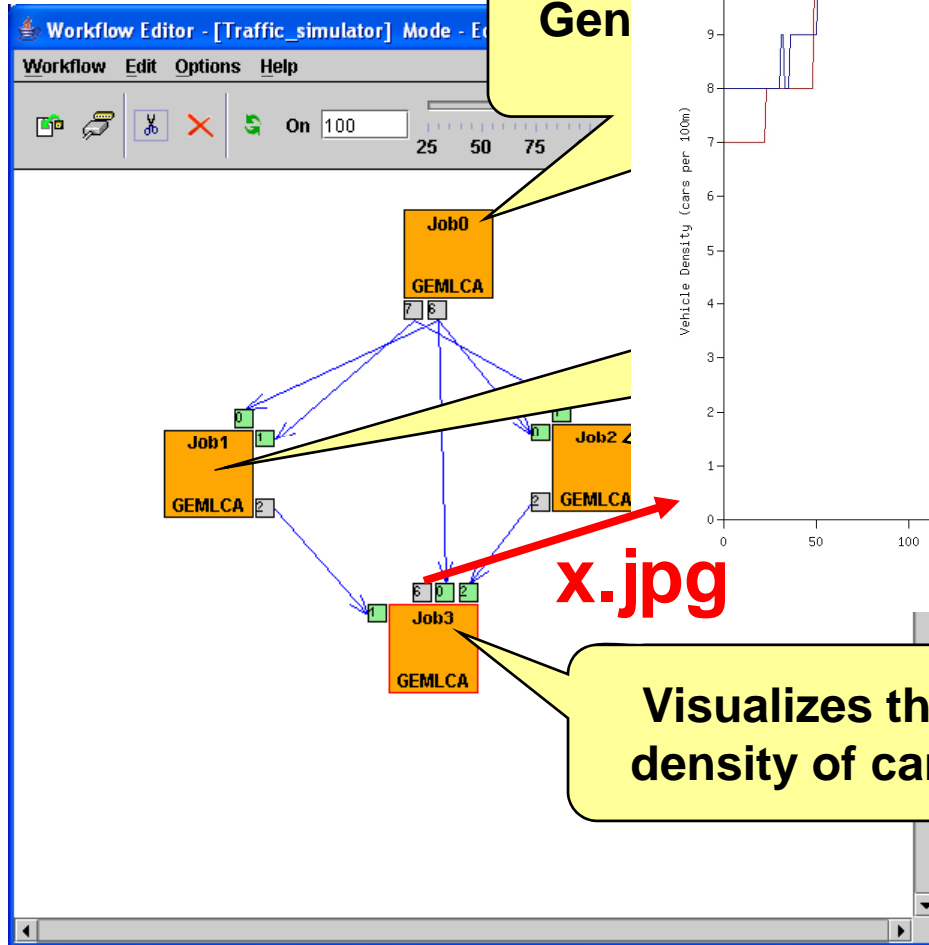
- Download workflow archive
 - Includes binaries
 - Includes input data
- Import workflow to P-GRADE
- Open workflow in editor
- Map jobs to GILDA broker
- Submit workflow
- Monitor execution
- Download result



Import and ex

Exercise 1

Compare 1.41 Legacy Code
(c) CPC, University of Westminster - 2004



- Monitor execution
- Download result



Exercise 2

Solve matrix multiplication on GILDA (one job workflow)

Job executable:

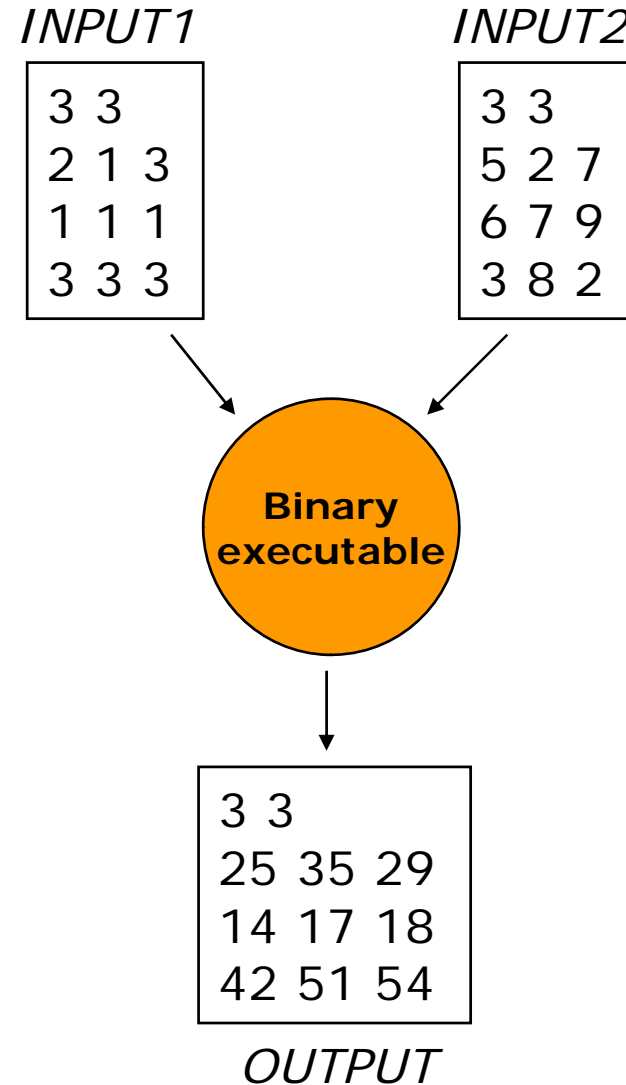
- C code, compiled on GILDA UI
- Expects command line parameters: M
V
- Knows nothing about the grid

Job input/output files:

- Program reads matrixes from two files called **INPUT1** and **INPUT2**
- Program writes result matrix into file called **OUTPUT**

Local execution on a PC: **./multiply M V**

Task: Execute the program on EGEE,
transfer input and output files in
Sandboxes from the client



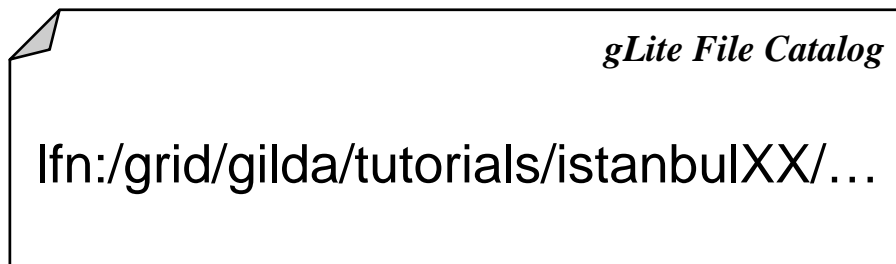


Exercise 3

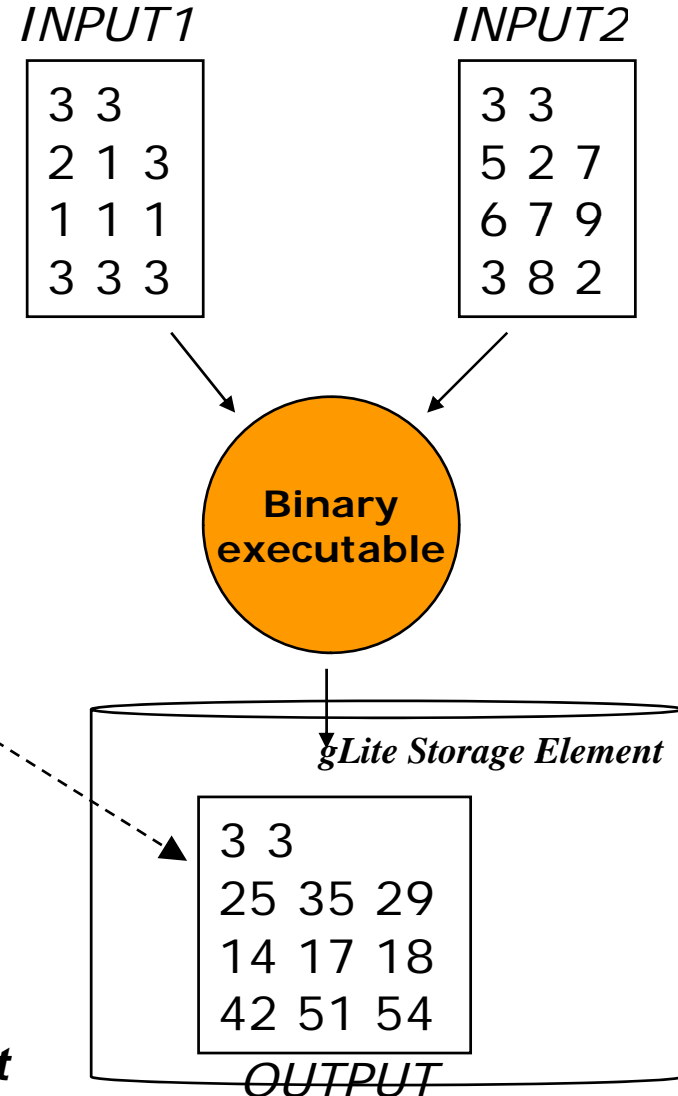
Save the multiplication **OUTPUT** on a Storage Element and register in the File Catalog

- Modify output file type from “Local” to “Remote”
- Specify a logical file name as target location:

lfn:/grid/gilda/tutorials/istanbulXX



Logical file name is defined by you
Storage Element is selected automatically by gLite middleware



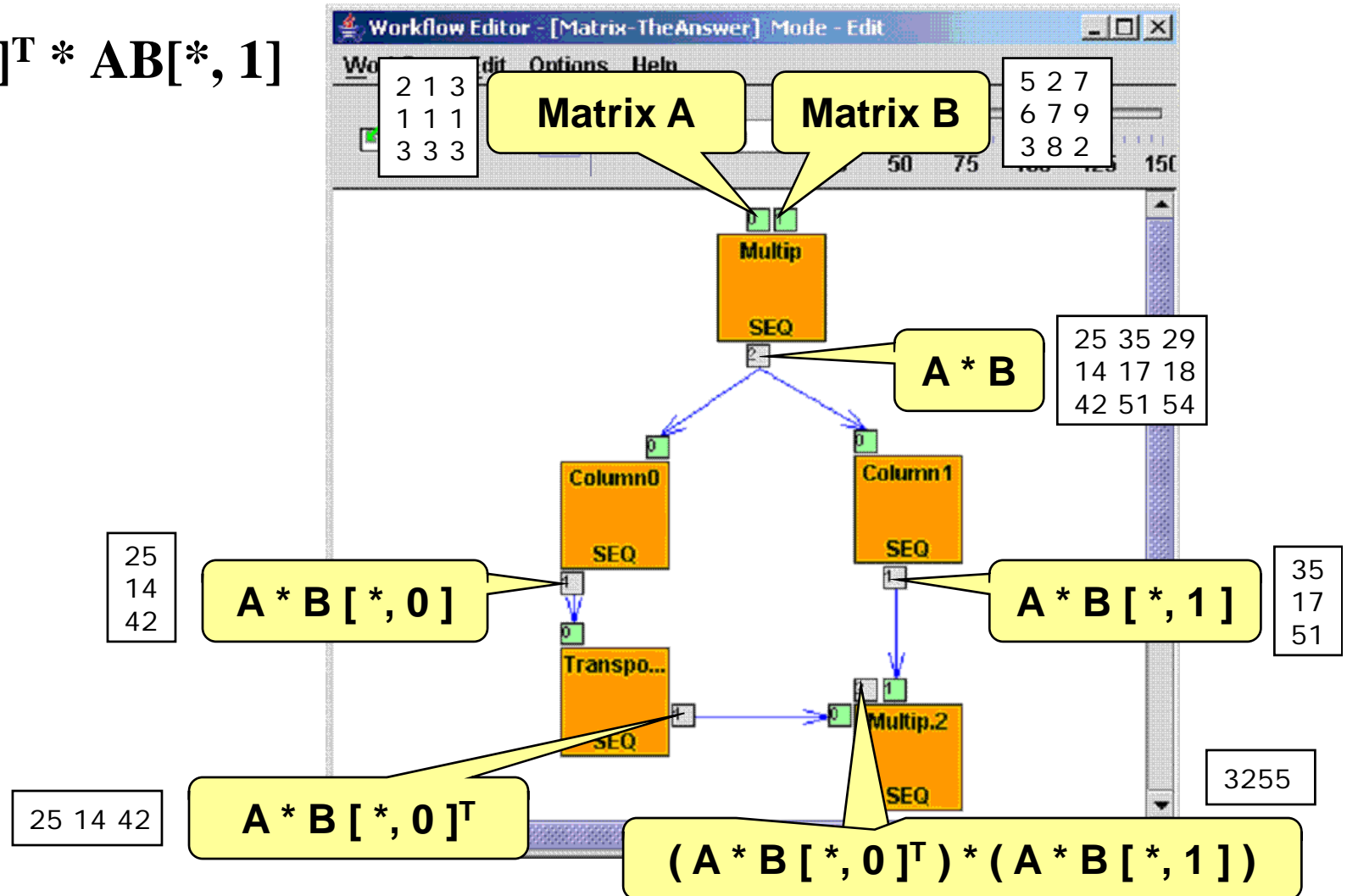
Browse result file using the File Manager Portlet



Exercise 4

Combine jobs to build a MatrixOperations workflow

- $AB[* , 0]^T * AB[* , 1]$





Tutorial sheet:
Available on event webpage

Login to Portal:

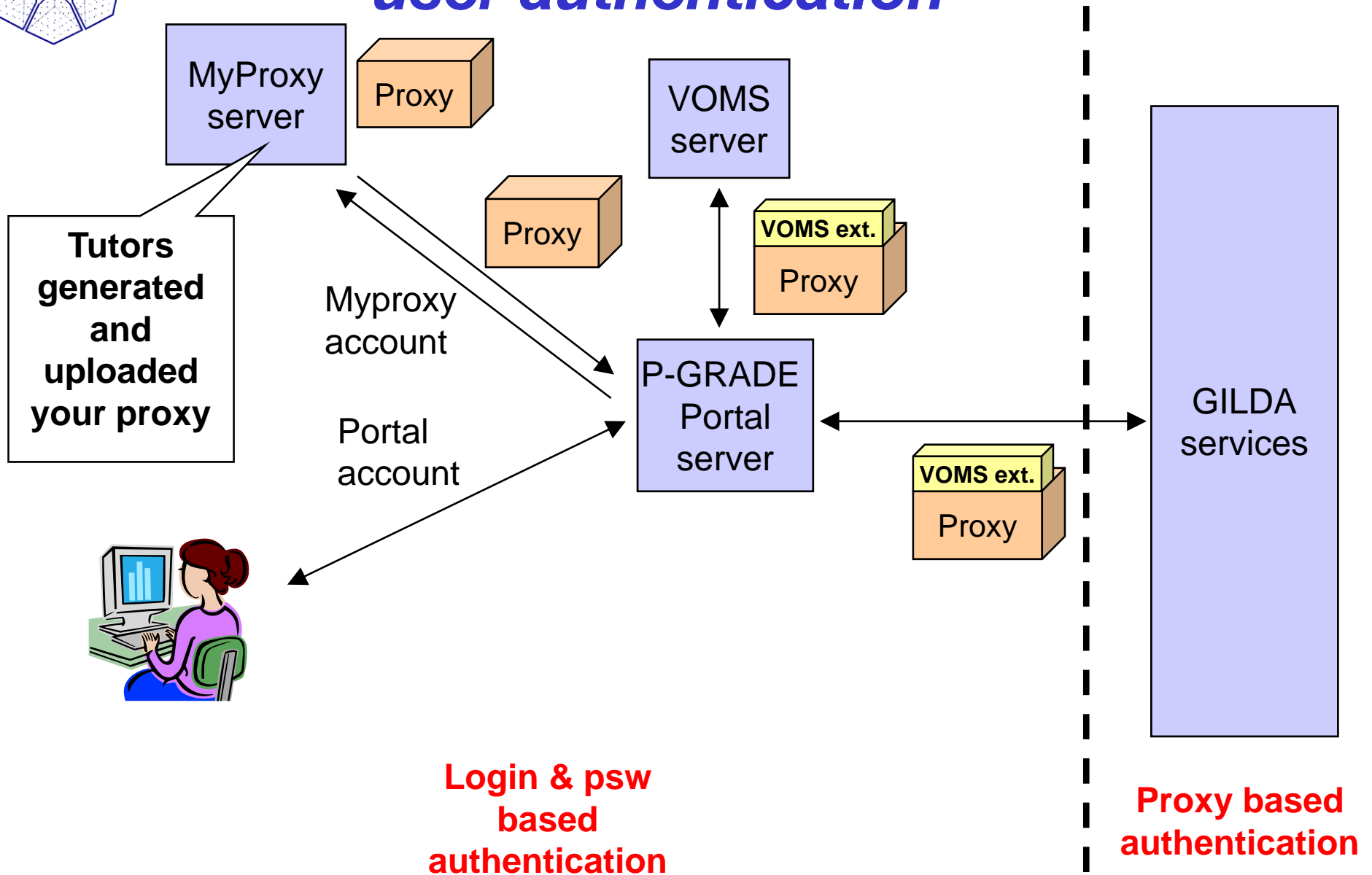
Portal accounts: *****

Portal passwords: *****

No need to wait for jobs to finish – proceed to next exercise



Explanation of user authentication



Login & psw based authentication

Proxy based authentication



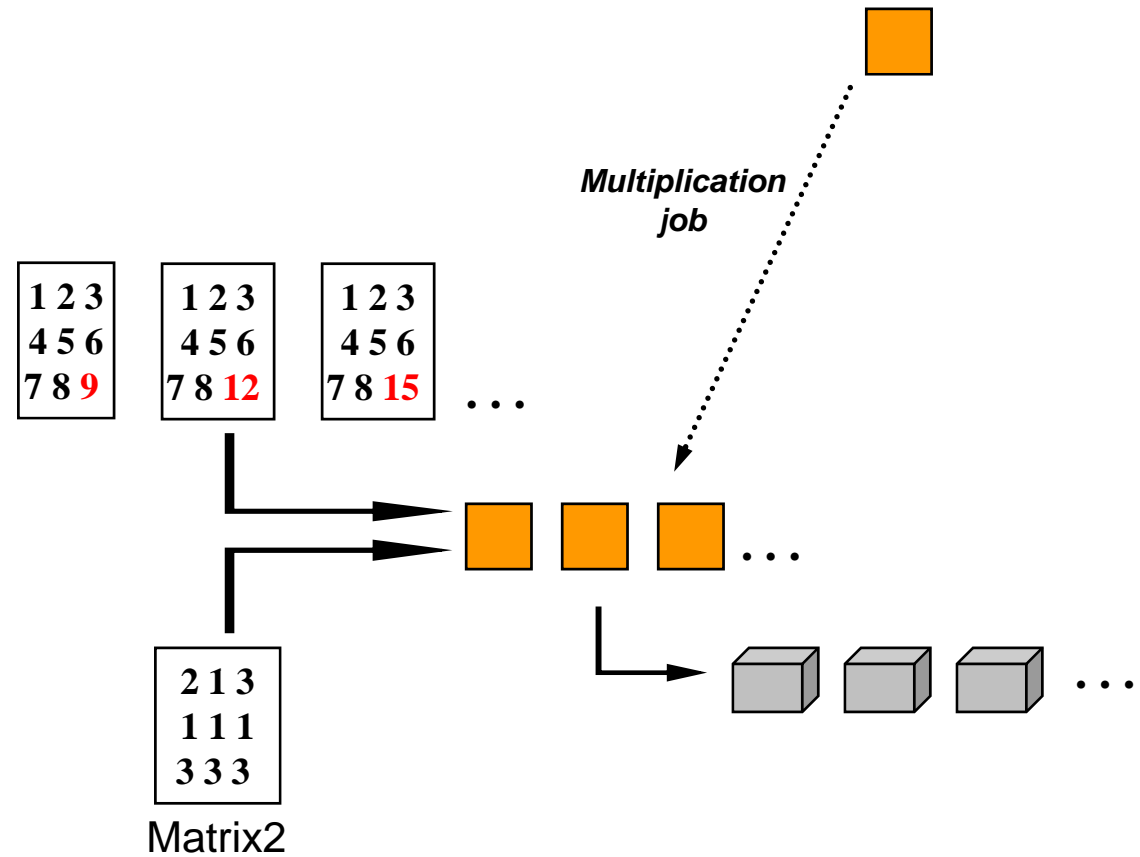
Trick: *Job level fault tolerance*

- **Exclude erroneous sites from the grid by controlling the brokering process:**
 1. Open the JDL editor of the job in the Workflow Editor
 2. Write
other.GlueCEInfoHostname != "hostname"
into the "Ranks & requirements" window
- **Automatic job resubmission:**
 1. Add **ShallowRetryCount = 3** into JDL



PS Tutorial

Matrix multiplication PS parameter study workflow with 5 parameters





PS Tutorial

Matrix multiplication PS

parameter study workflow with 5 parameters

