



P-GRADE Portal tutorial at EGEE'09

Introduction to hands-on

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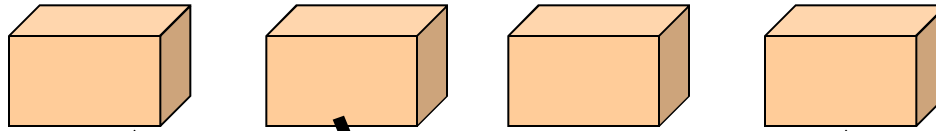
EGEE Training and Induction
EGEE Application Porting Support

www.lpds.sztaki.hu/gasuc
www.portal.p-grade.hu

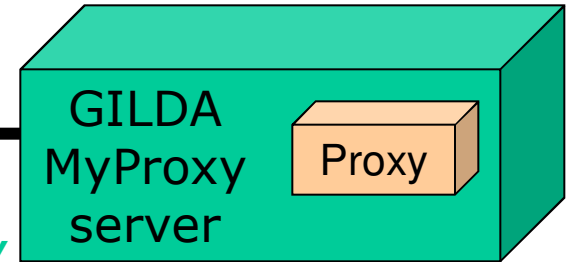
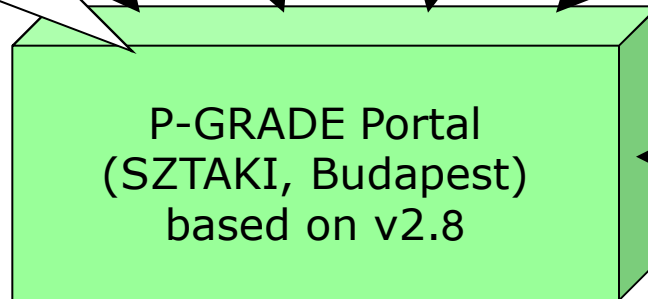


Infrastructure

Client machines

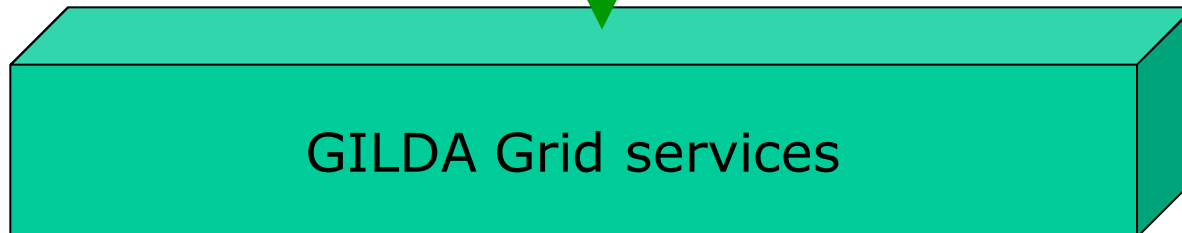


portal.p-grade.hu/multi-grid



Proxy download

gLite



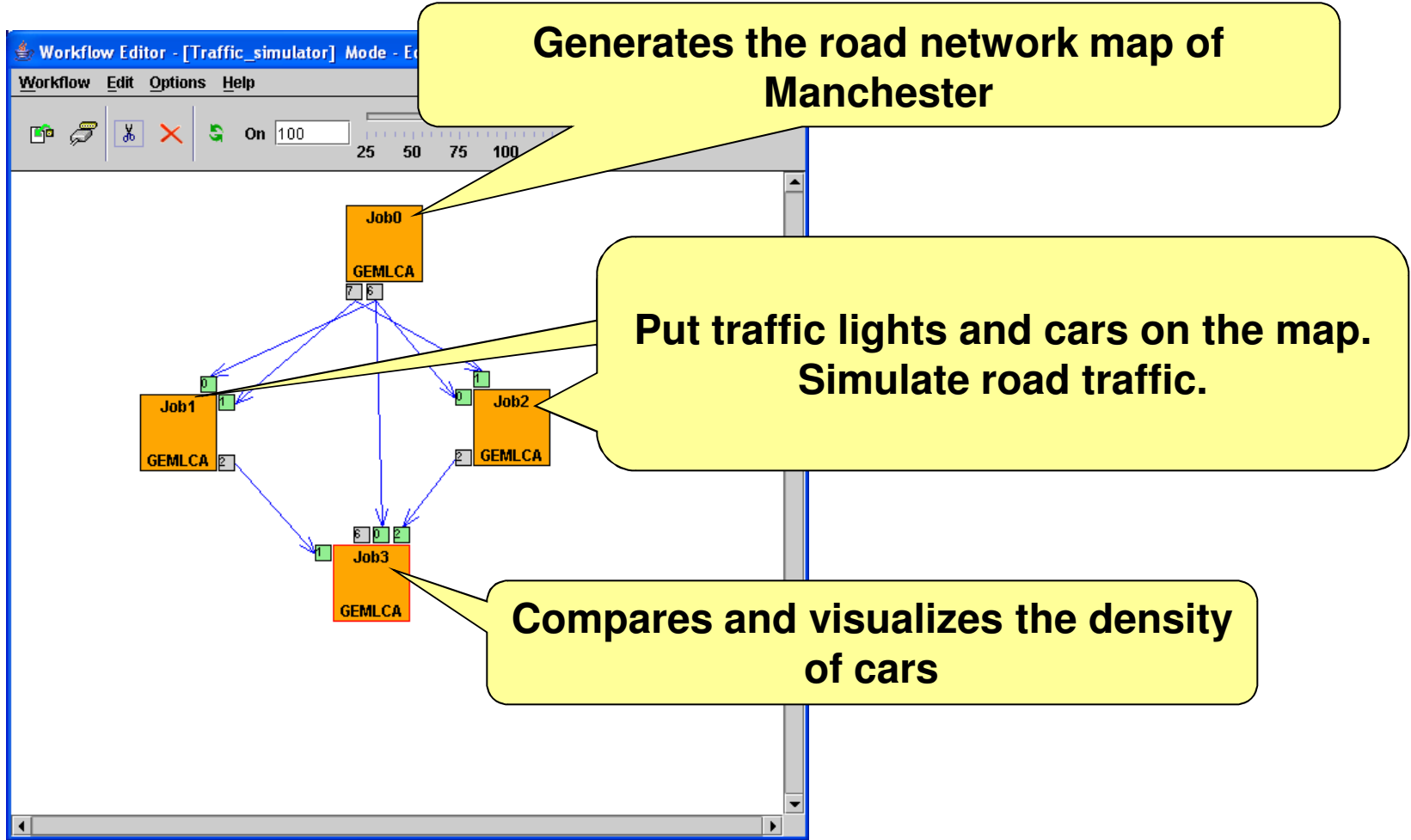
MyProxy name:

MyProxy password:



Exercise 1

Import and execute a pre-defined application Traffic simulation

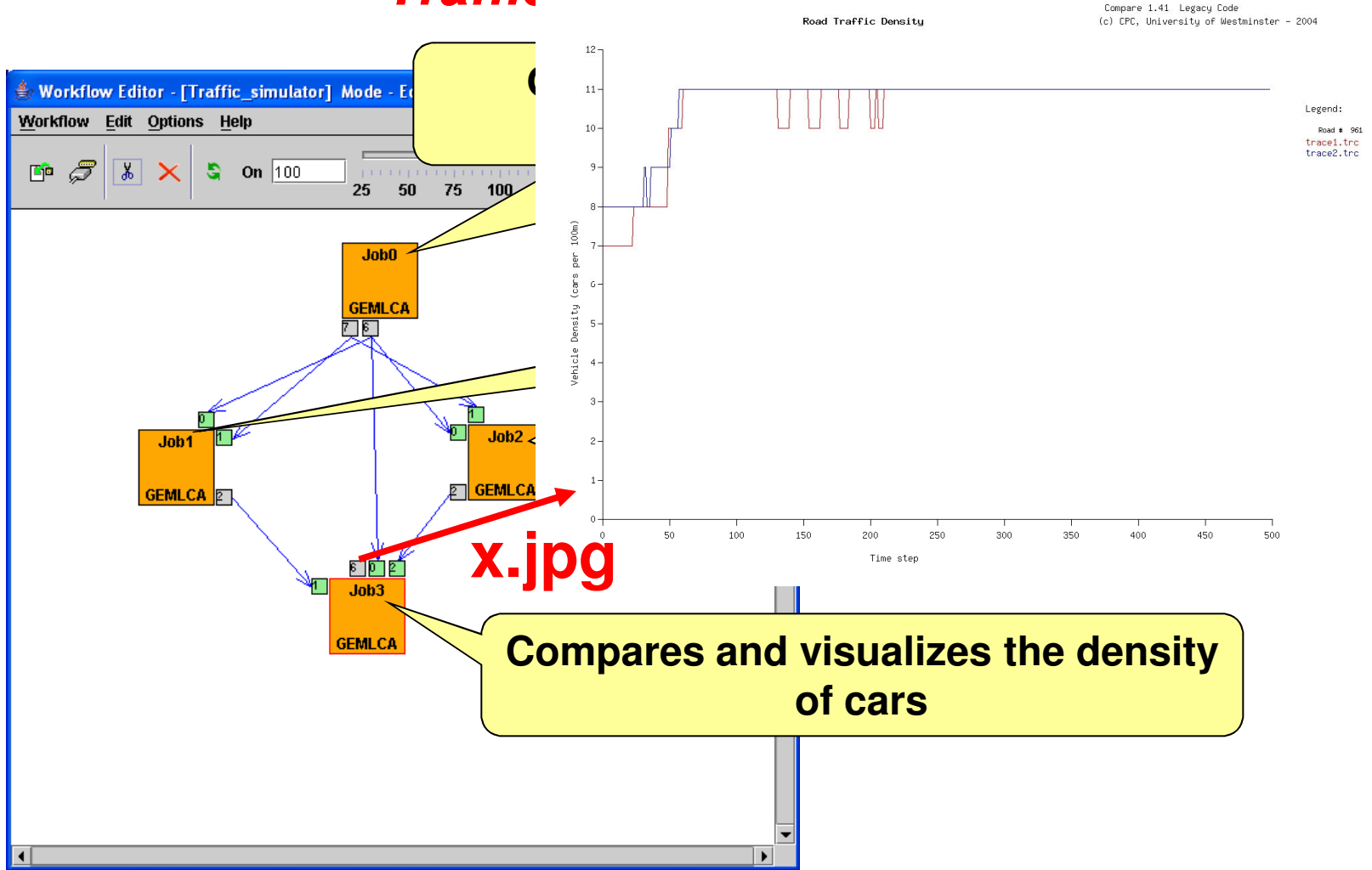




Exercise 1

Import and execute a pre-defined application

Traffic simulation





Exercise 2

Create a matrix multiplication workflow (one job workflow)

Job executable:

- C code, compiled on GILDA UI
- Command line parameters: **M V**
- C code knows nothing about the grid

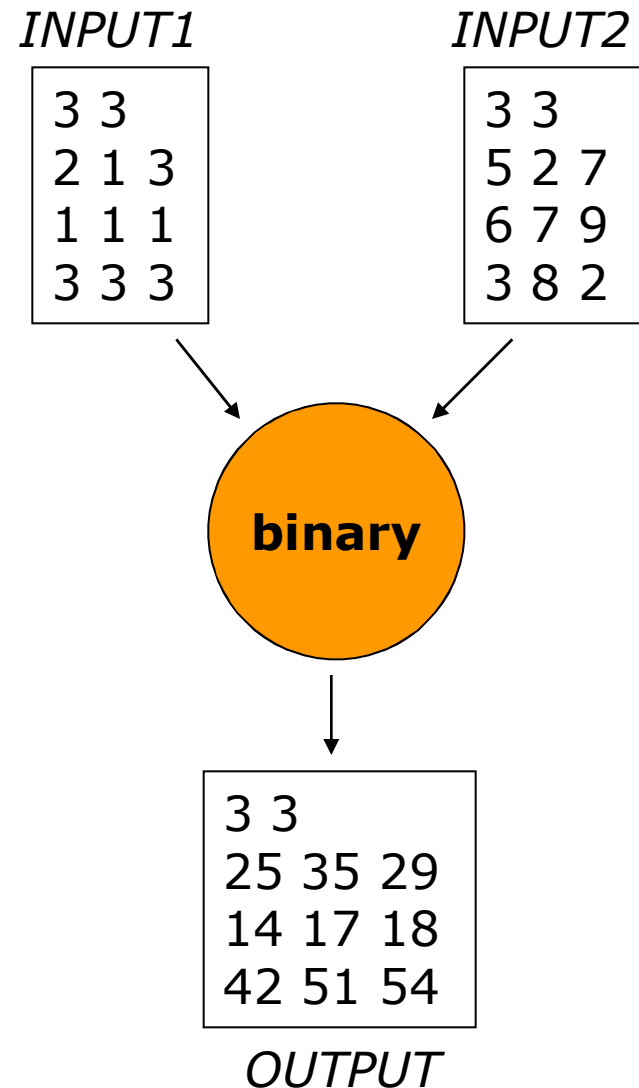
Job input/output files:

- 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**

Exercise:

Execute the program on GILDA,
transfer input and output files in
Sandboxes



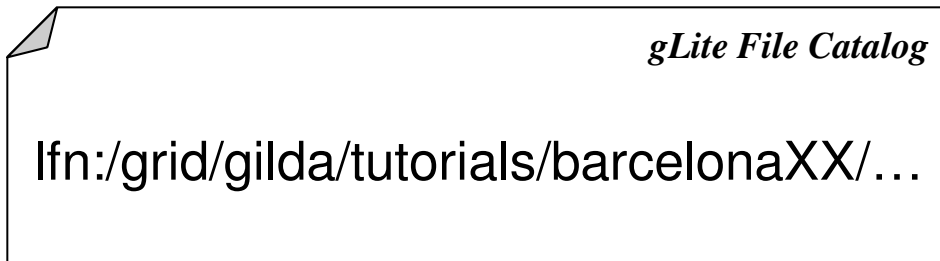


Exercise 3

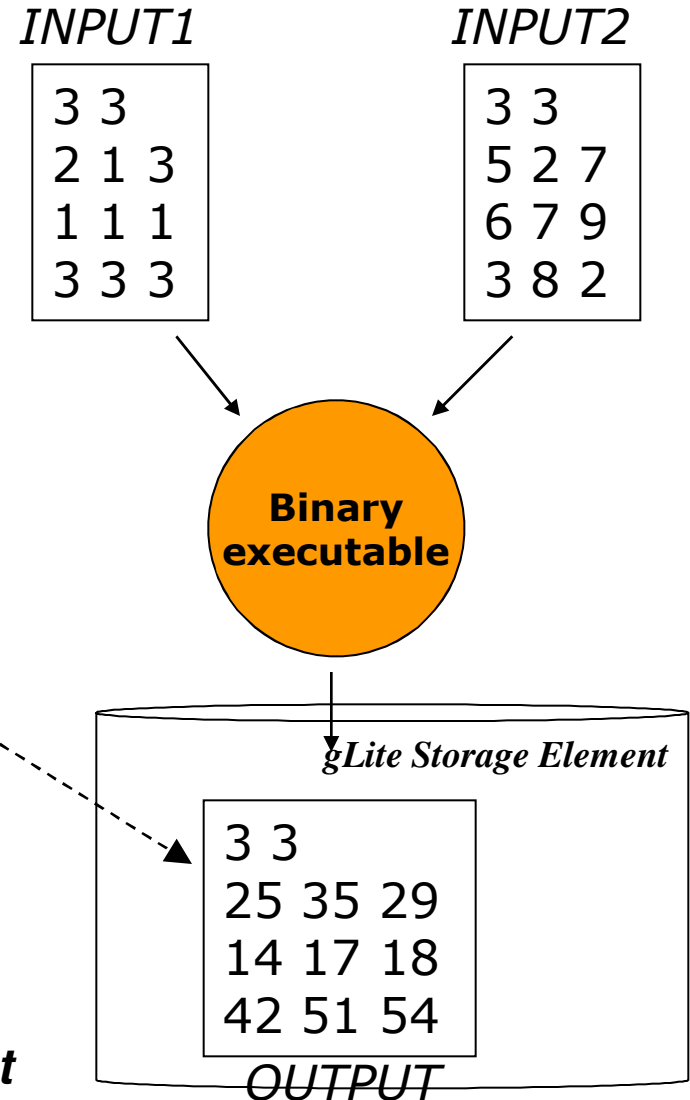
Save the multiplication **OUTPUT** on a Storage Element and register in the File Catalog

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

lfn:/grid/gilda/tutorials/barcelonaXX



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



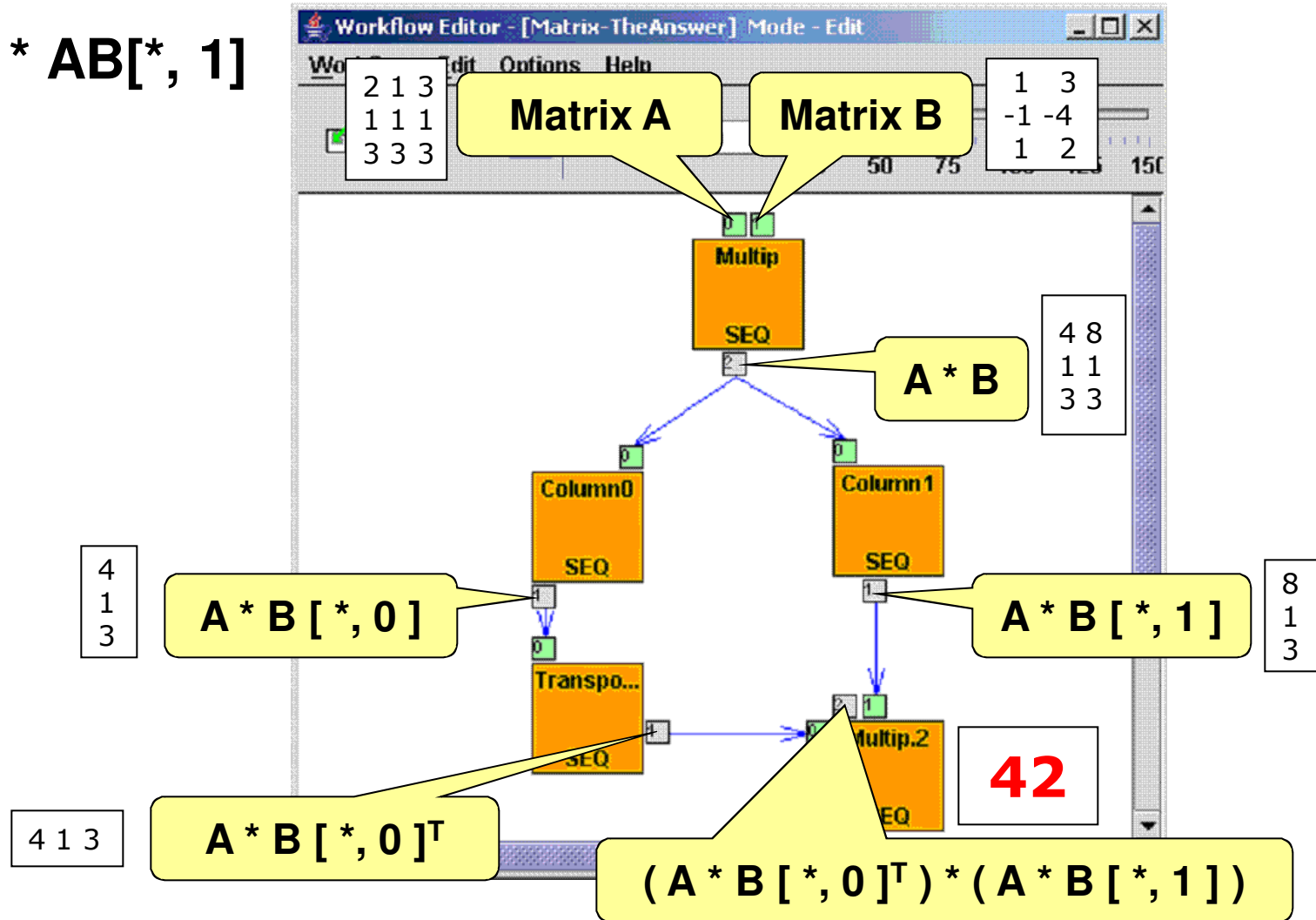
Browse result file using the File Manager Portlet

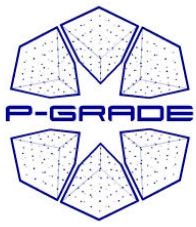


Exercise 4

Combine jobs to build a MatrixOperations workflow

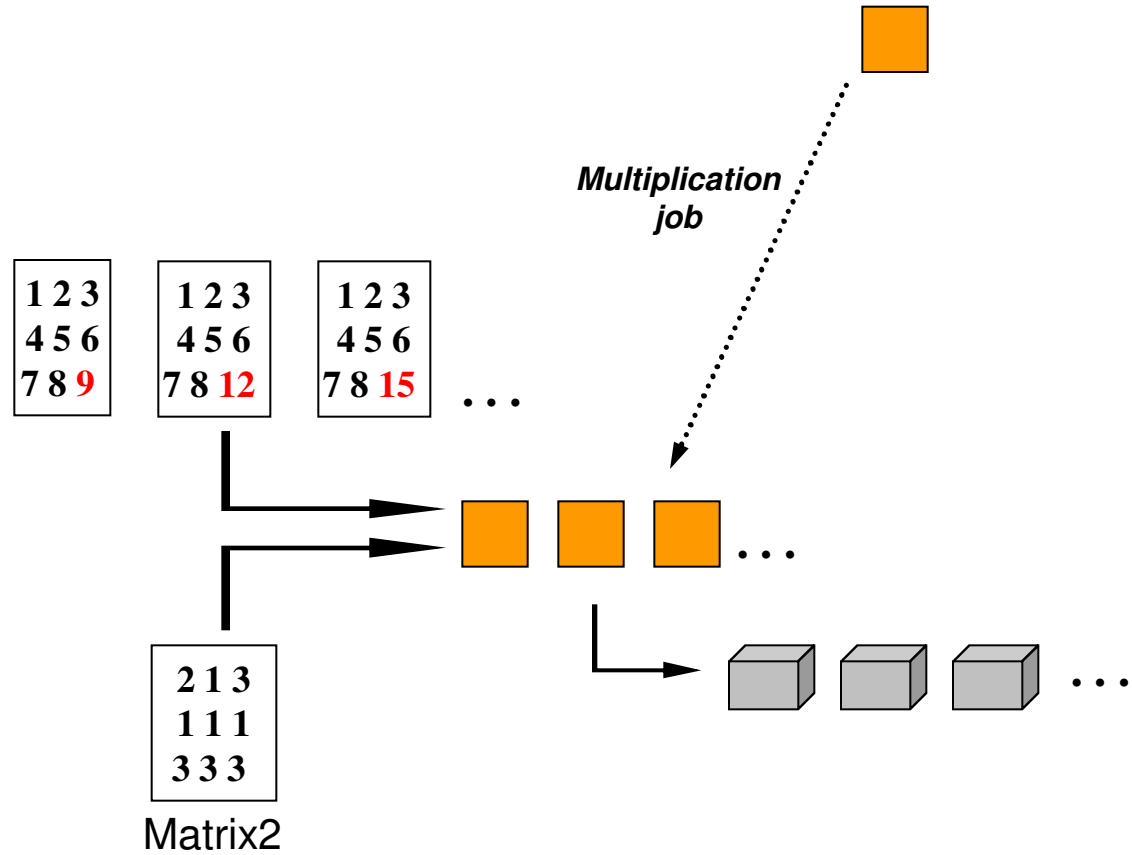
- $AB[* , 0]^T * AB[* , 1]$

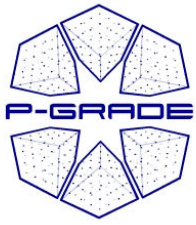




Exercise 5

Matrix multiplication PS parameter study workflow with 5 parameters





www.portal.p-grade.hu/multi-grid

Login:

Portal accounts: *****

Portal passwords: *****

Proxy upload & download information:

Hostname: *myproxy.ct.infn.it*

Port: *7512*

Account: *****

Password: *****

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

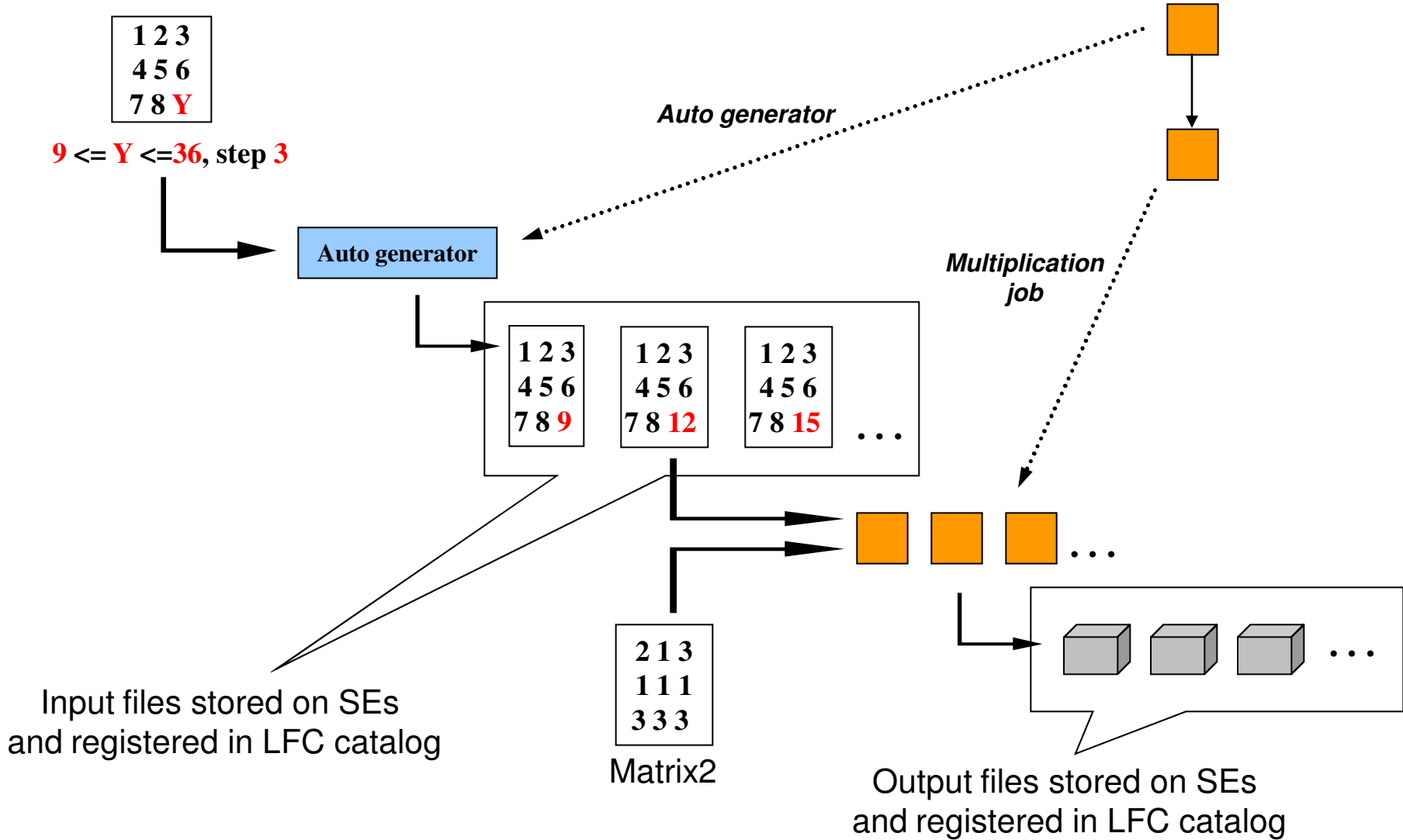


Parameter study talk



Exercise 5

Matrix multiplication PS parameter study workflow with 5 parameters





Job level fault tolerance

Tips

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



User authentication

