



Practical information for the GEMLCA / P-GRADE hands-on

www.portal.p-grade.hu
www.cpc.wmin.ac.uk/gemlca



Introduction



- Aim is to learn the usage of the P-GRADE Portal and GEMMLCA
 - Understand the difference between jobs and service components
 - Go through the typical application development cycle
- Grids to be used:
 - UK National Grid Service (Globus Toolkit 2)
 - GILDA (gLite)



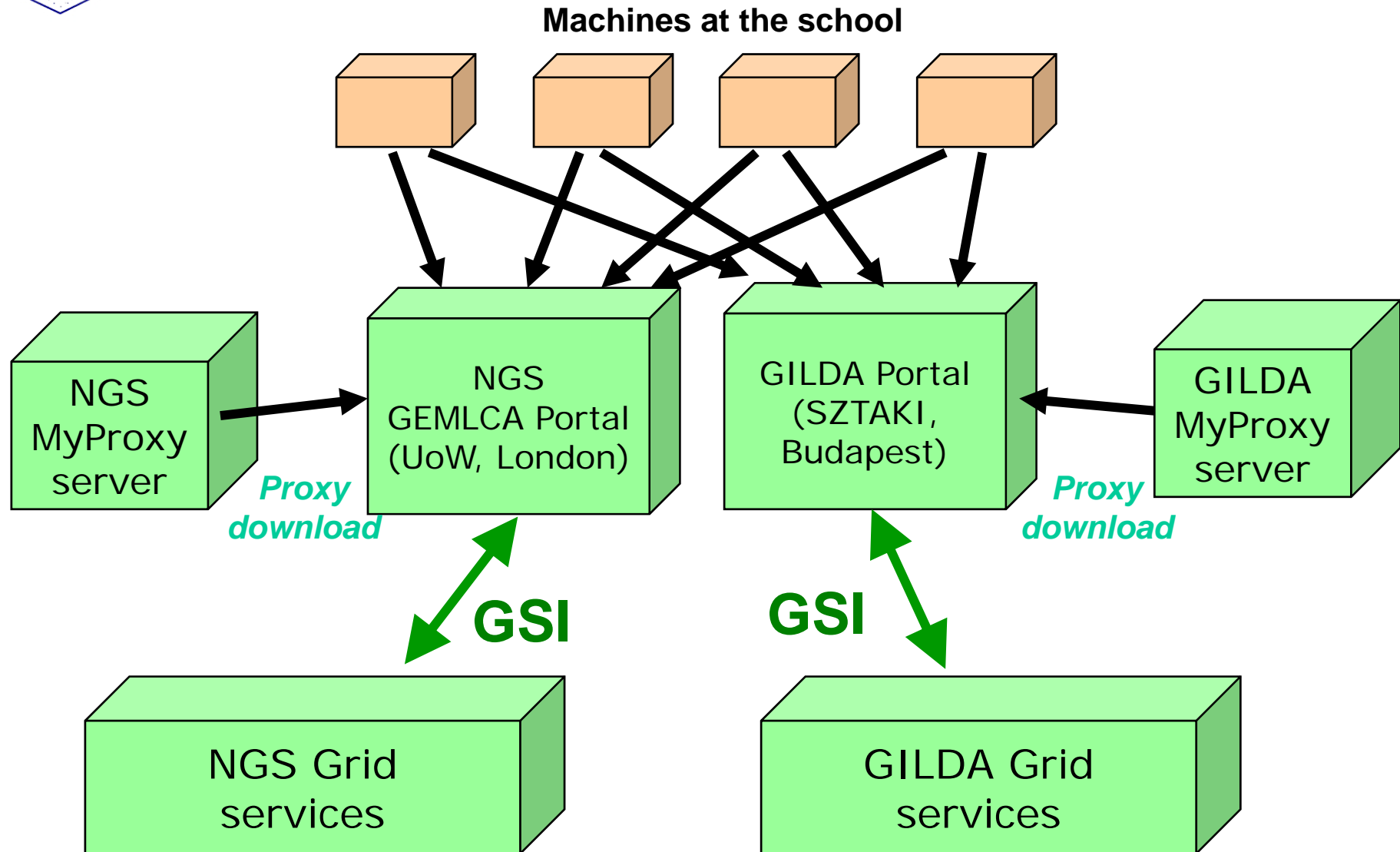
Security situation



- Tutors obtained certificates from GILDA CA and NeSC CA (NGS CA)
- Tutors registered these certificates at GILDA VO and NGS VO
- Proxies from GILDA certificates were uploaded into GILDA MyProxy
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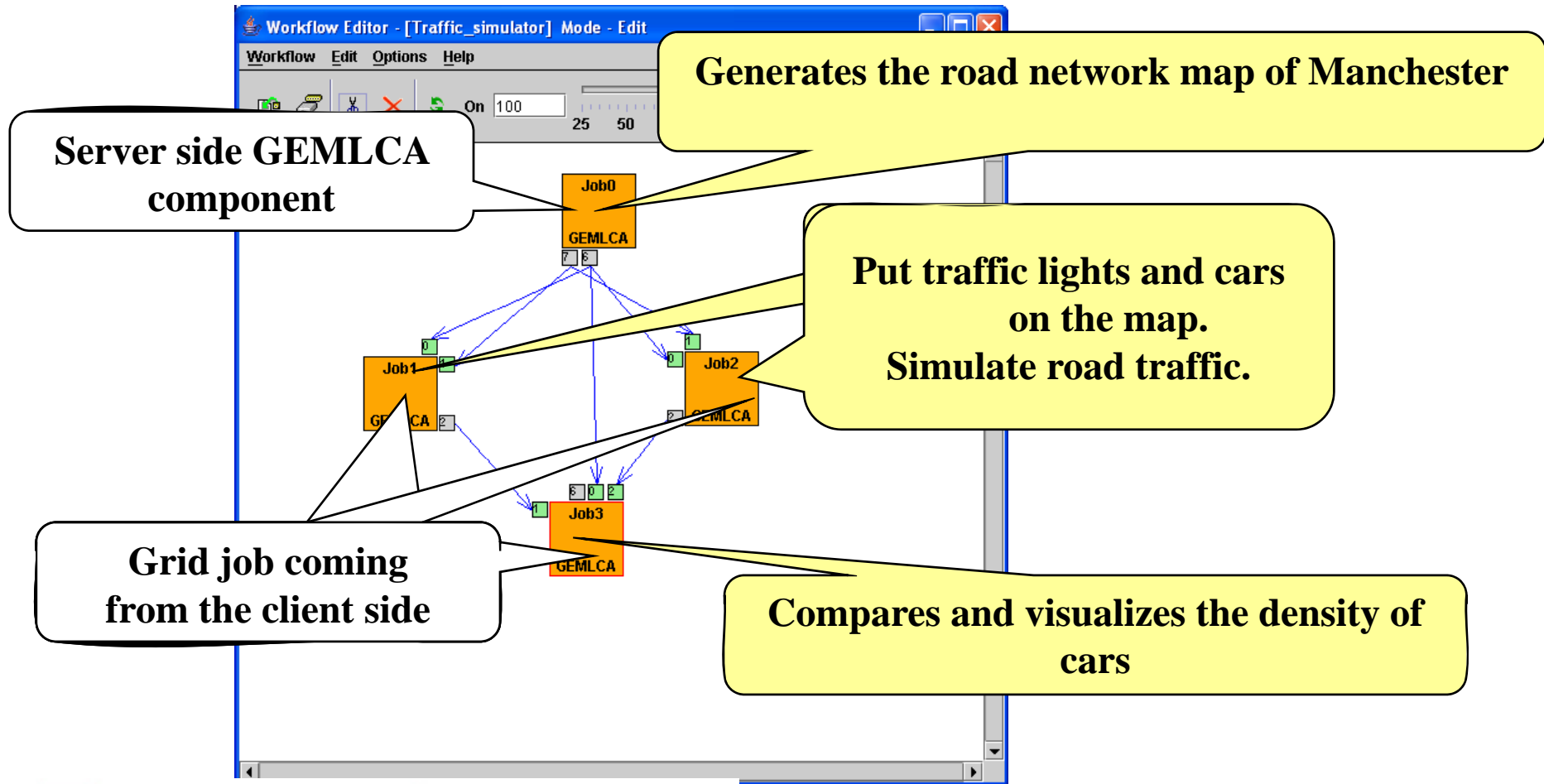
Infrastructure for the hands-on





Exercise 1

Build and execute a traffic simulator workflow on UK NGS



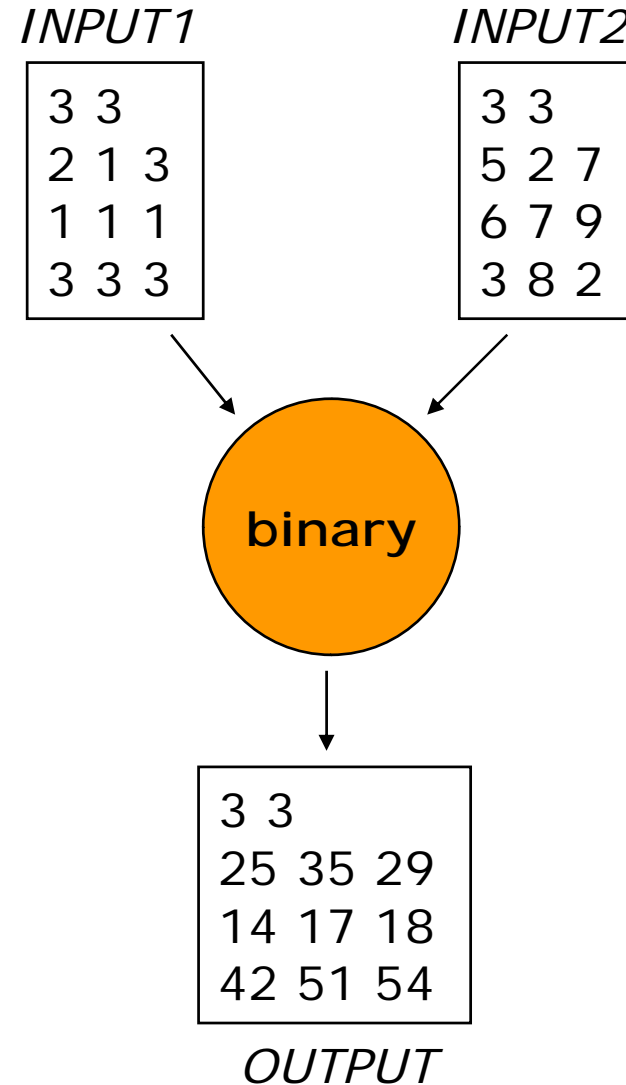


Exercise 2



Execute a matrix multiplication job on GILDA

- C code – Familiar from Monday
- Compiled on GILDA UI
- Reads matrixes from two files called **INPUT1** and **INPUT2**
- Writes result matrix into file called **OUTPUT**
- Controllable by command line parameters
- Local execution:
`./multiply M V`





Exercise 3



Save the multiplication **OUTPUT** on a SE

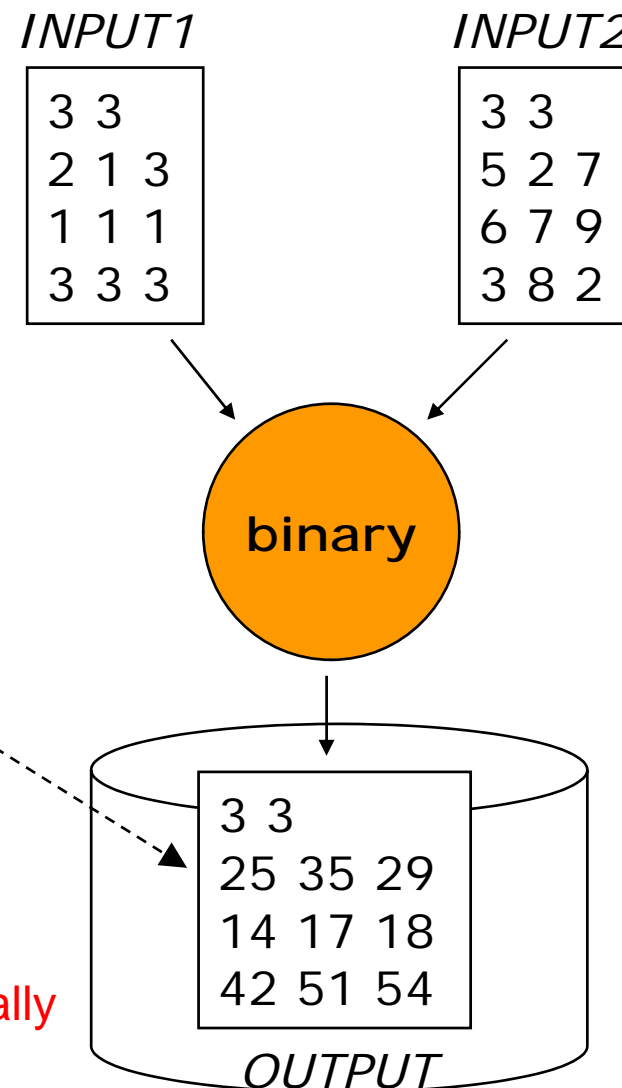
- Modify output file type from “Local” to “Remote”
- Specify a logical file name as target location:

`lfn:/grid/gilda/. . .`

`lfn:/grid/gilda/budapest12/...`

Logical location defined by the user
Registered in LFC automatically

Storage Element selected automatically



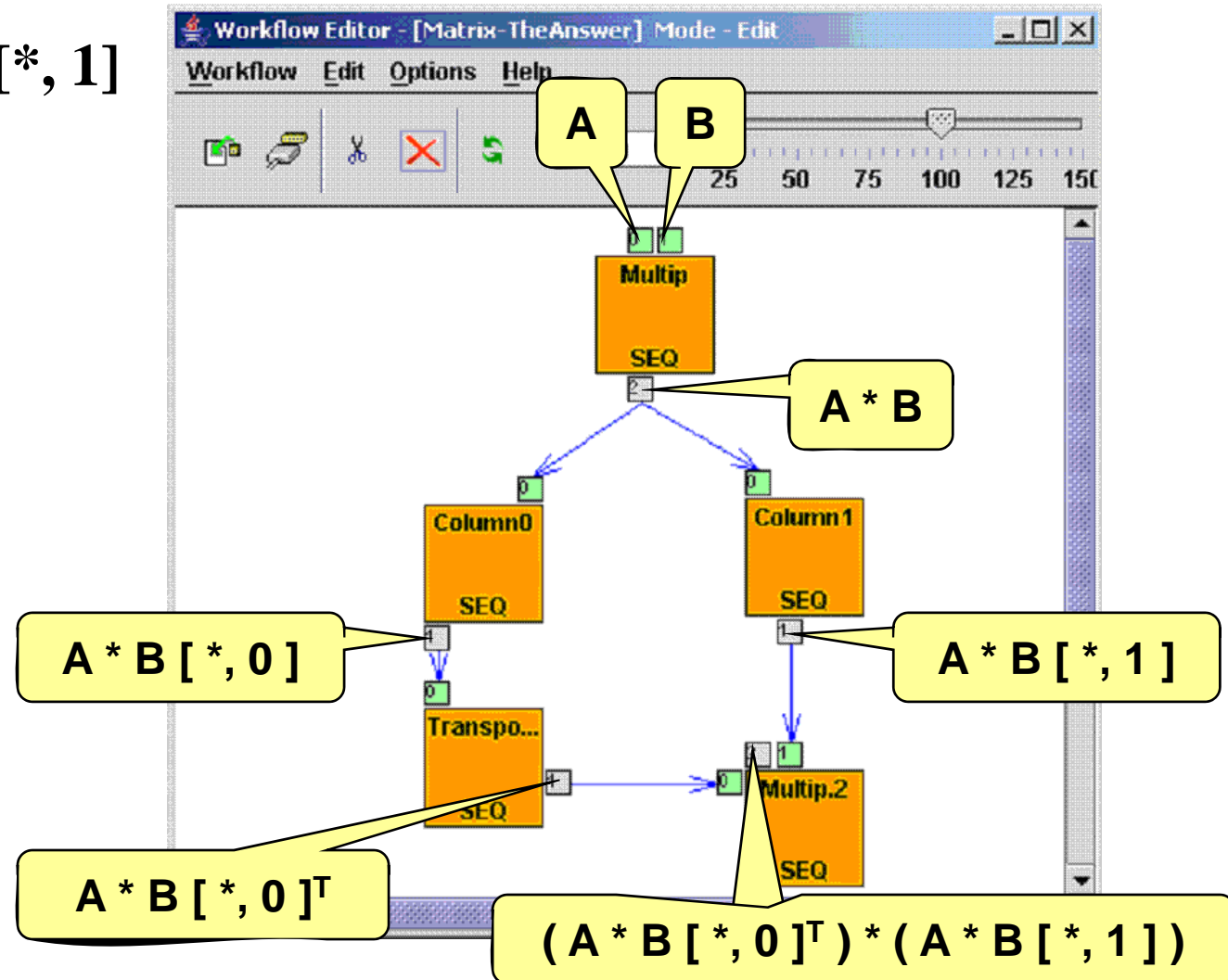


Exercise 4



Define a complex workflow using the MatrixOperations job

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





Tips and tricks



- **Exclude an erroneous site 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. Open the JDL editor of the job
 2. Set **Retry count** to a higher value



***Open the hands-on material from
the agenda page...***