



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

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



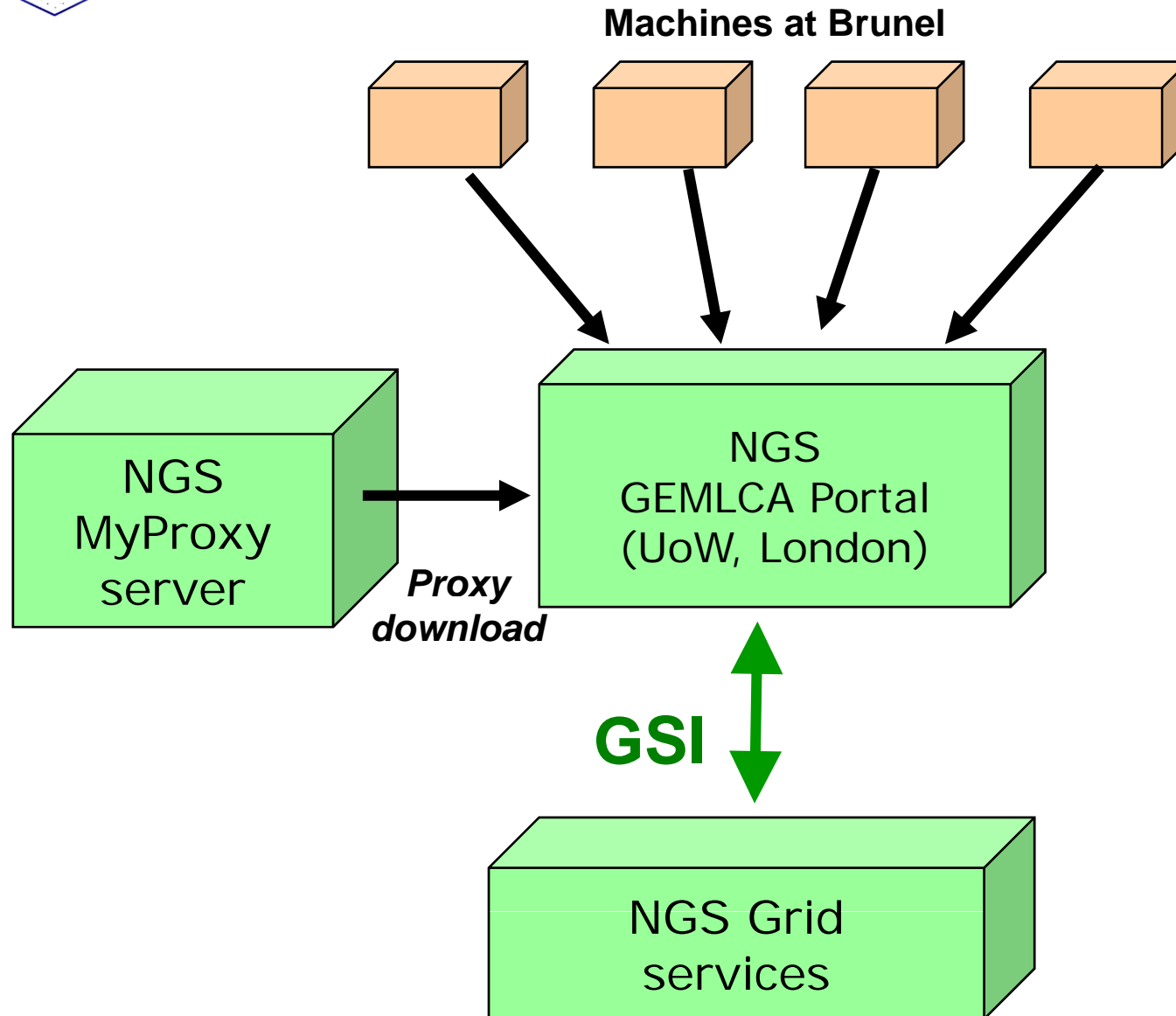
Introduction



- Aim is to learn the usage of the NGS GEMMLCA P-GRADE Portal
- Understand the difference between job and service components in a workflow
- Go through the typical application development cycle
- Grid to be used: NGS (with and without the resource broker)

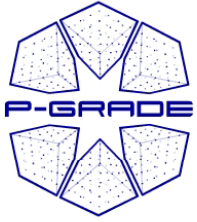


Infrastructure for the hands-on





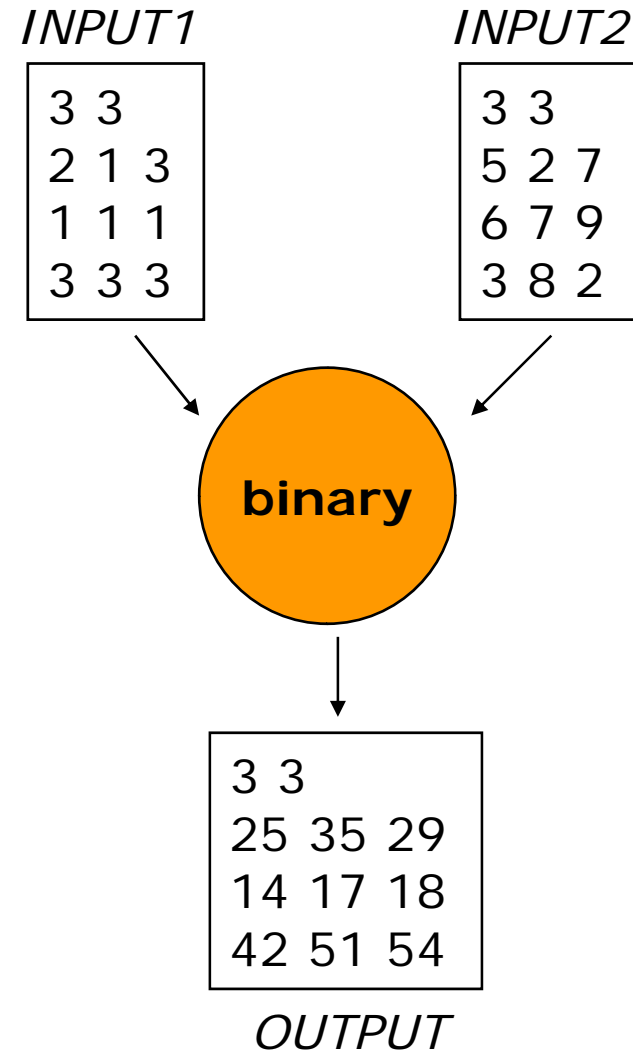
Open the hands-on material



Matrix multiplication job



- C code
- Reads matrixes from INPUT1 and INPUT2 files
- Writes result matrix to OUTPUT file
- Command line parameters: M V
- Detailed description, executable and sample inputs **HERE**



http://portal.p-grade.hu/tutorials/induction/Matrix_operations_program_description.htm



Future steps and roadmap



Future steps and GEMLCA / P-GRADE development roadmap



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How to learn more on P-GRADE portal and GEMMLCA?



- Take a look at
 - **P-GRADE portal: www.portal.p-grade.hu**
(manuals, tutorials, service portals, installation procedure, etc.)
 - **GEMMLCA: www.cpc.wmin.ac.uk/gemmlca**
- Visit or request a training event! (event list also on homepage)
 - Lectures, demos, hands-on tutorials, application development support
- **Get an account for one of the production installations:**
 - **NGS portal – University of Westminster**
 - VOCE portal - SZTAKI
 - SEEGRID portal – SZTAKI
 - GILDA portal – SZTAKI
- **If you are the administrator of a Grid/VO then contact SZTAKI/Westminster to get your own Portal installation**



Development roadmap



- Parameter study support
 - If the user has a workflow he can run it with many different parameters
 - Workflow = code to execute
 - Input files = parameters
- Built-in broker for Globus grids

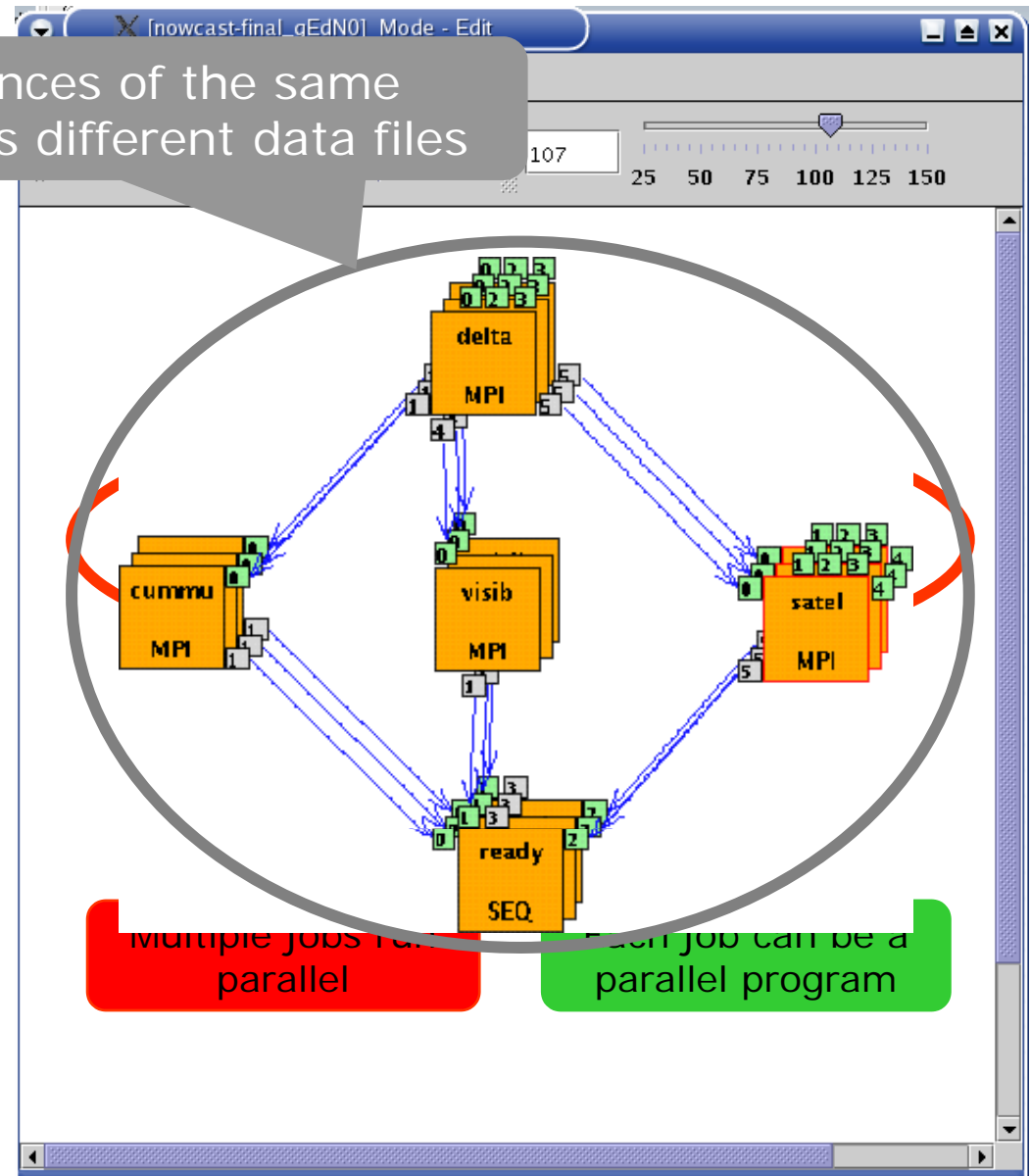


Parameter study support: Introducing the third level of parallelism



Multiple instances of the same workflow process different data files

- Parallel execution inside a workflow node (SIMD/MIMD/MISD)
- Parallel execution among workflow nodes (SIMD/MIMD/MISD)
- Parameter study execution of the workflow (SIMD)





Where are parameter study portals available?



- Official release of P-Grade Portal 2.5: 23rd of February, 2007. www.portal.p-grade.hu
- Portal services operated by SZTAKI will be promptly upgraded
- OGF GIN VO Portal will be upgraded: **NGS**, OSG, Teragrid, EGEE, Nordugrid, ...
 - **Watch the news section on the Portal webpage!**
- GEMMLCA specific Portal will be still based on 2.4.1 → NGS GEMMLCA Portal will not support parameter studies in the near future



Broker support for Globus grids



- GTBroker: job-broker developed by SZTAKI
- Interoperable with Globus Toolkit 2 grids
- To be integrated into the Portal server
- From P-Grade Portal 2.6
- Release expected: 2007 Q2



Learn once, use everywhere
Develop once, execute anywhere

Thank you!

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