Practical GRIDportal

Working with mpiBLAST

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10 November 2005

Outline

1. Introducing GRIDportal
2. Working with mpiBLAST

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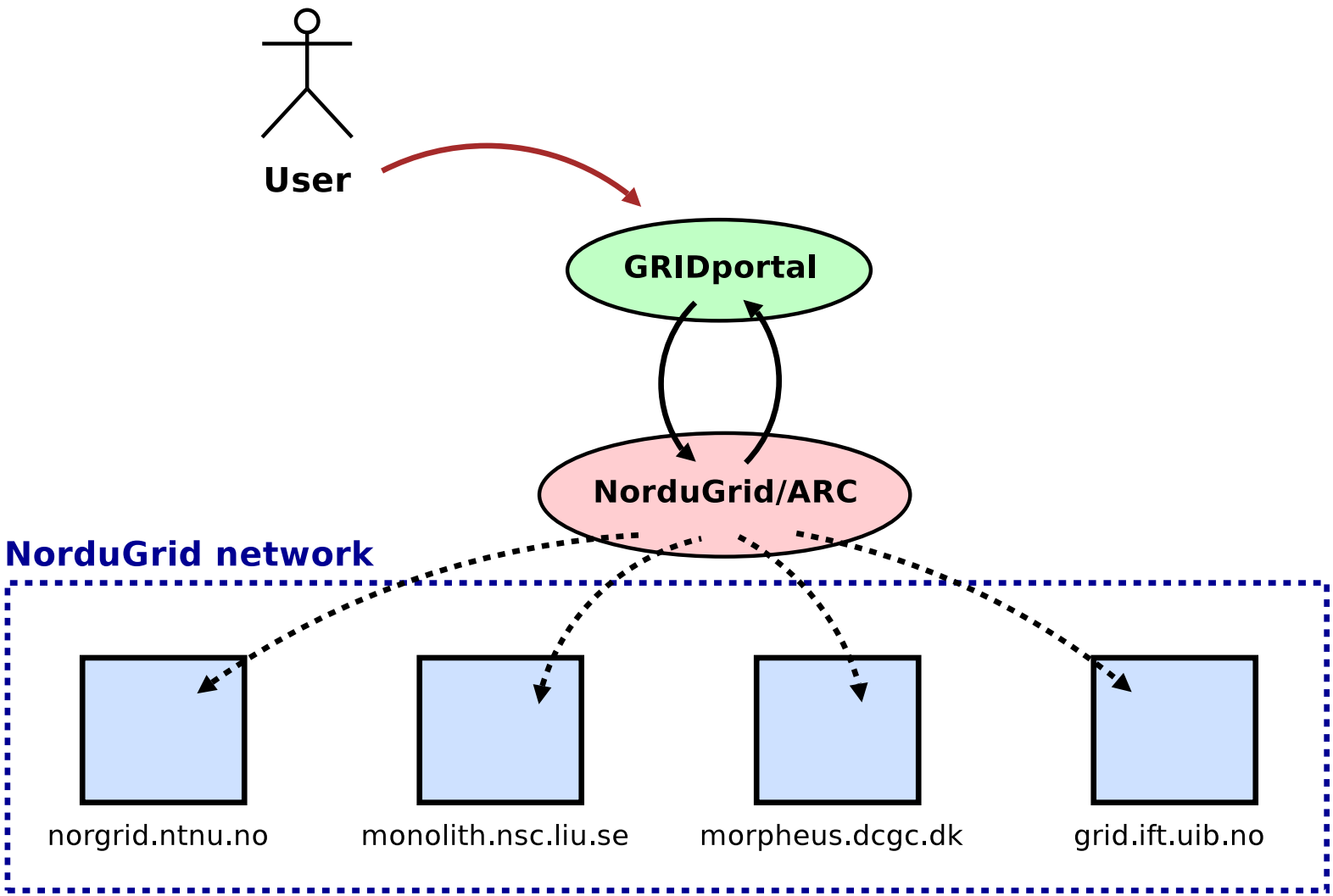
2 Working with mpiBLAST

GRID: a network of computer resources



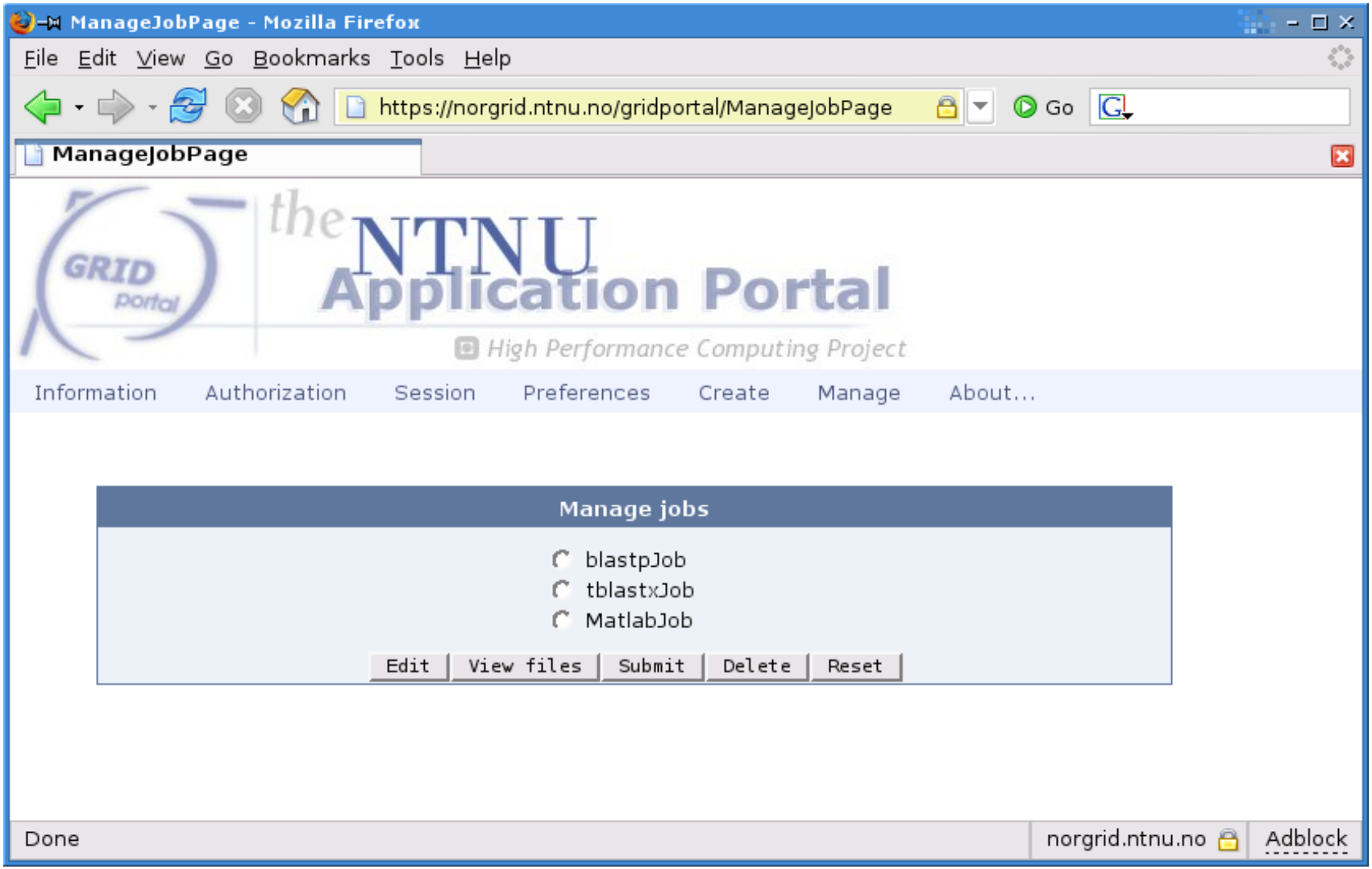
A quick look at NorduGrid/ARC

alex@frasier:~

```
marmat@norgrid blast $ grid-proxy-init
Your identity: /O=Grid/O=NorduGrid/OU=ntnu.no/CN=Martin Matusiak
Enter GRID pass phrase for this identity:
Creating proxy ..................................... Done
Your proxy is valid until: Sat Aug 13 07:08:39 2005
marmat@norgrid blast $ ngsub -f job.xrsl -c norgrid.ntnu.no -d0
run.sh     0 s:        0.2 kB       0.0 kB/s       0.0 kB/s    . . .
martin_testset.txt     0 s:        0.9 kB       0.0 kB/s       0.0 kB/s    . . .

Job submitted with jobid gsiftp://norgrid.ntnu.no:2811/jobs/2100011238665261699770589
marmat@norgrid blast $ ngsync -fa -c norgrid.ntnu.no
marmat@norgrid blast $ ngstat -a
Job gsiftp://norgrid.ntnu.no:2811/jobs/2100011238665261699770589
  Jobname: blastpJob4
  Status: FINISHED
marmat@norgrid blast $ ngget -a
ngget: downloading files to /home/marmat/blast/2100011238665261699770589
ngget: download successful - deleting job from gatekeeper.
marmat@norgrid blast $ ls 2100011238665261699770589/
blast_out.QUERY  gmlog/  martin_testset.txt  run.sh  stderr.txt  stdout.txt
marmat@norgrid blast $
```

GRIDportal: a web-based grid application portal



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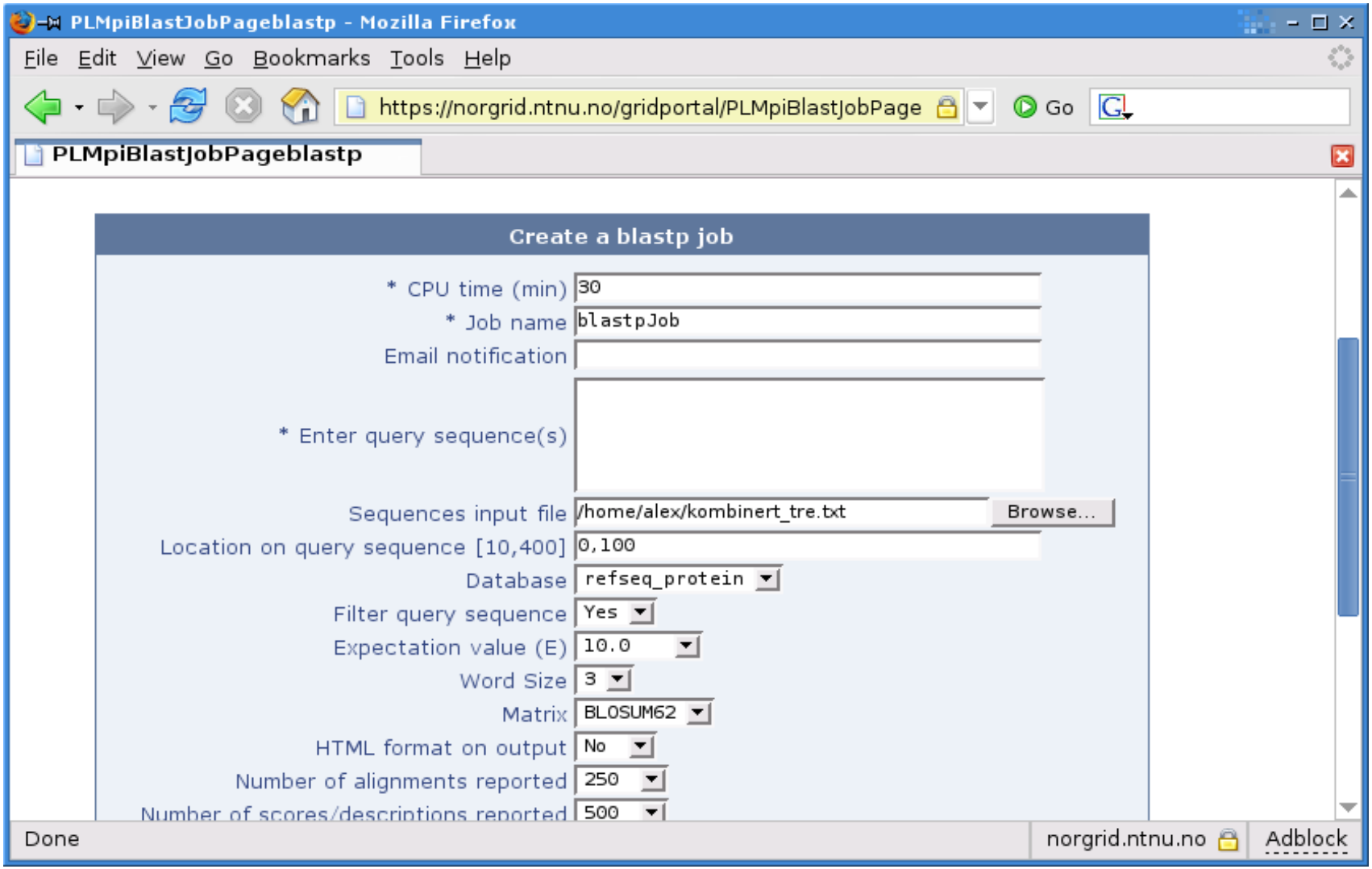
What is mpiBLAST?

A flavor of BLAST designed to run on a cluster (a number of computers [nodes] connected together). **BLAST and mpiBLAST are near identical in use.**

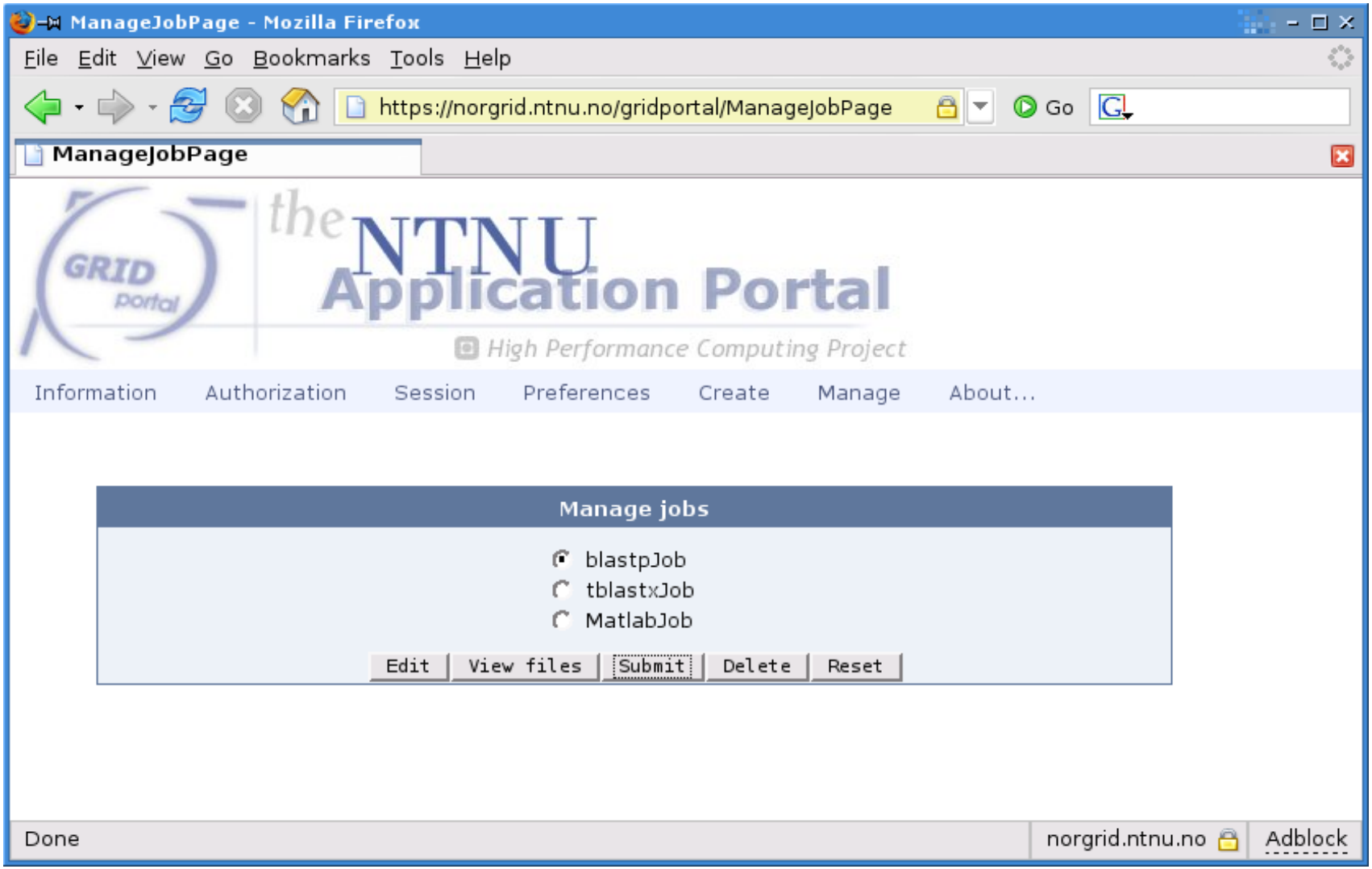
The way mpiBLAST works is that it

1. divides the database into equal segments,
2. distributes each segment onto a node,
3. performs BLAST search on each node in parallell,
4. and merges the results from each node into a common result set.

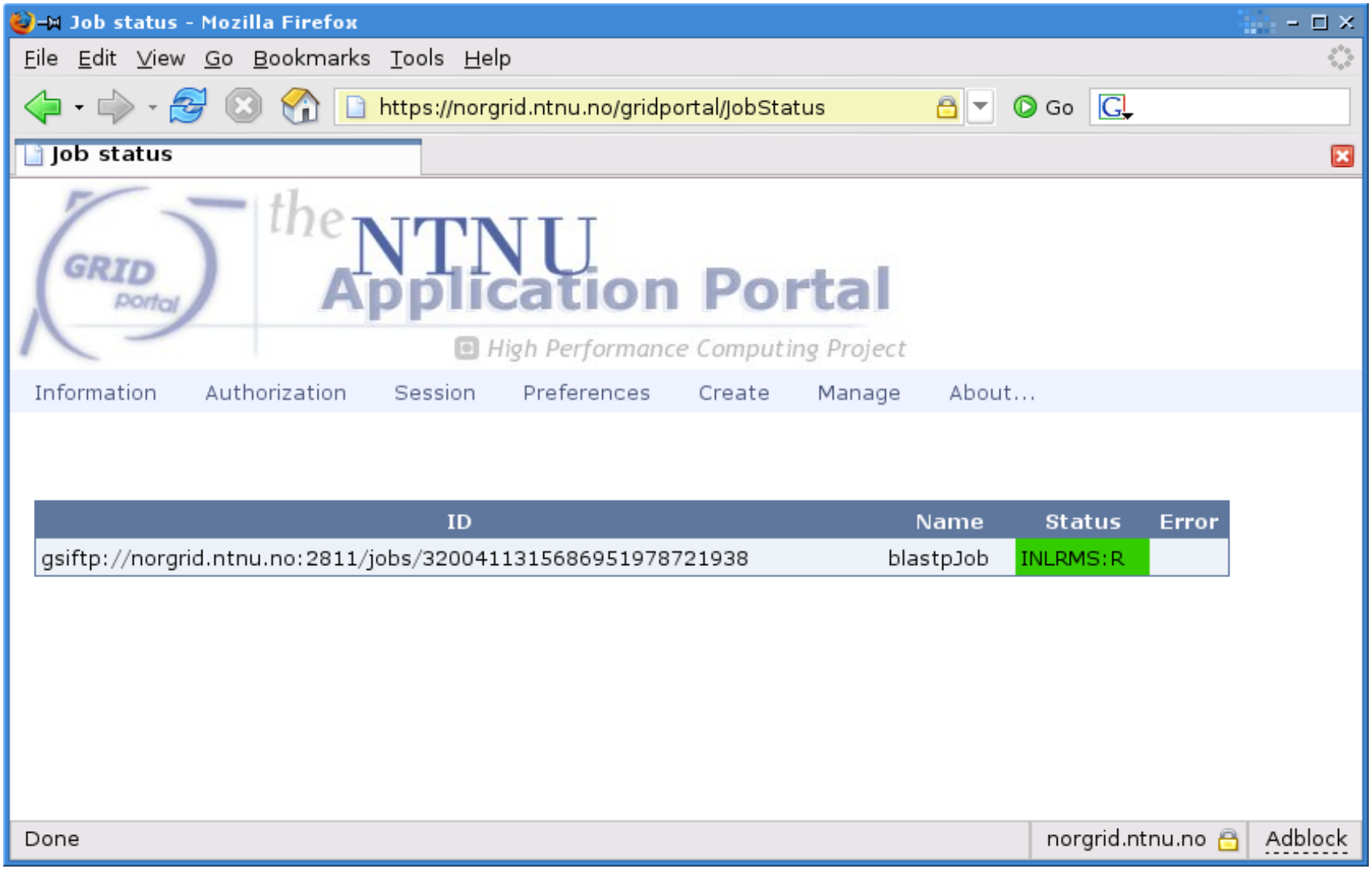
Creating a BLAST job



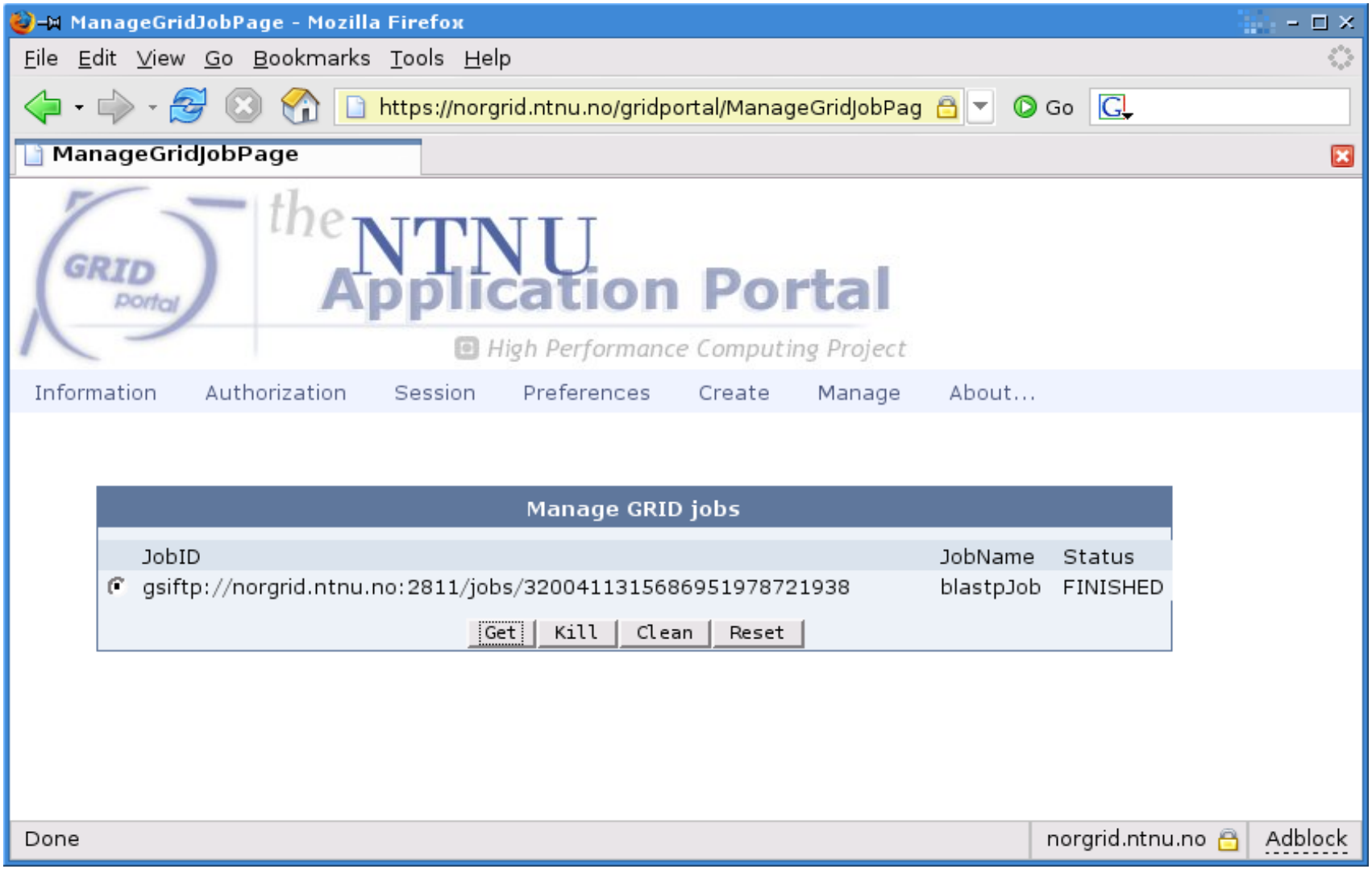
Submitting a BLAST job



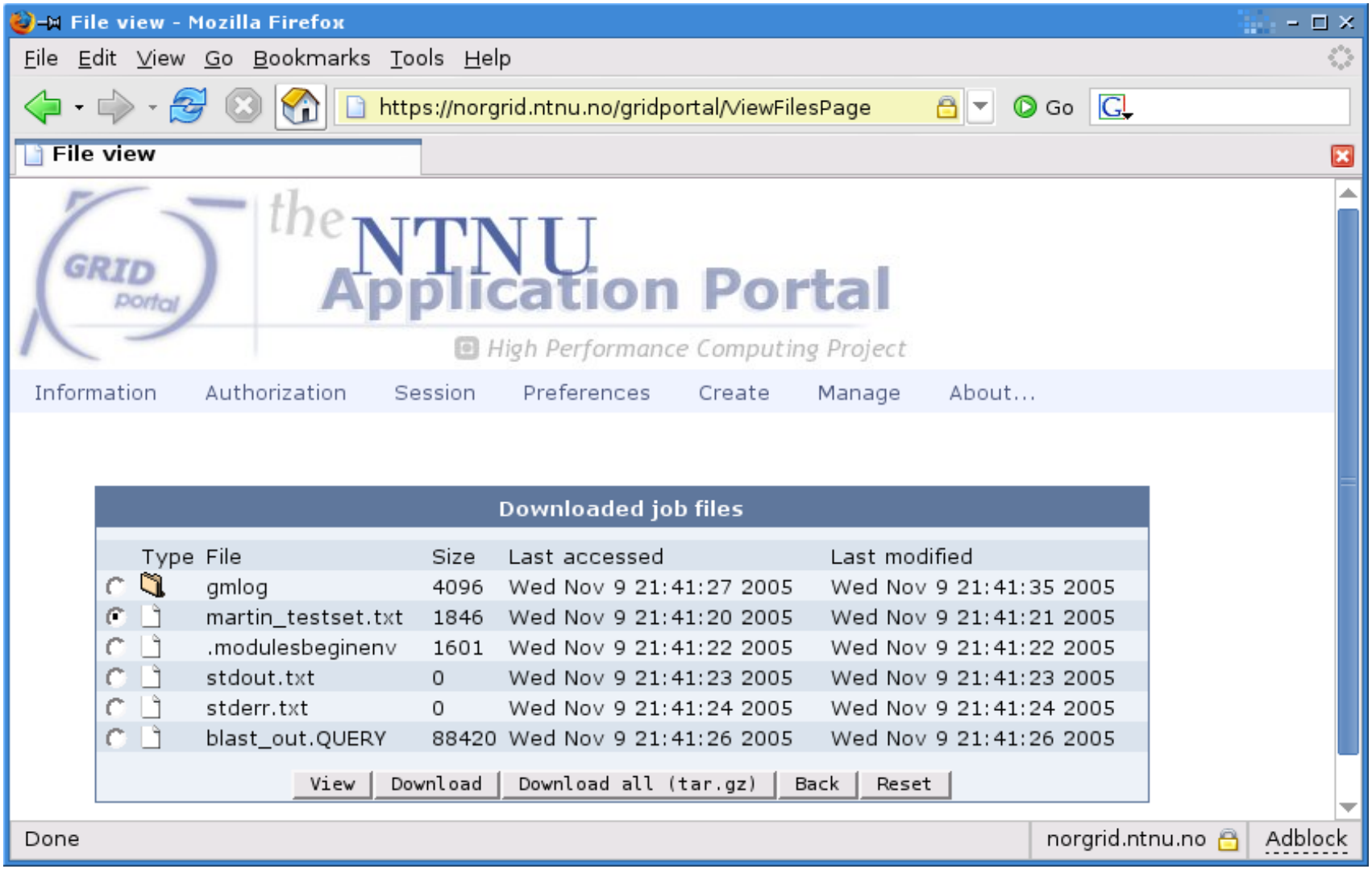
Checking up on a job



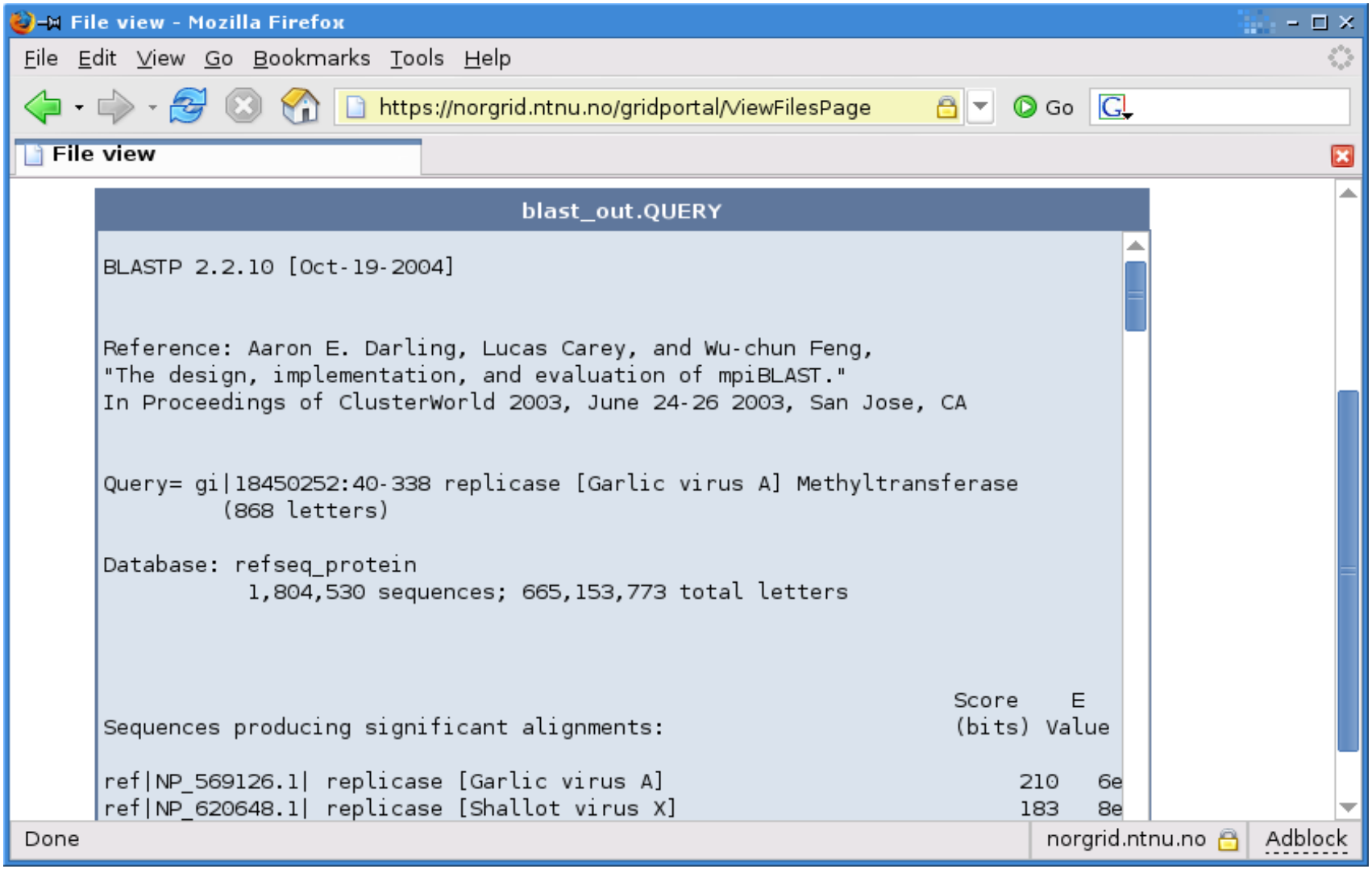
Getting job results



Viewing results of a job



Viewing job files



Links

- GRIDportal project website
  <http://gridportal.dynalias.org/>
- GRIDportal deployment site
  <http://norgrid.ntnu.no/gridportal/>

Thank you for your attention!