

Toward a stand alone distributed management system

Enrico Vianello, Matteo Manzali, Bruno Santeramo, Luca Tomassetti

Generalization of SuperB distributed production system as stand alone, general purpose infrastructure to accomplish small and medium VO requirements

let's talk about:

- WebUI development :
 - Output directories on requests
 - lcg commands
- TIMELINE



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Added OUTPUT information to WebUI interface, to face new Severus specifications.
Changes:

- on SBK4 we added two fields to Prod_Request table:
OUTPUT_DIR_LFN
which is the logical file path of the output directory where all the jobs of this request will save the output files
OUTPUT_DIR
is an absolute path, used only if the worker node has the direct access to the storage element
- on WebUI Prod Request creation interface:

The screenshot shows the 'FASTSIM CREATE NEW REQUEST' interface. The 'Output' section is highlighted with a dashed box. It contains four input fields for output directories, each with an information icon (i) to its right. The first two fields are for the production request, and the next two are for the test request. An arrow points from the 'test request's output directory (absolute)' field to a detailed view of the output fields.

Output:

output directory (lfn):
lfn:/grid/superbvo.org/production/FastSim/2010_July/output/HadRecoilCocktail/DG_4/B0B0bar_Btag-HD_C

☐ Same output directories for the associated test request

test request's output directory (lfn):
lfn:/grid/superbvo.org/production/FastSim/2010_July_test/output/HadRecoilCocktail/DG_4/B0B0bar_Btag-HD_C

output directory (absolute):
/production/FastSim/2010_July/output/HadRecoilCocktail/DG_4/B0B0bar_Btag-HD_Cocktail

test request's output directory (absolute):
/production/FastSim/2010_July_test/output/HadRecoilCocktail/DG_4/B0B0bar_Btag-HD_Cocktail

Added OUTPUT information to WebUI interface, to face new Severus specifications.
 Changements:

- on ExpertInit page, when a user select a new test request :

Job Details:

Test Job? ☒ Number of runs: Number of events: Request:

Analysis: Generator: Geometry: Background:

Production Request does not exist!

Insert a minrunnum for the new test request:

Specify one or more output sites:

☐ CIT_CMS_T2B	☐ CIT_HEP_CE	☐ GRIF	☐ GRISU_UNINA	☐ IN2P3-CC	☐ INFN-BARI	☐ INFN-CAGLIARI
☐ INFN-FERRARA	☐ INFN-LNL-2	☐ INFN-MILANO	☐ INFN-NAPOLI-ATLAS	☐ INFN-PERUGIA	☐ INFN-PISA	☒ INFN-T1
☐ INFN-TORINO	☐ RAL-LOG2	☐ SLAC	☐ UKI-LT2-QMUL	☐ UKI-SOUTHGRID-OX-HEP	☐ UKI-SOUTHGRID-RALPP	☐ UNINA-EGEE
☐ VICTORIA-LOG2	☐ VICTORIA-LOG2-SL4					

Select the input mode for the new test request:

Insert the input path: (leave empty if mode is NONE):

Insert the output directory logical name (necessary):

Insert the output directory (could be empty):

☒ Log files to be stored in the bookkeeping database

user has to insert almost the logical name

Added OUTPUT information to WebUI interface, to face new Severus specifications.

Changements:

- on automatic submission's Severus configuration file:

```
[REST]
PROXYCERTVAR = X509_USER_PROXY
RESTPATHDB = restsbk4
RESTSERVER = bbr-serv09.cr.cnaf.infn.it
RESTSERVERPORT = 8443
USECERT = true

[EXPORT_VARS]
LCG_GFAL_INFOSYS = egee-bdii.cnaf.infn.it:2170
PARAMPATH = SuperB/FastSim/V0.2.5_SL-5.3_x86_64_rev311/PacProduction

[OPTIONS]
MODULENAME = FastSim
PRODSERIES = 2010_July
REQUESTNAME = c1ff278bde877b59543088108166dfda
SAVELOGDB = true
TEST = true

[SOFTWARE]
EXEPATH = SuperB/FastSim/V0.2.5_SL-5.3_x86_64_rev311/workdir/bin/Linux26SL5_x86_64_gcc412/PacProductionApp
NAME =
REVISION = 311
SWPATH = lfn:/grid/superbvo.org/production/FastSim/2010_September/test_release/V0.2.5_SL-5.3_x86_64_rev311.tjz
VERSION = V0.2.5
WORKDIR = SuperB/FastSim/V0.2.5_SL-5.3_x86_64_rev311/workdir

[INPUT]
INPUTMODE = DIR
INPUTPATH = lfn:/grid/superbvo.org/production/FastSim/2010_September/input

[FASTSIM]
DG = DG_0
GENERATOR = B+B-_Btag-HD_Cocktail
NEVENTS = 1
PRODSRIPT = BtoKNuNu
TCL = MixSuperbBkg.tcl

[SITE]
USELOCALNAME = true

[OUTPUT]
LFN = lfn:/grid/superbvo.org/production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail
OUTPUTPATH = /production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail

[TARGETSITE]
SITENAME = INFN-TI
USELOCALNAME = false
```



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To face that output files are identified by a logical file path instead of an absolute path, I have added a php lcg-class to run lcg commands to get the file informations, having the LFN.

f.e. to get the guid of a file the code will be like this:

```
...
$job = new Job(array("runnum" => $runnum, "prod_series" => $ps));
$jobout = $job->GetJobOutputs();
...
$proxy = new Proxy($_SESSION['uid']);
$proxy->Retrieve(24);
$proxy_path = $proxy->proxy_path;

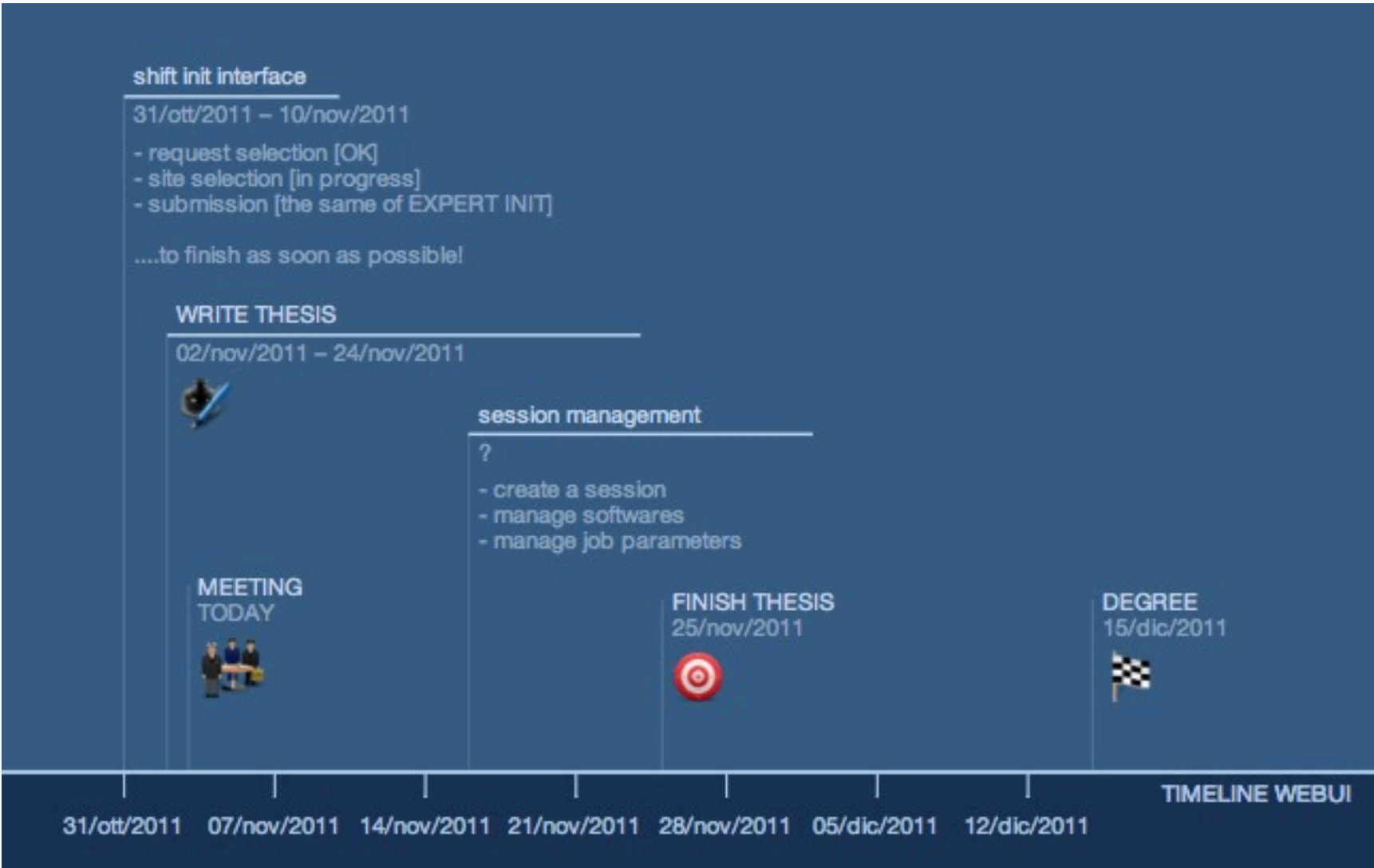
$lcg = new lcgUtils($proxy_path);
...
$out = $lcg->lcg_lg($jobout[0]["logical_file_path"]);
...
$out = $lcg->lcg_lr($jobout[0]["logical_file_path"]);
```

An example of the output got from this functions is in the job monitor when the details of the job are shown:



Job's Output [hide details](#)

type	file name	size
BtoKNuNu	BtoKNuNu.root	0.001 mb
logical file path: lfn:/grid/superbvo.org/production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail/10001375/BtoKNuNu.root		
guid: e1a7ebd1-1e45-49c1-8267-b6ef085a706b		
replicas' list:		
srm://storm-fe-superb.cr.cnafr.infn.it/superbvo.org/production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail/10001375/BtoKNuNu.root		
SemiLepKplusNuNu	SemiLepKplusNuNu.root	0.001 mb
logical file path: lfn:/grid/superbvo.org/production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail/10001375/SemiLepKplusNuNu.root		
guid: 5deb3b00-ef57-4246-99d8-709ed7216642		
replicas' list:		
srm://storm-fe-superb.cr.cnafr.infn.it/superbvo.org/production/FastSim/2010_July_test/output/BtoKNuNu/DG_0/B+B-_Btag-HD_Cocktail/10001375/SemiLepKplusNuNu.root		



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