

## **Toward a stand alone distributed management system**

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

*let's talk about:*

- Severus:
  - Some bugs and incompleted functions fixed
  - First job done in a site with “direct access” mode
  - Next works
- SBK4 :
  - from *Fast* to *FastSim*
- WebUI development :
  - EXPERT INIT page -
    - web automatic submission : *ready for Severus!*
  - HOME page - *new!*
    - user info, session statistics and last activities
  - user ldap groups vs. webui permissions :
    - how could ldap groups be changed to reach a better generalization
- TIMELINE



*meeting 8 Settembre 2011*

☒ - Severus now insert all the informations we need about the job  
wct, ts\_running, path output files, etc...

☒ - lcg-cr failover fixed  
if the registration fails, our lcg-cr function retry only  
to register the file (not to copy + register)

☒ - srm/direct paths are fully interchangeable  
the management of the data-access type and paths is  
simplified

☒ - first job done in a site with “direct access” mode

We have the first job done at INFN-PISA with Severus

|                     |   |                |      |              |
|---------------------|---|----------------|------|--------------|
| 10000065<br>manzali | 1 | failed<br>null | gjid | UKI-LT2-QMUL |
| 10000066<br>manzali | 1 | done           | gjid | INFN-PISA    |
| 10000064<br>manzali | 1 | failed<br>null | gjid | UKI-LT2-QMUL |
| 10000063            |   |                |      |              |



## Next work:

- Change physical and logical paths according to the new standard
- In some cases of failure (like site module not found) the bziped log isn't copied into DB [bug to fix]
- If Severus doesn't find the correct module of severus's version, it has to advise the DB via curl [bug to fix]
- Choose from DB the target site where to transfer the output files
- Complete the fullsim class [highest priority?]

- ☒ - We changed “Fast” session to “FastSim” session

**so now we can obtain the webui scripts directories with a more generic form:**

```
/data1/script_webui/{SESSION_NAME}/generalscripts/{PROD_SERIES}/  
/data1/script_webui/{SESSION_NAME}/submissionscripts/{PROD_SERIES}/  
/data1/script_webui/{SESSION_NAME}/confscripts/{PROD_SERIES}/
```

- ☒ - WebUI is ready to create the files that run Severus script for Fast simulation

**test on VICTORIA-LCG2 : OK**

**test on INFN-PISA : OK**

- ☒ - WebUI can submit jobs by creating the necessary proxy and running a bash command

**it's possible to submit at the same time jobs on  
different requests - through the expert init interface**



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Production:

Select a production from list: 2010\_July

Production Series: 2010\_July

Production root: /storage/gpfs\_superb/prod/

Software Release: V0.2.5 311

Release Work Dir: /storage/gpfs\_superb/prod/FastSim\_test\_releases/SuperB/FastSim/V0.2.5/

Status: open

Note:

Total Jobs per Status:

No jobs

Total Events per Status:

No jobs

Submission 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-LCG2

☐ SLAC

☐ UKI-LT2-QMUL

☐ UKI-SOUTHGRID-OX-HEP

☐ UKI-SOUTHGRID-RALPP

☐ UNINA-EGEE

☒ VICTORIA-LCG2

☐ VICTORIA-LCG2-SL4

Select all | none

Job Details:

Test Job? ☐

Number of runs: 10

Number of events: 1

Request: [BtoKNuNu, B+B-\_Btag-HD\_Cocktail, DG\_0, MixSuperbBkg.tcl]

☐ Log files to be stored in the bookeeping database

Test Job? ☒

Number of runs: 1

Number of events: 1

Request: [HadRecoilCocktail, B0B0bar\_Btag-HD\_Cocktail, DG\_4, PacProduction.tcl]

Analysis: HadRecoilCocktail

Generator: B0B0bar\_Btag-HD\_Cocktail

Geometry: DG\_4

Background: No Backgrounds

Production Request exists!

☒ Log files to be stored in the bookeeping database

Example of 2 submissions:

- the first of 10 jobs of 1 event per job on 2010\_July for the specified request
- the second of 1 test job of 1 event on the associated test production (2010\_July\_test) for another request



Summary

The UI will launch 2 set(s) of normal jobs (a total of 11 jobs, 11 events) for the Production 2010\_July with the following parameters:

| PRODUCTION DATA - SUMMARY  |  |                                                                        |  |  |  |  |  |  |  |  |
|----------------------------|--|------------------------------------------------------------------------|--|--|--|--|--|--|--|--|
| Production Series:         |  | 2010_July                                                              |  |  |  |  |  |  |  |  |
| Production root:           |  | /storage/gpfs_superb/prod/                                             |  |  |  |  |  |  |  |  |
| Version:                   |  | V0.2.5                                                                 |  |  |  |  |  |  |  |  |
| Release working Directory: |  | /storage/gpfs_superb/prod/FastSim_test_releases/SuperB/FastSim/V0.2.5/ |  |  |  |  |  |  |  |  |
| Revision:                  |  | 311                                                                    |  |  |  |  |  |  |  |  |

| JOBS DATA - SUMMARY |                |               |              |             |                  |                   |                              |          |                   |                |
|---------------------|----------------|---------------|--------------|-------------|------------------|-------------------|------------------------------|----------|-------------------|----------------|
| Set                 | Number of Jobs | Site          | First RUNNUM | Last RUNNUM | Number of Events | Analysis          | Generator                    | Geometry | Background        | Log in DB      |
| 1                   | 10             | VICTORIA-LCG2 | 10000000     | 10000009    | 10<br>(1 ea.)    | BtoKNuNu          | B+B-_Btag-<br>HD_Cocktail    | DG_0     | MixSuperbBkg.tcl  | 0              |
|                     |                |               |              |             |                  |                   |                              |          |                   | 2010_July      |
| 2                   | 1              | VICTORIA-LCG2 | 10000065     | 10000065    | 1<br>(1 ea.)     | HadRecoilCocktail | B0B0bar_Btag-<br>HD_Cocktail | DG_4     | PacProduction.tcl | 1              |
|                     |                |               |              |             |                  |                   |                              |          |                   | 2010_July_test |
| 2                   | 11             |               |              |             | 11               |                   |                              |          |                   |                |

Production Initialization and Script Generation

Example of 2 submissions:  
- SUMMARY before automatic submission

Automatic submission output

Submission in Progress...Submission Done! (11.657 s)

```
Submit general file... 1/1
Executing... /data/script_webui/FastSim/generalscripts/sbk4/2010_July_test/VICTORIA-
LCG2_10000065_10000065.sh

Launching Jobs
/tmp/tmp.IGerb28567

Executing command [/opt/exp_software/superb/ganga/install/5.5.26/bin/ganga --config-
path=/data/script_webui/FastSim/gangascripts//superB.ini
-o[Configuration]user=evianello -o[Configuration]gangadir=/tmp/tmp.IGerb28567
/gangadir /data/script_webui/FastSim/gangascripts//severus_ganga.gpi /data/
/script_webui/FastSim/confscripts/2010_July_test/ VICTORIA-
LCG2_10000065_10000065.conf 10000065 10000065 VICTORIA-LCG2 2010_July_test FastSim]

*** Welcome to Ganga ***
Version: Ganga-5-5-26
Documentation and support: http://cern.ch/ganga
Type help() or help('index') for online help.

This is free software (GPL), and you are welcome to redistribute it
under certain conditions; type license() for details.

[0;0mGanga.GPIDev.Lib.Job      : INFO    submitting job 0[0;0m
[0;0mGanga.GPIDev.Lib.Job      : INFO    job 0 status changed to
"submitting"[0;0m
```

Monitoring the job:

Show 25 entries

hide/show columns

Search:

66 jobs found matching the search criteria.

| runnum   | events | Analysis         | Generator                | Geometry | Background        | Status  | wct (s) |
|----------|--------|------------------|--------------------------|----------|-------------------|---------|---------|
| 10000065 | 1      | HadReco@Cocktail | B0B0bar_Btag-HD_Cocktail | DG_4     | PacProduction.tcl | running |         |

more details of running status - improvement from Severus

Search:

|         |                                                                         |               |
|---------|-------------------------------------------------------------------------|---------------|
| Status  | RUNNGEN01 the script is started Rest is OK<br>logger is OK sounds good! |               |
| running | gjid                                                                    | VICTORIA-LCG2 |



User's HOME page:

Home Page

USER INFO:

 Hi Enrico Vianello!

user-id: evianello  
auto-sub:  enabled  
you are member of 5 group(s):

- webui
- webuiFastProdMgr
- webuiFullProdMgr
- webuiShift
- WebUiDeveloper

user privileges:

-  create productions
-  create requests
-  shifter ui
-  expert ui
-  monitoring jobs

GUIDE

Use the Horizontal Menu to access the various section of the WebUI.  
  
See the 'Guide' boxes in the appropriate section...

RESOURCES

- Shifter Guide

YOUR SESSIONS' STATISTICS:

| session | job launched | job graph                                                                          | events generated | total wct (s) |
|---------|--------------|------------------------------------------------------------------------------------|------------------|---------------|
| FastSim | 51           |  | 51               | 2092.20       |

YOUR LAST 10 ACTIVITIES:

Show 10 entries

Search:

| time                | type          | session | info                                                                                                                                                          |
|---------------------|---------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2011-09-07 15:12:52 | JOBSUBMISSION | FastSim | job status:  Job submitted: 1 (events: 1) on 2010_July_test view details   |
| 2011-09-05 18:45:19 | JOBSUBMISSION | FastSim | job status:  Job submitted: 1 (events: 1) on 2010_July_test view details   |
| 2011-09-05 18:37:21 | JOBSUBMISSION | FastSim | job status:  Job submitted: 1 (events: 1) on 2010_July_test view details   |
| 2011-09-05 11:33:59 | JOBSUBMISSION | FastSim | job status:  Job submitted: 4 (events: 4) on 2010_July_test view details   |
| 2011-09-05 11:33:06 | JOBSUBMISSION | FastSim | job status:  Job submitted: 4 (events: 4) on 2010_July_test view details   |
| 2011-09-05 11:30:16 | JOBSUBMISSION | FastSim | job status:  Job submitted: 2 (events: 2) on 2010_July_test view details  |
| 2011-09-05 11:26:34 | JOBSUBMISSION | FastSim | job status:  Job submitted: 2 (events: 2) on 2010_July_test view details |
| 2011-09-05 11:25:25 | JOBSUBMISSION | FastSim | job status:  Job submitted: 2 (events: 2) on 2010_July_test view details |
| 2011-09-05 11:24:13 | JOBSUBMISSION | FastSim | job status:  Job submitted: 2 (events: 2) on 2010_July_test view details |
| 2011-09-05 10:48:46 | JOBSUBMISSION | FastSim | job status:  Job submitted: 4 (events: 4) on 2010_July_test view details |

Showing 1 to 10 of 10 entries

First Previous 1 Next Last

3 kinds of activity type:

- job submission
- production created
- request created

link to the submission status on job monitor page

FASTSIM JOB LIST

show filter dialog

refresh last search

error codes

Show 25 entries

hide/show columns

Search:

4 jobs found matching the search criteria.

| runname            | events | Analysis        | Generator                | Geometry | Background        | Status      | GLid | Site          | wct (s) |
|--------------------|--------|-----------------|--------------------------|----------|-------------------|-------------|------|---------------|---------|
| 10000038 evianello | 1      | HadRecoCocktail | BOB0bar_Btag-HD_Cocktail | DG_4     | PacProduction.tcl | done        | ggid | VICTORIA-LCG2 | 70.80   |
| 10000037 evianello | 1      | HadRecoCocktail | BOB0bar_Btag-HD_Cocktail | DG_4     | PacProduction.tcl | done        | ggid | GRIF          | 52.10   |
| 10000036 evianello | 1      | HadRecoCocktail | BOB0bar_Btag-HD_Cocktail | DG_4     | PacProduction.tcl | done        | ggid | VICTORIA-LCG2 | 83.60   |
| 10000035 evianello | 1      | HadRecoCocktail | BOB0bar_Btag-HD_Cocktail | DG_4     | PacProduction.tcl | failed null | ggid | GRIF          | 13.60   |

Showing 1 to 4 of 4 entries

First Previous 1 Next Last

table generated in '0000:00:01.17' (destroyed in: 0000:00:00.00)



Now there are the following LDAP groups:

- webui
- webuiFastProdMgr
- webuiFullProdMgr
- webuiShift
- WebUiDeveloper

which assign different privileges on webui users, this privileges are:

- init\_full
- init\_fast
- init\_shift
- shift\_monitor
- view\_monitor
- create\_production
- create\_request

In a generic <session oriented> project these groups and privileges are not enough  
the proposal is to introduce following LDAP groups and privileges:

groups:

webuiSessionMgr  
webuiProductionMgr  
webuiExpertUser  
webuiShifterUser  
webuiUser

privileges:

create session  
create production  
create request  
validate request  
view monitor  
shift init  
expert init

| groups             | privileges     |                   |                |                  |              |            |             |
|--------------------|----------------|-------------------|----------------|------------------|--------------|------------|-------------|
|                    | create session | create production | create request | validate request | view monitor | shift init | expert init |
| webuiSessionMgr    |                |                   |                |                  |              |            |             |
| webuiProductionMgr |                |                   |                |                  |              |            |             |
| webuiExpertUser    |                |                   |                |                  |              |            |             |
| webuiShifterUser   |                |                   |                |                  |              |            |             |
| webuiUser          |                |                   |                |                  |              |            |             |





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