

CTACG Cherenkov Telescope Array Computing Grid

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www.eu-egee.org





- Introduction
- CTA Observatory E-Infrastructures
- CTACG project: CTA design study and MC production
- Progress
- Conclusion and perspectives



- CTA is a new project for ground based gamma-ray astronomy planned to consist of several tens of Imaging Atmospheric Cherenkov Telescopes (IACTs)
- CTA is an Astroparticle research infrastructure aimed to work as an observatory providing services making gamma-ray astronomy accessible to the entire community
- The CTA international consortium is currently committed in a Design Study phase





CTA E-Infrastructures

Enabling Grids for E-sciencE

The CTA Observatory main logical units :

- Science Operation Centre: organisation of observations
- Array Operation Centre: the on-site service
- Science Data Centre:
 - Software development
 - Data analysis
 - Data reduction
 - Data archiving
 - Data dissemination to observers



Total expected data volume from CTA: 1 to 3 PB per year MC requirements: tens of CPU years, hundreds of TB

Existing ICT-based infrastructures, such as EGEE and GEANT, are potential solutions to provide the CTA observatory with best use of e-infrastructures.

This possibility is studied within a dedicated sub-project of the CTA Design Study: the CTA Computing Grid (CTACG) project.





• **CTACG (CTA Computing Grid) aims at:**

- Optimising the application of grid technologies for the CTA:
 - Simulation
 - Data processing
 - Storage
 - Offline analysis
 - Virtual Observatory interface



- Providing enough resources to run current simulations
- Enabling CTA collaborators to get existing output files

CGCC From CTACG to CTA E-Infrastructures





- <u>Grid infrastructure</u>: a dedicated EGEE VO named vo.cta.in2p3.fr created in 2008 and including 14 sites in 4 countries (France, Germany, Spain, Poland)
- Resources overview (31 March 2010)

| Country | Site | Available Storage (TB) | Available CPUs |
|---------|---------------|------------------------------|-------------------|
| | IN2P3-LAPP | 15 | 760 |
| Eropoo | IN2P3-CC | 280 | 4745 |
| France | GRIF-IRFU | 10 | 4670 |
| | MSFG-OPEN | 10 | 104 |
| Cormony | MPPMU | 10 | 856 |
| Germany | DESY-ZN | 10 | 672 |
| Spoin | pic | 7 | 1365 |
| Spain | CIEMAT-LCG2 | 1 | 824 |
| Delend | CYFRONET-LCG2 | 100 | 1984 |
| Poland | CAMK | 5 | 0 |
| Total | All CTA sites | 448 | 15980 |

Available software:

Corsika + sim_telarray (18 Feb 2010)

- \Rightarrow ~ 450 TB available (280 TB used)
- ⇒ fulfills MC requirements:
 > 400 TB SE, > 300 CPUs CE





• Requirements :

- Automated/permanent tool
- Generic and self consistent tool
- Embedded monitoring, logging and bookkeeping systems
- Tool based on already tried and tested EGEE Grid tools
- Easily configurable tool to run simulations, analysis or other tasks
- Smart management of Grid resources, according to available resources
- Monitoring of sites, tasks, jobs, output files
- From a user point of view:
 - No specific Grid knowledge needed to run the jobs and get information and output files from the jobs

CTACG Architecture

Enabling Grids for E-sciencE



EGEE-III INFSO-RI-222667

eGee

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CTACG - Ganga Grid interface





• Based on GANGA

(Gaudi/Athena aNd Grid Alliance: http://ganga.web.cern.ch)

 Grid front-end for job definition and management in Python: developed, used and maintained by the LCG (LHC Computing Grid) community

- CTA Grid interface developed at LAPP by S.Elles and O.Arnaez (Atlas LAPP group)



- Main features:
 - Runs as a daemon for CTA
 infinite loop that automatically launches all tasks defined in the central database
 - Automated start of new tasks once defined
 - Stop, restart, delete jobs/tasks possible at any moment on demand
 - Embedded Grid resources management tool
 - Logging, bookkeeping, monitoring systems
- Current status: applied to MC production:
 - Centrally done at LAPP
 - Will then be open to all users

egee

CTACG - User interface





Task configuration





- Web interface developed in Java at LAPP by Thierry Le Flour, enabling for each software:
 - Software parameters creation (lists, one by one)
 - Setting of values for these parameters (some of them mandatory)
 - Cloning of a software configuration (ex: need to add a few parameters when new software released)
 - Cloning of all parameters values (ex: need to run the same software with different input values)
- Central database automatically updated upon changes
- 2 available levels:
 - Administrator level with full access to the tool
 - User level allowing to change only a few parameters (chosen by the administrator)

Software configuration tool

Enabling Grids for E-sciencE

| CTA Production Software Manager | | |
|--|--|-------------------------|
| | CTA PRODUCTION : SOFTWARE CONFIGURATION | |
| Software Parameter | Properties | -Context |
| Callingue List | Properties | Parameter Definition |
| Soliware List | value Setting for parameter : LLIMIT | Parameter Instanciation |
| - CORSIKA[In Instanciation : p7] | LLIMIT 300 (float) Description | Expert Mode |
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| Primary Particle Options | | |
| - 🍓 PRMPAR[int] | | |
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| | | |
| | at : 2010-03-31 11:03:25.0 | |
| Hoat | State : LULKED | |
| | Created by p1 | |
| • | at : 2010-04-01 09:59:25.0 State : LOCKED | |
| — 海 ESLOPE[float] | Prod. : p1(linked to config. : <u>CORSIKA</u>) | |
| | Created by p1 at 1 2010-04-01 14/36/23 0 | |
| | State : LOCKED | |
| Site Specific options | Prod. : p8(linked to config. : CORSIKA) | |
| Telescone positions, for IACT o | at : 2010-04-01 16:32:51.0 | |
| - M Interaction flags | State : <u>IN CONSTRUCTION</u> | |
| Cherenkov emission parameter: | Prod. : TestProd(linked to config. : <u>CORSIKA</u>) | |
| Debugging and output options | at : 2010-04-01 18:05:48.0 | Save |
| 4 N I I | Production Instances | Cancel |
| 010-4-2 11:2:41 DB Server contacted : lappweb02.in2p3.fr | | |
| 010-4-2 11:2:41 010-4-2 11:10:26 Select the instance to load. (Right button | n selected software) or create a new one | |
| 010-4-2 11:10:43 current instance unloaded | | |
| 010-4-2 11:15:2 Select the instance to load. (Right Button o | zeierren zoitwale) ol rilegte a liem olle"" | |
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<u>Current status</u>: design study, operational for CTA production (Corsika) and reconstruction (sim_telarray)

eGee

Task configuration tool

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 Web interface developed in PHP/HTML

eee

- Enables the administrator:
 - to choose on which sites to run according to all available information (EGEE broadcast, failed jobs on one site, ...)
 - to choose scripts and executables to be submitted, number and subsets of jobs to run according to available resources
 - to start/stop restart the jobs submission or only a subset (bunch).
- <u>Status</u>: ready and running for CTACG

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| miná | | Mecc-ODEN operational 10625 CB 104 CDUr |

Enabling Grids for E-science



Create the job: files on config files and grid SEs GANGA scripts CE job and grid control central data base out: in: **User Interface** browse configure and start a monitoring results task • task configuration monitoring web interface access to result files **CGCC** Sites, Tasks and Jobs Monitoring

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Access to result files





Enabling Grids for E-sciencE

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| | logs long part small | Small files: .info, .input, .lst, .tab, .md5.sum Logs: .job.out, .job.err | Get the LFN list! | |
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- Search engine through a web interface:
 - Users can list files matching the research criteria
 - In the future, they will be able to download these files
- Status: pending

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CTACG dashboard

Enabling Grids for E-sciencE

Inspired by the Auger dashboard (4th EGEE User Forum Catania)

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- Used to • access and run all the previous tools from a unique web page
- Status: ٠ operational, not yet online

Terminé





- CTACG:
 - Current developments fulfill requirements
 - CTA MC Production successfully tested and running
- Perspectives:
 - Further adaptation of these tools to other CTA software (e.g. data analysis)
 - Extension of Ganga tools to other Particle Physics projects
 - Provide public access to data and software

CTACG as core of "CORE" (CTA Observatory & Research E-infrastructure proposal submitted to FP7 - Call INFRA-1.2.3)

• Further questions/comments:

- <u>http://lappwiki01.in2p3.fr/CTA-FR/doku.php?id=cta-computing-grid-public</u>
- ctacg-support (at) lapp.in2p3.fr



Enabling Grids for E-sciencE

Backup

EGEE-III INFSO-RI-222667



Software configuration tool

Enabling Grids for E-sciencE

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| Cool Delete Selected coftware Clore Software Config. Modification Group Composition Delete selected Parameter Tem Delete selected Parameter Create Date selected Parameter Delete selected Type Definition Create Linit Delete selected Type Definition Create Linit Delete selected Drain Delete selected Drain Create Linit Delete selected Type Definition Delete selected Type Definition Create Linit Delete selected Unit Create Linit Delete selected Unit Create Unit Delete selected Unit Create Bypin Attrosphere[] Parameters Prod.: p1(linked to config.: CORSIKA) Created bypin Attrosphere[] Prod.: p2(linked to config.: CORSIKA) Created bypin State: LOCKED Prod.: p2(linked to config.: CORSIKA) Created bypin State: LOCKED Prod.: p2(linked to config.: CORSIKA) Created bypin State: LOCKED Prod.: p2(linked to config.: CORSIKA) Created bypin State: INCONSTRUCTION Prod.: TeXProx(linked to config.: CORSIKA) Created bypin State: State: IN CONSTRUCTION < | Create Software Confi | g, | Parameter Instanciation |
| Clone Software Config. Modification Group Composition Delete: selected Parameter Group Create Parameter Item Delete: selected Parameter Delete: selected Parameter Delete: selected Unit Create Init Delete: selected Unit Create Type Definition Delete: selected Unit Create Type Definition Delete: selected Type Definition Delete: selected: Configuration Parameters: Configuration Prod.: p7(linked to config.: CORSIKA) Created by p1 at: 2010-04-01 16/35:23.0 State:: LOCKED Prod.: p1(linked to config.: CORSIKA) Created by celle at: 2010-04-01 16/35:23.0 State:: LOCKED Prod.: p1(linked to config.: CORSIKA) Created by celle at: 2010-04-01 16/35:23.0 State:: LOCKED Prod.: p6(linked to config.: CORSIKA) Created by celle at: 2010-04-01 16/35:140 State:: LOCKED Prod.: p6(linked to config.: CORSIKA) Created by celle at: 2010-04-01 16/35:140 State:: LOCKED Prod.: p6(linked to config.: CORSIKA) Created by p1 at: 2010-04-01 16/3 | COF Delete Selected softwa | re | 🖌 Expert Mode |
| Image: State Parameter Group Create Parameter Group Create Parameter Group Delete selected Parameter Group Create Parameter Item Create Init Delete selected Parameter Delete selected Data Delete selected Durit Delete selected Unit Create Unit Delete selected Type Definition Delete selected Dype Delete selected Dype Delete selected Dype Definition Delete selected Dype Definition <td>Clone Software Config</td> <td>J</td> <td>1.0</td> | Clone Software Config | J | 1.0 |
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| Detect selected Parameter Debete selected Drameter Debete selected Unit Create Unit Debete selected Unit Create Type Definition Debugging and output options Debugging and output options Parameters Configuration ARRANG[float] ARRANG[float] ATMOSPHERE[] Int Doolean CERFIL[boolean] CERFIL[boolean] COMOUT[boolean] COMOUT[boolean] | Create Parameter Iten | h | |
| Create Debete Debugging and output options Debete Debete Debugging and output options Debete Debete Debugging and output options Debete Debugging and output options Debete Debugging and output options Debete Debete Debugging and output options Debete Debugging and output options Debete Debugging and output options Debugging and output options< | Create Deve Davamate | | |
| Create Unit Delete selected Unit Create Type Definition Delete selected Type Definition Delete selected Type Definition Debugging and output options Parameters Configuration Parameters Configuration Parameters Configuration Parameters Configuration Prod. : p7(linked to config. : CORSIKA) Created by p1 at : 2010-04-01 09:55:25.0 State : Int Created by p1 at: 2010-04-01 09:55:25.0 State : Int Debugant | Delete selected Param | eter | |
| Delete selected Unit Create Type Definition Debugging and output options Debugging and output options Parameters Configuration Parameters Configuration ARRANG[float] ARMOSPHERE[] int Doloean CERFIL[boolean] COMOUT[boolean] | Create Unit | | |
| Create Type Definition Debugging and output options Debugging and output options Parameters Configuration Parameters Configuration Prod.: p7(linked to config.: <u>CORSIKA</u>) Created by p1 at : 2010-04-01 09:55:25.0 State : <u>LOCKED</u> Prod.: p8(linked to config.: <u>CORSIKA</u>) Created by p1 at : 2010-04-01 14:35:23.0 State : <u>LOCKED</u> Prod.: p8(linked to config.: <u>CORSIKA</u>) Created by p1 at : 2010-04-01 14:35:23.0 State : <u>LOCKINE</u> Prod.: p8(linked to config.: <u>CORSIKA</u>) Created by celle at : 2010-04-01 16:32:51.0 State : <u>IN CONSTRUCTION</u> Prod.: TestProd(linked to config.: <u>CORSIKA</u>) Created by p1 at : 2010-04-01 18:05:14:0 State : <u>IN CONSTRUCTION</u> | P- Delete selected Unit | | |
| Petete selected Type Definition Cherenkov emission parameters Debugging and output options Parameters Configuration Parameters Configuration ARRANG[float] ARRANG[float] ARMOSPHERE[] int Doloean CERFIL[boolean] CERFIL[boolean] CERFIL[boolean] Certaid by pi Composition <td< td=""><td>Create Type Definition</td><td>5</td><td></td></td<> | Create Type Definition | 5 | |
| State : LOCKED Pebugging and output options Parameters Configuration ARRANG[float] ARRANG[float] Prod. : p7 (linked to config. : CORSIKA) Created by p1 at : 2010-04-01 19:53:25.0 State : LOCKED Prod. : p7 (linked to config. : CORSIKA) Created by p1 at : 2010-04-01 14:35:23.0 State : LOCKED Prod. : p1 (linked to config. : CORSIKA) Created by p1 at : 2010-04-01 14:35:23.0 State : LOCKED Prod. : p2 (linked to config. : CORSIKA) Created by p1 at : 2010-04-01 14:35:23.0 State : LOCKED Prod. : p2 (linked to config. : CORSIKA) Created by cecile at : 2010-04-01 16:32:51.0 State : IN CONSTRUCTION Prod. : TestProd(linked to config. : CORSIKA) Created by P1 at : 2010-04-01 18:05:48:0 State : IN CONSTRUCTION | 👝 🜒 Delete-selected Type I | Definition at 1 2010-03-31 11:03:25.0 | |
| Debugging and output options Parameters Configuration ARRANG[float] ARRANG[float] ATMOSPHERE[] Int Debugation CERFIL[boolean] Certade by Pl at : 2010-04-01 18:05:40.0 State : IN CONSTRUCTION Save | Cherenkov emission | Darameters State : LOCKED | |
| Parameters Configuration at : 2010-04-01 09:59:25.0 State : LOCKED State : LOCKED ARRANG[float] Prod. : p1(linked to config. : CORSIKA) | Debugging and out | .put options Prod. : p7(linked to config. : <u>CORSIKA</u>) | |
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| ARRANG[Roat] Prod.: p1 [linked to config.: CORSIKA) Created by p1 at : 2010-04-01 14:36:23:0 State: LOCOSIKA) boolean Created by celle at : 2010-04-01 16:32:51:0 State: INCONSTRUCTION Prod.: FILINGE to config.: CERFIL[boolean] Prod.: Created by P2 Created by P3 CCRESIZ[Roat] Created by P4 State: INCONSTRUCTION Prod.: State: Created by P4 State: State: INCONSTRUCTION State: INCONSTRUCTION State: INCONSTRUCTION | | State : LOCKED | _ |
| ← → ATMOSPHERE[] → int → int → boolean → CERFIL[boolean] → → CERFIL[boolean] → → → | — 🤷 ARRANG[float] | Prod. : p1(linked to config. : <u>CORSIKA</u>) | |
| State : LOCKED State : LOCKED Prod. : p8(linked to config. : CORSIKA) CERFIL[boolean] State : IN CONSTRUCTION Prod. : p8(linked to config. : CORSIKA) CERFIZ[float] CERSIZ[float] COMOUT[boolean] V | | at : 2010-04-01 14:36:23.0 | |
| Prod.: p8 [inked to config.: CORSIKA) Created by cecle CERSIZ[float] Computer State: IN CONSTRUCTION Save State: IN CONSTRUCTION | | State : LOCKED | |
| | - Sint | Prod. : p8(linked to config. : <u>CORSIKA</u>) — Created by cecile | |
| → 0 CERFIL[boolean] State : IN CONSTRUCTION → 0 CERSIZ[float] Prod. : TestProd() linked to config. : CORSIKA) → 0 CERSIZ[float] Created by PP → at : 2010-04-01 18:05:48.0 Save State : IN CONSTRUCTION Save | - S boolean | at : 2010-04-01 16:32:51.0 | |
| - 20_CERSIZ[float] ▼ - 20_COMOUT[boolean] ▼ | — 🦥 CERFIL[boolean] | State : IN CONSTRUCTION | |
| at : 2010-04-01 18:05:48.0 Save | — 🚵, CERSIZ[float] | Prod. : TestProd(linked to config. : CORSIKA) | |
| State: In CONSTRUCTION | | at : 2010-04-01 18:05:48.0 | Save |
| Caprel | — 🧠 COMOUT[boolean] | | Capcel |
| | CERFIL[boolean] | Prod.: p9(linked to config.: CORSIKA) Created by cecile at: 2010-04-01 16:32:51.0 State: IN CONSTRUCTION Prod.: TestProd(linked to config.: CORSIKA) Created by PP at: 2010-04-01 18:05:48.0 State: IN CONSTRUCTION | |

Create or clone a software configuration **egee**

Software configuration tool

Enabling Grids for E-sciencE

| | CTA PRODUCTION : SOFTWARE CONFIGURATION | |
|---|---|-------------|
| Software Parameter | Properties | -Context- |
| CORSIKA Parameter Groups Configur GENERAL PARAMETER Winner EVTINE NSI SEED | Properties Parameter Name : ATMOSPHERE Description : Constraints List : Add a new constraints | Expert Mode |
| Primary Particle Option Primary Particle Option Site Specific options Core Range Telescope positions, for TELESCOPE Interaction flags | Load Description | ancel |
| Cherenkov emission pa Debugging and output Parameters Configuration Cherenkov emission Parameters Configuration | | |
| ATMOSPHERE[] | Prod. : p1(linked to config. : <u>CORSIKA</u>) Created by p1 at : 2010-04-01 14:36:23.0 State : <u>LOCKED</u> Prod. : p8(linked to config. : <u>CORSIKA</u>) Created by cecile at : 2010-04-01 16:32:51.0 State : LOCKED | = |
| COMOUT[boolean] | Prod. : TestProd(linked to config. : <u>CORSIKA</u>) Created by PP at : 2010-04-01 18:05:48:0 State : <u>IN CONSTRUCTION</u> | Save |
| 2010-4-2 11:2:41 DB Server contacted : lappweb02.in2 2010-4-2 11:2:41 2010-4-2 11:10:45 Select the instance to load. (Right bu 2010-4-2 11:10:43 current instance to load. (Right bu 2010-4-2 11:13:2 Select the instance to load. (Right but | p3.fr p3.fr Iton on selected software) or create a new one ton on selected software) or create a new one | Cancel |

Create parameters and groups of parameters in the selected software configuration Software configuration tool

Enabling Grids for E-sciencE



Load, create or clone a production instance

eGee

Software configuration tool

Enabling Grids for E-sciencE

| CTA Production Software Manager | | |
|---|---|----------------------------------|
| | CTA PRODUCTION : SOFTWARE CONFIGURATION | |
| Software Parameter | Properties Properties | -Context Parameter Definition |
| CORSIKA[In Instanciation : p7] | Value Setting for parameter : LLIMIT- | Parameter Instanciation |
| Parameter Groups Configuration GENERAL PARAMETERS SEED Primary Particle Options | | |
| ELIMIT GEV | Confirm Cancel | |
| PHIP[] - ♣ float | at : 2010-03-31 11:03125.0 State : LOCKED | |
| | Prod. : p7(linked to config. : <u>CORSIKA</u>) Created by p1 at : 2010-04-01 09:59:25.0 State : LOCKED | |
| - lescope[float] | Prod. : p1(linked to config. : <u>CORSIKA</u>) | |
| | | |
| Core Range Telescope positions, for IACT o | Greated by cecile at : 2010-04-01 16:32:51.0 State : IN CONSTRUCTION | = |
| Cherenkov emission parameter: Debugging and output options | Prod. : TestProd(linked to config. : <u>CORSIKA</u>) Created by PP at : 2010-04-01 18:05:48.0 | Save |
| | State : IN CONSTRUCTION Production Instances | Cancel |
| 10-4-2 11:2:41 DB Server contacted : lappweb02.in2p3. 10-4-2 11:2:41 10-4-2 11:10:26 Select the instance to load. (Right buttor 10-4-2 11:10:43 current instance unloaded 10-4-2 11:13:2 Select the instance to load. (Right button | on selected software) or create a new one | |
| to reactions been the instance to road (Agric ballon | | |

Set values to mandatory parameters of a production instance

eeee



• Enables the administrator to choose on which sites to run according to all information he has (EGEE broadcast, failed jobs on one site, ...)

| CTACG Site Configuration Interface - Mozilla Firefox | |
|---|------------------------------------|
| chier Éditio <u>n A</u> ffichage <u>H</u> istorique <u>M</u> arque-pages <u>O</u> utils | 2 |
| CTACG Site Configuration Interface | |
| | |
| | CTACC Site Configuration Interface |
| | CTACG Site Configuration Interface |
| Site status | |
| IN2P3-LAPP | |
| ⊙operational ⊖ignore ⊙down | |
| IN2P3-CC | |
| ⊙operational ○ignore ○down | |
| GRIF-IRFU | |
| ⊙operational ○ignore ○down | |
| GRIF-LAL | |
| ⊙operational ⊙ignore ⊙down | |
| GRIF-APC | |
| 🔿 operational O ignore 🗵 down | |
| CRIE-LLR | |
| rminé | ▲ 0:3 ¥ ☞ ふろろろろ ♥、 |



User interface: jobs submission

Enabling Grids for E-sciencE

• Enables the administrator to choose scripts and executables to be submitted, number and subsets of jobs to run according to available resources; to start the jobs submission.

| 🕹 CTACG Job Submission Interface - Mozilla Firefox | | | |
|---|----------------------------------|--|---------|
| Eichier Édition Affichage Historique Marque-pages Outils ? | | | |
| CTACG Job Submission Interface | | | - |
| | | | ~ |
| CTACG Jo | b Submissi | on Interface | |
| Production parameters | Bunch size | Bunches per site | |
| Production instance choice Script Directory Write here the path to the script you wish to run SE Data Path Write here the path where to store the output files on the SEs Software Name | 0 1 0 2 0 3 0 5 0 10 | IN2P3-LAPP 4 operational 2184 GB 763 CPUs IN2P3-CC 10 operational 15728 GB 3526 CPUs GRIF-IRFU 2 operational 189 GB 1165 CPUs GRIF-LAL 2 operational 528 GB 47 CPUs | 100 |
| CORSIKA Software Release v_03_18feb10 | ○ 20 ● 50 | GRIF-APC 2 operational 4691 GB 56 CPUs GRIF-LLR 2 operational 916 GB 163 CPUs | |
| Grid Shell Filename LN_PRODex10.sh | 0 100 | GRIF-LPNHE 2 operational 0 GB 586 CPUs | |
| LFN Automatic Detection • yes | | MSFG-OPEN 3 operational 10625 GB 104 CPUs | |
| © no < | | DESY-ZN 4 operational 4566 GB 0 CPUs PIC 10 operational 12354 GB 72 CPUs | > |
| Terminé | | 🚊 0:3 💥 🖼 👉 | 201 X 🔀 |



User interface: production

Enabling Grids for E-sciencE

• Enables the administrator to select an existing production and change its status.

| CTACG Site Configuration Interface - Mozilla Firefox | |
|---|---|
| Eichier Édition Affichage Historique Marque-pages Qutils ? | |
| CTACG Site Configuration Interface | · · · · · · · · · · · · · · · · · · · |
| | CTACG Production Interface |
| Production name and current status #70 p6 (stopped) ✓ #24 p5 (done) #59 p5 (done) #69 p6 (ready) #70 p6 (stopped) #71 p6 (stopped) #72 p7 (stopped) | Production new status required cmd_none cmd_stop_submission_and_kill_jobs cmd_stop_submission cmd_restart_failed cmd_restart_from_zero |
| | Valid |



User interface: subsets

Enabling Grids for E-sciencE

 Enables the administrator to select a subset of jobs among an existing production and change its status.

| 🕙 CTACG Bunches Interface - Mozilla Firefox | | |
|--|---|--|
| Eichier Édition Affichage Historique Marque-pages Qutils ? | | |
| CTACG Bunches Interface | | |
| | CTACG Bunches Interface | |
| Production #70 (cmd_none) | | |
| Bunches number and current status | Bunch new status required | Bunch new site required |
| #662 (ready) IN2P3-LAPP #662 (ready) IN2P3-LAPP #663 (ready) IN2P3-LAPP #664 (ready) IN2P3-CC #665 (ready) IN2P3-CC #666 (ready) GRIF-APC #667 (ready) DESY-ZN #668 (ready) MSFG-OPEN | cmd_none cmd_stop_submission_and_kill_jobs cmd_stop_submission cmd_restart_failed cmd_restart_from_zero | IN2P3-LAPP operational 2184 GB 763 CPUs IN2P3-CC operational 15728 GB 3526 CPUs GRIF-IRFU operational 189 GB 1165 CPUs GRIF-LAL operational 528 GB 47 CPUs GRIF-APC operational 4691 GB 56 CPUs GRIF-LLR operational 916 GB 163 CPUs GRIF-LPNHE operational 0 GB 586 CPUs MSEC-ODEM operational 10625 CB 104 CDUs |
| Terminé | | 🖄 0:3 💥 SP 🖓 🏠 |



Sites Monitoring

- Display of site status, storage and CPUs available at each site
- Detailed job status per site

| 🕹 CTA-CG - Grid sites status - Mozilla Firefox | | | | | | | | |
|--|--------------------------------------|-----------------------------|------------------|------|-----------------|---------|--|--|
| Eichier Édition Affichage H | istorique <u>M</u> arque-pa <u>c</u> | jes <u>O</u> utils <u>?</u> | | | | | | |
| CTA-CG - Grid sites status | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| CTA-CG platform - Grid sites status - LAPP | | | | | | | | |
| | | | | | Wed Apr 7 15:57 | 25 2010 | | |
| Site name | Site status | | .loh status | | Storage (GB) | CPU | | |
| IN2P3-LAPP | operational | 16 | 22 | | 2184 | 537 | | |
| IN2P3-CC | operational | 25 | | - 34 | 15728 | 3401 | | |
| GRIF-IRFU | operational | 3 | | | 189 | 663 | | |
| GRIF-LAL | operational | 6 3 | - | | 528 | 6 | | |
| GRIF-APC | operational | 8 8 | | - | 4691 | 56 | | |
| GRIF-LLR | operational | з | - | | 916 | 392 | | |
| GRIF-LPNHE | operational | 3 | 1.) | | 0 | 464 | | |
| MSFG-OPEN | operational | 14 | 15 | - | 10625 | 104 | | |
| MPPMU | operational | 6 3 | - | | 4566 | 385 | | |
| DESY-ZN | operational | 11 <mark>1</mark> | 16 | - | 4566 | 0 | | |
| PIC | operational | 9 6 | - | | 12354 | 315 | | |
| CIEMAT-LCG2 | operational | 3 | ()) | | 231 | 751 | | |
| CYFRONET-LCG2 | operational | 6 9 | - | | 7618 | 153 | | |
| CAMK | operational | 3 | - | | 3870 | 153 | | |
| scheduled waiting running done failed | | | | | | | | |
| | | | | | | | | |
| × Rechercher : Suivant 👚 Précédent 🖉 Surligner tout 🔲 Respecter la casse | | | | | | | | |
| Terminé | | | | | | 2 🔀 🛛 🖽 | | |



- Display of tasks status (global and per site)
- Detailed job status per site

| 🕹 CTA-CG - Task status - Mozilla Firet | ίοx | | | | | | | |
|--|-------------------------|--|----------------|----------------------|--------------------|-------------------------|---------------------------------------|--|
| Eichier Édition Affichage Historique Marque-pages Qutils 2 | | | | | | | | |
| CTA-CG - Task status | | | | | | | | |
| | | | | | | | | |
| | | | | | | | ····· | |
| | | | | CTA-CG platform - 1 | asks status - LAPP | | | |
| | | | | | | | | |
| | | | | | | | Wed Apr 7 15:57:25 2010 | |
| p7 | | ld:72 | readv | CORSIKA v 03 18feb10 | | Wed Apr 7 15:57:04:2010 | | |
| alobal job list | 4 | | , | 56 | 6 63 | 80% | Detailed inhistatus | |
| IN2P3.1 APP | 6 | | | | 6 | 10% | scheduled waiting rupping done failed | |
| IN2P3-CC | 18 | | | | 18 | 29% | series and series | |
| GRIF-LAL | 3 | | | | 3 | 5% | | |
| MSFG-OPEN | 12 | | | | 12 | 19% | | |
| MPPMU | 3 | | | | 3 | 5% | | |
| DESY-ZN | 1 8 | | | | 9 | 13% | | |
| PIC | 6 | | | | 6 | 0% | | |
| CYFRONET-LCG2 | 6 | | | | 6 | 10% | | |
| p6 | | ld:71 | stopped | CORSIKA v_03_18feb10 | | | Thu Apr 1 19:35:56 2010 | |
| p6 | | ld: 70 | stopped | CORSIKA v_03_18feb10 | | | Wed Apr 7 11:50:27 2010 | |
| global job list | | | | 30 | 30 | 0% | Detailed job status | |
| IN2P3-LAPP | | 10 | | | 10 | 0% | scheduled waiting running done failed | |
| IN2P3-CC | | 10 | | | 10 | 0% | | |
| GRIF-APC | 5 | | | | 5 | 0% | | |
| MSFG-OPEN | 5 | | | | 5 | 0% | | |
| DESY-ZN | 5 | | | | 5 | 0% | | |
| p6 | | ld:69 | stopped | CORSIKA v_03_18feb10 | | | Tue Apr 6 16:28:18 2010 | |
| global job list | | | | 76 | 76 | 0% | Detailed job status | |
| IN2P3-LAPP | 6 | | | | 6 | 0% | scheduled waiting running done failed | |
| IN2P3-CC | 15 | | | | 15 | 0% | | |
| GRIF-IRFU | 3 | | | | 3 | 0% | | |
| GRIF-LAL | 6 | | | | 6 | 0% | | |
| GRIF-APC | 3 | | | | 3 | 0% | | |
| GRIF-LLR | 3 | | | | 3 | 0% | | |
| GRIF-LPNHE | 3 | | | | 3 | 0% | | |
| MPPMII | 3 | | | | 9 | 0% | | |
| DESY-ZN | 6 | | | | 6 | 0% | | |
| PIC | 0 | | | | 6 | 0% | | |
| CIEMAT-LCG2 | 3 | | | | 3 | 0% | | |
| Y Distanting | | Culoubus Do | | | | | | |
| A Rechercher: | 🖡 guivant 👕 Brecedent 🖌 | Sunigher tout <u>R</u>espe | ecter la casse | | | | | |
| Termine | | | | | | | | |



Detailed job Monitoring

- Display of jobs status within a task
- Detailed list and status of output files in SEs

| 🕹 CTA-CG platfrom - Mozilla Firefox | | | | | | | |
|--|---|---|----------------|-------------------------|---------------------|--|--|
| Eichier Éditio | o <u>n A</u> ffichage <u>H</u> istoriqu | ue Marque-pages Qutils ? | | | | | |
| CTA-CG | platfrom | * | | | - | | |
| | | | | | ^ | | |
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| | | CTA-CG platform - job status - LAPP | | | | | |
| | | | | | | | |
| Wed Apr 7 15:57:25 2010 | | | | | | | |
| p7 | | | | | | | |
| 111 | | | | | | | |
| Job number | Status | LFN | Grid site name | Time stamp | Ganga job number | | |
| 1 | done | Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/corsika /run000157_dir.tar.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/corsika/run157.corsika.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/corsika/run157.corsika.gz X /0.0deg/Data/gamma_0deg_180deg_run157cta-ultra3_desert.simhess.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//X00/sim_hessarray/cta-ultra3 X /0.0deg/Data/gamma_0deg_180deg_run157cta-ultra3_desert.simhess.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/X00/sim_hessarray/cta-ultra3 /0.0deg/Histograms/gamma_0deg_180deg_run157cta-ultra3_desert.hodata.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/mcrosum_fct_us_s0_200/sim_hessarray/cta-ultra3 /0.0deg/Histograms/gamma_0deg_180deg_run157cta-ultra3_desert.hodata.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_14_PP_2/mcrosum_fct_us_s0_200/sim_hessarray/cta-ultra3 /0.0deg/Histograms_0deg_180deg_run157cta-ultra3_desert.log.gz | IN2P3-LAPP | Fri Apr 2 15:39:39 2010 | 953 filos | | |
| 2 | dahe | In:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/corsika /run000158_dir.tar.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/corsika/run158.corsika.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/sim_hessarray/cta-ultra3 X /0.0deg/Data/gamma_0deg_180deg_run158cta-ultra3_desert.simhess.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0//300/sim_hessarray/cta-ultra3 /0.0deg/Histograms/gamma_0deg_180deg_run158cta-ultra3_desert.hdata.gz Ifn:/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 /0.0deg/Log/gamma_0deg_180deg_run158cta-ultra3_desert.hdata.gz | IN2P3-LAPP | list for a j | job 954 | | |
| 3 | done | Inv/arid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/corsika /run000159_onMod.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/corsika/run159.corsika.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 X /0.0deg/Data/gamma_0deg_180deg_run159cta-ultra3_desert.simhess.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 X /0.0deg/Data/gamma_0deg_180deg_run159cta-ultra3_desert.simhess.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 X /0.0deg/Histograms/gamma_0deg_180deg_run159cta-ultra3_desert.simhess.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 X /0.0deg/Histograms/gamma_0deg_180deg_run159cta-ultra3_desert.simhess.gz Inr/grid/vo.cta.in2p3.fr/user/test_LAPP_2/MC/SIM_TEL/v_03_18feb10/1/0/0/300/sim_hessarray/cta-ultra3 X /0.0deg/Histograms/gamma_0deg_180deg_run159cta-ultra3_desert.simhess.gz | IN2P3-LAPP | Fri Apr 2 15:39:39 2010 | 955 | | |
| X Rechercher : Précédent 🖉 Syrligner tout 🗌 Respecter la casse | | | | | | | |
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