



"Offline Batch Reconstruction"



Henry Nebrensky

Brunel University



MICE Raw Data

Raw data on Grid, for up to December 2012 run inclusive

- Data validation up to last December (run 4778)
- All data tarballs valid (internal checksums OK)
- All data tarballs have two copies on tape at Tier 1 Castor
- All data tarballs have overall checksums match between Castor and MLCR copy
- Copies of data at RAL PPD, Imperial College (web) and Brunel (Grid/WebDAV)



MICE Data

Copies of data at RAL PPD, Imperial College (web) and Brunel (Grid/WebDAV)

The screenshot shows a Windows Internet Explorer browser window displaying a directory listing for the URL `/dpm/brunel.ac.uk/mice1/mice/MICE/Step1/04700/`. The browser's address bar shows the full URL: `https://dgc-grid-38.brunel.ac.uk/dpm/brunel.ac.uk/mice1/mice/MICE/Step1/04700/`. The directory listing table contains the following data:

Mode	UID	GID	Size	Modified	Name
-r--r--r--	101	107	9.1M	Thu, 14 Feb 2013 08:49:53 GMT	04742.tar
-r--r--r--	101	107	550.0K	Thu, 14 Feb 2013 08:50:46 GMT	04743.tar
-r--r--r--	101	107	840.0K	Thu, 14 Feb 2013 08:51:26 GMT	04744.tar
-r--r--r--	101	107	100.0K	Thu, 14 Feb 2013 08:52:08 GMT	04745.tar
-r--r--r--	101	107	10.0K	Thu, 14 Feb 2013 08:52:39 GMT	04746.tar
-r--r--r--	101	107	2.1M	Thu, 14 Feb 2013 08:53:29 GMT	04747.tar
-r--r--r--	101	107	13.8M	Thu, 14 Feb 2013 08:54:08 GMT	04748.tar
-r--r--r--	101	107	10.0K	Thu, 14 Feb 2013 08:54:54 GMT	04749.tar
-r--r--r--	101	107	2.3M	Thu, 14 Feb 2013 08:55:57 GMT	04750.tar
-r--r--r--	101	107	1.4M	Thu, 14 Feb 2013 08:56:40 GMT	04751.tar

Below the table, the browser displays the text: *Request by /C=UK/O=eScience/OU=Brunei/L=ECE/CN=henry nebrensky (No proxy)* and *Powered by LCGDM-DAV 0.11.0*. The Windows taskbar at the bottom shows the Start button, several open applications, and the system tray with the time 16:37.



Offline Reco

MAUS installed at RAL Tier1 for Offline Reco

- automated process waiting for new raw data files
- when a new data file appears, makes Offline Reco and run-specific Monte-Carlo job using latest approved MAUS
- uses fast-response queue at RAL Tier1
- automatically runs MAUS jobs, creates output tarballs, saves them to Grid disk and tape :)
- said MAUS jobs didn't actually save the RECO information :((leftover script from the development process)
- Should be working with the next MAUS release



Offline Reco Data

- automatically runs MAUS jobs, creates output tarballs, saves them to Grid disk and tape :)

The screenshot shows a Windows Internet Explorer browser window displaying a directory index. The address bar shows the URL: <http://www.hep.ph.ic.ac.uk/micedata/RECO/0.4.1/Step1/04700/>. The page title is "Index of /micedata/RECO/0.4.1/Step1/04700". The main content is a table with columns for Name, Last modified, Size, and Description. The table lists several tarballs, each with a "TAR" icon, a name, a timestamp, and a size.

Name	Last modified	Size	Description
Parent Directory	-	-	-
04742 offline.tar	04-Jan-2013 17:31	49K	
04743 offline.tar	04-Jan-2013 17:33	13K	
04744 offline.tar	04-Jan-2013 17:31	15K	
04745 offline.tar	04-Jan-2013 17:33	11K	
04746 offline.tar	04-Jan-2013 17:33	10K	
04747 offline.tar	04-Jan-2013 17:33	15K	
04748 offline.tar	04-Jan-2013 17:33	13K	
04749 offline.tar	04-Jan-2013 17:32	10K	
04750 offline.tar	04-Jan-2013 17:31	11K	
04751 offline.tar	04-Jan-2013 17:33	11K	
04752 offline.tar	04-Jan-2013 17:33	21K	
04753 offline.tar	04-Jan-2013 17:32	11K	



CVMFS

CVMFS

- a read-only filesystem based on HTTP; uses caching to give (usable) global coverage
- the master copy, Stratum-0, is at the RAL Tier1
- installed on Grid clusters at Brunel and Imperial
- testing MAUS - configuration modifications next release

Will then run Batch Offline reco for all/most data so far



Future

Future:

- Batch Offline Reco
- automated Data Mover at end of each run
- hardware dongles for mover and reco certificates