

# MC Production Report

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ADC Weekly Meeting  
12 November 2013

# MC11d Campaign

## > the MC11d campaign has a very limited scope:

- providing updated geometry description (GEO-21) for 2011 data at 7 TeV (for high precision measurements: egamma calibration, Higgs, maybe SM)
- similar to MC12c campaign (GEO-21 for 2012 data at 8 TeV)

## > status:

- geometry validated
- final validation with pileup samples running
- pileup sample (4.1 TB total) produced and distributed to T1s (maybe distribute to larger T2s for limited time?)
- simulation of signal samples started
- digi+reco will be submitted when final sign off from validation (in 2-3 weeks)

## > request size:

- initial request from Egamma and Higgs:  $90\text{M} + 24\text{M} = 114\text{M}$  events
- expect another  $\sim 20\text{M}$  in the next months

# MC Production Work Flow: Output Location

## > MC12 work flow - full simulation

- full sim HITS go to DATADISK → transient dataset deletion
- merged full sim HITS go to MCTAPE
- reconstructed AOD go to DATADISK → transient dataset deletion  
additional formats (RDO, ESD) depend on work flow/group and request and go to DATADISK or group space
- merge AOD got to DATADISK

## > MC12 work flow - fast simulation

- fast sim HITS got to DATADISK (no merge step) → transient dataset deletion to be put into production

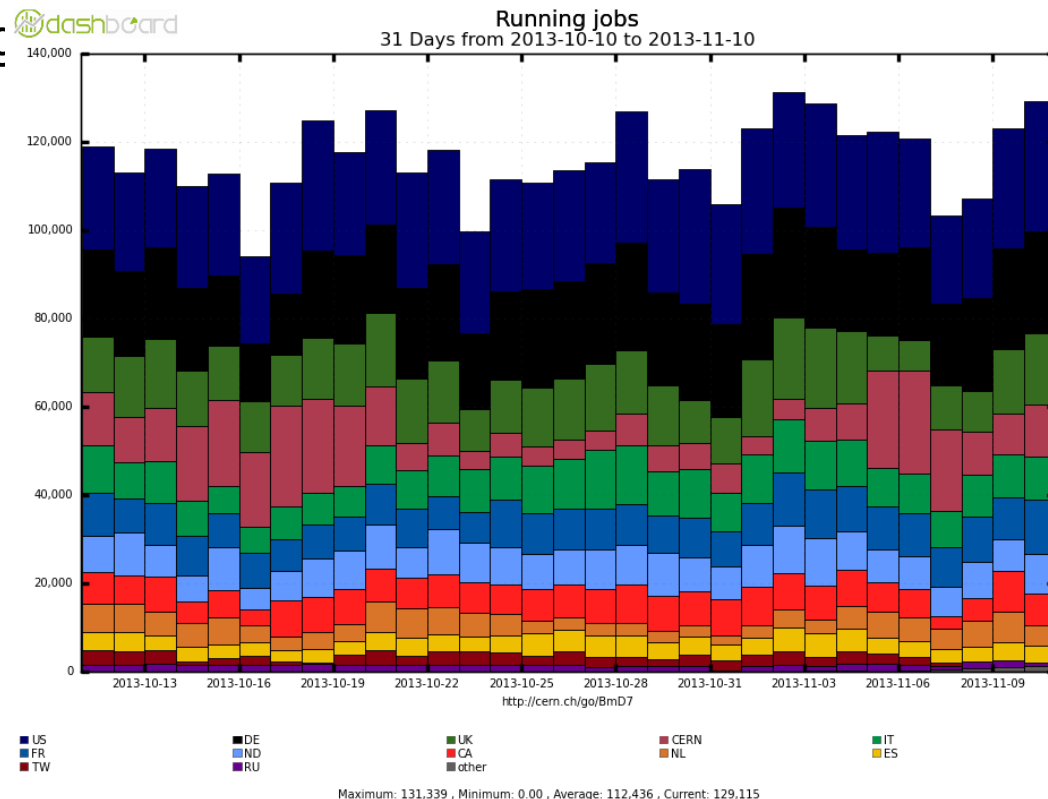
## > MC11 work flow

- full sim as MC12 full sim work flow
- fast sim as MC12 full sim work flow, but mmerged fast sim HITS go to DATADISK and need to be cleaned from time to time manually

## > transient dataset deletion not set up for all energies

# Production Status and Planning

- MC12 production is continuing (~90%)
- MC11 production still running but at a low fraction (~10%)
- MC12 Upgrade production is mainly done; only reconstruction visible (<2%)
- Next big campaign will be DC14 to be started early next year



- filling state:
  - larger MC11d request
  - discussing with PC about large low priority request

- share over last four weeks:
  - 59% MC Simulation
  - 15% MC Reconstruction

# Volume Estimate

## > total merged AOD: ~300 TB/month

- MC12 8 TeV: 600M → 264 TB
- MC11 7 TeV: 60M → 15 TB
- MC12 14 TeV: 11M → 20 TB

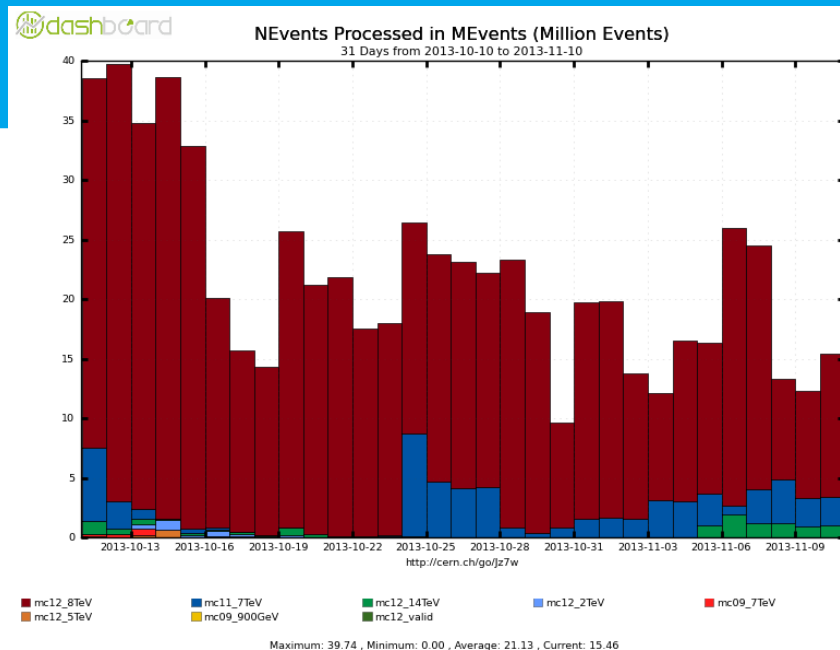
## > total ESD: ~60 TB/month

- MC12 14 TeV: 11M → 54 TB

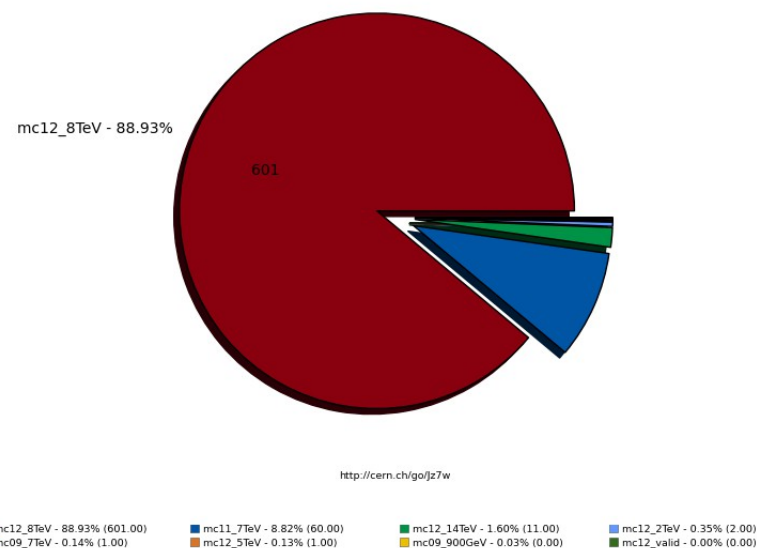
## > total RDO: ~10TB/month

- MC12 14 TeV: 11M → 10 TB

## > all other combinations are currently not significant



NEvents Processed in MEvents (Million Events) (Sum: 676.00)



# Volume Estimate - Method

- number of processed events per project and task type from historic job view
  - some tasks write out more than one format (AOD (default), ESD, RDO) but this is not searchable
- average file size per event taken from dq2 and prodsys DB
  - size: `dq2-ls -l mc12_8TeV.%merge.AOD.%tid%`
  - events per file: from `t_task_request` table
- ESD/RDO fraction from DQ2 and prodsys DB
  - number of events for ESD/RDO datasets compared to AOD datasets
- improvements
  - number of produced ESD and RDO files from historic job view