CALICE Software Status

Roman Pöschl
LAL Orsay

- Review on Software for past data taking
- Things to be done for CERN
- Data Management
- Monte Carlo Tools
- Summary and Outlook

CALICE Software Packages

- LCIO Conversion

All data of 2006+07 (DESY/CERN) have been converted using the version v04-02-xx of the converter
Current version v04-02-03 (mainly updated for SCECAL)

- Reconstruction

Many runs have been reconstructed for the Ecal using Version v04-02-01 of the reco package
see lfn:/grid/calice/tb-xxxx/reco/rec_v0402

'Unexperienced users' are encouraged to use these as an entry point to the data analysis

Hcal Reconstruction v00-01-18 (S. Schmidt)
Implemented into reco package

Current version v04-03-pre3 (Details see next slide)
Software has been also used for analysis of TCMT data (G.Lima)

- userlib (Common to all packages)

Currently version v04-05-04

Reco version v04-03-pre3

- Includes

  AHCAL Reconstruction

  Updates on Alignement and Mapping Classes

- Has been run over 13 cern runs (selected by David and Niels)

  and nearly all desy runs (more due to worng steering setup than on purpose)

- Benefits

  from new calibration constants by Marcel Reinhard

- Suffers

  from Alignment problems which are due to the new convention on the coordinate frame.

  Otherwise these files can be used!!!!

- Does not include

  Tracking – Code for ~20 DESY Runs provided by UK group has been tested but is not yet official – some (smaller) changes are needed before release

- Is not fit for

  Reconstruction of MC Samples

Things to be done for CERN Running

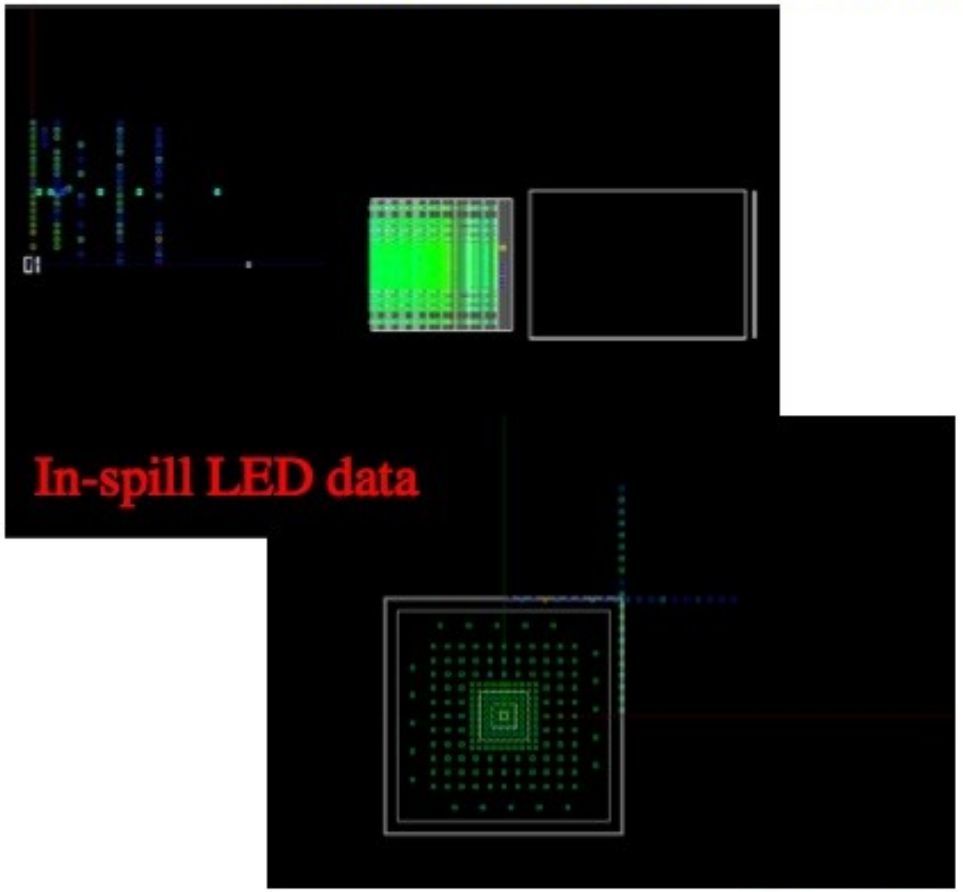
- Implementation of lower part of Ecal

- Implementation of Restructuring of Hcal Connetions (?????)

These things will have to be done between next week and the start of the CERN Running

- Realization of an (offline) Event Display based on wired
  Encouraged in earlier Calice Analysis Meeting
  First very promising steps by Guilherme Lima with help of US Colleagues from SLAC

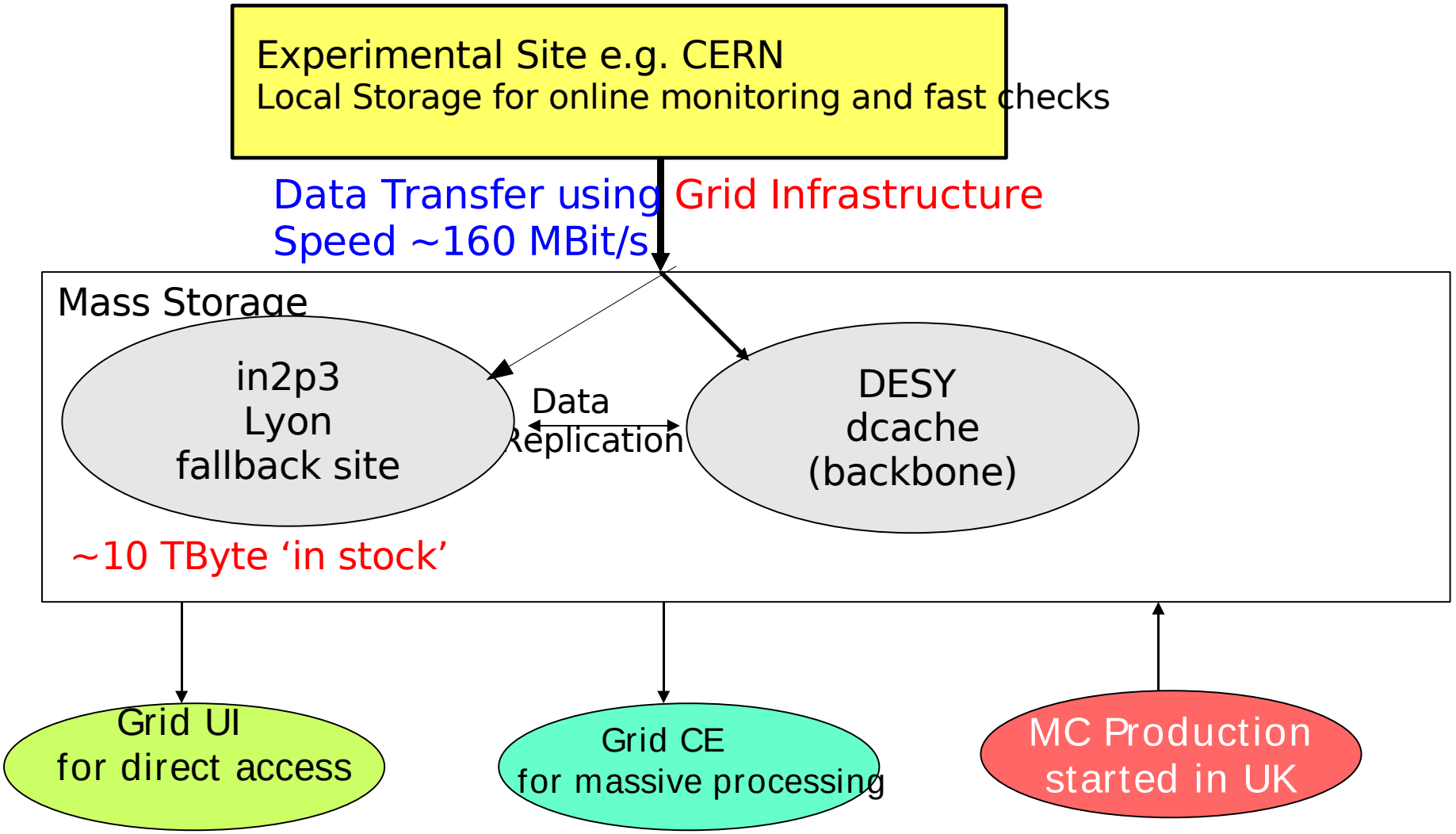
Calice TB data – visualization in JAS3



TCMT global position from CalorimeterHits is incorrect.

Nevertheless, a good start!!

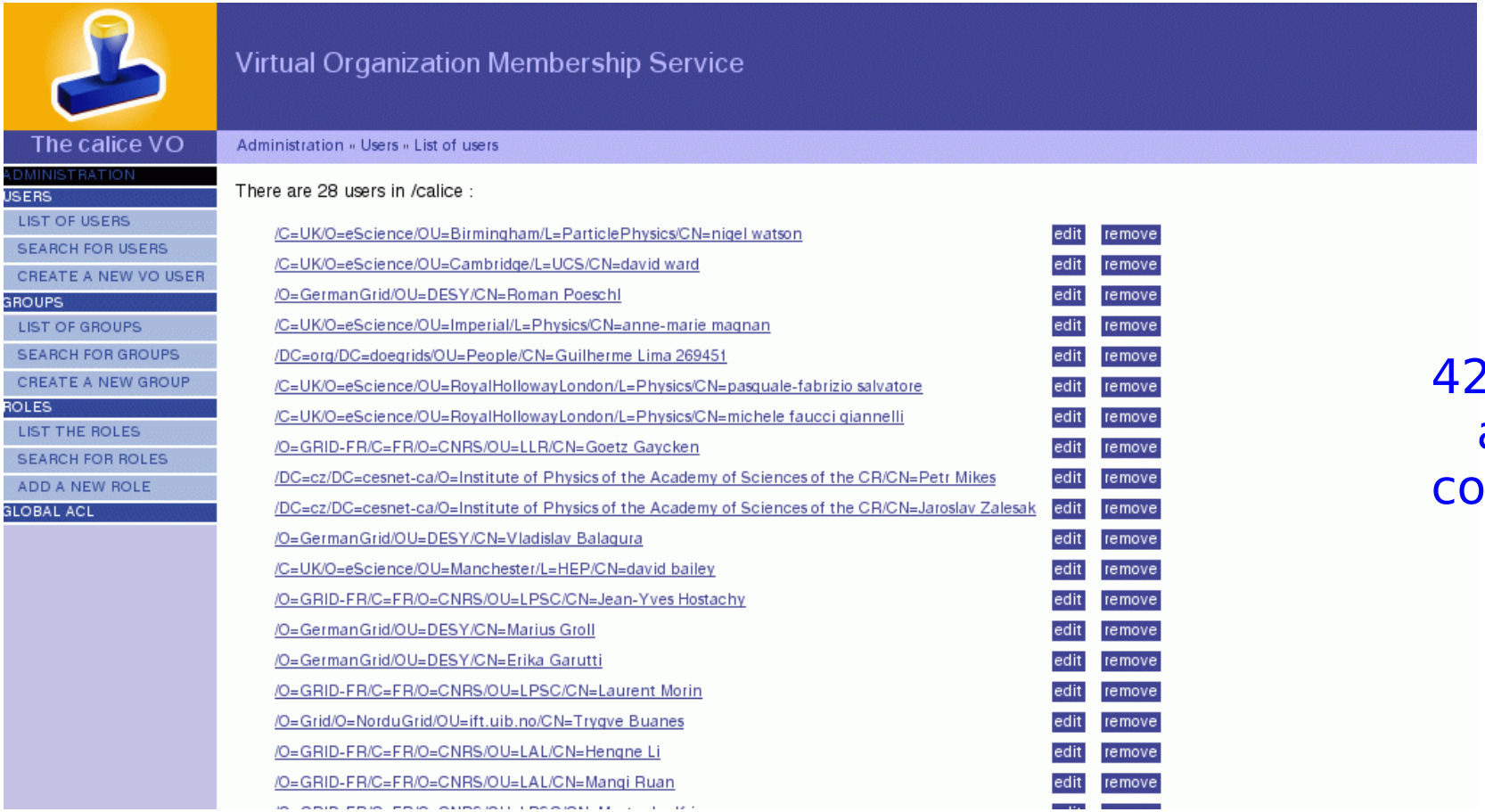
Data Handling and Processing (for coming CERN Running)



New server for data transfer and online monitoring
- Class Grid Server - Dedicated hardware for networking
- Power Redundancy
- Tests to be performed during setup phase middle of June

The Virtual Organisation - vo calice

Hosted by DESY:
Page for registration is https://grid-voms.desy.de:8443/voms/calice



42 Members and counting ..

VO Manager: R.P./ LAL, Deputy: A. Gellrich/ DESY

The Grid in/for Calice

Supported by: DESY Hamburg	Hosting, Computing and Storage
LAL	Computing and Storage
LLR	Computing and Storage
DESY Zeuthen	Computing and Storage
Imperial College	Computing and Storage
Birmingham	Computing and Storage (not yet tested – at least by me)
cc in2p3 Lyon	Computing and Storage
Cambridge	Computing and Storage
Institute of Physics	Computing and Storage
Prague	(in preparation)
University College	Computing and Storage
KEK	Computing and Storage
Manchester	Computing and Storage
CIEMAT Madrid	Computing and Storage
Fermilab	Computing and Storage
	Exploit started between Fermilab and NIU Colleagues
Univ. Regina	Offer Received

- Sites in red are foreseen for a complete storage of calice data
  No mass replication started so far
- Most of the sites have been involved in recent data and MC processing
  Smaller Problems at Manchester and KEK (about to be solved)

Outlook to 2007 (and beyond)

- CALICE will continue data taking with fully equipped detector in 2007
  at CERN and Fermilab (and DESY)
  20000 cells in r/o again w/o zero suppression

- Mass Production of MC about start

Expect to have 25 – 30 Tbyte of data in stock by the end of 2007
raw, converted and reconstructed data
MC files
Will grow beyond 2007!!!!

(My) Vision of CALICE Data Management

- Every country participating in CALICE should identify one site
  to store replicas of CALICE data
  Avoids network traffic and provides faster access to data

- Use local ressources (i.e. Storage) at smaller sites
  to store e.g. analysis output
  If files are visible by the grid your bright ideas can
  be made available easily to your colleagues

A view to the Monte Carlo Branch

DESY and CERN Testbeam setups are avaialable in Mokka
latest release Mokka-06-03-p02
Frequent updates

Grid is used MC for production but sometimes looks difficult to handle - Experience by Nigel Watson

Testsamples are available for version Mokka-06-03-p01

/grid/calice/watson/testsamples/lcio

/grid/calice/drw/testsamples/lcio

Simulation will be followed by a digitisation step
Realized as Marlin Processors within Digisim Package – G.Lima A.M. Magnan

A.M Magnan – first proposal for a processor which allows for data and MC reco