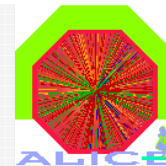


CCRC`08 Planning Session

ALICE Vision

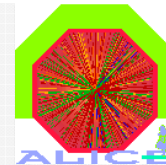
Patricia Méndez Lorenzo

Pre-GDB Meeting
CERN 9-Oct-07



General view

- **ALICE is ready to participate in the CCRC'08**
 - First phase of the ALICE FDR is already running
 - At the CCRC'08 timeframe (Feb and May) the ALICE FDR should be fully operational
 - All Grid services will be used during those slots, special emphasis on storage
- **Outlook**
 - General view of the ALICE FDR and tasks during CCRC'08
 - Critical services



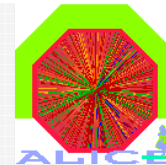
FDR: Elements (I)

General purpose of the Full Dress Rehearsal

Combined tests of all steps needed to produce the ESDs from RAW

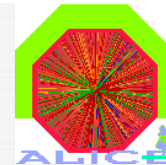
■ **Data flow and systems concerned (I)**

- Generated and real data from detector commissioning: registration in CASTOR2 + Grid File Catalogue - *DAQ/WLCG services/Offline*
 - **CCRC'08: Storage at T0: Registration in CASTOR2 and GRID FC**
- Replication of RAW to T1s - *Offline/WLCG services*
 - **CCRC'08: FTS critical service (replication performed via FTD/FTS)**
 - **CCRC'08: transparent access and use of SRM v.2.2**
 - Raw data transfers to all T1 sites foreseen from the 2nd week of October 2007 (new FTD version ready in two weeks to be tested in FDR mode)



FDR: Elements (II)

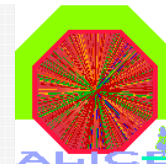
- **Data flow and systems concerned (II)**
 - Gathering and registration of conditions data - ***DAQ/ECS/DCS/HLT/Offline***
 - First pass reconstruction at T0 - ***Offline/WLCG Services***
 - ***CCRC'08: Grid services for reconstruction at CERN***



FDR: Elements (III)

■ Major steps and systems concerned (III)

- Second pass reconstruction at T1 - **Offline/WLCG Services**
 - **CCRC'08: Reconstruction performed using Grid resources**
- Asynchronous data flow to CAF, registration and analysis - **Offline/WLCG services**
 - **CCRC'08: Storage at T0**



FDR: Phase 1

■ Data flow

- Several detectors have been commissioned in September

- TPC, TRD, PHOS, HMPID

- Cosmics, pulsers, laser tracks, black events, simulated RAW injection

- An element of the TRD readout (Global Tracking Unit) was proposed to be used to inject simulated RAW - however is not included from the beginning of the FDR

- ***The 1st phase of the FDR will not run to nominal rate but will be able to test the whole workflow***

- Preparation of AliRoot for the reconstruction of these events well under way

- Collecting the information from the different detectors at this moment

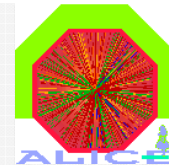
- The target transfer rates to CASTOR2/T1 depending on inclusion of detectors/type of data

■ CAF facility at CERN receiving portions of the data

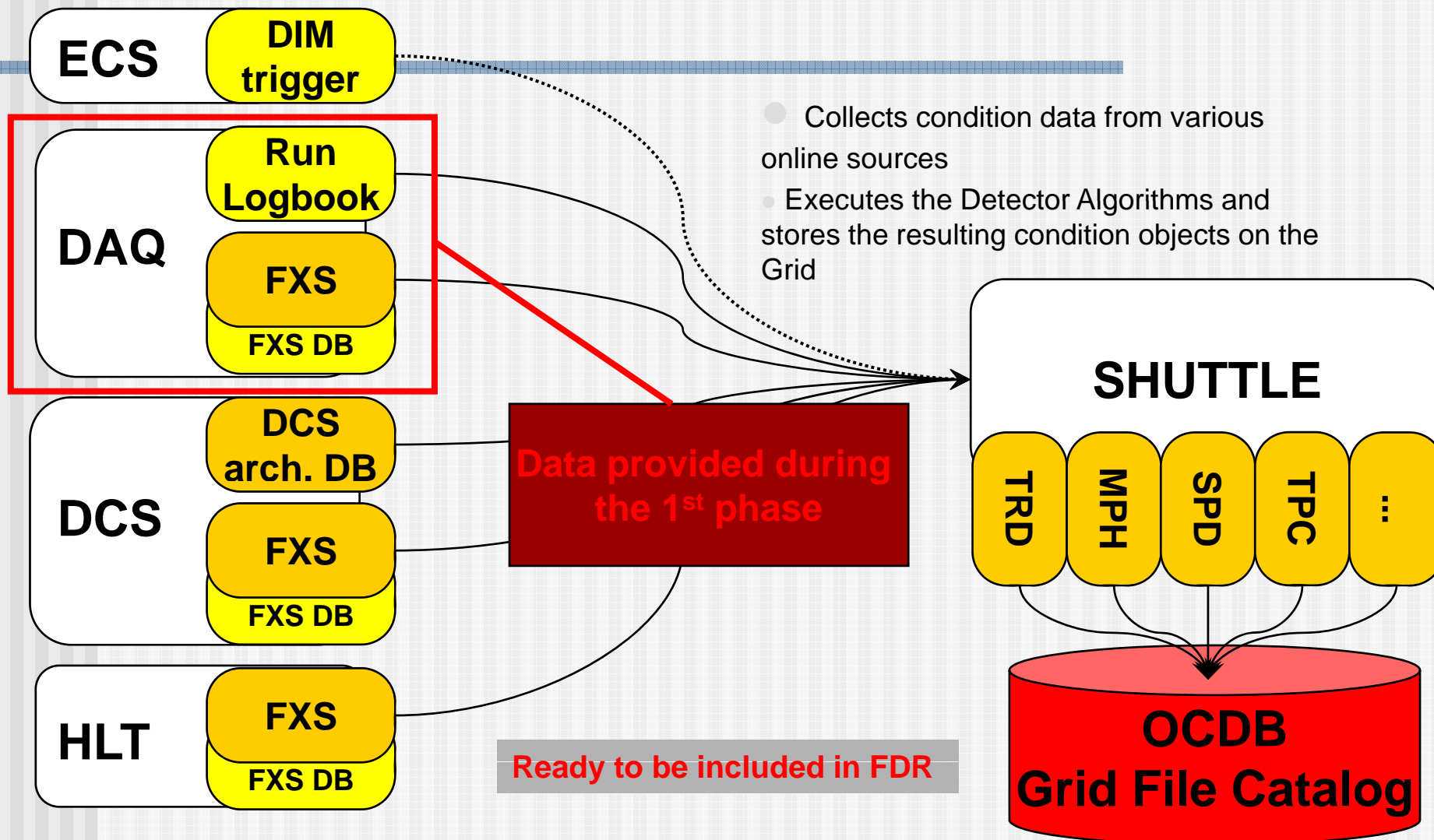
- Automatically for special run types (f.e. calibration), small portions of the data will be copied on demand

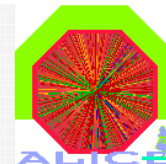
- Events will be of various sizes, depending on the data type

- The data will be copied from CASTOR2 to the CAF disk pool, access is only from CAF pool



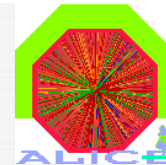
FDR: Phase 2





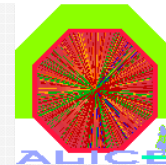
FDR: Phase 3

- **Inclusion of online DA/QA**
 - Set of programs running on the LDC PCs/DAQ monitoring system, collecting conditions data during the run
 - The output is provided to Shuttle via FXS at the end of the run
 - The framework for the DAs/QAs is provided by the DAQ group
 - FXS already in place, being used by the Shuttle
 - **Full setup this week during the ALICE offline meeting**



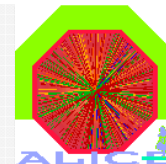
FDR: Planning

- **Mid September 2007**
 - Strategy and setup fully defined (**done**)
- **October 2007 - FDR Phase 1**
 - Already running in FDR mode
 - Cosmic Rays data taking, calibration runs, special runs from detector commissioning
 - Registration in CASTOR2/Replication T0-T1, Pass 1 reconstruction, expert analysis
- **November-end 2007 - FDR Phase 1+2**
 - All elements of Phase 1
 - Pass 1 and Pass 2 reconstruction
 - Conditions data with Shuttle
- **February-May 2008 - FDR Phase 1+2+3**
 - **CCRC'08: Complete data flow and reconstruction algorithms**
 - All elements of Phase 1+2
 - Gradual inclusion of DA and QA



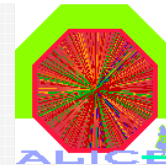
FDR + CCRC'08: Grid services

- **ALICE requires the services already provided during the Data Challenges**
 - VOBOXES deployed at all ALICE T0-T1-T2 sites
 - To migrate to gLite WMS, ALICE requires the latest version of the gLite3.1 VOBOX
 - Configuration just finished, pending the full deployment
 - All sites will have to be updated to the latest version
 - Pilot version in production deployed in voalice03@CERN
 - Full deployment will be coordinated with the sites to ensure a transparent migration for the FDR
 - FTS service from T0-T1
 - This exercise tests also SRM2.2
 - FTS channel sharing and rates as during the T0-T1 exercise in 2006/2007



FDR: Storage solutions

- **CASTOR2-xrootd interface (CERN, RAL, CNAF)**
 - The interface has been successfully tested so far, minor problems are being fixed
 - New xrootd expert in ARDA from September 2007
 - The new release of CASTOR2 has been installed on the **castoralice** instance at CERN (26th of September 2007)
- **T2 sites solution**
 - Most of the T2 sites use DPM
 - DPM-xrootd interface ready to be tested in about two weeks at an ALICE T2 site



Summary

- ALICE is already running in FDR mode and will participate in CCRC'08
 - Test beam and commissioning exercise (cosmic, pulse, noise, etc) raw data written to CASTOR2@CERN, registered in Grid FC and reconstructed (Pass I Grid reconstruction)
- During the proposed slots, we wish to test all Grid services simultaneously (as it is planned in the CCRC)
 - We wish to see a special emphasis on the storage solutions
 - These already have a maximal priority internally in ALICE at this moment
 - What we would like to see by the time of CCRC'08 is the deployment of standard gLite storage solutions with xrootd on all sites supporting ALICE