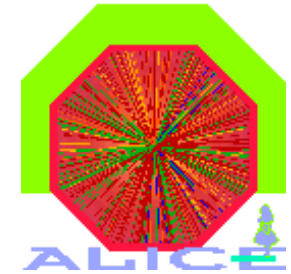


ALICE's Calibration Framework

Jan Fiete Grosse-Oetringhaus

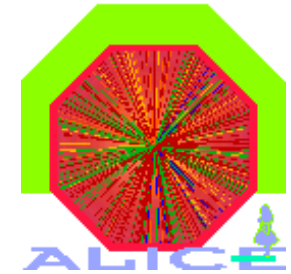
WLCG, 02.09.07

Calibration Framework



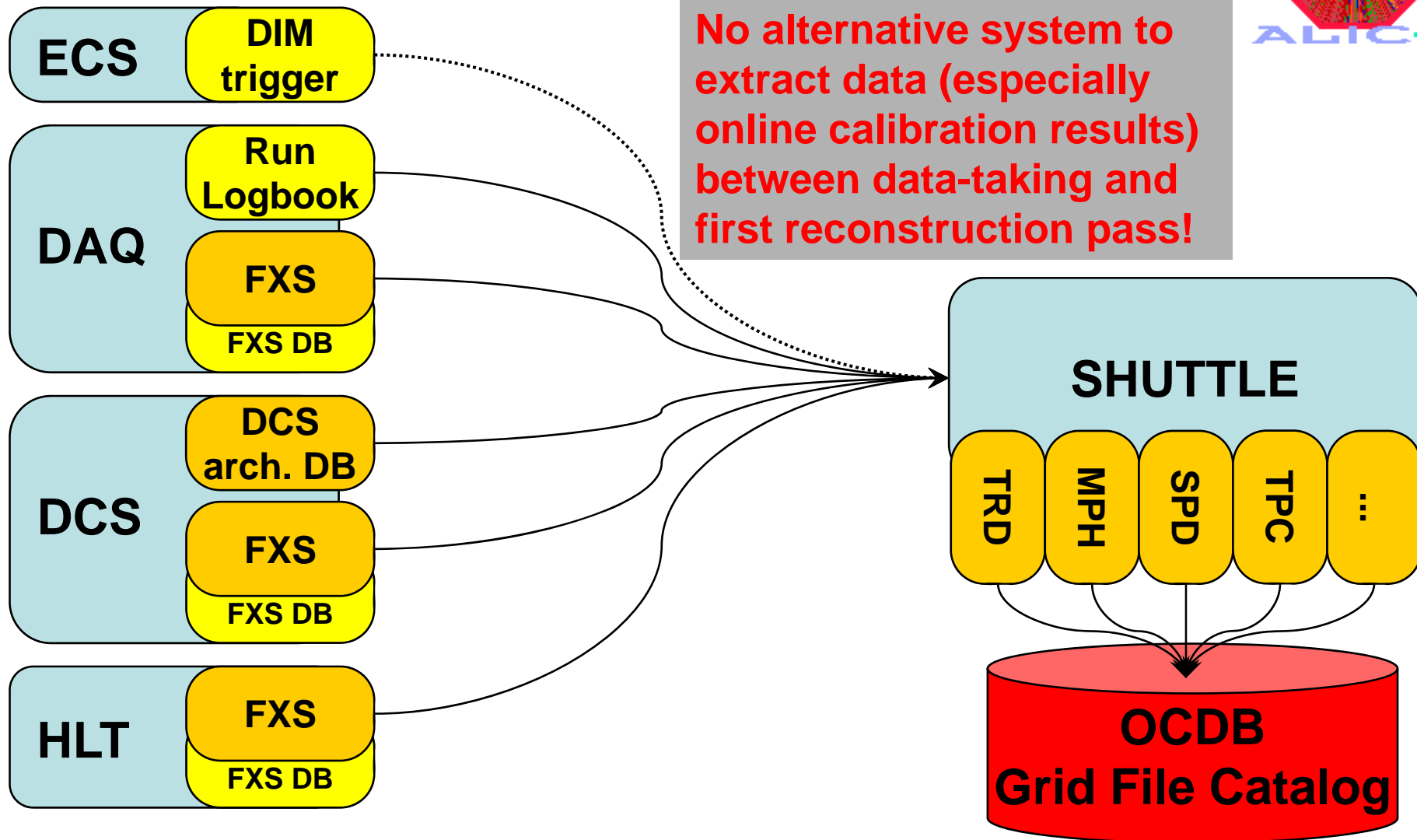
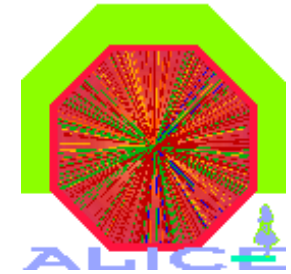
- OCDB framework
 - Storing of conditions data
 - Access for reconstruction, analysis job
- Shuttle
 - Transport from data-taking to reconstruction
 - Online (DAQ, DCS, HLT) → Offline (OCDB)
- Other sources for condition data
 - Offline → Offline (OCDB) (during reconstruction passes)
 - Manual → Offline (OCDB)

OCDB Framework

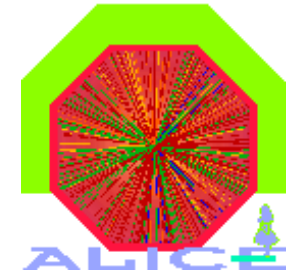


- Offline Condition Database
- Stores ROOT objects (containing conditions data)
- Stored in files, in a SE, registered in AliEn FC
- Meta-data enabled
- Versioning
- Granularity is 1 run
 - Typical case from run N to infinity

The Shuttle

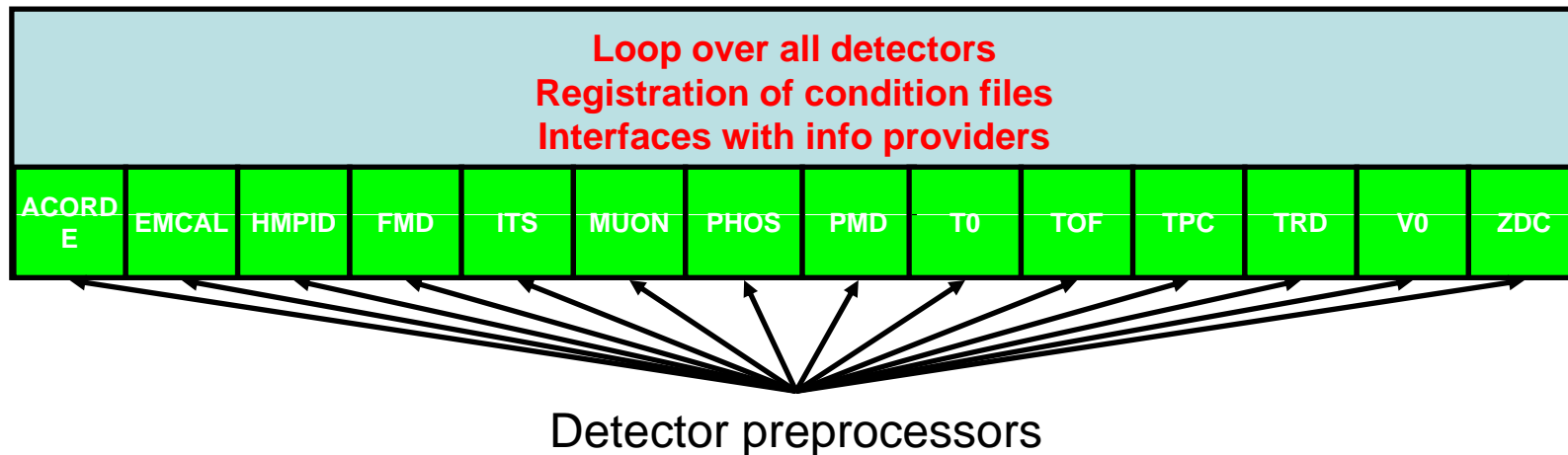
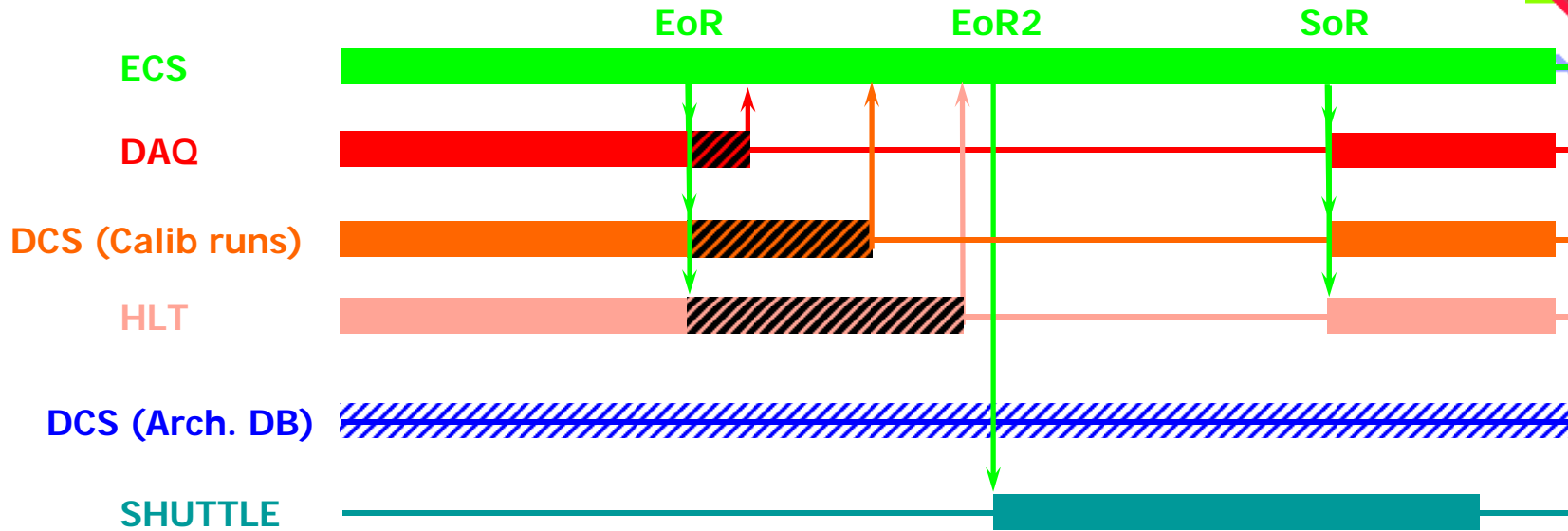
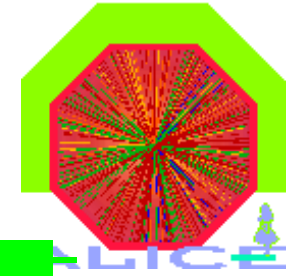


The Shuttle (2)

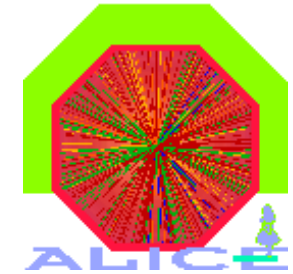


- Retrieves calibration data produced online (from all of ALICE's online systems)
- Data is merged, processed, reformatted
- Stored in the OCDB
- Each sub detector has a preprocessor that performs the above action
- Successful processing of the Shuttle is precondition to reconstruction

Sequence diagram



Test Setup



- Shuttle test setup exists since 6 months that tests each subdetector's preprocessor once per night
- Monitored by MonALISA
- Test runs that check behavior with error conditions
- The Shuttle will be part of the full dress rehearsal

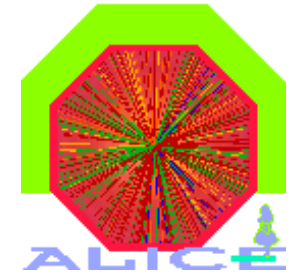
Run#	Run type	First seen	Last seen	SHUTTLE	ACO	EMC	FMD	GRP
			Last week <input type="button" value="v"/>					
2162	GMS ()	10.07.2007 05:12	10.07.2007 11:12	Processing h		Done (1) h		DCSError (1) h
2161	PEDESTAL_RUN ()	10.07.2007 04:21	10.07.2007 10:22	Processing h		Done (1) h		DCSError (1) h
2160	PHYSICS ()	10.07.2007 03:31	10.07.2007 14:08	Processing h		Done (1) h		DCSError (1) h
2159	SPD_STANDALONE_CALIBRATION ()	10.07.2007 02:38	10.07.2007 13:51	Processing h		Done (1) h		DCSError (1) h
2158	LED ()	10.07.2007 01:48	10.07.2007 13:01	Processing h		Done (1) h		DCSError (1) h
2157	ELECTRONICS_CALIBRATION_RUN ()	10.07.2007 00:48	10.07.2007 12:11	Processing h		Done (1) h		DCSError (1) h
2156	GMS ()	06.07.2007 05:21	09.07.2007 06:15	Aborted h		Done (1) h		DCSError (1) h
2155	PEDESTAL_RUN ()	06.07.2007 04:30	09.07.2007 06:15	Aborted h		Done (1) h		DCSError (1) h

Status of preprocessors

	GRP	ACO RDE	EMCAL	HMPID	FMD	ITS SPD	ITS SDD	ITS SSD	MU TRG	MU TRK	PHOS EMC	PHOS CPV	PMD	T0	TOF	TPC	TRD	V0	ZDC
Preprocessor																			
Test	X			X						X				X					X
Failover Test			X			X	X			X	X		X		X	X	X		X
DAQ DA								X											X
DAQ FXS output files	X			X									X						
DCS DP names				X		O				X			OX					O	
Preprocessor reads DPs						O							OX	X		X		O	
DCS DA	O	O		O		O	O	O		X			O					O	O
DCS FXS output files	X	O		O		O	O	O		X			O					O	O
HLT DA	O	O		O	O	O	O	O		O			O	O	O			O	O
HLT FXS output files	O	O		O	O	O	O	O		O			O	O	O			O	O

O = nothing to be done but OK
 X = Changed since 09.05.07
 Last Update: 10.07.07

Backup



Enhanced Status System

