

SiW ECAL Software Status



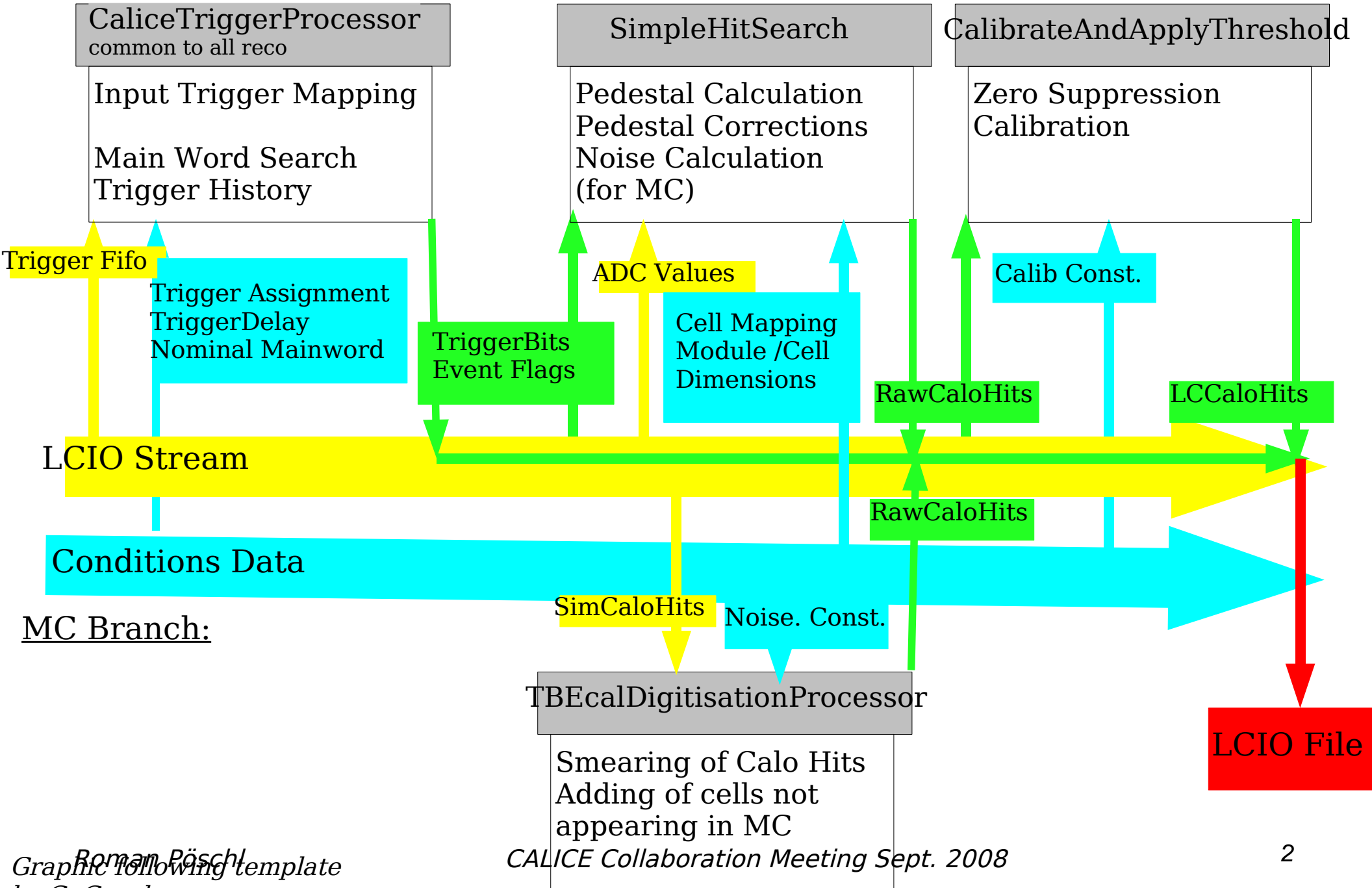
Roman Pöschl
LAL Orsay



- Reminder on Data Processing Chain
- Status and Outlook

CALICE Collaboration Meeting Manchester/UK Sept. 2008

Example for Data Processing - SiW Ecal



Real Data Branch:

CaliceTriggerProcessor
common to all reco

- Input Trigger Mapping
- Main Word Search
- Trigger History

SimpleHitSearch

- Pedestal Calculation
- Pedestal Corrections
- Noise Calculation (for MC)

CalibrateAndApplyThreshold

- Zero Suppression
- Calibration

Trigger Fifo

Trigger Assignment
TriggerDelay
Nominal Mainword

ADC Values

Cell Mapping
Module /Cell
Dimensions

Calib Const.

TriggerBits
Event Flags

RawCaloHits

LCCaloHits

LCIO Stream

Conditions Data

RawCaloHits

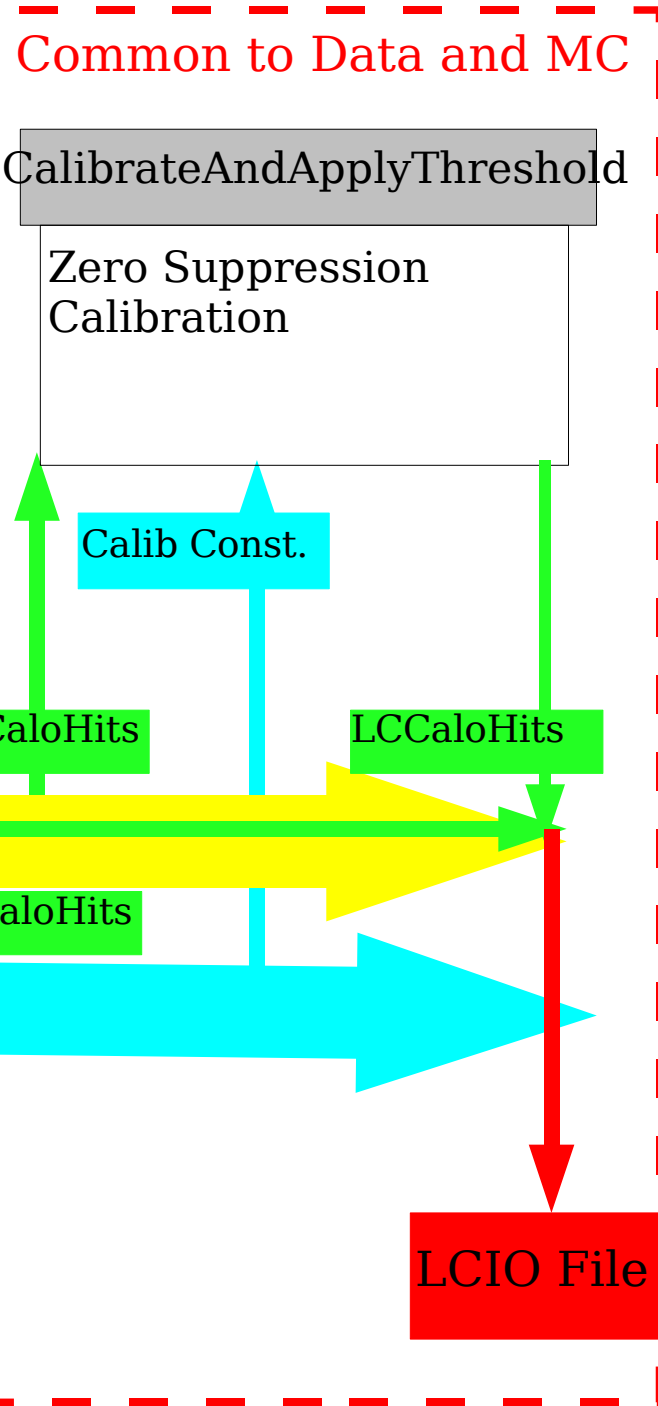
MC Branch:

SimCaloHits

Noise. Const.

TBEcalDigitisationProcessor

- Smearing of Calo Hits
- Adding of cells not appearing in MC



LCIO File

Status and Outlook

Status:

- SiW Ecal Software/Reco works for DESY/CERN/FNAL
“real” Data and MC out of the box
(provided the calice db is updated properly)
- > Has been used for initial offline DQ Checks of FNAL Data
MC Reco Files with digi steps applied do exist and have
been looked at

Open Points:

- Extension of Digi Step to Square Events
- Possibility to study Pedestal Shift Correction in MC
- Adaption of SiW Software to software modifs
motivated by the s/w review

Manpower:

- R.P. For maintenance work
- ? for heavy code development
- Prague group (Michal) volunteered to look at digi step

No confirmation yet

Roman Posch

CALICE Collaboration Meeting Sept. 2008

Summary and Outlook

- Calice uses ILC Software for processing of Testbeam Data

ILC Datataking in a (big) nutshell

Very important input for current and future developments of ILC Software

Allows for a revision of the ILC Software concepts on a 'living' beast

Consistent application of ILC Software allows non experts for an easy startup

- Calice uses systematically Grid tools

First (and only?) R&D project within ILC effort

24h/24h 7h/7h during CERN testbeam

- Database indispensable for data integrity

Creates some threshold for users

However, all studies can be performed with existing (but maybe imperfect) tools

Users have to be ready to use these tools

- Different sources of information for simulation

Efforts to solve this issue are ongoing

- Organised software approach compromises 'publication speed'

But Calice is experiment with 20000 cells and 230 Collaborators (~HERMES)

- Lack of Documentation for sure