Report from the Technical Board

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CALICE Collaboration Meeting Argonne/IL March 2014

Role of Technical Board

- Important executive body of CALICE

- Keeping track of activities

- Forum of experts of different detector technologies

- Foster collaboration between different projects

- Identification of needs for co-ordination and resources

- Technical preparation of strategic decisions to be taken by CALICE steering board

- TB can (and maybe should?) be the main communication channel between CALICE and testbeam sites
  At least when preparing major beam test
  At least it has to ensure that this communication happens

Since Hamburg (No TB Report at Annecy)

- 8 + 1 face to face meeting TB Meetings since March 2013

- New software coordinator
  Daniel Jeans thanks for having accepted the task
  Thanks to Shaojun Lu for the great work since 2009

- Beam tests 2013 at DESY
  - 2x SiECAL
  - 1x ScEcal
  - 1x Mmegas
  - Several AHCAL beam tests

TB expresses his acknowledgement for support by DESY beam test crew

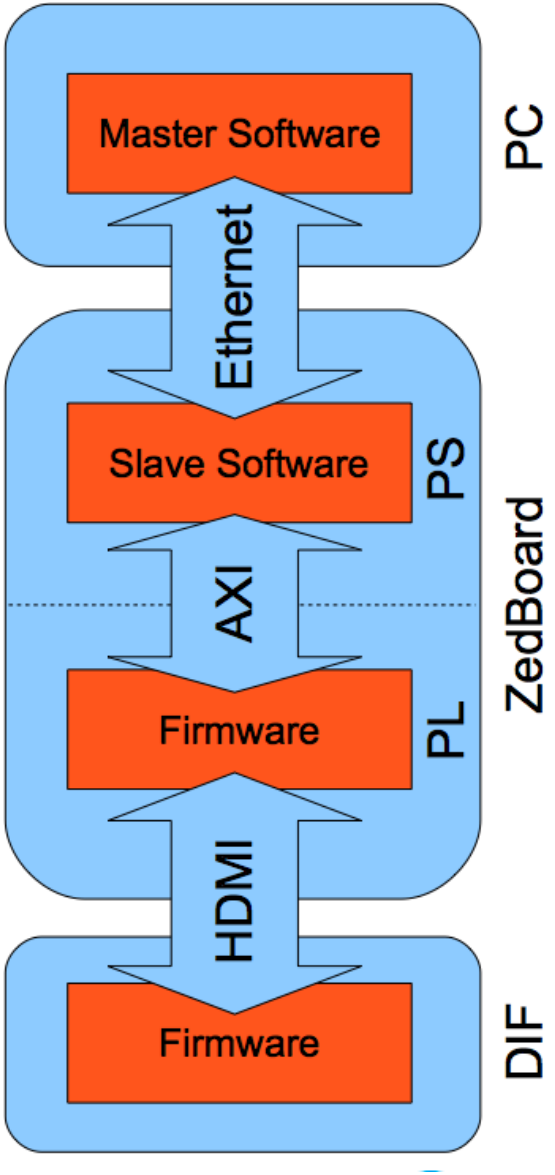
- Big construction site 2013: Harmonisation of DAQ2
  → Started at 2013 Collaboration Meeting in Hamburg
  → **Still an issue in 2014**

DAQ systems in CALICE

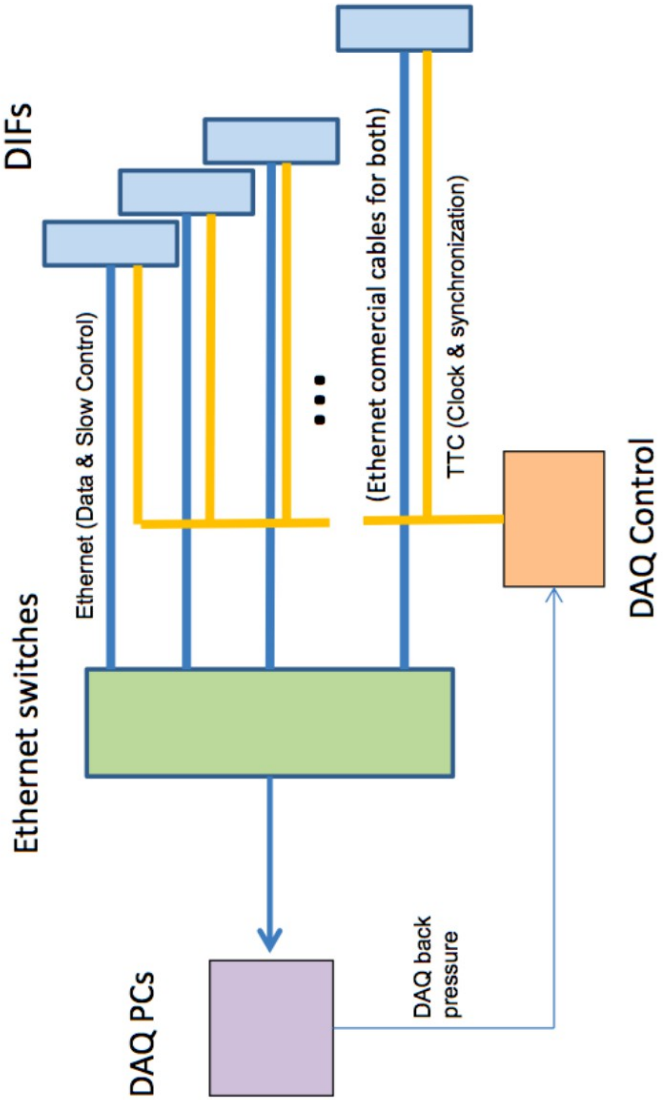
SiEcal

GDCC board

AHCAL/ScEcal



SDHCAL



Towards harmonisation of the DAQ2?

- Successful common beam tests between AHCAL/ScEcal

- 'Common' data taking between SiEcal and ScEcal in July 2013 was impossible
  => Also no combined SiEcal/AHCAL running possible

- Diverging (?) hardware development
  GDCC (SiEcal) and ZedBoards (AHCAL)
  GDCC compatible for SiEcal and SDHCAL
  New hardware development for SDHCAL (DIF card for HR3), need to assure compatibilty with other systems

- Diverging definitions of state machines, run conditions?

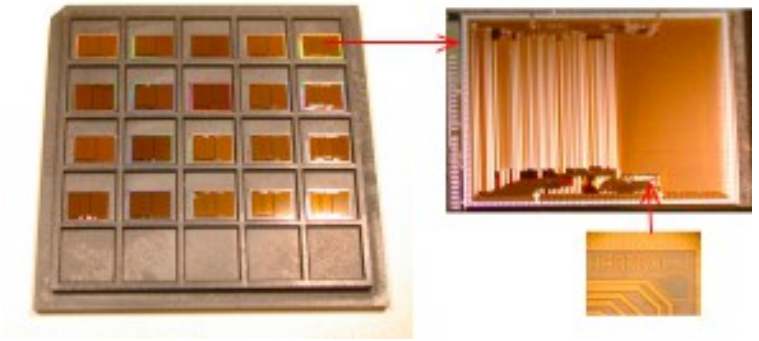
- Positive developments
  T. Suehara from Kyushu studied DAQ systems of SiEcal and AHCAL in Winter 2014
  Documentation of SiW Ecal DAQ2 updated in Nov. 2013 in CALICE web pages
  Hardware exchange between several sites

All systems are still in a state where a common DAQ is still possible

Common Calo DAQ is requirement that goes well beyond the actual CALICE programme

Next development cycle of ROC ASICs

- First small production series of HARDROC3 is at hand



No major problems, particular I2C link seems to work well
→ Important input for SKIROC/SPIROC3

- Towards revision of SPIROC/SKIROC
→ SPIROC2d and SKIROC2b

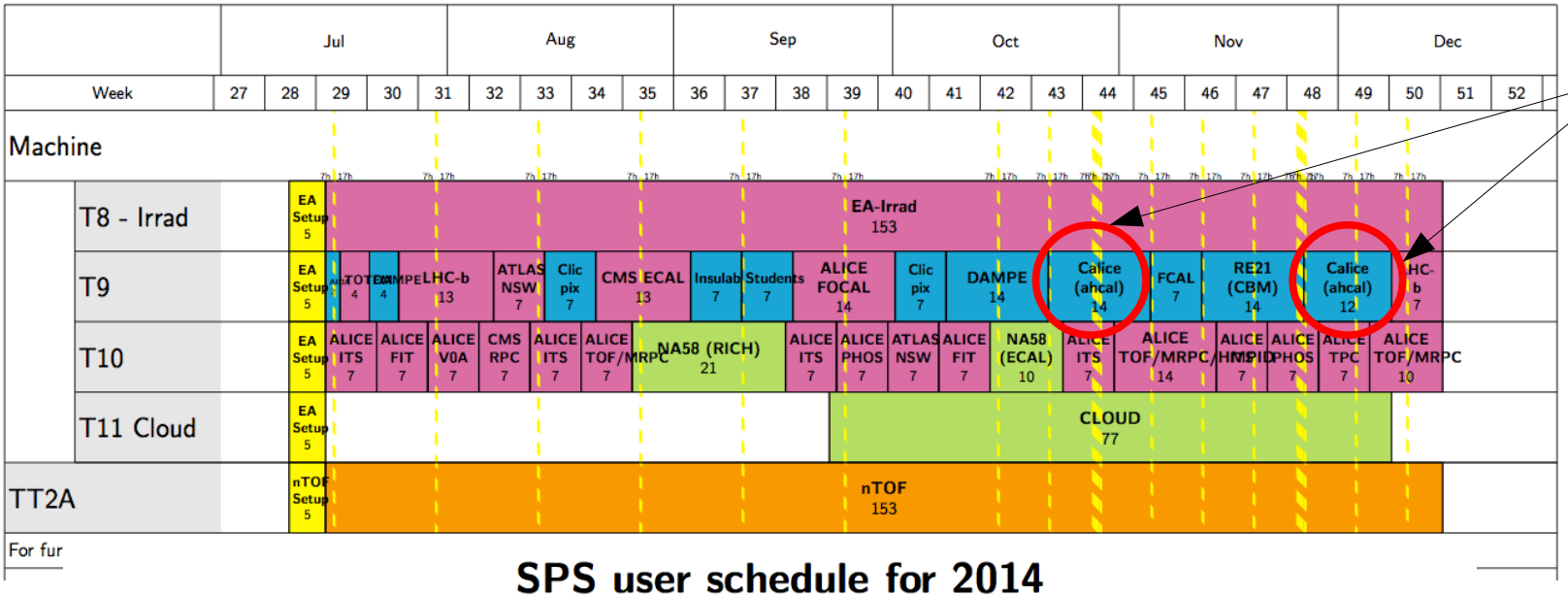
Lists with known bug and features presented to OMEGA
→ will be basis of revision

- Engineering run run at the end of 2014
SKIROC2b, SPIROC2d and HARDROC3

Testbeams CERN 2014

PS user schedule for 2014

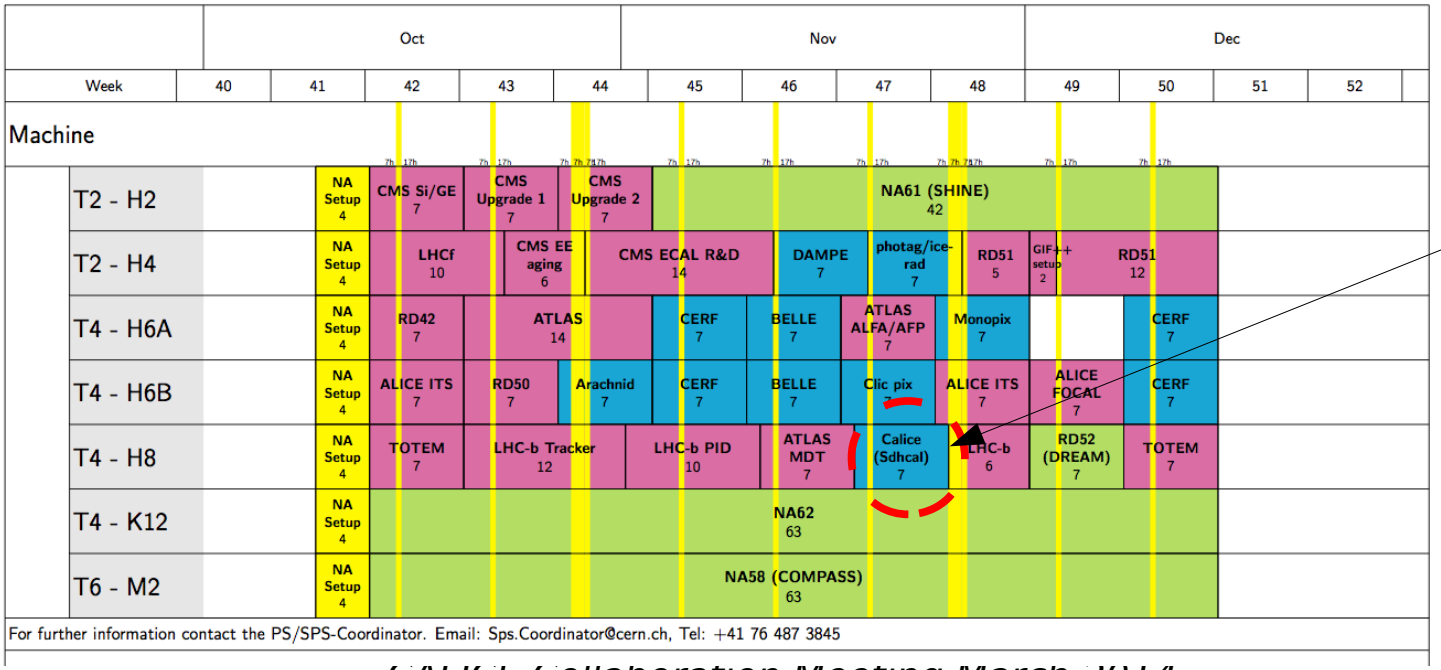
schedule issue date: 12-Mar-2014 Version: 0.0



AHCAL
+ScEcal
14+12 days

SPS user schedule for 2014

schedule issue date: 12-Mar-2014 Version: 0.0



GRPC SDHCAL
7 days

Testbeams 2014 other than CERN

- DESY: No beam test beyond Feb. 2014 until further notice
  Restart late 2014 or early 2015

- FNAL: FTBF available but no request afaik

- SLAC: ESTA beam test available but no request afaik

Summary and outlook

- 2013 was a transition year for CALICE and therefore for CALICE TB
  - No large scale test beams

- TB continued to monitor ongoing projects

- Opportunity to streamline items which may have suffered from hectical 2011 and 2012 (Conclusion from March 2013)
  - DAQ → To make next step towards large calorimeter systems
    → To allow for common tests with other systems (if desired)
  - Software: → To allow for an easy start of data analysis
    → To preserve CALICE legacy
    (Should we in invest in data preservation project?)

- Next important hardware development is next cycle of ROC chips

- Next generation prototypes are growing up or are already adult (SDHCAL)
  Need to prepare/revise/adapt software and peripheral infrastructure
  Grid, Database etc.

CALICE TB Members and functions as of today

Vladik Balagura	SiEcal
Vincent Boudry	DAQ2
Maximilien Chefdeville	Mmegas
Paul Dauncey	DAQ1 and DECAL
Daniel Jeans	Software Coordinator
Wolfgang Klempt	Tungsten program
Katsushige Kotera	ScEcal
Katja Krueger	AHCAL
Imad Laktineh	GRPC-SDHCAL
Roman Pöschl	TB Chair
Jose Repond	DHCAL and CALICE Spokesperson
Christophe de la Taille	Front End Electronics
Frank Simon	Analysis and T3B
Jaehoon Yu	GEMs
Vishnu Zutshi	TCMT

- Mails and invitations sent to Jean-Claude Brient and Felix Sefkow
  Nige Watson (Mailing list manager)

Towards the future = Towards a projects?

- We are entering the Post DBD phase

- Charge of New LC Board is to prepare a 'real' LC project

- R&D will/may become tailored towards needs of LC detectors
  => Less generic
  => Groups may join, which won't become member of CALICE

- CALICE and in particular CALICE TB cannot/should not interfere with technical decisions of concept groups but

  ... can identify whether CALICE can help to enact the decisions
  ... offer expertise to enact decsions
  ... has to make sure that CALICE legacy is preserved
  ... CALICE TB can be the 'voice' of experts in case technical advice is needed

A close communication with concept groups is needed to identify what We can do and what we cannot (should not) do