

Simulation Status, Plans and Timeline - Discussion -

ILD Software and Integration Workshop
DESY, July 6-8, 2010

ILD simulation for the DBD

- need to improve realism of simulation for DBD
 - include faults, limitations and imperfections...
- established group of 'simulation contact' persons
 - responsible for corresponding Mokka driver
 - liaison between detector R&D groups and software group
 - crucial step towards more realistic simulation !
- at Paris ILD meeting decided to make attempt to have new drivers this summer
 - need to start working on digitization and reconstruction
- today – status reports
 - significant progress made !

ILD simulation status today I

- beam pipe:
 - no final engineering design -> MDI/Integration group
- B-field
 - realistic field map for bg studies
 - simple field for mass production
- Physics List
 - use QGSP_BERT (re. by geant4)
 - issues in tungsten @CLIC !?
- VXD
 - realistic models for 3 double and five single layers
 - cabling missing
- FTD
 - currently simplified model – realistic design to be implemented
- SIT, SET, ETD
 - realistic and detailed sim. exists
 - currently implemented in Mokka
- TPC
 - rather realistic simulation
 - need cabling and support

blue: ongoing work or to be addressed

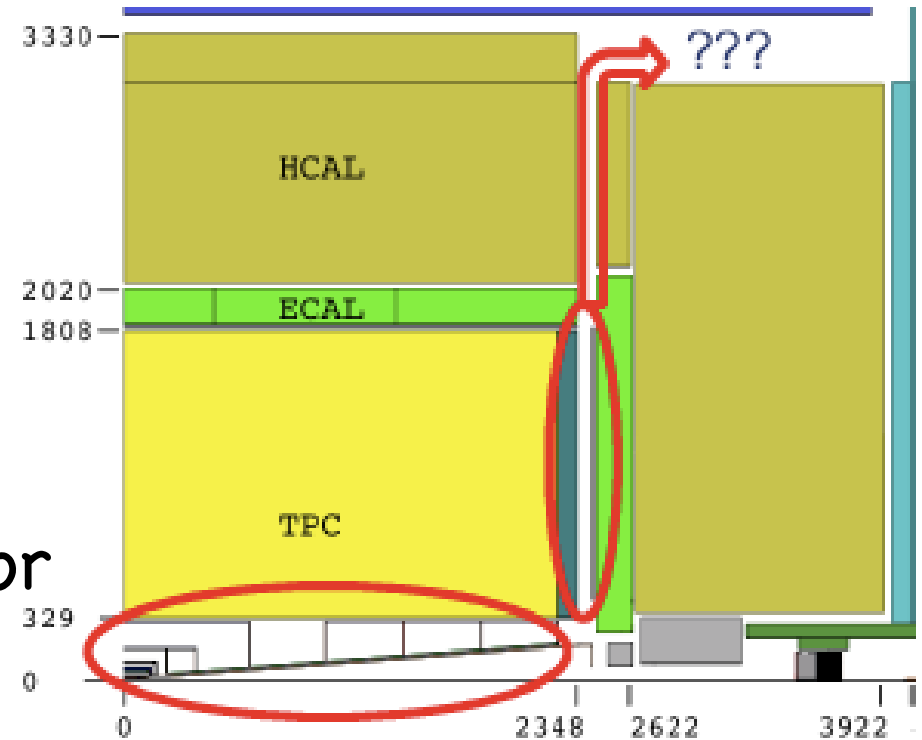
ILD simulation status today II

- Sci- and Si/W ECal
 - realistic driver exists
 - can vary mix of Scint./Silicon
 - -> can study options !
- dHcal - Sci Hcal
 - realistic simulation drivers exists
 - two geometries for dHCAL
 - need cabling and services
- Muon
 - new more realistic model exists
 - to be included in ILD model
- BeamCal
 - new engineering design exists
 - implemented in Mokka
- LCal
 - new realistic driver exists
 - including support, cooling
- LHCAI
 - no real design exists

Cabling and Services

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- cabling and services missing for most subdetectors
- => to be discussed this afternoon in common session with Integration



Discussion - Next steps

- need to create next version of ILD simulation model in Mokka (ILD_01)
 - when can we do this ?
 - which drivers to include ?
- ILD baseline includes options and alternatives
 - we need to have models including these options
 - cannot have all possible combinations (also not sensible)
 - ideally options studied in 'same' geometry - if possible
- some models (e.g. ILD_00_dhcal) options exist
 - which other models to we need ?
 - who can do it ?
 - how to study them ?