Linear Collider Software Workshop 2010
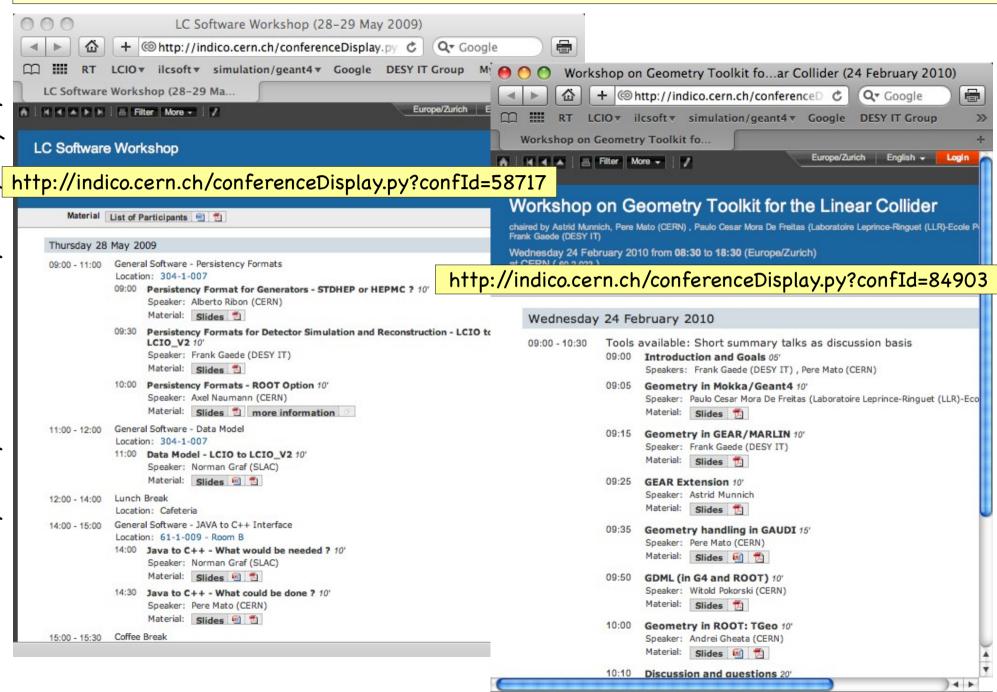## - Introduction -

Frank Gaede

DESY July 4, 2010

Introduction

- With

- successful validation of **SID** and **ILD** *Letters of Intend* (LOI)
- **CLIC** detector group now preparing a CDR

- we have three groups working on detector R&D for a Linear Collider

  - currently using two software frameworks (Java and C++) with some commonly used packages (LCIO, PandoraPFA, LCFI)

- given tight funding and manpower situation we need to collaborate as much as possible

  - already started with

  - Linear Collider Software Meeting, CERN May 28–29, 2009

  - Workshop on Geometry Toolkit for the Linear Collider, CERN Feb 24, 2010

  - many private (phone) meetings

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pointers to prev. meetings

LC Software Workshop (28-29 May 2009)

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RT   LCIO▾   ilcsoft▾   simulation/geant4▾   Google   DESY IT Group   My

LC Software Workshop (28-29 Ma...

Europe/Zurich   E

LC Software Workshop

http://indico.cern.ch/conferenceDisplay.py?confId=58717

Material   List of Participants 🔖 🗎

Thursday 28 May 2009

09:00 - 11:00   General Software - Persistency Formats
Location: 304-1-007
09:00   **Persistency Format for Generators - STDHEP or HEPMC ?** 10'
Speaker: Alberto Ribon (CERN)
Material: Slides 🗎

09:30   **Persistency Formats for Detector Simulation and Reconstruction - LCIO to**
LCIO_V2 10'
Speaker: Frank Gaede (DESY IT)
Material: Slides 🗎

10:00   **Persistency Formats - ROOT Option** 10'
Speaker: Axel Naumann (CERN)
Material: Slides 🗎   more information 🗎

11:00 - 12:00   General Software - Data Model
Location: 304-1-007
11:00   **Data Model - LCIO to LCIO_V2** 10'
Speaker: Norman Graf (SLAC)
Material: Slides 🔖 🗎

12:00 - 14:00   Lunch Break
Location: Cafeteria

14:00 - 15:00   General Software - JAVA to C++ Interface
Location: 61-1-009 - Room B
14:00   **Java to C++ - What would be needed ?** 10'
Speaker: Norman Graf (SLAC)
Material: Slides 🔖 🗎

14:30   **Java to C++ - What could be done ?** 10'
Speaker: Pere Mato (CERN)
Material: Slides 🔖 🗎

15:00 - 15:30   Coffee Break

Workshop on Geometry Toolkit fo...ar Collider (24 February 2010)

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Workshop on Geometry Toolkit fo...

Europe/Zurich   English ▾   Login

Workshop on Geometry Toolkit for the Linear Collider

chaired by Astrid Munnich, Pere Mato (CERN) , Paulo Cesar Mora De Freitas (Laboratoire Leprince-Ringuet (LLR)-Ecole P
Frank Gaede (DESY IT)

Wednesday 24 February 2010 from **08:30** to **18:30** (Europe/Zurich)
at CERN (60.2-023)

http://indico.cern.ch/conferenceDisplay.py?confId=84903

Wednesday 24 February 2010

09:00 - 10:30   Tools available: Short summary talks as discussion basis
09:00   **Introduction and Goals** 05'
Speakers: Frank Gaede (DESY IT) , Pere Mato (CERN)

09:05   **Geometry in Mokka/Geant4** 10'
Speaker: Paulo Cesar Mora De Freitas (Laboratoire Leprince-Ringuet (LLR)-Eco

09:15   **Geometry in GEAR/MARLIN** 10'
Speaker: Frank Gaede (DESY IT)
Material: Slides 🗎

09:25   **GEAR Extension** 10'
Speaker: Astrid Munnich
Material: Slides 🗎

09:35   **Geometry handling in GAUDI** 15'
Speaker: Pere Mato (CERN)
Material: Slides 🔖 🗎

09:50   **GDML (in G4 and ROOT)** 10'
Speaker: Witold Pokorski (CERN)
Material: Slides 🗎

10:00   **Geometry in ROOT: TGeo** 10'
Speaker: Andrei Gheata (CERN)
Material: Slides 🔖 🗎

10:10   **Discussion and questions** 20'

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Goal for this meeting

from summary talk LC-SW-WS CERN 2009:

Preliminary Prioritization

- **high:**
  - evaluate ROOT I/O option for LCIO
  - common PFA development
  - LCIOv2 data model
- **medium high:**
  - common geometry system
- **medium:**
  - HepMC
- **low:**

- follow up on work items identified in previous meetings:
  - status of current implementation
  - near and mid-term plans
- identify new topics ?

today's agenda

14:00	Introduction (10')	Frank Gaede (*DESY*)
14:10	Improvements to GEAR (30') Implementation based on ROOT TGeo	Astrid Muennich (*CERN*)
14:40	New Gear implementation in Mokka (30')	Paulo Mora de Freitas (*LLR*)
15:10	coffee break (30')	
15:40	New PandoraPFA (30') New PandoraPFA in Marlin (and org.lcsim). Application to ILC and CLIC. ParticleID.	John Marshall (*University of Cambridge*)
16:10	Grid production systems (40') ILC-DIRAC and GridProd.	Stephane Poss (*CERN*) , Jan Engels (*DESY*)
16:50	AIDA WP2 (20') Discussion of plans for development of new Geometry and Tracking Tools.	Frank Gaede (*DESY*) , Steve Aplin (*DESY*)
17:10	Towards LCIOv2 (20') Event data model, compatibility with ROOT and new features	Frank Gaede (*DESY*)

- allocated times are indicative

- should have short talks on status and plans

- and sufficient time for discussions

  - let's have a fruitful meeting...