EDMS for the ILD

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ILD Integration Meeting
Orsay, 12-13 April 2012

Outline

- What is an EDMS?
- Overview of ILD-EDMS Current Structure
- Next Steps
- Summary

What is an EDMS?

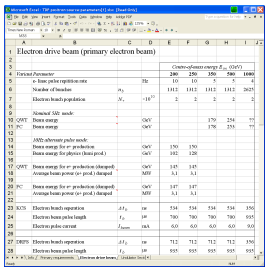
- An Engineering Data Management System
  EDMS is a framework which provides functionality for purposes as:
  - Document Management
  - 3D CAD Data Management
  - Configuration, Version and Change Management
  - Workflow Management
  - Visualization and Digital Mock-up

DBD, TDD and ILD-EDMS

DBD

The Detector Baseline Design Report sums up the TDD ready for publication.

Technical Design Documentation captures entire design efforts, results and rationale



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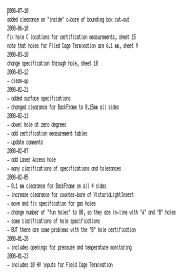
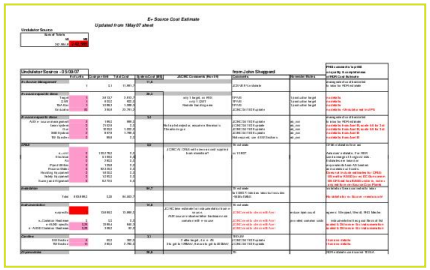
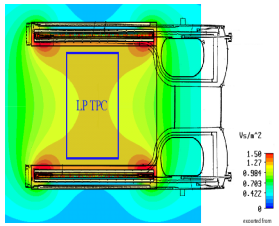


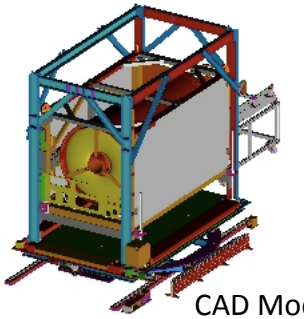
Specifications



Cost Estimation

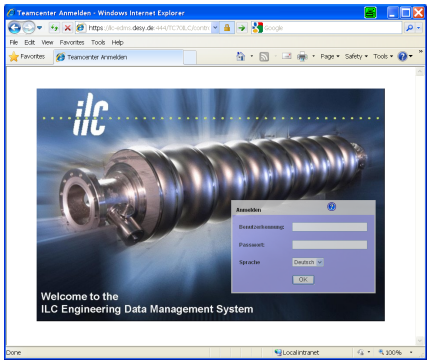


Calculations



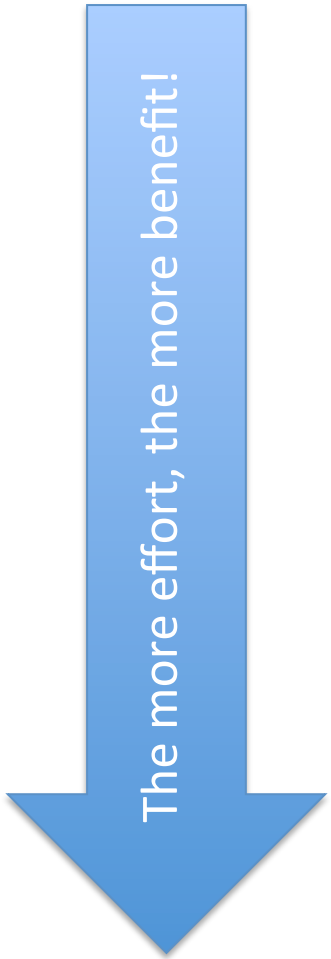
CAD Models

...



The ILD-EDMS organizes the TDD through the provision of: structure, traceability, version, configuration and change management

Objectives of ILD-EDMS



Document Persistency

Documents are stored in the EDMS in order not to get lost

Document Traceability and Consistency

Documents are stored in the EDMS and relationships between documents are drawn (A depends on B).

Document Traceability and Consistency during engineering phase

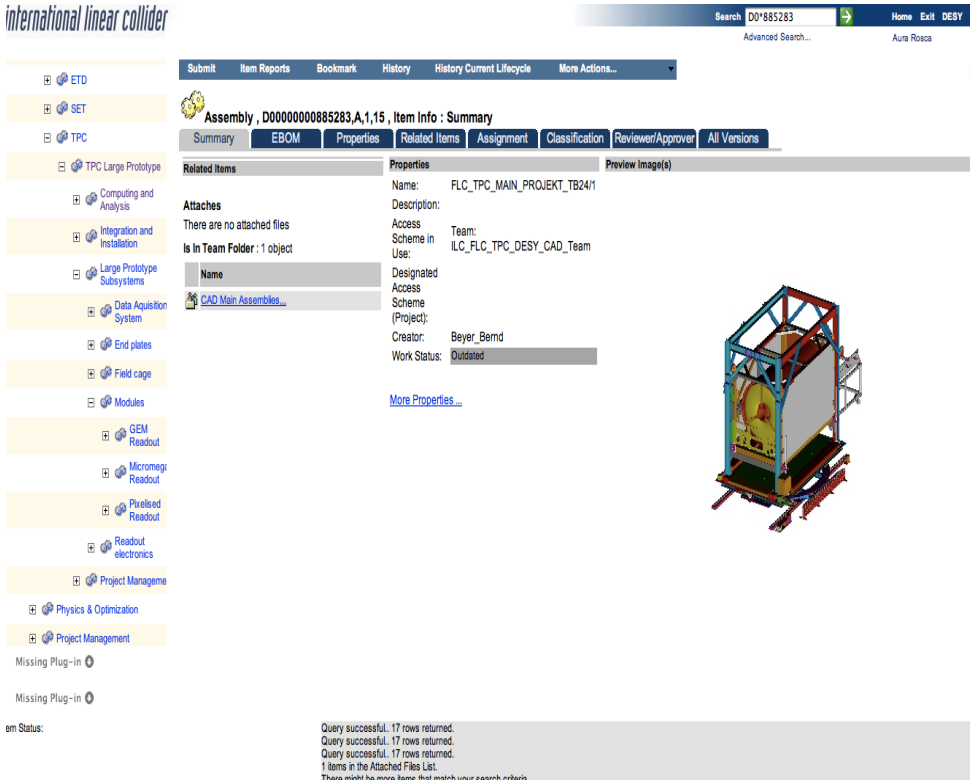
EDMS is integrated in the design process: dependencies between documents are used to make sure documents are correct, complete and consistent.

Purpose of ILD-EDMS

- The role of EDMS:
  - Collect all relevant technical documentation, make all information persistent.
- Proposed policy:
  - Put in as many documents as possible, including presentations documenting the design;
  - Make documents available to registered ILD-EDMS users (flag as released), be as open as possible, restrict access where necessary;
  - Official documents defining the baseline are put into Work Breakdown Structure nodes (quality controlled) and need to be approved by Management.

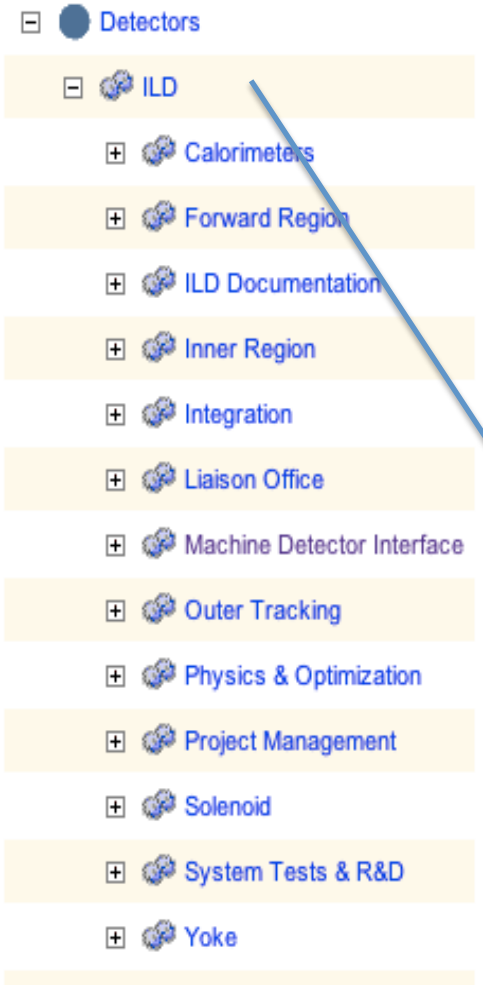
A Look Inside the ILD-EDMS

Example: list of items

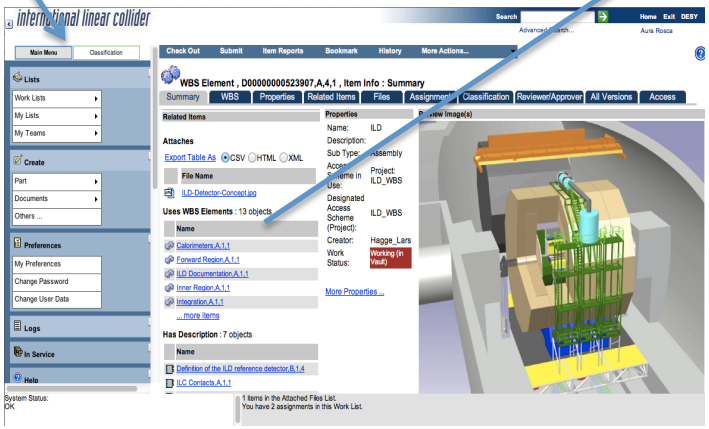


Example: item details

Overview of the TDD structure



- Implement a standardized and generally accepted Work Breakdown Structure (WBS)
- Aggregate documentation at each WBS element
  - Need to define mandatory documents to be provided at each node
- Signoff documentation for correctness, consistency and completeness



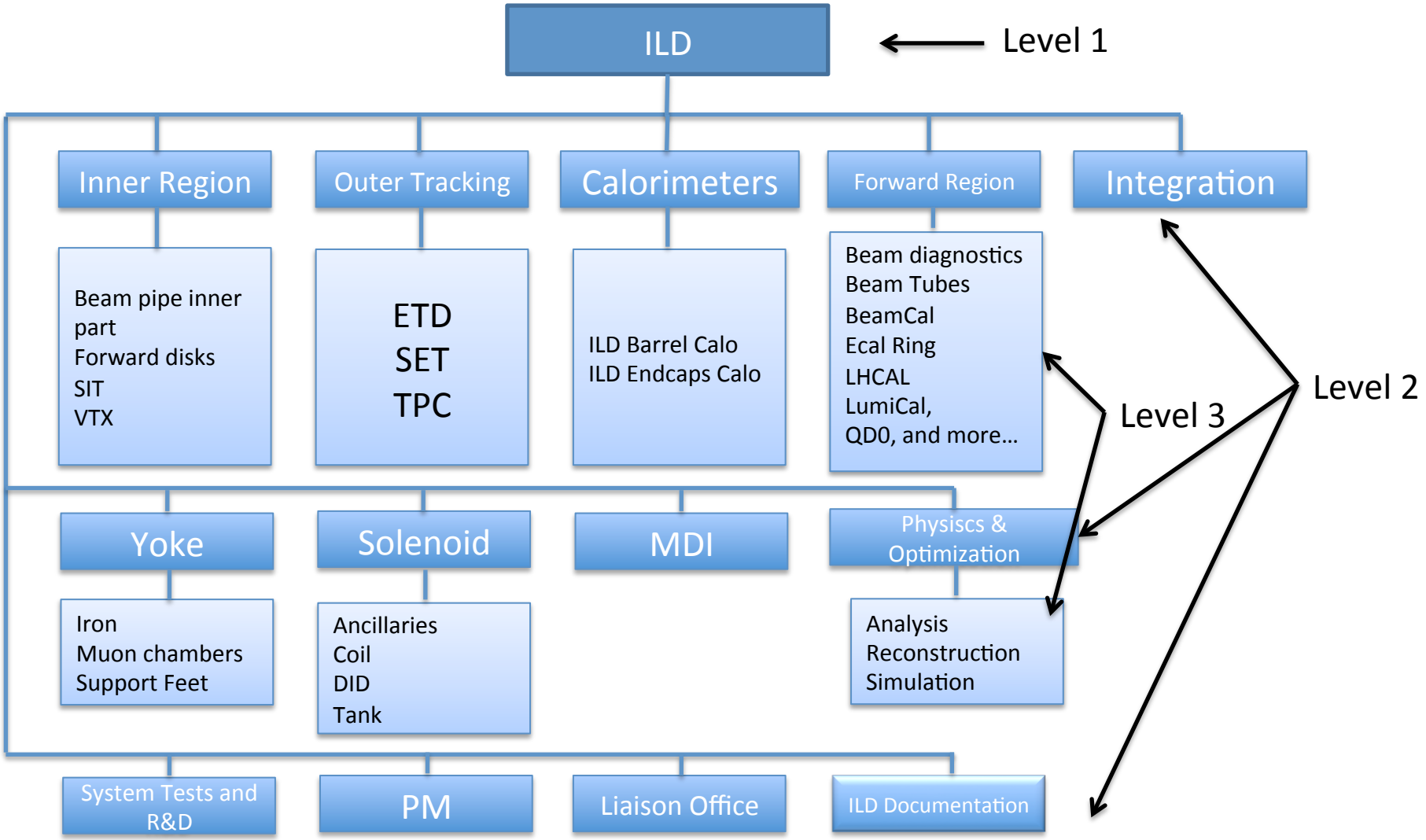
Work Breakdown Structure

- WBS provides hierarchical structure for the most relevant documents, related to the official baseline.
- WBS is quality controlled: New nodes and documents are placed there centrally (EDMS team, approved by management).
- WBS will only contain one version of any document.
- Documents to go into WBS need formal approval by management.
- WBS is a Work Breakdown Structure, it contains not only physical components of the machine, but also tasks like „Project Management“.

Mandatory Documents

- Documents that should be prepared for all WBS nodes:
  - Parameter lists
  - Detector description
  - Component lists
  - Component specifications
  - Calculations

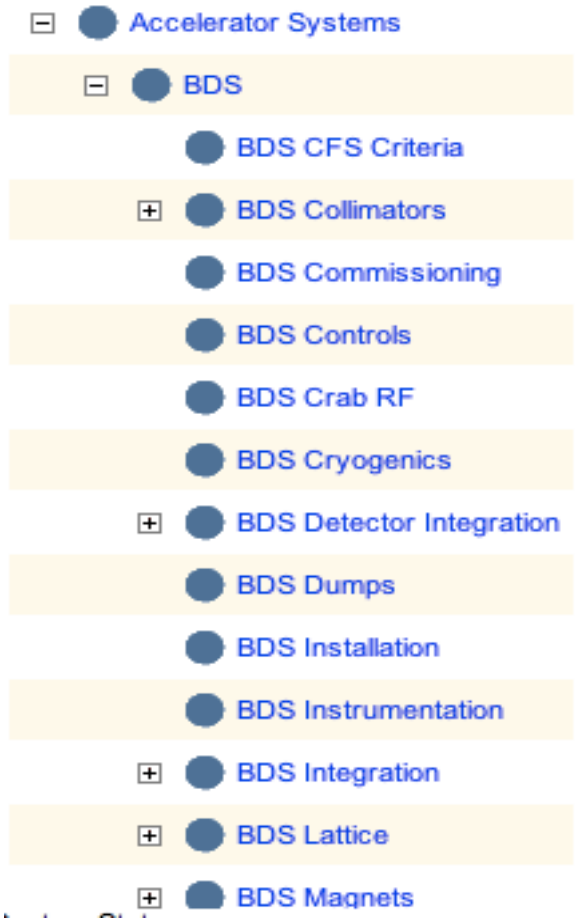
ILD WBS


ILD
Level 1
Inner Region
Outer Tracking
Calorimeters
Forward Region
Integration
Beam pipe inner part
Forward disks
SIT
VTX
ETD
SET
TPC
ILD Barrel Calo
ILD Endcaps Calo
Beam diagnostics
Beam Tubes
BeamCal
Ecal Ring
LHCAL
LumiCal,
QD0, and more…
Level 3
Level 2
Yoke
Solenoid
MDI
Physiscs & Optimization
Iron
Muon chambers
Support Feet
Ancillaries
Coil
DID
Tank
Analysis
Reconstruction
Simulation
System Tests and R&D
PM
Liaison Office
ILD Documentation

Keywords vs. WBS

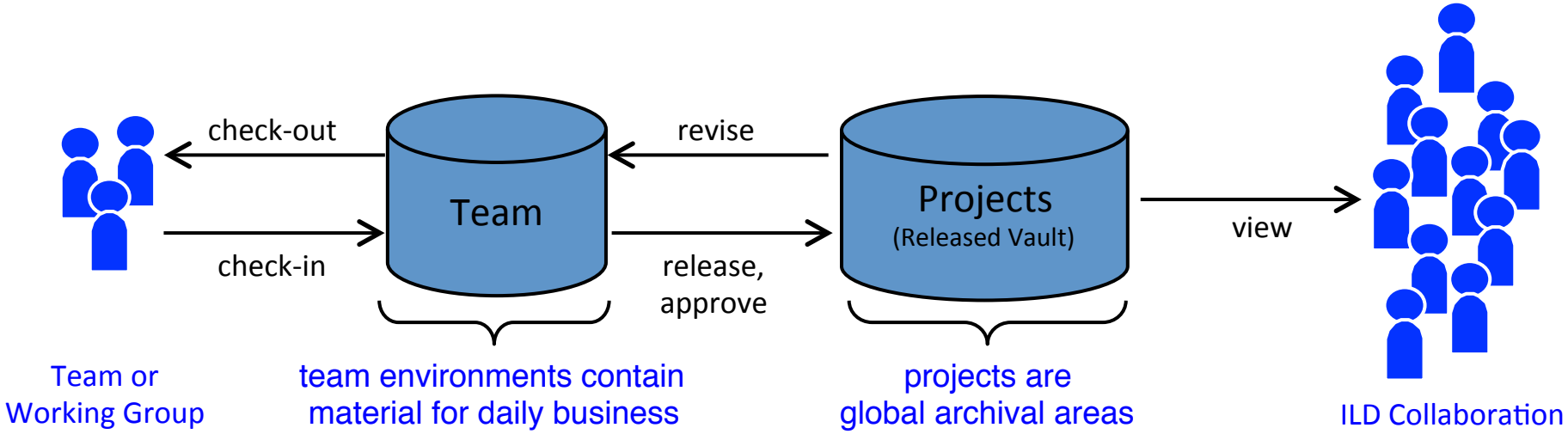
- WBS: Official baseline documents go there
  - Gives access to most important, official documents
  - Centrally controlled
- Keywords: Any document can have any number of keywords (many, one, or none!)
  - Useful to search all available documents, including notes on work in progress, meeting minutes etc
  - Quality/usefulness depends on users who assign keywords

ILC Keywords



We need to define list of keywords.

ILD-EDMS Basic Operation Principle



- team environments offer structured access to those items which team members need for their work
- projects provide storage areas for publication, data exchange and archival purposes
- lifecycles transfer items between teams and projects

Teams

- Team means:
  - A group of people whose membership is explicitly defined in accordance with specific tasks within ILD
  - Each team has its own workspace within EDMS, which is called Team Workspace

Team Workspace

- A Team Workspace
  - Is like a webspace which can have hierarchical file folder structure.
  - Creation of Team Workspace is under control by management.
  - Generally a Team Workspace can be read/written only by those who are registered Members of its Team.
- What makes a document in a Team Workspace available for viewing by non-members of the Team is an action called Release. A Release action makes the documents available in a Released vault, i.e. Project.

Teams in ILD-EDMS

- ILD_Integration_Team
  - 12 members
  - TL: Catherine Clerc, Karsten Buesser, Hagge Lars
- ILD_CAD_Integration_Team
  - 20 members
  - TL: Volkenborn Robert
- ILD_MDI_Team
  - 12 members
  - TL: KB, HL, Benno List
- ILD_Physics-and-Optimisation_Team
- ILD_TPC_Team
  - 10 members
  - TL: AR, VR
- ILD_TPC_CAD_Team
  - 8 members
  - TL: VR, Prahl Volker
- ILD_Yoke_Team
  - 4 members
  - TL: Uwe Schneekloth, Richard Stromhagen
- ILD_Yoke_CAD_Team
  - ???

We need to define teams for the other WBS nodes.

Next steps

- Define list of keywords
- Finalize WBS
- Define what should be assigned for each WBS element
- Assign responsible persons for each WBS element
- Define the Team structure
- Collect names of members and team leaders for each team
- Collect available 3D CAD models, 3D simulation models.
- Define deadlines

Using EDMS: First Steps

- EDMS-URL: http://ilc-edms.desy.de
- Request your EDMS account at ilc-edms-support@desy.de
- Start using the system – and address all the questions to ipp-support@desy.de or send me an e-mail at aura.rosca@desy.de.

Summary

- Available Technical Design Documentation is still few, we should take care that it grows and gains structure.
- We need to develop a coherent plan on how to proceed.
- Please make sure your existing and upcoming documentation makes its way into ILD-EDMS
  - The ILD-EDMS team will support you!