

EDMS for the ILC

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Overview

- What is an EDMS? Purpose & Benefits
- Structure; short overview
- Current tasks
- Summary

Goal of the ILD Community

- Provide a **complete documentation** of the detector and test systems in a framework which is **long lasting** and **maintainable**.
- Document support is more than just a repository:
 - Structured storage of documents
 - Linking of documents of all sorts
 - Connection of documents with attributes (accessibility, visibility, status within life cycle, dependence on other documents)
 - Support project documentation throughout its complete life: design, prototyping, building, operation, decommissioning.

EDMS

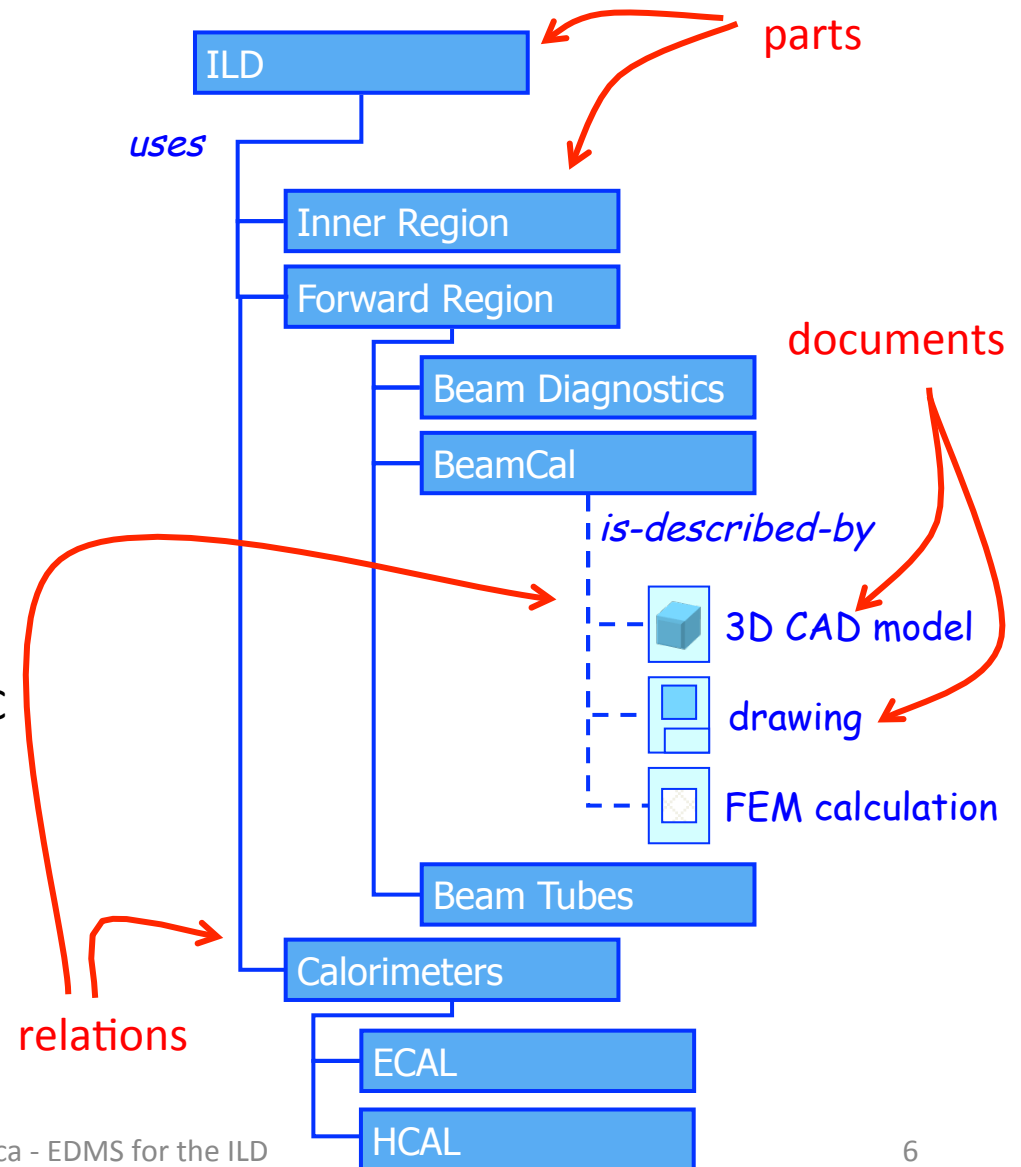
- An **E**ngineering **D**ata **M**anagement **S**ystem EDMS is a framework providing functionality for the following purposes, e.g.:
 - Document Management
 - 3D CAD Data Management
 - Configuration, Version and Change Control
 - Workflow Management
 - Visualization and Digital Mock-up and Mark-up
- An EDMS has to be configured specific to the project
 - document types and relations, system structure, access rights, workflow, user interface, external interfaces
 - an ongoing effort throughout the project lifetime.

Benefits of the EDMS

- Provide a **central document storage** and a platform for **lifecycle management**:
 - enable members of the ILD collaboration to access and contribute project information independent of their location.
 - enable engineers at the different laboratories to collaboratively design components using 3D CAD tools.
 - enable physicists to participate in design processes from the very beginning by viewing the developing CAD models.
 - provide teams, committees, boards with workspaces for work-in-progress document management.
 - support change control of the ILD baseline during the engineering design phase.
 - protect confidential information and intellectual property against unauthorized access.

EDMS Structure: the basics

- A WBS divides the work into a logical hierarchy of **parts**.
- **parts**
 - assemblies + components (or BOM, bill of materials).
- **documents**
 - information containers that describe the elements of the WBS.
 - have files attached
 - for editing and viewing, e.g. DOC and PDF
- documents and parts are collectively called EDMS **items**.
- **relations**
 - link EDMS items together



Mandatory Documents

- We need to define what documents should be prepared for all WBS nodes – most relevant documents, related to the official baseline:
 - Parameter lists
 - Detector description
 - Component lists
 - Component specifications
 - Calculations
- Other documents should be linked with keywords:
 - Reports, presentations, etc.

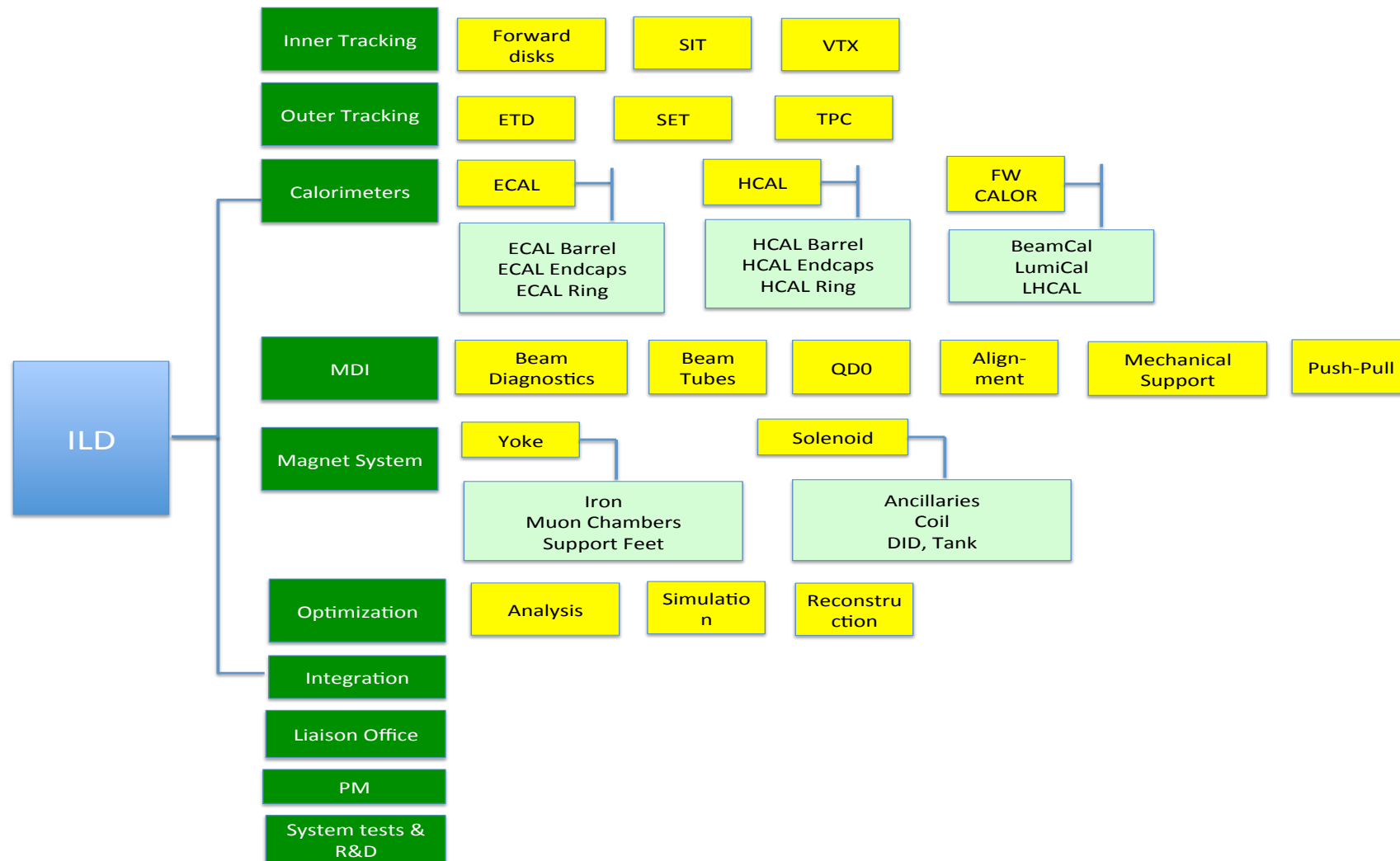
Example: A Document in EDMS

The screenshot shows a web browser window displaying the 'Item Information' page for document D0000000913695,A,1,1. The browser address bar shows the URL <https://ilc-edms.desy.de:444/TC70ILC/controller/home>. The page header includes the 'international linear collider' logo and a search bar with the value 'D*913695'. The main content area is divided into several sections:

- Unique Identifier (Number and Revision):** A blue callout points to the document ID 'D0000000913695,A,1,1' in the 'Item Info : Summary' section.
- Document Metadata (Properties, Reviewer, History, ...):** A blue callout points to the 'Properties' tab, which displays details such as 'ILC Document Type: General Document', 'Name: ILD - Letter of Intent', 'Description: ILC International Large Detector Letter of Intent February 2010', 'Access Scheme in Use: ILC_ILD_WBS', 'Designated Access Scheme (Project): ILC_ILD_WBS', 'Creator: Eucker_Silke', and 'Work Status: Released'.
- Multiple Formats (Native, PDF, stamped PDF):** A blue callout points to the 'Attaches' section, which lists three files: 'LOI_Feb2010.pdf', 'LOI_Feb2010.jpg', and 'LOI_Feb2010_stamp.pdf'.
- Links (Relations) (e.g. Dependencies, References):** A blue callout points to the 'Related Items' and 'Is In Team Folder' sections, which show links to other documents like 'CROC Technical Documentation...' and 'ILD.A.4.1'.
- Preview:** A blue callout points to a preview image of the document cover, which features the ILC logo and the text 'The International Large Detector Letter of Intent'.
- Document Status (e.g. Working, Released,...):** A blue callout points to the 'Work Status: Released' field in the 'Properties' section.

At the bottom of the page, there is a 'System Status: OK' indicator and a notification: '3 items in the Attached Files List. You have 2 assignments in this Work List. You have 2 assignments in this Work List.'

Overview on ILD Structure



Current Tasks

- Implement the WBS structure just shown
- Get approved list of keywords (search categories)
- Implement a review and approval process for the finalization of the DBD report.
 - process analysis to clarify the workflow, roles and responsibilities.
- Compare the 3D models used in physics simulation and the engineering CAD models.

Current Tasks

- We need to collect available documents and put them in EDMS
 - Send your documents to me, I will put them in EDMS.
- Already received the ILD CAD design model, I will make it available in the EDMS after the ILD meeting.

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

- EDMS is a tool to track and control data related to the design and construction of the ILD detector.
- EDMS provides functionality for managing documents and CAD data, and for performing version control and change management.
- EDMS has been used (and proved successful) to drive critical processes, such as reviews, complex and distributed CAD collaboration, and fabrication and inspection processes.