

EDMS Progress Report

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DESY

AIDA Annual Meeting, Vienna, Austria

26-28 March 2014

Overview

- Objectives
- AIDA EDMS systems
- Access website: FLC-EDMS
- Next steps: deliver new projects, start to define workflow processes
- Outlook and summary

Objectives

- AIDA Subtask 8.6.1: Common test beam experiments at CERN and DESY.
 - Goals include:
 - Support for documentation (**this presentation**)
 - Define and implement a general information and documentation structure
 - Keep it current and accurate
 - Structure it for users' needs, and
 - Make it readily available to all who need to know
 - Support for combined detector test beam experiments:
 - Support for developing interfaces, verify compatibilities with general framework and resolve conflicts
 - Define common standards

What Documentation?

- All relevant technical and project documentation to ensure information persistency:
 - **Regular documents:**
 - Publications, reports, notes, as well as meeting, conference and seminar related files.
 - **Engineering documents and data:**
 - CAD models, technical drawings, specifications, requirements, standards, engineering calculations, safety documents, quality control reports, contracts, etc.
 - **Project management documents:**
 - Project charter, scope statement, project management plan, communication management plan, risk management plan, quality management plan, procurement management plan, etc.
- Information should be treated as asset, so that it is available to support project reporting and decision making at all times.

What Functionalities are Needed?

- Management of different categories of documents
- Configuration and version control
- Management of workflows, for instance for approving/releasing, change control, etc.
- Visualization and mock-up possibilities

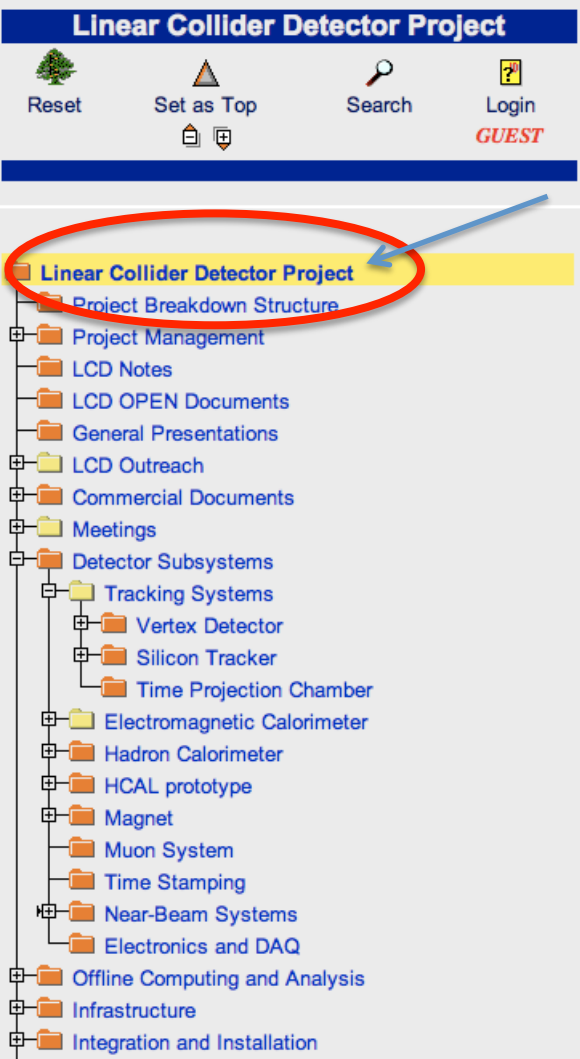
EDMS systems for AIDA

- Two different commercially available tools deployed and used:
 - EDMS at CERN
 - Within the Linear Collider Detector (LCD) Project
 - EDMS at DESY
 - In the configuration developed for the ILC project:
 - ILC document and relation types
 - ILC WBS Structure
 - ILC releasing/approval procedures, change management

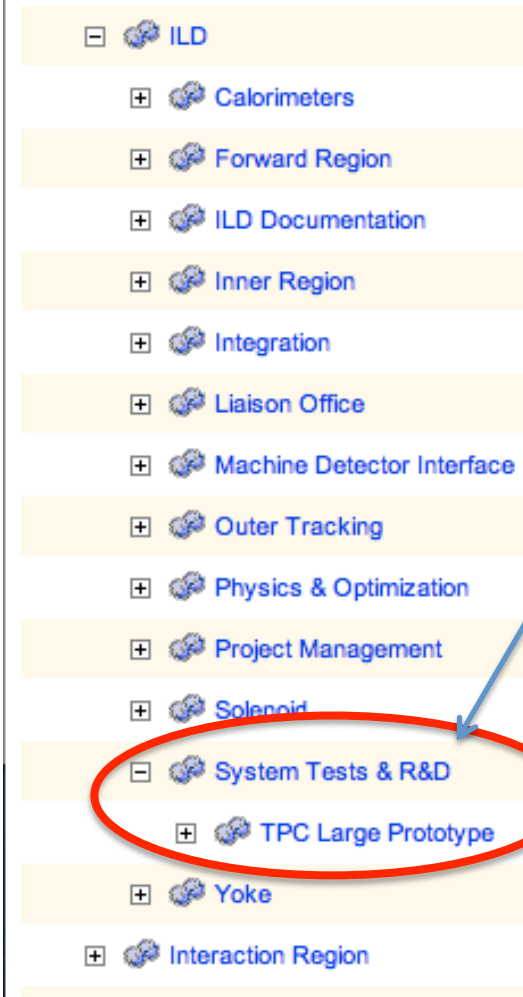
WBS Structures

- LCD WBS at CERN

- ILD WBS at DESY



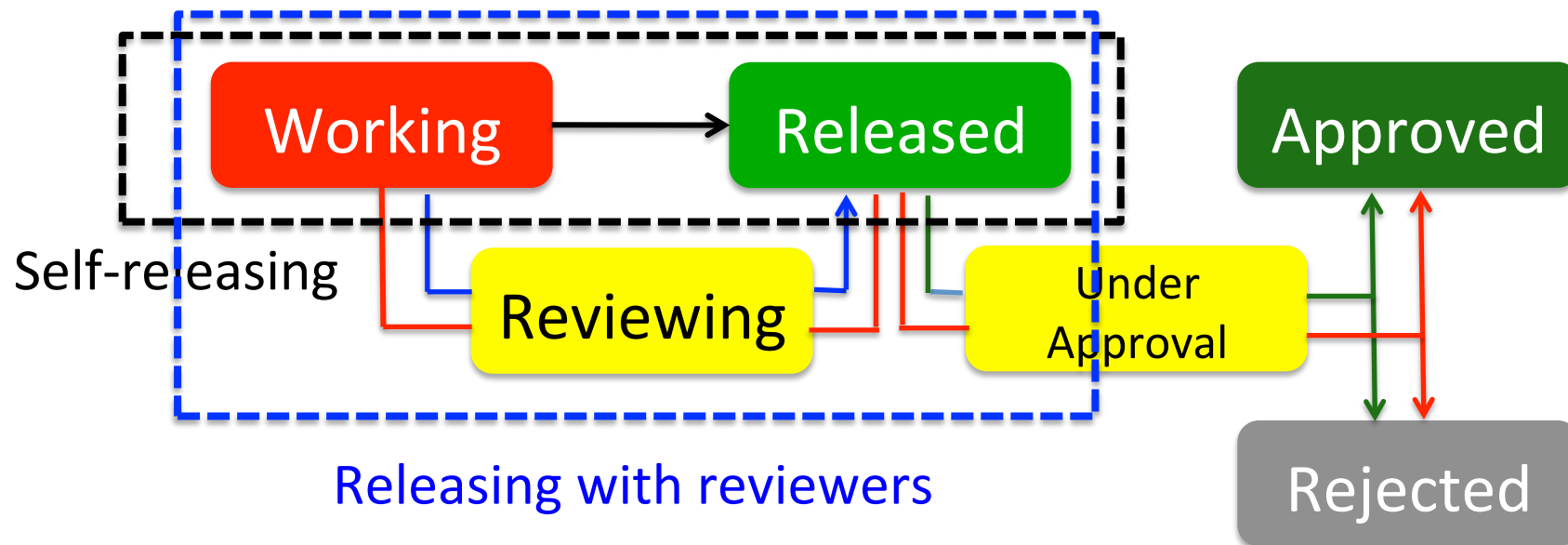
AIDA docs in CERN EDMS



AIDA docs in DESY EDMS

Release Procedures

- Need to define **formal release procedure** for official documents, as the engineering documents.
- Life cycles available in ILC EDMS at DESY:
 - Involve specific roles in EDMS



Access from the Web

- Support for easy and up-to-date access into the EDMS:
 - Web interface at DESY:
 - <http://ippapprd03.desy.de/EDMSTreeBrowser/?no=D00000000546957&conf=getGePartFull>
 - interface developed by the IPP group at DESY
 - URL to be embedded into an access web site, e.g. <http://flc-edms.desy.de>.
 - Use of regular EDMS Hyperlinks at CERN

AIDA Test Beam Documentation

- Website to easily access the public documents stored in the DESY and CERN EDMS.
 - no password or user registration is required.
- URL: <http://flc-edms.desy.de>
- Also announced on Aida site.
- Feedback to collect users requirements.
 - Please let us know where we can improve the information.
- DESY and CERN contributed to this task.

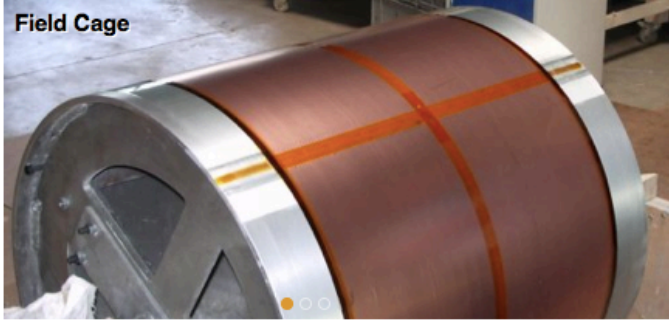


Home Facilities ▼ Movable Infrastructure ▼ LC Infrastructure ▼ Contact

AIDA Test Beam Documentation

FLC EDMS

Field Cage



Mission
The goal of this website is to ensure a complete documentation of the infrastructures developed within the AIDA project and an up-to-date access to public information stored in the DESY and CERN EDMS.

Links
[CERN EDMS](#)
[DESY EDMS](#)
[AIDA at CERN](#)
[DESY](#)

Feedback
Make us a suggestion about how we can improve the documentation [here](#).

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FLC-EDMS Website

- It will serve as the central documentation portal for all AIDA partners and the outside world.
- ZMS website, easy to fill content.
- It is fully operational and regularly maintained by DESY.
- Most of the web pages are created dynamically from the info in the EDMS systems, via web interfaces.

Example 1: TPC LP in the DESY EDMS

Home

Facilities ▼

Movable Infrastructure ▼

LC Infrastructure ▼

Contact



Test Beam Documentation

Large TPC Prototype

TPC Large Prototype(41)

Last updated on: 2014-03-18 10:49

The Linear Collider TPC of the ILD

Description of the R&D activities for the LCTPC. 2013-04-25

[D*1017825,A,1,1](#)

Computing and Analysis(7)

Analysis(6)

Simulation and Reconstruction(1)

Integration and Installation(3)

Magnet(3)

First Version of the PCMAG Field Map

Description of the results of the magnetic field measurement of PCMAG and the first version of a magnetic field map. 2013-04-24

[D*1016285,A,1,1](#)

Magnetic Field Map for a Large TPC Prototype

Description of the magnetic field map for the Large Prototype TPC of the ILD detector 2013-04-23

[D*1016035,A,1,1](#)

The Linear Collider TPC: Revised magnetic field requirements

Description of the requirements for the B-field of the Large Prototype TPC of the ILD detector 2013-04-23

[D*1015925,A,1,1](#)

PCMAG Drawings

Mechanical Support

Large Prototype Subsystems(29)

Status of the Large TPC Prototype

Description of the Large Prototype of a TPC based on Micro Pattern Gas Detector for the ILD detector 2013-04-24

[D*1015985,A,1,1](#)

The large prototype TPC

Mission

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Links

[CERN EDMS](#)

[DESY EDMS](#)

[AIDA at CERN](#)

[DESY](#)

Feedback

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Example 2: FCAL in the CERN EDMS

FCAL

Near-Beam Systems

Reset Set as Top Search Login
GUEST

- Near-Beam Systems
 - Luminosity Calorimeter
 - Beam Calorimeter
 - Mechanical Support System/Mask
 - Vacuum System
 - Final Focusing Quadrupoles
 - Intra-train Feedback System

 **EDMS Project Page** EDMS Portal | Hide Navigator | Search | Help | Login

Search User: GUEST

Proj. Id: **CERN-0000079491 v.0** **Near-Beam Systems**

Eq. code: - Responsible ELSENER

In Work

- Summary Structure Documents Used in Access Rights Versions & other info

Actions:

Documents in this node: 35 PAGES: All 1 2

Sort by: Position Ascending Display: Default Obsolete: Hide

1064772 v.1	Layout of Detectors for CLIC	Released
Doc. page	ASailer_090925_LCD_For_MDI pdf (1 Mb)	
1064861 v.1	New Beam Profiles for Guinea Pig	In Work
Doc. page	ASailer_100112_GM_NewBeamprofiles pptx (2 Mb)	
1064897 v.1	Beam-Beam-Background with Vertical Offsets	In Work
Doc. page	ASailer_Beam_Beam_Backgrounds_vert_offse t_1 pdf (281 Kb) ASailer_Beam_Beam_Backgrounds_vert_offse t pdf (327 Kb)	
1065060 v.1	CLIC at 3 TeV - BDS and MDI	Released
Doc. page	BDalena_22Oct2009 pdf (842 Kb)	
1065081 v.1	Forward Region Studies for CLIC	Released
Doc. page	KElsener forward region Oct2009 pdf (3 Mb)	

Example 3: Embedded Website

Plan is to migrate all relevant documents within the EDMS.

The screenshot shows the website for the DESY Test Beam Facility. At the top, there is a dark blue navigation bar with links for Home, Facilities, Movable Infrastructure, LC Infrastructure, and Contact. Below this is the AIDA logo and the title "Test Beam Documentation". The main heading is "DESY Test Beam Facility".

The page features a sidebar on the left with a list of links: HOME, DESCRIPTION, OPERATION, INSTRUCTIONS & EQUIPMENT, TEST BEAM RULES, DESYII STATUS, DESYII SCHEDULE, DESY GENERAL INFORMATION, and INTERNAL. The main content area includes a "TEST BEAM" header, a "Description" section, and a "Schedule" section. The "Description" section states: "DESY operates a test beam facility with three test beam lines (21, 22 and 24). These electron or positron beams are converted bremsstrahlung beams from carbon fibre targets in the electron-positron synchrotron DESY II with up to 1000 particles per cm² and second, energies from 1 to 6 GeV, an energy spread of ~5% and a divergence of ~1mrad." The "Schedule" section includes a link to "Schedule 2013 (93KB)" and a "Subscribe" button.

At the bottom of the page, there is a footer with the text: "Imprint | Contact | © 2013 DESY Deutsches Elektronen-Synchrotron".

What Documents in EDMS?

- **Technical notes:**
 - Descriptions and status reports of the infrastructures, e.g. D000000001015815;
 - Specifications and mechanical tolerances, e.g. D00000001016055;
 - Studies of physics performance of prototypes, e.g. EDMS document no. 1065080
 - ...more than 150 documents on the R&D activities.
- Collection of documents is an ongoing process.

LCD-2011-yyy	
<small>CERN Div./Group or Supplier/Contractor Document No.</small>	
PH-LCD	
<small>EDMS Document No.</small>	
1116164	

CERN
CH-1211 Geneva 23
Switzerland

DATE: 2011-02-21

Functional Specification

**Mechanical Support Structure as part of
an AIDA infrastructure for testing
high-accuracy very forward
calorimeters**

Abstract

This Functional Specification defines the requirements for the mechanical structure which is to house, with high mechanical precision, tungsten absorber plates and sensor planes with front-end electronics, for the use in test beams.

2008-07-10
added clearance on "inside" c-bore of bounding box cut-out

2008-06-10
fix hole C locations for certification measurements, sheet 15
note that holes for Filed Cage Termination are 6.1 mm, sheet 9

2008-03-18
change specification through hole, sheet 10

2008-03-12
- clean-up

2008-02-21
- added surface specifications
- changed clearance for BackFrame to 0.15mm all sides

2008-02-13
- dowel hole at zero degrees
- add certification measurement tables
- update comments

2008-02-07
- add Laser Access hole
- many clarifications of specifications and tolerances

2008-02-05
- 0.1 mm clearance for BackFrame on all 4 sides
- increase clearance for counter-bore of VictoriaLightInsert
- move and fix specification for gas holes
- change number of "fun holes" to 80, so they are in-line with "A" and "B" holes
- some clarifications of hole specifications
- BUT there are some problems with the "B" hole certification

2008-01-28
- includes openings for pressure and temperature monitoring

2008-01-23
- includes 10 HV inputs for Field Cage Termination

2008-01-15
- includes 6mm screw holes at 375mm bolt circle radius
- includes o-ring groove with 367mm outer radius
- includes updated holes for light insert
- includes threaded keeper holes for the mounting bracket
- includes holes for HV input for Field Cage Termination

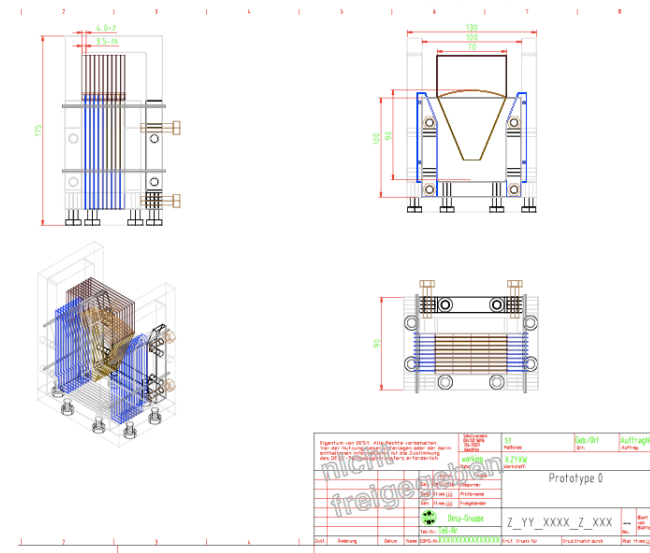
2007-11-30
- thing thing weighs 18.75 kg
- includes 5mm screw holes at 375mm bolt circle radius
- includes field cage termination mounting holes
- includes gas holes

2007-11-09
- includes light-entry holes
- includes bracket holes on stiffening flange (the "fun holes")

Prepared by:
Konrad ELSENI

What 3D Models/2D Drawings in EDMS?

- Linked to TPC LP top node:
 - D00000000885283,B,1,18:
Full 3D model of the TPC LP and surrounding infrastructure.
- In general, many drawings, specifications, requirements, FEM analyses, etc.
- Collection of existing CAD models and drawings of prototypes is an ongoing effort.



Further Projects

- **Possible new projects for the DESY EDMS:**
 - Develop the WBS and organize the existing documentation for:
 - DESY beam test facility
 - Infrastructure for the calorimeters
 - Beam tracking telescope
 - others

Future Plans for AIDA

- Migrate all wiki web sites embedded in FLC-EDMS to EDMS.
- Develop good practices for organizing engineering documentation, in particular the co-existence of CAD data and further project documentation, such as specifications, contracts and meeting minutes.
- Continue to collect documents and organize them within the two systems.

Outlook

- Support for the EDMS will continue, hopefully within the context of AIDA-2:
 - Consolidation of existing design documentation
 - Develop processes: releasing/reviewing, change control, collaborative design
 - Extend EDMS to support further PM activities
 - Scheduling
 - Cost estimation
 - Monitoring and control
 - Risk analysis

Summary

- **Many documents, CAD models, drawings uploaded in EDMS at DESY and CERN:**
 - Collection and uploading of documents is an ongoing process during the entire project life.
- **Documentation organized according to a WBS:**
 - Most of the existing documents are connected to the WBS, work in progress to connect them between each other.
- **Need to start development of processes to support our activities:**
 - Start with releasing with reviewers for the engineering documents, through collaborative work and change control, to supporting project management activities.