

E-Document Systems@ILC

Part II: ILC EDMS

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What is an EDMS?

- An EDMS is a framework which contains functionality for e.g.
 - Document Management
 - 3D CAD Data Management
 - Product Structure Management
 - Configuration, Version and Change Management
 - Workflow Management
 - Visualization, Digital Mock-Up and Mark-Up
- An EDMS has to be configured for its project
 - access rights, document types, workflows, data model, specific functionality, user interface, external interfaces
 - usually an ongoing effort through the project lifetime

Sidebar on Acronyms: EDM, PDM or PLM?

- Engineering Data Management (EDM) originates from CAD/CAM, aiming to integrate and organize product design and manufacturing information
 - e.g. specifications, CAD data, bill of material, routing lists, change orders, inspection sheets
- Product Data Management (PDM) is used synonymously with EDM
- Product Lifecycle Management (PLM) expands the data-centric PDM view to include methods, processes and people, and to cover the entire product lifecycle from first ideas to disposal

Some ILC EDMS Objectives

- provide central collaboration and lifecycle mgmt. platform for the Global Design Effort of the ILC
 - enable [members of the ILC collaboration](#) to access and contribute project information independent of location
 - enable [engineers at the different laboratories](#) to collaboratively design components using 3D CAD
 - enable [scientists](#) to participate in design processes from the very beginning by viewing the evolving CAD models
 - provide [teams, committees, boards](#) etc. with workspaces for work-in-progress document management
 - support [change control](#) of the ILC baseline during the EDR phase
 - protect confidential information and intellectual property against unauthorized access

ILC EDMS User Interface: Item Listings

Eigene Teams: PETRA_Bau_Team: Dokumentation Bau - Mozilla Firefox

http://adam03.desy.de:8090/TC51ANT/controller/home

Suchen [] Home Beenden DESY

Erweiterte Suche... Lars Hagge

Von Team auschecken In WIP Vault bringen Für Team verfügbar machen Versenden Verschieben Weitere

Eigene Teams: PETRA_Bau_Team: Dokumentation Bau

Ordner navigation im Team: [PETRA_Bau_Team: Dokumentation Bau](#)

	EDMS-ID	Name	Beschreibung	Klasse	Projektname	Lebenszyklusstatus	Er
<input type="checkbox"/>	D00000000805331.A.1	Test_Melanie_2	noch ein Versuch, von Silke bearbeitet	Allgemeines Dokument	PETRA_Bau_Team	In Arbeit	W
<input type="checkbox"/>	D00000000807431.B.1	Test3 Rejected	Test für neuen LC mit Zurückweisung durch Genehmiger	Technische Zeichnung	PETRA_Bau_Team	In Arbeit	Eu
<input type="checkbox"/>	D00000000808011.A.1	erste Frage		Technische Zeichnung	PETRA_Bau_Team	In Arbeit	Kr
<input type="checkbox"/>	D00000000805251.A.1	Schlagwortliste PETRA III (2)	2. Test	Allgemeines Dokument	PETRA_Bau_Team	In Arbeit	KI
<input type="checkbox"/>	D00000000809261.A.1	Test LWC	Bauzeichnung	Technische Zeichnung	PETRA_Bau	Genehmigt	Eu
<input type="checkbox"/>	D00000000808561.A.1	Test Webfreigabe		Technische Zeichnung	PETRA_Bau	Genehmigt	Eu
<input type="checkbox"/>	D00000000808141.A.1	Hallengrundriss	Z_YY_XXX	Technische Zeichnung	PETRA_Bau	Genehmigt	Kr
<input type="checkbox"/>	D00000000807531.A.1	Test Ablauf Prüffrist	Test für den Ablauf der Prüffrist, fällig am Mittwoch	Technische Zeichnung	PETRA_Bau	Prüfen	Eu
<input type="checkbox"/>	D00000000807481.A.1	Test Prüffrist	Test für neuen LC Dokument soll am Mittwoch automatisch zu den Prüfern geleitet werden	Technische Zeichnung	PETRA_Bau	Prüfen	Eu
<input type="checkbox"/>	D00000000807381.A.1	Test2 SE 070312	Zweiter Test für neuen LC mit 2 Prüfern	Technische Zeichnung	PETRA_Bau	Freigegeben	Eu
<input type="checkbox"/>	D00000000807331.A.1	Test SE 070312	Testzeichnung für neuen LC	Technische Zeichnung	PETRA_Bau	Genehmigt	Eu
<input type="checkbox"/>	D00000000804901.A.1	Testdokument von LH	Test im Rahmen einer Kurzeinführung	Allgemeines Dokument	PETRA_Bau	Under Approval	Ha
<input type="checkbox"/>	D00000000804231.A.1	2_06_1409_01	Gebäude 48, Grundriss Erdgeschoss	Technische Zeichnung	PETRA_Bau_Team	Freigegeben	Fr
<input type="checkbox"/>	D00000000805551.A.1	Testzeichnung von Lars	ein weiterer Test	Technische Zeichnung	PETRA_Bau_Team	Freigegeben	Ha
<input type="checkbox"/>	D00000000804301.A.1	02_06_1402_10	Gebäude 48, Schnitt 15-15, Anschluß	Technische Zeichnung	PETRA_Bau_Team	In Arbeit	Fr

1 Elemente in der Liste der angehefteten Dateien.
1 Elemente in der Liste der angehefteten Dateien.

Fertig

ILC EDMS User Interface: Item Details

The screenshot displays the ILC EDMS User Interface within a Microsoft Internet Explorer browser window. The address bar shows the URL: <http://adam03.desy.de:8090/TC511LC/controller/home>. The page title is "Item Information - Microsoft Internet Explorer".

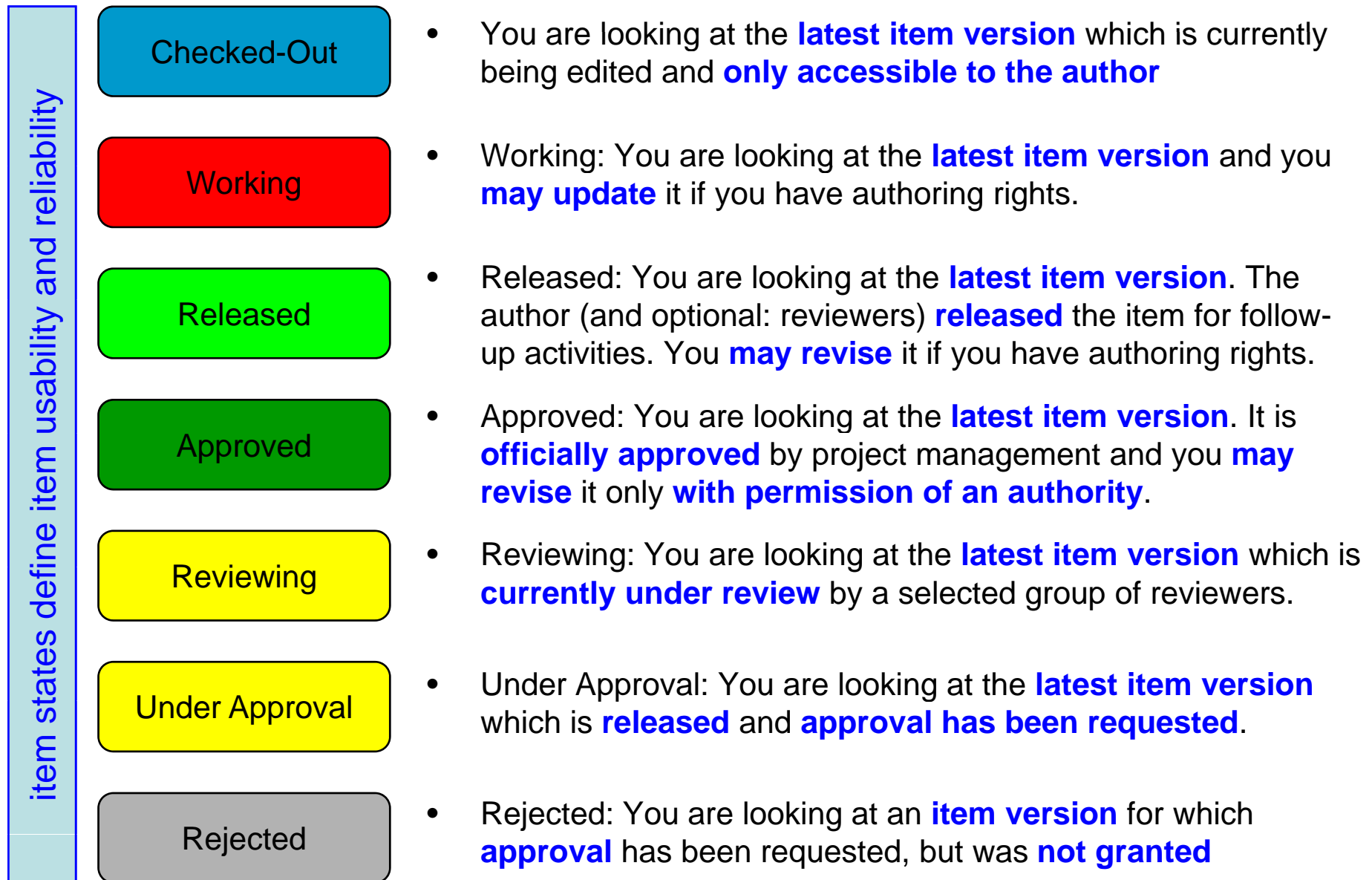
The interface includes a navigation menu on the left with a "Select View:" dropdown set to "ILC". Below this, a tree view lists various components under "Main Linac Cryogenic cooling", "Main Linac Water cooling", "Main Linac LLRF", "Main Linac Interlocks and C", "Main Linac Cryomodule", "Main Linac quadrupole p", "Main Linac cryostat", and "Main Linac cavity". The "Cavity" folder is expanded, showing sub-items like "Normalhalbzellen", "Endhalbzelle-V2-I", "Endhalbzelle-V2-I", "HOM-Koppler", "Flansch (Hauptkoppler v2)", "Cavityflansch", "Rippe", "Hauptkoppler: DESY-kurz-v2", "Endrohr-kurz", "Bordscheibe-Einkopplerseit", "Endhalbzelle-I", "Anschlussflan", and "Endrohrstueck".

The main content area displays the "Assembly, D00000000518063,A,1,1, Item Info : Summary" page. It features a tabbed interface with tabs for "Summary", "BOM", "Properties", "Related Items", "Assignment", "Classification", and "Reviewer/Approver". The "Summary" tab is active, showing the following information:

- Related Items:** A table with columns "Document Title" and "Document Title". It lists "Main Assemblies..." and "Cavity A.1.1".
- Is In Team Folder:** 1 object.
- Is Used By:** 1 object.
- Uses:** 10 objects.
- Properties:** A table with columns "Name", "Part Number", "Project Name", "Owner", "Creator", "Life Cycle", and "State". It lists "Endhalbzelle-V2-kurz" with a part number of "ILC_Cavity", owner "Herz_Andreas", and state "Working".
- Preview Image(s):** A 3D CAD model of a mechanical component, likely a cavity or flange, shown in a perspective view.

At the bottom of the page, a status bar indicates "Applet com.sdrc._metaphase.wcc.sharedlogin.SharedLoginApplet started" and "Local intranet".

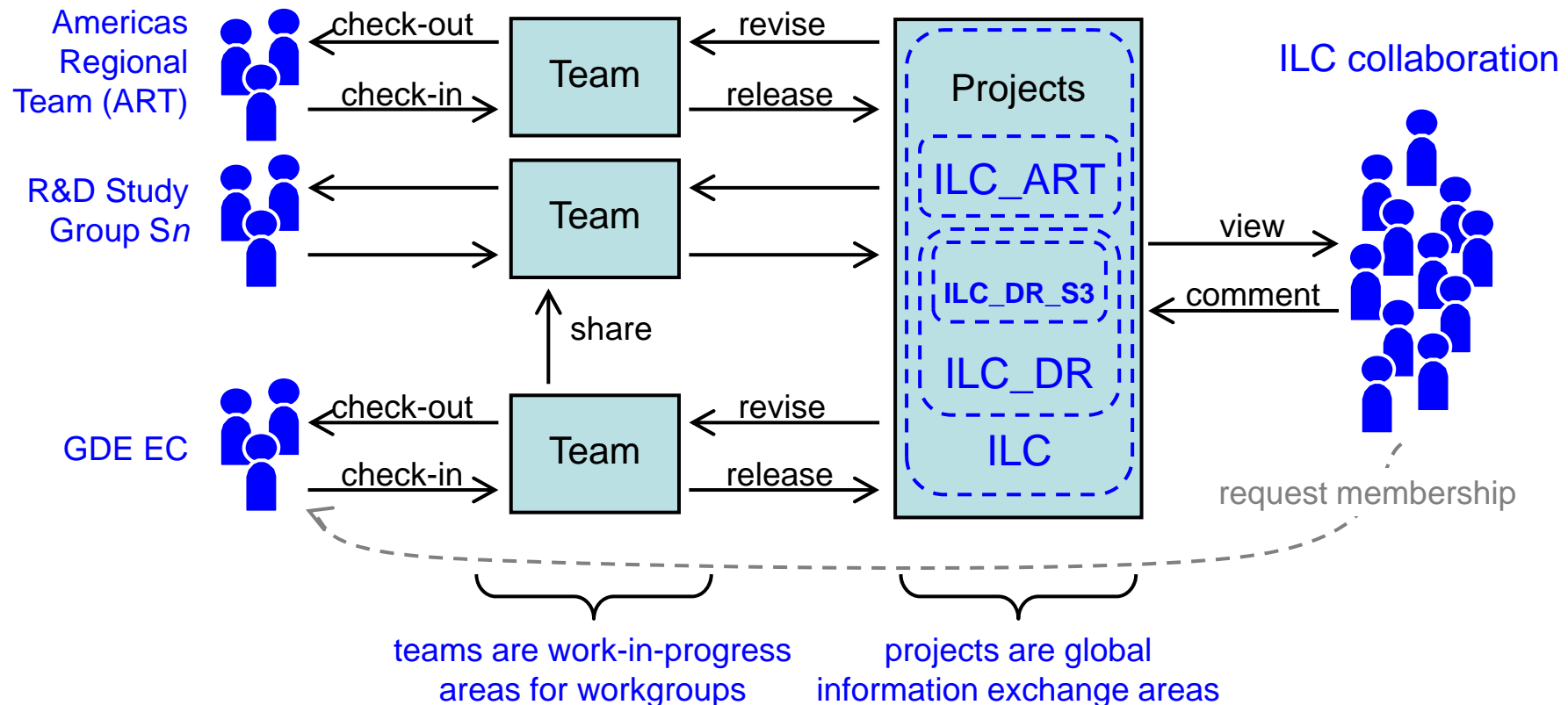
Item Lifecycle States in ILC EDMS



Overview: Basic ILC EDMS Functionality

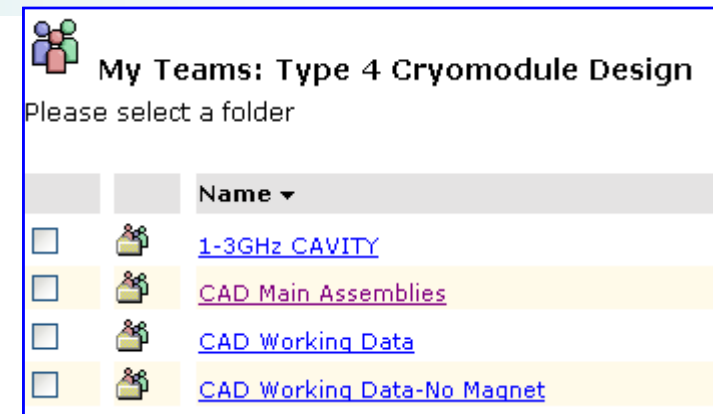
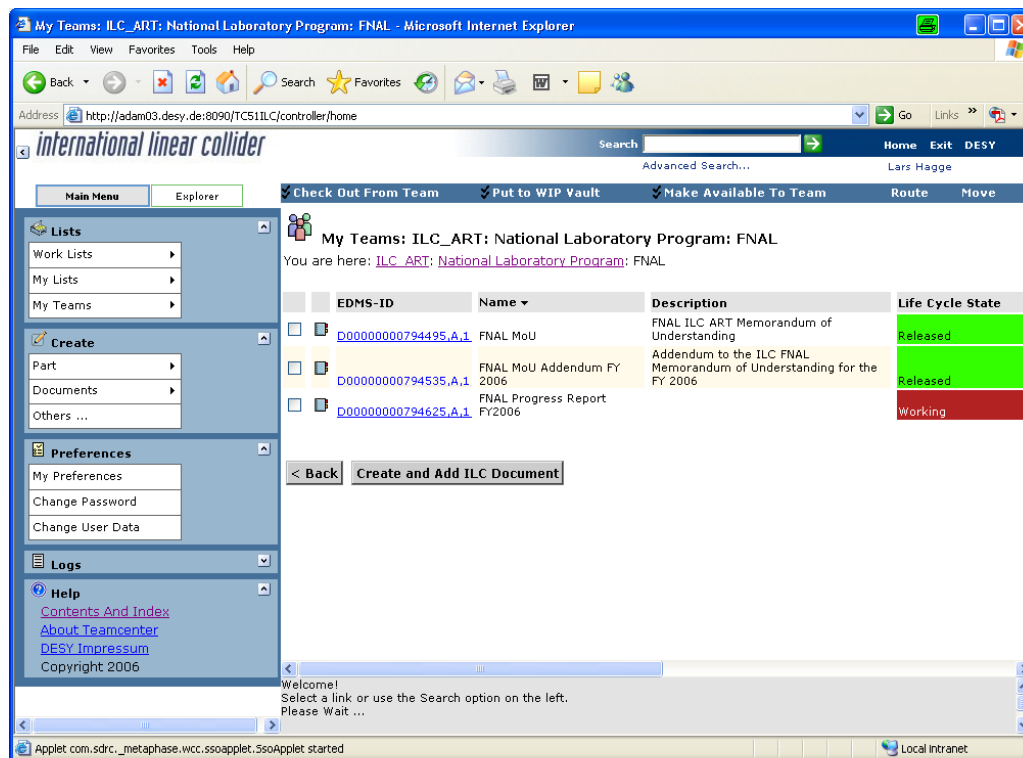
- local workspaces for workgroups, boards etc.
- web-like central information repository
- seamless integration of document & CAD data mgt.
- workflow management
- direct information access from the Web

ILC EDMS Basic Operation Principle



- Teams are local and private work-in-progress areas for e.g. workgroups, boards, committees, tendering ...
- Projects contain released items and determine access control policies
- Lifecycles transfer items between teams and projects

Team Workspaces



- Work-in-Progress area for working groups
 - folder structure can be arbitrarily organized within team area
 - team members have roles within a team (viewer, author ...)
 - team leader can add members and change role assignments

Projects: Web-Like Information Repository

- use powerful search engine for item retrieval
- link items with related information – like in the Web

The screenshot displays a web browser window titled "Item Information - Microsoft Internet Explorer" showing the "international linear collider" website. The main content area displays the "Summary" tab for the document "ILC Document, D00000000793895,A,1,1, Item Info : Summary". The document is associated with the project "ANL MoU" and is a "Memorandum of Understanding". The document is released by "Released Vault" and created by "Hagge_Lars_ILC". The document is in the "Released" state.

The interface includes a sidebar with navigation links: "Main Menu", "Explorer", "Submit", "History", "Bookmark", "Make Available To Team", "View File", and "More". The sidebar also contains sections for "Lists" (Work Lists, My Lists, My Teams), "Create" (Part, Documents, Others ...), "Preferences" (My Preferences, Change Password, Change User Data), "Logs", and "Help" (Contents And Index, About Teamcenter, DESY Impressum, Copyright 2006).

The main content area is divided into several sections:

- Related Items**: A table listing related items with columns for Name, Description, Project, Owner, Creator, Life Cycle, and State. The table shows one item: "ANL MoU Addendum FY 2006,A,1,1".
- Attaches**: A table listing attached files with columns for File Name and Name. The table shows two items: "ANL Umbrella_stamp.pdf" and "ANL Umbrella.pdf".
- Is In Team Folder**: A table listing items in the team folder. The table shows one item: "ANL MoU Addendum FY 2006,A,1,1".
- Is Depended On By**: A table listing items that depend on the current document. The table shows one item: "ANL MoU Addendum FY 2006,A,1,1".
- Is Related From Documents**: A table listing items related to the current document. The table shows one item: "ANL Addendum FY 2006,A,1,1".
- Relates To Documents**: A table listing items related to the current document. The table shows two items: "BNL MoU,A,1,1" and "FNAL MoU,A,1,1".

The bottom of the page displays a status bar with the text: "2 items in the Attached Files List. 2 items in the Attached Files List. You have 7 assignments in this Work List."

- bookmarks and saved searches for information retrieval

Assignments

- assign items for e.g. reviewing to other users
 - listed in “current work” list (inbox) with add. e-mail notification
 - claim, perform work, sign-off or reassign
 - lifecycle activities are tracked in the item history

Current Work

Select one assignment to work on.

EDMS-ID	Name	Description	Life Cycle State	Assignment
D00000000794625.A.1.1	FNAL Progress Report FY2006	FNAL Progress Report for FY2006	Reviewing	Please Review Item
Review Meeting FY2006.A.1.1		Review Meeting FY2006	Working	material - please read
D00000000795125.A.1.1	Presentation 1	Presentation 2007-05-31	Released	Info

You have 3 assignments in this Work

Signoff **Reassign**

Name	Description	Life Cycle State	Assignment
FNAL Progress Report FY2006	FNAL Progress Report for FY2006	Reviewing	Please Review Item
	Review Meeting FY2006	Working	material - please read
Presentation 1	Presentation 2007-05-31	Released	Info

Direct Access from Web Pages

Example: XFEL Meeting Minutes

Minutes and Agenda

All minutes with transparencies are available in EDMS under the project XFEL in the [meeting folder](#) (EDMS #16641). Most of the links below point directly into EDMS. To access these documents, make sure that your browser has JAVA implemented properly.

Invitations to the XFEL project group meeting are currently send to XFEL-DesyIntern@desy.de

• 28th February 2007: 142. Meeting

- [Minutes](#)
- F. Poppe: [Introduction to the XFEL movie "Light of the Future"](#)
- [the movie can be downloaded from www.xfel.net](#)

• 21st February 2007: 141. Meeting

- [Minutes](#)
- R. Wichmann: [Status summary 2007 and outlook 2007](#) (only available from the finance status pages)
- T. Hott: [TCM summary: Mechanical design effort and resources](#)

• 14th February 2007: 140. Meeting

- [Minutes](#)
- H. Weise: [Summary of the S2 task force meeting \(accelerator module string test for the ILC\)](#)

• 7th February 2007: 139. Meeting

- [Minutes](#)
- Z. Wolf (SLAC): [Magnetic measurements of the LCLS undulators](#)

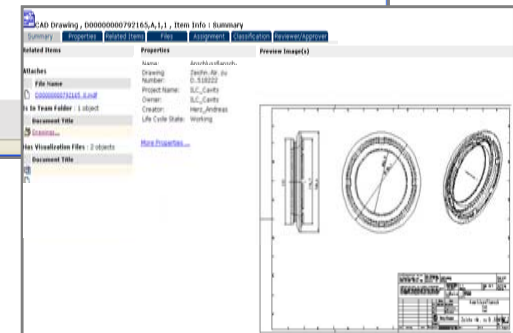
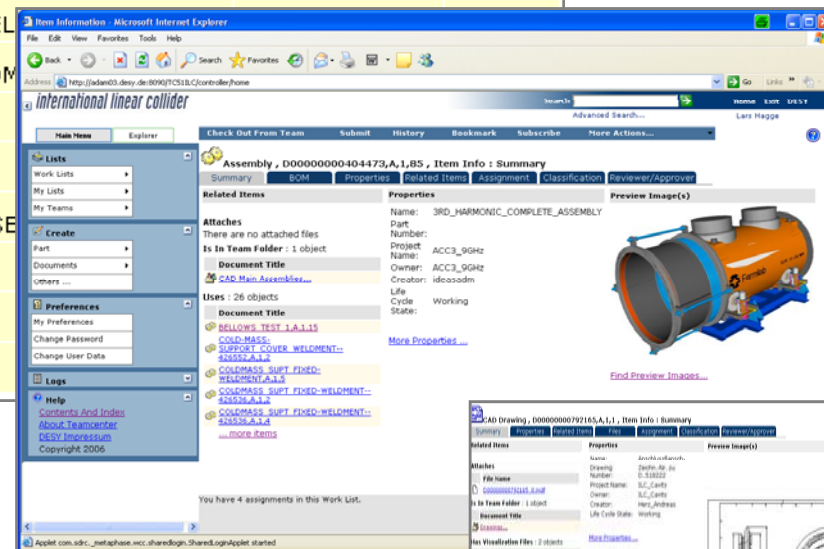
- direct links to documents in ILC EDMS, e.g.

<http://ilcweb.22.10.2007/edmsdirectILC/document.jsp?edmsid=D00000000794625>

CAD Data Access

- CAD data items treated like documents regarding e.g. storage, search, access
- additional relations & hierarchies, esp. bill of material (BOM)

EDMS-ID	Name	Life Cycle State	Quantity
D00000000404473,A,1,85	3RD_HARMONIC_COMPLETE_ASSEMBLY	Working	
D00000000404269,A,1,2	COLD-MASS-SUPPORT_COVER_WELDMENT--426552	Working	2
D00000000404293,A,1,5	HARDWARE_COMPLETE_ASSY	Working	1
D00000000404299,A,1,5	COLDMASS_SUPT_SLIDING-WEL		
D00000000404302,A,1,5	COLDMASS_SUPT_FIXED-WELDM		
D00000000404428,A,1,8	STAND-ASSEMBLY		
D00000000404464,A,1,43	MAIN_COUPLER_WARM_ASSY		
D00000000404470,A,1,24	CRYO_3RD-HARM_VESSEL_ASSE		
D00000000404488,A,1,80	COLD_MASS_ASSEMBLY		
D00000000541513,A,1,1	HARDWARE_WARM_COUPLER		
D00000000541623,A,1,15	BELLOWS_TEST_1		



- global system breakdown structure(s)
need to be defined as part of EDR activities

Putting ILC EDMS Into Operation

- ILC EDMS has been launched at this workshop
 - first groups to adopt ILC EDMS are [American Regional Team \(ART\)](#) and [Damping Ring Study Group S3](#)
- EDMS team provides training, e.g. via Webex
 - plan to have ILC EDMS workshop in summer
- fine tuning and project mgt. involvement required
 - define policies for creating project groups
 - define reference breakdown structures
 - e.g. system breakdown structure (components),
work breakdown structure (work packages, tasks)
 - see also summary talk by M. Ross
- interested in becoming ILC EDMS user?
 - send e-mail to ilc-edms-support@desy.de