

CAD Tools Committee Meeting

Wednesday
28 Sept. 2005

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Lab CAD Manager

Topics

- PLM World Regional User's Conference
- ASME Y14 Standards
- TDM Database Issues
- TDM Cleanup Process
- TC Migration Project Plan (rough draft only)
- LCM's List of Projects

Regional User's Conference

Notes

- I-DEAS 13 due Q2 2007 (currently March)
- I-DEAS 12 - Assembly Prune with Faceted Rep.
Awesome! A single reason for moving to I12.
- Platform & Licensing
 - 64-bit computing – NX4 is available in both 32 & 64-bit
 - TC Engineering & I-DEAS to remain 32-bit for Windows
 - Windows 2000 not supported for NX4+
 - I-DEAS 12 & TC Engineering require Win2K SP4 or WinXP.
 - Licensing to be combined for I-DEAS 12 & NX4. Functionality will depend on license configuration (i.e. NX bundles vs. IDEAS packages)
 - Take-Home licenses go away in I-DEAS 12. Replaced by FLM Borrow utility, 14 day license that removes a license from the original pool

Regional User's Conference

TDM to TC Eng transition

- #1 Priority - Clean Up TDM !!!!!!!!!!!!!!!!!!!!!!!!!!!!!
TC Eng will not do it for us and it will not be fixable after migration.
- NX Content Migration Manager available for free in January 2006

ASME Y14 Standards

One set per group

ASME Standard	EACH	QTY	TOTAL
Y14.1 - 1995 Decimal Inch Drawing Sheet Size and Format	\$39.00	1	\$39.00
Y14.100 - 2004 Engineering Drawing Practices	\$95.00	4	\$380.00
Y14.13M - 1981 Mechanical Spring Representation	\$35.00	4	\$140.00
Y14.1M - 1995 Metric Drawing Sheet Size and Format	\$39.00	1	\$39.00
Y14.24 - 1999 Types and Applications of Engineering Drawings	\$95.00	1	\$95.00
Y14.2M - 1992 Line Conventions and Lettering	\$39.00	4	\$156.00
Y14.3 - 2003 Multiview and Sectional View Drawings	\$49.00	4	\$196.00
Y14.34M - 1996 Associated Lists	\$35.00	4	\$140.00
Y14.35M - 1997 Revision of Engineering Drawings and Associated Documented	\$35.00	4	\$140.00
Y14.36M - 1996 Surface Texture Symbols	\$48.00	4	\$192.00
Y14.38 - 1999 Abbreviations and Acronyms	\$105.00	4	\$420.00
Y14.41 - 2003 Digital Product Definition Data Practices	\$95.00	1	\$95.00
Y14.42 - 2002 Digital Approval Systems	\$39.00	1	\$39.00
Y14.5M - 1994 Dimensioning and Tolerancing	\$135.00	4	\$540.00
Y14.5M-1994 Standard Ease Cd-Rom One User	\$195.00	1	\$195.00
Y14.6 - 2001 Screw Thread Representation	\$39.00	4	\$156.00
Y14.7.1 - 1971 Gear Drawing Standards-Parts 1: For Spur, Helical, Double Helical and Rack	\$35.00	4	\$140.00
Y14.7.2 - 1978 Gear and Spline Drawing Standards-Part 2: Bevel and Hypoid Gears	\$35.00	4	\$140.00
Y14.8M - 1996 Castings and Forgings	\$55.00	4	\$220.00
			\$3,462.00

TDM Database Issues

Problems found

Several problems found in TDMs:

- UNIX formatted CAD files (fixable using HDS Converter tool)
- Corrupt CAD files (not fixable)
- Corrupt Projects (fixed using dmadmin & idfvfy)

ADCS_idfvfy_error-asm.log

FERMI_idfvfy_error-mdf.log

PPD_idfvfy_error-asm.log

ADMS_idfvfy_error-drw.log

TD_idfvfy_error-drw.log

TD_idfvfy_error-asm.log

TDM Database Issues

Automated Tools

- Nightly execution of IDFVFY on all TDM IMD & PMD files with daily email report.
- Weekly MIADMIN email report for all TDMs.
- HAM Medic Checker and Cleaner scripts available as needed for all TDMs
- HDS Convert scripts available as needed for all TDMs
- Regular DMADMIN reports soon

TDM Cleanup Progress

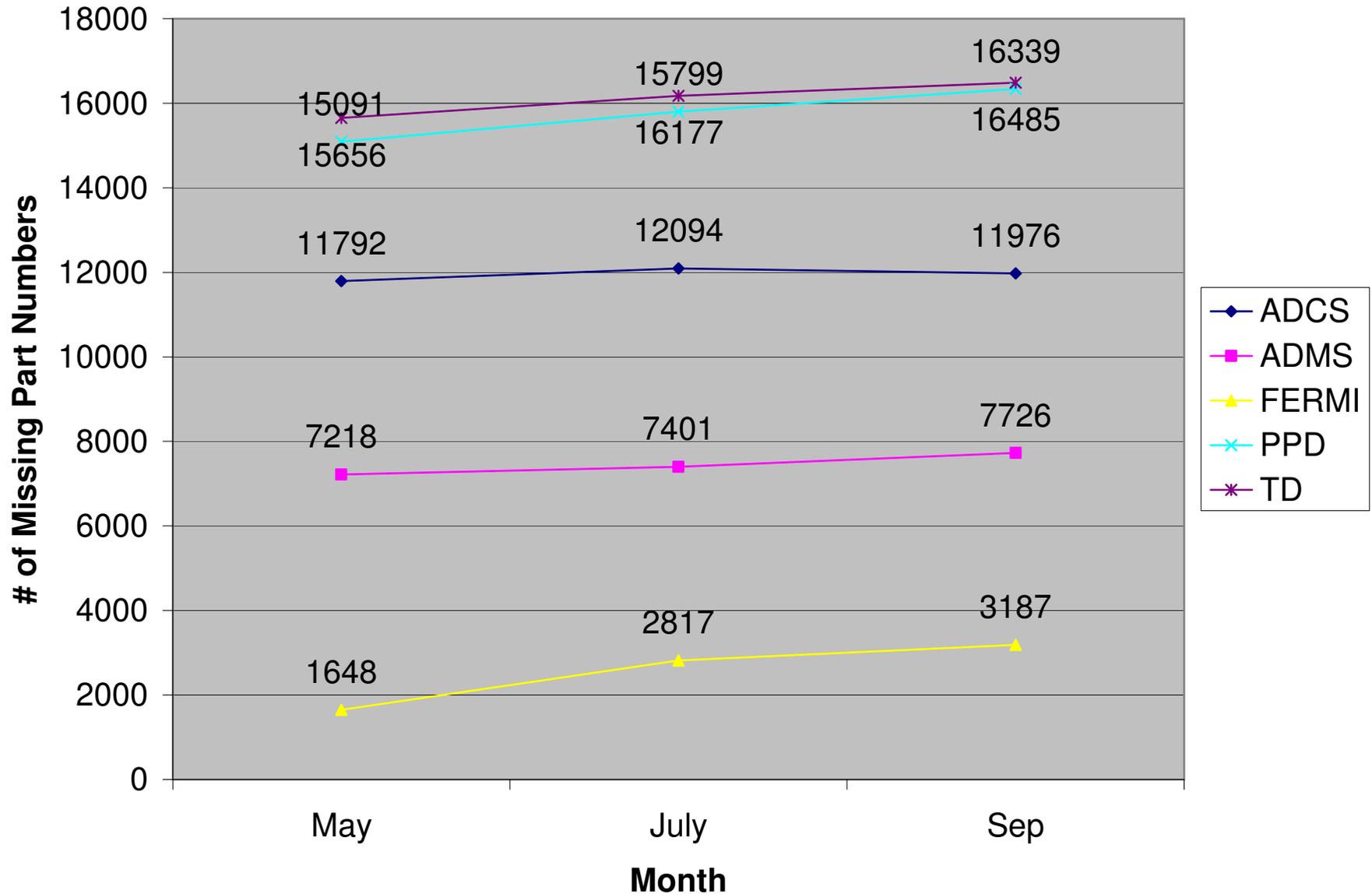
26 Sep 2005

Users/Managers must take ownership

		TDM					
		ADCS	ADMS	FERMI	PPD	TD	ALL
miadmin	Error						
	DUPLICATE_VERSION_NUMBER				14		15
	MISSING_ITEM_NAME					27	27
	MULTIPLE_ITEM_NAMES	24			15	1	211
	MISSING_PART_NUMBER	11976	7726	3187	16339	16485	53470
	MULTIPLE_PART_NUMBERS	40			2		326
	INVALID_IMPORT_EXPORT_LOCK_STATUS						386
	MIGRATED_DRAWING_DUPLICATE_VERSION_NUMBER	3					3
	MULTIPLE_MIGRATED_DRAWINGS	4				2	6
	INCOMPLETE_MIGRATED_DRAWING	2				10	12
	INVALID_MIGRATED_DRAWING	128	74			182	384
	CROSS_PROJECT_MIGRATED_DRAWING	3					3
	MULTIPLE_LEGACY_DRAWINGS	1					1
	DUPLICATE_PART_NUMBER	675	80	105	589	2105	3843
	DUPLICATE_ITEM_NAME	1882	131	164	1430	4022	8515
	INVALID_CHARACTERS_IN_ITEM_NAME			4		4	8
	ITEM_NAME_TOO_LONG	960	2	334	1454	3243	5986
	PART_NUMBER_TOO_LONG	370		21	39	509	939
CREATE_TIME_SEQUENCE_ERROR	1	1			34	54	
dmadmin	Library Files Check and Location: (missing files)	0	0	0	2171	0	X
	List of Files Report: (items with >80 characters)						
	Assembly TMT Problems	459	249	0	575		
	Size of TDM Shared Directory (GB)	13.1	12.8	12.3	42.8	40.1	
	Number of files in Shared Directory	25991	16007	12716	41101	52266	

TDM Cleanup Progress

Missing Part Numbers by TDM



TC Engineering Progress

Project Plan

Project Plan:

I-DEAS® TDM Migration
To
Teamcenter Engineering™
At Fermilab

Revision History			
Rev.	Date Y-M-D	Name	Comments
-	-	-	-

LCM List of Tasks

1 ANSYS Projects

1.1 Installation

- 1) Write install instructions

2 I-DEAS Projects

2.1 Installation/Administration

- 1) Develop install scripts and documentation.
- 2) Consolidate all TDM environments into one single manageable framework and document.
- 3) Schedule regular defragmenting of server disk drive(s).

2.2 Data Management

- 1) Write maintenance & reporting scripts and supporting documentation for running idfvfy, dmadmin, miadmin, hdsconvert, & ham_medic and schedule tasks to run regularly
- 2) Clean up and improve organization of TDMs

2.3 Configuration

- 1) Set up SDI Plotting
- 2) Work on line weight output with need for a pen plotter

2.4 Improvements

- 1) Expand use of layers for drawing entities
- 2) Set up defaults to comply with ASME Y14
- 3) Flag out-of-date dimensions after drawing updates
- 4) Create CAD Home page on web server
- 5) Drafting Utilities and Icon Panels

2.5 Operational Issues

- 1) Troubleshooting problems
- 2) Addressing bugs

3 PDM Projects

3.1 Installation

- 1) Write install scripts and documentation

3.2 Administration

- 1) Determine needs.

3.3 Data Management

- 1) Work on TC Migration Plan

3.4 Configuration

- 1) Work on TC Migration Plan