


SUPPLIER TRAINING, AUTOCAD LAYER CONVENTION,
 WORLDWIDE DOCUMENTATION MANAGEMENT (WDM)
 AUTOCAD* STANDARDS

* AutoCAD is a trademark name of AUTODESK, INC.

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ENGINEER:	WDM	01/15/04		
APPROVED:				
RELEASED:				
			SCALE NONE	A SIZE
			6458157	
			REV -	SHEET 1 / 7

PURPOSE:

To provide consistency in AutoCAD data created by or submitted to WORLDWIDE DOCUMENTATION MANAGEMENT (WDM) which is part of the WORLDWIDE PROCUREMENT AND LOGISTICS group and to provide a brief explanation of the data functions.

SCOPE

All AutoCAD (ACAD) data used for formal release documentation.

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1.0 DRAWING FORMAT

1.1 AutoCAD Release or Version.

AutoCAD drawing files submitted may range from Release 14 through the current release. (2004) Released file support is limited to Release 2000 and above. Any files submitted to WDM that have been created by a version of AutoCAD prior to the current release will be converted to ACAD 2000 by default. WDM will provide copies of files to customers by special request.

1.2 PROPRIETARY DATA NOTES

The business rule for WORLDWIDE DOCUMENTATION MANAGEMENT (WDM) at Texas Instruments Incorporated ("TI") prohibits acceptance of documentation with proprietary or confidential notes affixed. Therefore, TI's storage of such documentation on its SAP software and Engineering Distributed Graphics Environment (EDGE) systems requires that you provide documentation to TI free of such notes. You acknowledge that your documentation is provided to TI without any obligation of non disclosure and agree that TI may use, evaluate, copy or distribute the documentation in any manner TI deems appropriate.

1.3 Scaling

All files in formally released status will contain one of the four TI format blocks (for ANSI "A", "B", "C", & "D" size) of which all drawing information will be contained within it's boundaries. All sheets of the drawing will be of the same size format and same scale. Formats can either be scaled up or down to meet the needs of the drawing model or the model can be scaled up or down to fit the format. Whichever case is used, only one format scale factor can be used on all sheets of the drawing.

Example: Sheet 1 has a model designed in millimeters. Its size fits in a "D" size format scaled up at a factor of 25.4X. Sheet 2 has a detail of the main model that is smaller in proportion to the "D" size format that is scaled at 25.4X. The detail may then be scaled up to fit that format size and scale. The dimension variables would need to be altered to compensate for scaling when dimensioning.

1.4 Extents and Limits

There are no requirements regarding the extents of drawings. All drawings limits for document related files must be set to the proper media size dimensions divided by the DIMSCALE system variable value. The lower left limit coordinate must be 0,0 in the World Coordinate System. The lower left corner of the format trim line must also be at 0,0 in the World Coordinate System.

1.5 Layer Naming

Layer naming convention is based on the concept of one drawing file containing all sheets for the drawing. Each layer that contains plottable document related entities must begin with "SH-xx_" where xx is a two character numeric sheet identifier. The suggested layer usage should conform as per the following ...

<u>Layer Name</u>	<u>Line Type</u>	<u>Color</u>	<u>Usage</u>
SH-01_OBJECT	CONTINUOUS	WHITE	OBJECT LINES, SHEET 1
SH-01_CENTER	CENTER	YELLOW	CENTER LINES, SHEET 1
SH-01_HIDDEN	HIDDEN	MAGENTA	HIDDEN LINES, SHEET 1
SH-01_HATCH	CONTINUOUS	10	HATCHING, SHEET 1
SH-01_DIM	CONTINUOUS	CYAN	DIMENSIONS, SHEET 1
SH-01_PHANTOM	PHANTOM	RED	SECTION AND DETAIL CALLOUTS, SHEET 1
SH-01_NOTES	CONTINUOUS	GREEN	NOTES, TEXT, SHEET 1
SH-01_MISC	CONTINUOUS	BLUE	PKG, TAPE, REF. & MISC ENTITIES, SHEET 1
ADMIN	CONTINUOUS	WHITE	ENTITIES COMMON TO ALL SHEETS, BORDER ETC...
FORMAT	CONTINUOUS	WHITE	FORMAT ENTITIES

These methods of combining all sheets in one drawing file reduces storage requirements for a drawing by eliminating the duplication of entities, such as borders and title blocks from sheet to sheet. Drawing file overhead, (amount of bytes in an AutoCAD file with no entities) is also reduced.

Optional layering names can be added for other names as required, but must maintain the SH-XX_ prefix.

1.6 Fonts

The use of all font files supplied with AutoCAD is permitted. Third party or custom font files are prohibited from use unless the font is specifically detailed as being supported by WDM. The use of the "BIG FONT" type fonts should be avoided if possible.

The preferred font file for TI's WDM is SIMPLEX. The style STANDARD in any file must reference the SIMPLEX font, with the height set to 0 and the width set to a 0.8 ratio. The current list of approved third party/custom font files is shown below.

1.7 Text Height

The nominal text height for drawings with standard limits of "A" size thru "D" size is .125 inch (.100 inch MIN). Any metric drawing or varied scaled drawings are to have the same text proportion as the scaled format (ex. If an "A" size drawing is scaled up 10X then the text is to be scaled up by 10X.)

1.8 UCS AND MODEL / PAPER SPACE

AutoCAD files, when ready for release, should have the UCS set to "WORLD". AutoCAD files and should be sent in the "MODEL SPACE " format to match existing TI drawings and prevent format conversion.

1.9 Limits

AutoCAD files, when ready for release, to have the limits set at the extents of the format where the lowest left corner is 0,0 and the upper right corner is the X,Y limits.

2.0 LISP PROGRAMS

The following list of ACAD lisp programs were created to aid in easing repetitive tasks. Some of them are geared for general purposes and others are geared uniquely for a specific commodity use.

<u>TI DOCUMENT NUMBER</u>	<u>LISP PROGRAM</u>	<u>DESCRIPTION</u>
4074447	CSHEET.lsp	CHANGES SHEETS (TURNS ON AND OFF LAYERS SPECIFIC TO DESIRED SHEET NUMBERS.)

3.0 FORMATS

3.1 The following list of formats have been defined, stored, and maintained by WDM in the EDGE system. They were created to standardize the ACAD library of released drawing files and to aid in the duplication of typically used drawing formats. The modification of these formats for use of formally releasing a drawing is to be done by WDM personel only.
Copies of these formats are available for review and copy on EDGE LITE.

<u>TI DOCUMENT NUMBER</u>	<u>DRAWING NAME</u>	<u>DESCRIPTION</u>
4074431	FMT-A.dwg	"A" SIZE TI DRAWING FORMAT
4074432	FMT-B.dwg	"B" SIZE TI DRAWING FORMAT
4074433	FMT-C.dwg	"C" SIZE TI DRAWING FORMAT
4074434	FMT-D.dwg	"D" SIZE TI DRAWING FORMAT

REV	DESCRIPTION

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SCALE	A
NONE	SIZE

6458157

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