

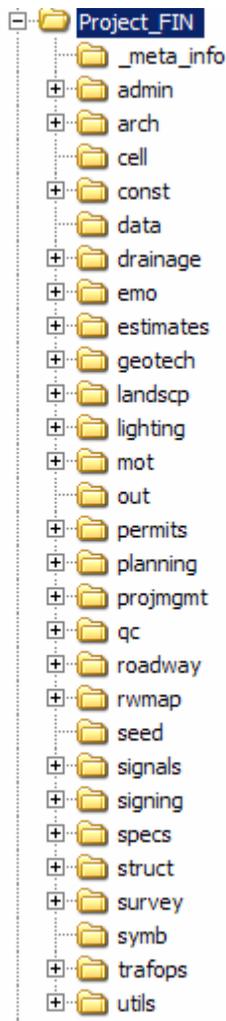
FDOT V8 Standards and Migration Plan

Overview

As FDOT reviewed the effort required to move to MicroStation V8, we decided that this was an opportunity to reevaluate our current standards and applications. Review of these standards showed that the FDOT CADD standards had evolved over an 18 year period into an extensive list of symbology and file names. Minimal changes and improvements have been made due to backward and forward compatibility issues. The standards have simply been expanded, thus creating a convoluted set of standards. Also, many of the prior issues that required an intricacy of standards are no longer applicable in MicroStation V8, or in some cases there is a more efficient means to address any conflict. From this perspective, and the long term need to exchange electronic files, ECSO and the Technical Advisory Committees (TACs) have evaluated every standard needing improvement and ease of use for migration to MicroStation V8.

Electronic delivery of CADD files has also influenced the CADD standards adopted by FDOT for MicroStation V8. With the advent of practically unlimited level names, that can also easily be mapped to AutoCAD layer names, and long cell names that can easily convert to AutoCAD block names with symbology tied to level names, it was beneficial to the FDOT CADD user community that MicroStation V8 standards facilitate the easy exchange of electronic data while providing user friendly standards that are easy to QC, and built into automated processes. With this goal as the main focal point, FDOT has established draft MicroStation V8 standards and created a V8 menu system for efficient CADD plans production and electronic delivery.

The FDOT Project Directory Structure Creation and Requirements



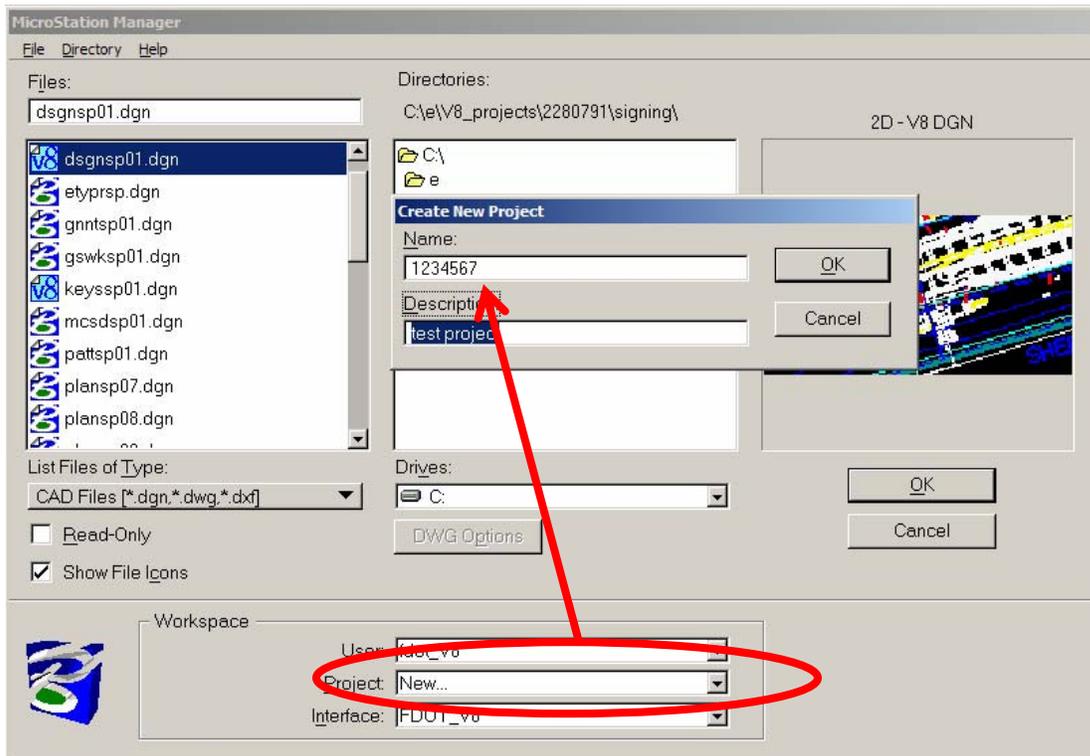
There are only minor changes to the pre-V8 project directory structure. This includes the removal of the DGN directory.

As with the MicroStation J FDOT workspace, each discipline will be maintained as individual subdirectories under the project directory. As files are developed by the various disciplines, those files should be placed into the project subdirectories corresponding to the work type. Roadway design would place their files under the \Roadway subdirectory, Surveying under the \Survey subdirectory, and so forth. The standard project directory tree can be created in V8 using the MicroStation Manager dialog or the *CreateEdit* program. See *Creation of Project Directory Structure* later. These directories are required in the final electronic delivery of the project. Note that no additional subdirectories should be created at the tier -1 directory level as before.

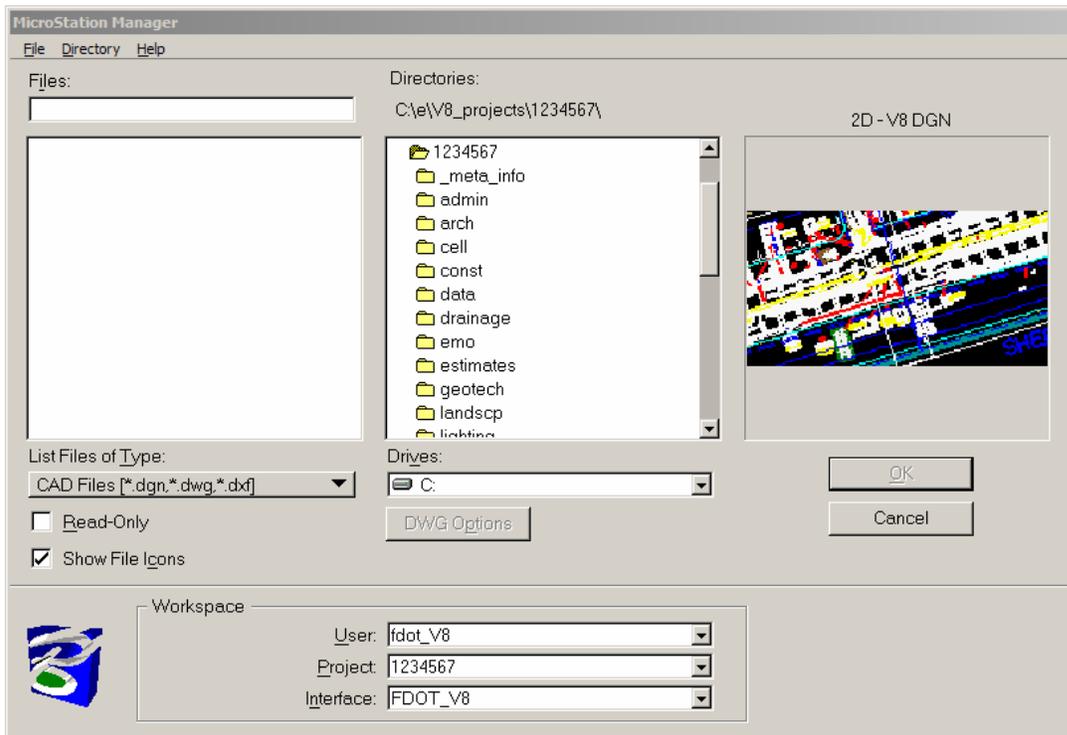
Creation of Directory Structure

The standard project directory structure can be easily created at project startup from multiple methods. Using the FDOT V8 workspace, a project can be created from MicroStation Manager.

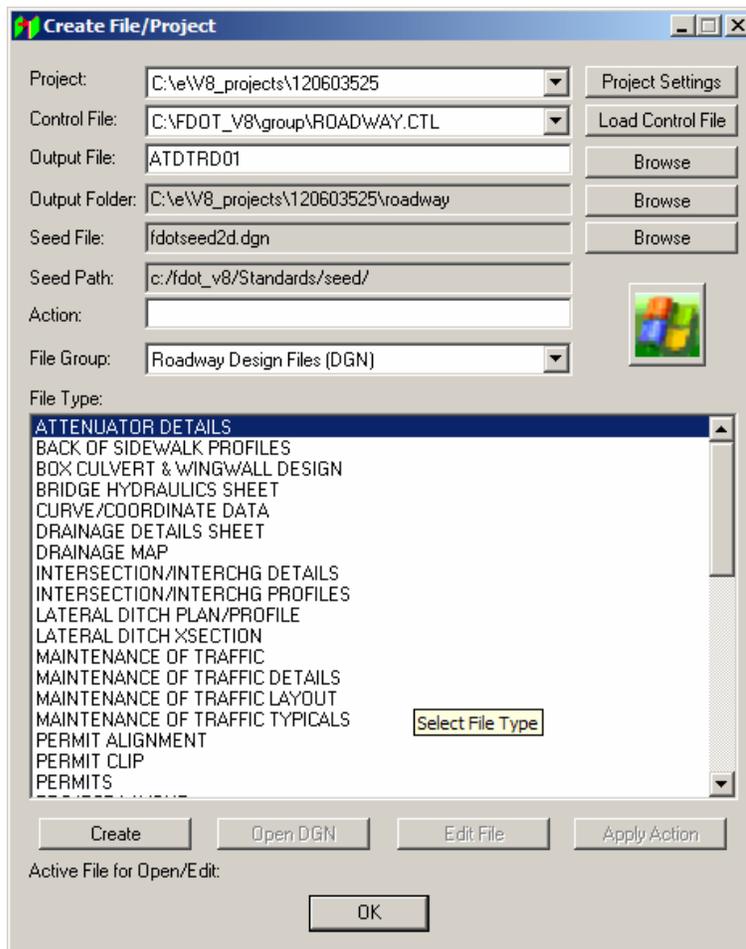
MicroStation Manager Method – Open MicroStation using the MicroStation V8 icon.



Select New from the Project pull-down options. This will create the standard FDOT V8 project directory structure. See image below.



In addition, the FDOT V8 CADD software will provide a new program that runs outside of MicroStation or within MicroStation for the creation of projects and files. The new Create File / Project program for MicroStation V8 replaces the MicroStation J Create File program. This version also interfaces with TIMS Project Navigator in the background if it is present, registering those newly created files in TIMS.



File Names

In the FDOT V8 workspace, use of hard coded reference file paths (Save Full Path) is not allowed. In order to avoid conflicting attachments of reference files, **there shall be no duplicate file names within a project directory structure**. The FDOT V8 Workspace is set up such that when MicroStation searches for a reference file, the software scans down the directory structure in alphabetical order using the list of subdirectories specified under the project name, (the first seven digits of the Financial Identification Number). The first occurrence of the file name is then used as the reference file (all other occurrences are ignored). For this reason, there should be no duplicate file names within a project.

File naming conventions and the relationship between files are also being evaluated for MicroStation V8. Due to limitations in path lengths by some applications, and for standardization purposes, a six character discipline naming convention with an additional sequence number will be maintained for MicroStation files. For example the

MicroStation V8, existing topography standard file name will be “toposv01.dgn”. The CADD Production Criteria Handbook (CPCH) will reflect the standard file names.

The advent of unlimited levels and model segregation in MicroStation V8 demanded the review of the definition of what elements resided in which files, and the need to separate various elements into different files. For example, all existing survey elements (existing roadway elements, existing drainage, and existing utilities) could now reside in one file, with none of the previous conflict in symbology. However, after evaluating this possibility, the Technical Advisory Committees found that the benefit gained by separating the elements often surpassed the benefit gained by regrouping these elements, so it was decided the elements should be kept in separate files, with the possible use of models to facilitate the management of the elements within one file. See the section Models for more information.

Electronic Delivery of Files in MicroStation V8

MicroStation DGN format is still the required delivery format for all CADD files with the exception of Architectural projects. The Engineering / CADD Systems Office (ECSO) is reviewing the possibility of exchanging DWG file formats with utility companies in order to more efficiently exchange electronic data. However, this practice will be limited to the referencing of required data for utilities, not as an acceptable format for the delivery of electronic files for plan component packages.

The current Electronic Delivery requirements will continue in the V8 version of the FDOT CADD software with only minor changes to the delivery formats. A compliancy report of the CADD files adherence to the FDOT CADD standards will still be required; however with the implementation of “By Level” in V8, the QC rules have been simplified. The QC rule files will basically check to see if an element is valid in its current file and model, and that its’ symbology set to ByLevel.

Postscript Files

Even though MicroStation V8 2004 edition and beyond does provide a mechanism for the creation of PDF images directly, the sheet image requirements are still Postscript format at this time. We are examining if the .PDF offer any advantages to requiring this format.

Engineering Data Output

Electronic delivery of V8 projects will require the Engineering data output format for all geometric controls be provided in Land XML format. As the TransXML format develops, we’ll evaluate if this is a more viable option or not. See example below of a LandXML file and check <http://www.landxml.org> for the latest developments in LANDXML..

```

<?xml version="1.0" encoding="Windows-1252" ?>
- <LandXML xsi:schemaLocation="http://www.landxml.org/schema/LandXML-1.0 http://www.landxml.org/schema/LandXML-1.0/LandXML-1.0
  xmlns="http://www.landxml.org/schema/LandXML-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Project name="chains" desc="sample of XML output" />
  <Application name="GEOPAK" desc="Export COGO Chain to LANDXML." manufacturer="Bentley Systems, Inc." version="08.05.00.64" manufacturer
- <Units>
  <Imperial areaUnit="squareFoot" linearUnit="foot" volumeUnit="cubicFeet" temperatureUnit="fahrenheit" pressureUnit="inchHG" />
</Units>
- <Alignments>
- <Alignment name="4"ELECLT" length="533.905823" staStart="5959.290000">
  - <CoordGeom name="4"ELECLT">
    - <Line length="533.905823" dir="1.603662">
      <Start name="49">644628.175000 902189.340500 0.000000 </Start>
      <End name="50">645161.792500 902171.796500 0.000000 </End>
    </Line>
  </CoordGeom>
  </Alignment>
- <Alignment name="BL10ST" length="500.000234" staStart="2500.000000">
  - <CoordGeom name="BL10ST">
    - <Line length="500.000234" dir="0.015651">
      <Start name="8">645806.798000 901711.960000 0.000000 </Start>
      <End name="9">645814.623000 902211.899000 0.000000 </End>
    </Line>
  </CoordGeom>
  </Alignment>
- <Alignment name="BL6ST" length="1560.985181" staStart="1439.014819">
  - <CoordGeom name="BL6ST">
    - <Line length="1560.985181" dir="0.015651">
      <Start name="10">647688.061000 900562.717000 0.000000 </Start>
      <End name="11">647712.491000 902123.511000 0.000000 </End>
    </Line>
  </CoordGeom>
  </Alignment>
- <Alignment name="BL817" length="8145.631435" staStart="4948.570000">
  - <CoordGeom name="BL817">
    - <Line length="689.919632" dir="1.313570">
      <Start name="1">642241.758600 902067.211800 0.000000 </Start>
      <End name="BL-1">642908.979465 902242.726518 0.000000 </End>
    </Line>
    - <Curve name="BL-1" radius="1909.859317" dirStart="0.257226" dirEnd="6.242094" chord="567.634732" length="569.745033" rot="ccw">
      <Start>642908.979465 902242.726518 0.000000 </Start>
      <End>643473.302852 902303.949907 0.000000 </End>
      <Center>643394.845643 900395.702786 0.000000 </Center>
      <PI>643186.540986 902315.740066 0.000000 </PI>
    </Curve>
    - <Line length="1263.348613" dir="1.611888">
      <Start name="BL-1">643473.302852 902303.949907 0.000000 </Start>
      <End name="2">644735.585000 902252.051000 0.000000 </End>
    </Line>
    - <Line length="2528.933926" dir="1.607990">
      <Start name="2">644735.585000 902252.051000 0.000000 </Start>
      <End name="BL-2">647262.769881 902158.011746 0.000000 </End>
  </CoordGeom>
</Alignments>

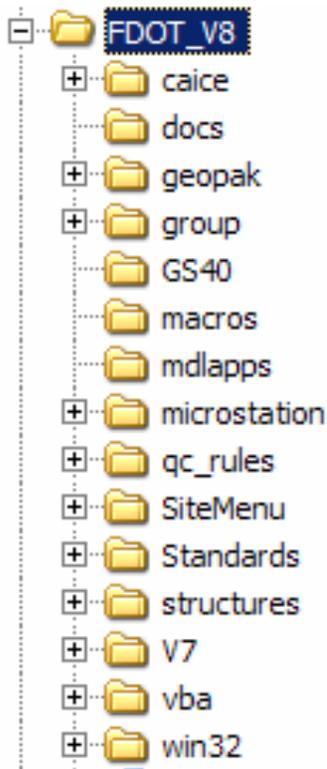
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FDOT V8 Software Directory Structure and Files

Part of the evaluation conducted by FDOT was the need of metric support files in the MicroStation V8 environment. It was concluded that FDOT V8 will not include a metric workspace. Since few metric projects are still ongoing, these will be finished in the MicroStation J workspace. Metric resource files required for viewing and printing

existing metric files will be supplied for these purposes only. This includes the metric custom line style files.

A V7 directory will be maintained, that contains the support files necessary to complete existing MicroStation J projects not be converted to V8 standards and file formats. This directory includes the MicroStation J version of cell libraries, seed files, resource files and the necessary GEOPAK support files. A set of configuration files is provided to use these files in a V7 workmode under MicroStation V8. Currently, the recommendation is to allow projects that are approximately 90% or greater to be finished using the V7 workmode workspace in V8. See the **Deployment section** later for more information on determining which projects should be considered for conversion.



FDOT V8 CADD Software Requirements

- Windows XP operating system
- MicroStation V8, 2004 edition or newer
- CivilPak 2004 edition (A Bentley Civil Engineering configuration) or GEOPAK.
- Office 2000 or higher with SP / SR-1
- Microsoft Internet Explorer 6.0 or higher
- .NET Framework loaded (See:
<http://msdn.microsoft.com/netframework/technologyinfo/howtoget/default.aspx>)

The FDOT V8 Workspace and Support Files

The FDOT V8 workspace defines the location of the projects, the project directory structure, the search path for supporting files and the discipline specific configuration variables. Many of the programs and supporting files in the FDOT V8 workspace are dependent on GEOPAK being activated, or as a minimum the Civil Engineering Extension available with MicroStation V8 2004.

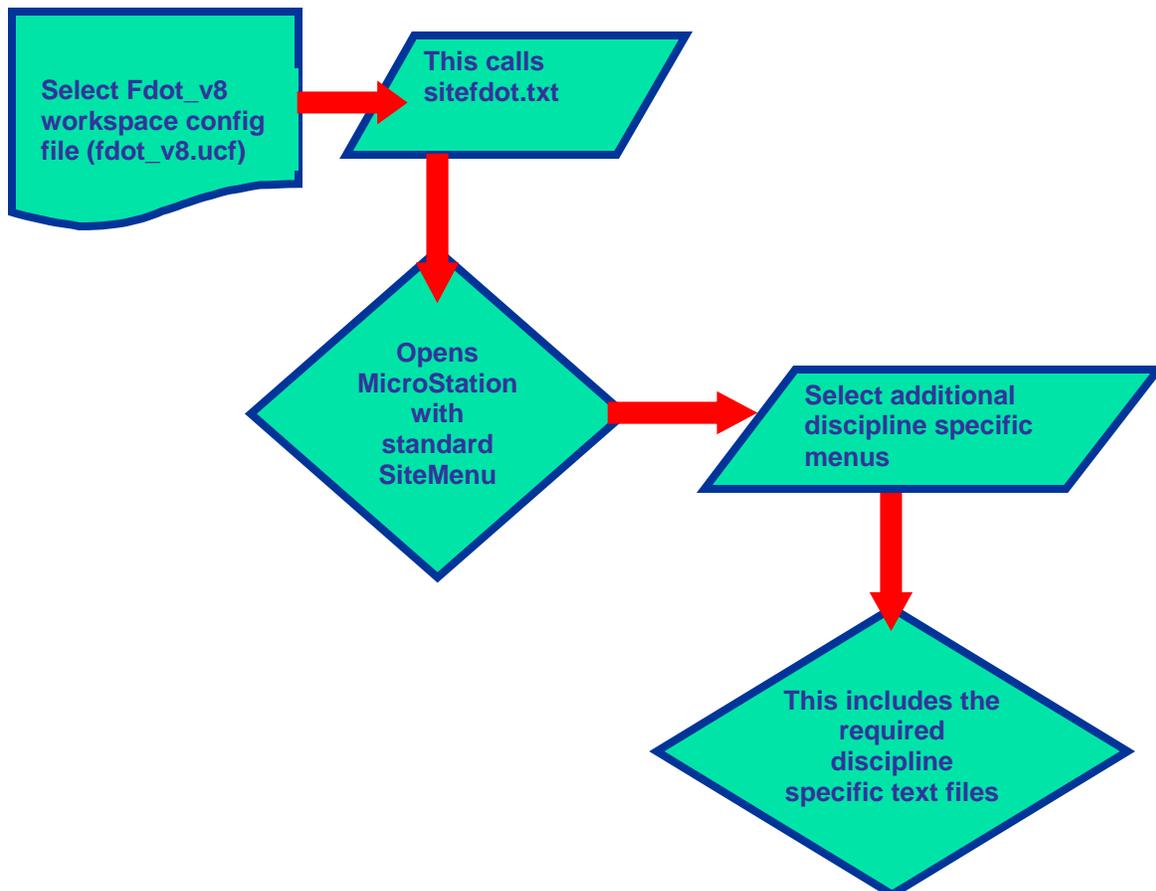
The MicroStation V8 version of the FDOT CADD software will be an all inclusive package for all plans production disciplines in one workspace, this includes Structures.

MicroStation Project Configuration File Template

A project configuration template file will be created in the directory specified containing the V8 Projects when FDOT_V8 is installed. This file will be used to create the Project Configuration File, known as the "PCF" file, for all projects. The "PCF" file will define the project Financial Identification Number, and the location of any project specific support files.

FDOT MicroStation Configuration Files

As in previous releases of the FDOT CADD Software, the configuration files are constructed with the majority of needed Microstation variables defined in site and discipline specific text files which typically would reside on a server. Only user specific variables are defined in user configuration files. The user configuration file (fdot_v8.ucf) should reside on the user's local machine, or in a location on the server that the individual



has full rights to, with no sharing of the file between users. Some of the important settings defined in these files are the level libraries, conversion files, seed files, location of applications and location of GEOPAK support files. The current version of the FDOT V8 configuration files for Roadway components are shown below. Specific aspects of these variables are discussed in more detail later in this document.

```

-----#
#                               fdot_v8.ucf                               #
-----#
#           FDOT - V8 English user configuration file           #
#           Date - 06/02/2004                                   #
-----#
# ----- Drive containing FDOT software -----#
_USTN_SITE = c:/fdot_v8/
-----#
# ----- Drive containing Projects -----#
_USTN_PROJECT = C:/e/V8_projects/
_USTN_PROJECTSROOT = $_USTN_PROJECT)
MS_DEF < $_USTN_PROJECTDATA)/

# ----- HTML settings -----#
MS_BROWSERMAKECHILDWINDOW = 1

# ----- Sitemenu variables -----#
SM_MENU_FOREGROUND = BLACK
SM_MENU_POSITION   = 300,26
SM_HOTLIST_POSITION = 79,91,467,527
SM_HOTBOX1_POSITION = 500,8,12,12
SM_HOTBOX2_POSITION = 600,9,12,12
SM_HOTBOX3_POSITION = 700,6,12,12
SM_HOTBOX4_POSITION = 750,6,12,12
SM_BROWSER_POSITION = 400,50,800,600
SM_HOTBOX_POSITION  = 450,9,12,12
SM_MENU=1
%include $_USTN_SITE)microstation/workspace/users/sitefdot.txt
FDOT_DISCIPLINE_MENU = $_USTN_SITE)MicroStation/workspace/users/Roadway.txt
%include $(FDOT_DISCIPLINE_MENU)
SM_MENU_MENUS > Roadway
%include $_USTN_SITE)microstation/workspace/users/structures.txt

# ----- Drive containing GEOPAK Project Manager files---#
GPK_PROJMGR_PROJECTDIR = C:/e/v8_projects/$_USTN_PROJECTNAME)/

#----- Plot Variables -----#
MS_PLOTINI = $_DGNDIR)
MS_PLTR = $_USTN_SITE)standards/plot/printer.plt
#MS_PENTABLE = $_USTN_SITE)standards/plotdrv/
#MS_PLOTDLG_DEF_PENTABLE = $_USTN_SITE)standards/plotdrv/
MS_PLTDLG_FORCEOUTDIR = $_DGNDIR)/eng_data/

_USTN_USERINTNAME = FDOT_V8
_USTN_PROJECTNAME = 2280791
_USTN_DISPLAYALLCFGVARS = 1

-----#
#                               SiteFdot.txt                               #
-----#
#           FDOT2004 Standard User configuration file           #
#           Date - 06/15/2004                                   #
-----#
MS_WEBPAGE_HOME = www.dot.state.fl.us
#----- FDOT Startup Variables -----#
_USTN_UISTANDARDS = $_USTN_SITE)microstation/Workspace/interfaces/microstation/fdot_V8/
_USTN_USERINT = $_USTN_USERINTROOT)$(ENGINE)NAME)/
_USTN_UIPATH < $_USTN_USERINT)$(USTN_USERINTNAME)
MS_DGNAPPS< SETCWD;overvuqc;fdotconfig;calculat;SiteMenuv8;synchbylevel
_USTN_NEWDGNFILE > $_USTN_SITE)mdlapps/plotscale.ma # Sets the design file scale

#----- Reference File Variables -----#

```

```

PARENT_DIR = $(parentdevdir(_DGNDIR))
FDOT_RFDIR = $(PARENT_DIR)*.*.*
MS_RFDIR > $(PARENT_DIR);$_DGNDIR
MS_REF_DEFAULTATTACHDIRECTORY = $_DGNDIR
MS_DISALLOWFULLREFPATH = 1

#-----Output Files-----#
_USTN_OUT = $_DGNDIR/Eng_Data/
MS_ARCHIVE = $_DGNDIR
MS_BACKUP = $_DGNDIR

#----- Project Directories -----#
_USTN_PROJECTSUBDIRS = cell
_USTN_PROJECTSUBDIRS > out
_USTN_PROJECTSUBDIRS > seed
_USTN_PROJECTSUBDIRS > symb
_USTN_PROJECTSUBDIRS > _meta_info
_USTN_PROJECTSUBDIRS > admin
_USTN_PROJECTSUBDIRS > admin/eng_data/
_USTN_PROJECTSUBDIRS > arch
_USTN_PROJECTSUBDIRS > arch/eng_data/
_USTN_PROJECTSUBDIRS > const
_USTN_PROJECTSUBDIRS > const/eng_data/
_USTN_PROJECTSUBDIRS > data
_USTN_PROJECTSUBDIRS > drainage
_USTN_PROJECTSUBDIRS > drainage/eng_data/
_USTN_PROJECTSUBDIRS > emo
_USTN_PROJECTSUBDIRS > emo/eng_data/
_USTN_PROJECTSUBDIRS > estimates
_USTN_PROJECTSUBDIRS > estimates/eng_data/
_USTN_PROJECTSUBDIRS > geotech
_USTN_PROJECTSUBDIRS > geotech/eng_data/
_USTN_PROJECTSUBDIRS > landscp
_USTN_PROJECTSUBDIRS > landscp/eng_data/
_USTN_PROJECTSUBDIRS > lighting
_USTN_PROJECTSUBDIRS > lighting/eng_data/
_USTN_PROJECTSUBDIRS > mot
_USTN_PROJECTSUBDIRS > mot/eng_data/
_USTN_PROJECTSUBDIRS > permits
_USTN_PROJECTSUBDIRS > permits/eng_data/
_USTN_PROJECTSUBDIRS > planning
_USTN_PROJECTSUBDIRS > planning/eng_data/
_USTN_PROJECTSUBDIRS > projmgmt
_USTN_PROJECTSUBDIRS > projmgmt/eng_data/
_USTN_PROJECTSUBDIRS > qc
_USTN_PROJECTSUBDIRS > qc/eng_data/
_USTN_PROJECTSUBDIRS > roadway
_USTN_PROJECTSUBDIRS > roadway/eng_data/
_USTN_PROJECTSUBDIRS > rwmmap
_USTN_PROJECTSUBDIRS > rwmmap/eng_data/
_USTN_PROJECTSUBDIRS > signals
_USTN_PROJECTSUBDIRS > signals/eng_data/
_USTN_PROJECTSUBDIRS > signing
_USTN_PROJECTSUBDIRS > signing/eng_data/
_USTN_PROJECTSUBDIRS > specs
_USTN_PROJECTSUBDIRS > specs/eng_data/
_USTN_PROJECTSUBDIRS > struct
_USTN_PROJECTSUBDIRS > struct/eng_data/
_USTN_PROJECTSUBDIRS > survey
_USTN_PROJECTSUBDIRS > survey/eng_data/
_USTN_PROJECTSUBDIRS > trafops
_USTN_PROJECTSUBDIRS > trafops/eng_data/
_USTN_PROJECTSUBDIRS > utils
_USTN_PROJECTSUBDIRS > utils/eng_data/

#-----Standard support and resource files-----#
MS_MATERIAL = $_USTN_SYSTEMROOTmaterials
MS_GLOSSARY = $(MS_DATA)*.gls;$_USTN_SITEStandards/data/*.gls
MS_SETTINGSOUTDIR = $_USTN_SITEStandards/data/
MS_SETTINGSDIR = $_USTN_SITEStandards/data/
MS_TAGTEMPLATES = $_USTN_SITErdwy/tables/

```

```

MS_TAGREPORTS = $_DGNDIR)
MS_TAGOUTPUT = $_DGNDIR)
MS_SEEDFILES = $_USTN_SITE)Standards/seed/
MS_SYMBRSRC > $_USTN_SITE)Standards/symb/*.rsc
MS_SPELLINGLANGUAGE = AmericanEnglish
MS_CELLSEED = seed2d.cel
MS_DESIGNSEED = fdotseed2d.dgn
MS_CELL = $_USTN_SITE)Standards/cell/
MS_CELLLIST < $_USTN_SITE)Standards/cell/*.cel
MS_CELLSELECTORDIR < $_USTN_SITE)STRUCTURES/CELL/CELLSELECTOR/MS_FULLPATHINTITLEBAR = 1
MS_CELL_SEEDFILE = fdotseed2d.dgn
MS_DESIGNMODELSEED = fdotseed2d.dgn
MS_DESIGNMODELSEEDNAME = default
MS_CUSTOMSHEETSIZEDEF = $_USTN_SITE)standards/data/sheetsizes.def
MS_CUSTOMSCALEDEF = $_USTN_SITE)standards/data/scales.def
MS_CUSTOMUNITDEF = $_USTN_SITE)standards/data/units.def
MS_OTWREG_NOCHECK = 1
MS_DESIGN_HISTORY = create = 1
#MS_LEVEL_LOAD_ATTACHMENT_FILTERS = 1
MS_FILTER_LIB_DIR = $_USTN_SITE)Standards/symb/
MS_LEVEL_LIB_DIR = $_USTN_SITE)standards/symb/
#MS_LEVEL_EDIT_ATTRIBUTE_LIST = Bylevelsymbology
#MS_LEVEL_SYNC_ATTRIBUTE_LIST =
_USTN_CAPABILITY = -CAPABILITY_LEVELS_CREATE
MS_UNITS_SHOWALL = 1
MS_LEVEL_LOG_FILE = C:/temp/log.txt
MS_V7_LEVEL_NAME_PREFIX =
MS_DEFCTBL = $_USTN_SITE)standards/data/fdotcolor.tbl
MS_HTMLDGNDIR = $_USTN_SITE)standards/cell/
MS_DGNLIBLIST = $(MS_LEVEL_LIB_DIR)survey_levels.dgnlib
MS_V7TOV8_DELETE_UNUSED_LEVELS = 1

#----- Database files -----#
MS_LINKTYPE = ODBC
MS_DBASE = c:/fdot_v8/vba/support/

#----- Help files -----#
MS_HELPPATH < $_USTN_SITE)microstation/help/english/

#----- GDM Variables-----#
RULES_DIR = $_USTN_SITE)qc_rules/std_2004/
RESYMBOL_INI = $_USTN_USER)/resymbol.ini # QC software initialization file
RESYMBOL_LOGFILE = qcreport.txt
RESYMBOL_LOGMODE = prompt
RESYMBOL_RULDIR = $_USTN_SITE)qc_rules/std_2004/
RESYMBOL_DGNDIR = $_DGNDIR)
RESYMBOL_TXTDIR = $_DGNDIR)/eng_data/
RESYMBOL_OUTDIR = $_DGNDIR)
RESYMBOL_SYMDIR = $_DGNDIR)
RESYMBOL_UNSDIR = $_DGNDIR)
RESYMBOL_reportDir=$_DGNDIR)/eng_data/
RESYMBOL_reportViewer=NOTEPAD.EXE

#-----Application and program files-----#
FDOT_SM_BASE = $_USTN_SITE)SiteMenu/menus/
SM_MENU_DIR = $(FDOT_SM_BASE)standards/;$(FDOT_SM_BASE)
SITEMENU = $_USTN_SITE)SiteMenu/
SM_MENU_MENUS = Standard;CellApps;Locks;Utils
SM_HOTLIST_DIR = $_USTN_SITE)SiteMenu/Hotlists/
SM_MENU_TITLE = FDOT English Sitemenu v8
MS_RSRCPATH > $_DGNDIR)
MS_RSRCPATH > $_USTN_SITE)bin/
MS_UCM > $_USTN_SITE)ucm/
MS_MDL > $_USTN_SITE)bin/;$(SITEMENU);$_USTN_SITE)mdlapps/
MS_MDLAPPS > $_USTN_SITE)bin/;$(SITEMENU);$_USTN_SITE)mdlapps/
CLASSPATH > $_USTN_SITE)bin/fdotdgn.jar
MS_MDL > $_USTN_SITE)structures/mdlapps/
MS_MDLAPPS > $_USTN_SITE)structures/mdlapps/
MS_LIBRARY_PATH > $_USTN_SITE)structures/MDLAPPS/
MS_LIBRARY_PATH > $_USTN_SITE)bin/
CLASSPATH < $_USTN_SITE)structures/MDLAPPS/fdotsdo.jar

```

```

CLASSPATH < $_(USTN_SITE)structures/MDLAPPS/enduser.jar
CLASSPATH < $_(USTN_SITE)structures/MDLAPPS/symbeams.jar
CLASSPATH < $_(USTN_SITE)structures/MDLAPPS/structures.jar
#MS_VBAUTOLOADPROJECTS = inscell
MS_DBASE = c:/fdot_v8/vba/support/
MS_VBAUTOLOADPROJECTS > $_(USTN_SITE)vba/*.mvba
MS_VBASEARCHDIRECTORIES > $_(USTN_SITE)vba/
MS_VBANEWPROJECTDIRECTORY = $_(USTN_SITE)vba/

#----- FDOT application variables-----#
MX_COMMON = $_(USTN_SITE)group/
MX_COMMON > $_(USTN_SITE)group/rw/tables/
MX_COMMON > $_(USTN_SITE)group/rdwy/tables/
MX_LIBDIR = $_(USTN_SITE)Standards/cell/
MX_SEEDIR = $_(USTN_SITE)Standards/seed/
MX_SEEDFILE = fdotseed2d.dgn #Default Seedfile
CERTIF = $_(USTN_SITE)rw/notes/
RDFORMS = $_(USTN_SITE)Geopak/forms/rdwy/
RWFOMS = $_(USTN_SITE)Geopak/forms/rw/
CONSTFORMS = $_(USTN_SITE)Geopak/forms/const/
RDNOTES = $_(USTN_SITE)rdwy/notes/
FDOT_EXCEL_CBFILES = $_(USTN_SITE)geopak/comp_rpt/excel/
FDOT_EXCEL_CFGFILE = $_(USTN_SITE)geopak/bin/sumbox.rtr
FDOT_SRVFILE_CHKOUT_REQ = 1 # On Consultant workstations this should be set to 0

#-----GEOPAK Variables-----#
GPK_PRJXS_CRITERIADIR = $_(USTN_SITE)geopak/criteria/
GPK_TYPICAL = $_(USTN_SITE)geopak/typicals/
GPK_SURVMNGR_SMDFILE = $_(USTN_SITE)geopak/databases/fdot2004.smd
GPK_SHEETCLP_SHEET_CELL_LIBRARY_DIR = $_(USTN_SITE)Standards/cell/
GPK_LABELER_PLANSTYLEFILE = $_(USTN_SITE)geopak/bin/fdotlabels.lsf
GPK_TABLES_RTRFILE < $_(USTN_SITE)geopak/bin/tables.rtr
GPK_LABELER_XSSTYLEFILE = $_(USTN_SITE)geopak/bin/xs.lsf
GPK_LABELER_DRGSTYLEFILE = $_(USTN_SITE)geopak/bin/drprrd.lsf
GPK_LABELER_PROFSTYLEFILE = $_(USTN_SITE)geopak/bin/prof.lsf
GPK_LABELER_PLANINFILE = $_(USTN_SITE)geopak/bin/plan.ins
GPK_LABELER_XSINFILE = $_(USTN_SITE)geopak/bin/xs.ins
GPK_LABELER_DRGINSEFILE = $_(USTN_SITE)geopak/bin/dr.ins
GPK_LDEDIT_LDBFILE = $_(USTN_SITE)geopak/databases/rweng.ldb
GPK_VISUALPREF_SMD = $_(USTN_SITE)geopak/databases/fdot2004.smd
GPK_INPUT_Files = $_(USTN_SITE)geopak/input_files/
GPK_DC_3PCDIR = $_(USTN_SITE)geopak/3pc/
GPK_MY_CRITERIADIR :
GPK_SUPER_PREFDIR = $_(USTN_SITE)geopak/e_tables/
GPK_SUPER_EDIR = $_(USTN_SITE)geopak/e_tables/
GPK_SUPER_LENGTHDIR = $_(USTN_SITE)geopak/e_tables/
GPK_SUPER_AUTOSHAPEINPUTDIR = $_(DGNDIR)
GPK_TYPICAL_EDITOR :
GPK_EDITOR :
GPK_SUPER_EDITOR = EXCEL
DATGPK_PLPRCLIP_DATFILE = $_(USTN_SITE)geopak/dat_files/
PDBGPK_COGOPREF_PDBFILE :
GPK_BOREHOLE_GTPFILE = $_(USTN_SITE)geopak/bin/
GPKDRG_LINK_ADHOC = $_(USTN_SITE)geopak/databases/link.txt
GPKDRG_NODE_ADHOC = $_(USTN_SITE)geopak/databases/node.txt

#-----#
#-----ROADWAY SPECIFIC VARIABLES-----#
#-----#
MS_DGNLIBLIST > $(MS_LEVEL_LIB_DIR)fdot_v8_levels.dgnlib
MS_CELL > $_(USTN_SITE)gs40
MS_CELLSELECTORDIR = $_(USTN_SITE)Standards/data/
MS_CELLSELECTOR = c:/fdot_v8/standards/data/rdwy.csf
MS_V7TOV8_CSVNAME = c:/FDOT_V8/Standards/data/dsgnrd.csv
MS_REMAP_CSVFILE = $_(USTN_SITE)standards/data/dsgnrd.csv
#-----SiteMenu Menu Defaults-----#
SM_MENU_SKIN = 0

SM_HOTLIST_TITLE = FDOT Hotlists
SM_HOTLIST_FILES = Roadway

```

```

SM_HOTLIST_FILES > Annotation;Struct-List

SM_HOTBOX = 1
SM_HOTBOX_ONSHOW = MDL LOAD QCCOMPLIANCE
SM_HOTBOX_COLOR = ORANGE
SM_HOTBOX_FLYOVER = 0
SM_HOTBOX_POSITION = 914,68,12,12

SM_HOTBOX1 = 1
SM_HOTBOX1_TOOLS = HOTLIST
SM_HOTBOX1_COLOR = RED
SM_HOTBOX1_FLYOVER = 0
SM_HOTBOX1_POSITION = 862,68,12,12

SM_HOTBOX2 = 1
SM_HOTBOX2_TOOLS = BROWSER
SM_BROWSER_HOMEPAGE = www.dot.state.fl.us/ecso/
SM_HOTBOX2_COLOR = BLUE
SM_HOTBOX2_FLYOVER = 0
SM_HOTBOX2_POSITION = 887,68,12,12

SM_HOTBOX3 = 0

#-----GEOPAK Variables-----#
Project_ac_database = ${_USTN_PROJECTDATA} symb/${_USTN_PROJECTNAME}.ddb
% if exists (${Project_ac_database})
GPK_ACBOOK_DDBFILE =          ${_USTN_PROJECTDATA} symb/${_USTN_PROJECTNAME}.ddb
%else
GPK_ACBOOK_DDBFILE =          ${_USTN_SITE}geopak/databases/fdot_v8eng.ddb
%endif
GPK_PLPRCLIP_DATFILE =        ${_USTN_SITE}geopak/dat_files/
GPK_SHEETCLP_SHEET_CELL_LIBRARY_DIR = ${_USTN_SITE}Standards/cell/
GPK_SUPER_EDITOR =           EXCEL
DATGPK_PLPRCLIP_DATFILE =     ${_USTN_SITE}geopak/dat_files/rdplan.psl
GPK_SHEETCLP_SHEET_LIBRARY_NAME = ${_USTN_SITE}geopak/dat_files/rdplan.psl
GPK_SHEETCLP_SHEET_LIBRARY_DIR = ${_USTN_SITE}geopak/dat_files/
GPK_FORCE_SHEETCLP_SHEET_LIBRARY_NAME = 1
GPK_FORCE_SHEETCLP_SHEET_LIBRARY_DIR = 1
#GPK_FORCE_ALLCFGVARS = 1
GPK_DRGPREF_DEFDRLIB =        ${_USTN_SITE}geopak/databases/fdot_V8.dlb
GPK_DRGPREF_DEFCELLLIB =      ${_USTN_SITE}Standards/cell/drplan.cel
GPK_DRGPREF_DEFPREFDIR =      ${_USTN_SITE}geopak/databases/
GPK_FORCE_DRGPREF_DEFDRLIB =  1
GPK_FORCE_DRGPREF_DEFCELLLIB = 1
GPK_FORCE_DRGPREF_DEFPREFDIR = 1

```

Unit Definition file

Working units are used to set “real world” units of measurement for your design models. The unit definition file defines working units for converting files to MicroStation V8 from earlier versions and for creating customized working unit labels. FDOT has defined its standard working units as Survey foot and Survey inches for MicroStation V8. These units are defined in the unit definition file that is used by the FDOT V8 workspace. It is located in the `\fdot_v8\standards\data\` directory.

sf,ft,';	Survey Foot;	Survey Feet;	39370.0;	12000.0;	1;	1
in,in,";	Survey inch;	Survey inches;	39370.0;	1000.0;	1;	1

When a MicroStation J file is converted to the MicroStation V8 format, the conversion process uses the master unit stored in MSJ file to convert the resolution of the file to V8 native units. If this unit does not exist natively in MicroStation V8, it must be defined in the unit definition file.

To confirm that the correct seed files were used for converting a project to V8 the user can:

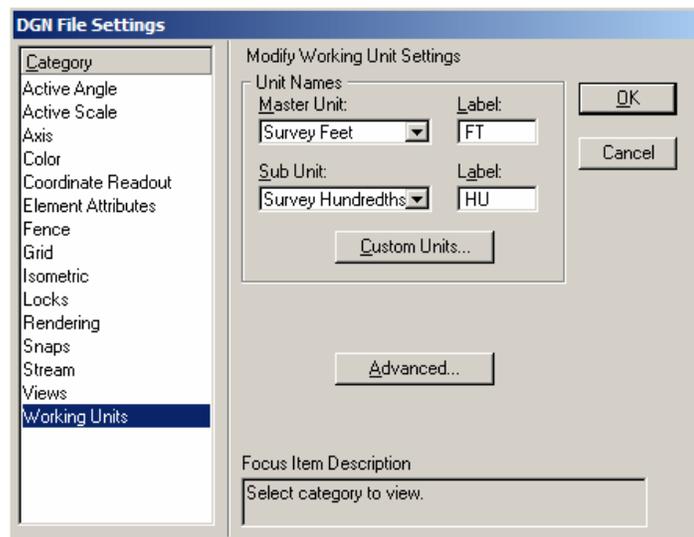
- Go to Settings > Design File..., click on Working Units.
- In the dialog, the unit names should read as follows for new files:
Master Unit: Survey Feet Label: ft
Sub Unit: Survey Inches Label: in
- In the dialog, the unit names should read as follows for converted files:
Master Unit: Survey Feet Label: ft
Sub Unit: Survey Hundredths Label: hu

Also note that each model in a design file has its own working units. The DGN File Settings dialog always displays the units of the active model.

Seed Files

Individual seed files will be provided for Roadway, Structures and Right of Way, because of differences in filters, dimension styles, text styles etc. However, all disciplines will use the same units of resolution in the new V8 seed files. This will allow referencing files between disciplines without scaling.

The ability to password protect design files will be disabled in all FDOT seed files.



Use of the Protection tools in MicroStation V8 shall be disabled for all MicroStation V8 files electronically submitted to the Florida Department of Transportation.

Models

V8 introduces the concept of “models,” which is a container of graphics objects in V8. A design file itself is a model, and can contain additional model objects. So Models can contain other models, and models contain the graphics elements themselves. All elements are contained within a specific model and are not shared by more than one model. Cell libraries are models in V8. Therefore, models in design files can be equated to worksheets within Excel files, where the graphics elements are analogous to cells, formulas, etc. The use of models was closely evaluated. MicroStation V8 still does not allow multiple users to modify a single file simultaneously, so it was decided that separate design files should be maintained for most standard files. FDOT will initially use models in a very limited way. The only defined use of models will be the consolidation of files for data that is used collectively. This is data that should not be accessed and modified by more than one user at any given time. By defining multiple models in a file for data that is equally dependent for a specific process, the access of this data will be simplified and better organized. Example: placing all cross section data for a specific set

of cross sections, such as the mainline cross sections, into one file with multiple models. This would include the existing ground DTM, patterns, pavement shapes and the resulting cross sections. Standard model names will be established for this use. See the example table below.

File Name	Model Name	Description
RDXSRD*.dgn	PATTRD	Cross-Section Pattern File
RDXSRD*.dgn	XSECTION	Roadway Cross-Sections
RDXSRD*.dgn	XSLAYOUT	Roadway Cross-Section Sheet Layout
RDXSRD*.dgn	XSSHAPES	Roadway Cross-Section Shapes

Color Table

FDOT will continue to use their own customized color table, instead of the default MicroStation color table.

Design File history

Design file history is a revision control system which allows users to track and view incremental changes made to graphics elements in a model. The FDOT workspace will enable the access to the design history dialog, but not require its use.

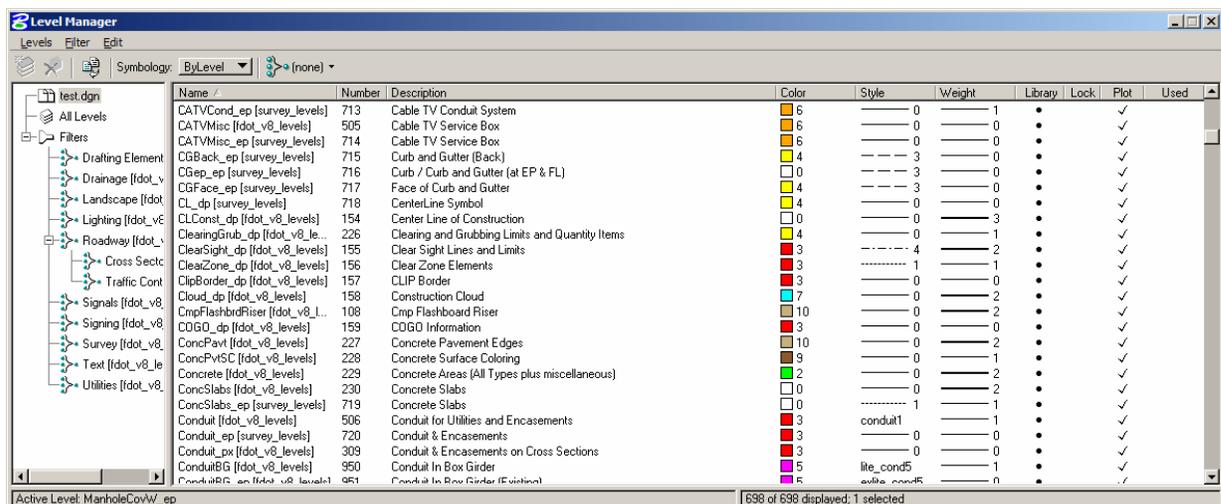
Levels

A Level Library is a design file that stores information, such as level manager settings, text styles, and so on, that is to be used as a standard throughout all design files accessed through a specific workspace. FDOT has established that it will use level libraries to standardize level names MicroStation V8, instead of defining levels in a seed file. All supporting files, such as the Design and Computation Manager database, are dependent on the stability of levels in the attached library. The level library will be locked in the workspace so it can not be edited. **Users will not be allowed to create new levels!** Level Libraries are defined by the MS_DGNLIBLIST variable with an *.dgnlib extension. The FDOT defined standards for V8 levels are:

- Four level libraries will contain all level definitions – Survey, Right of Way, Roadway (and related plan components), and Structures. The appropriate level libraries will be attached in the workspace as needed for the discipline according to the defined discipline configuration text file.
- The option of “ByLevel” will be used to define the symbology based upon the level.
- Levels will be defined for construction and plotting purposes.
- Each discipline specific levels are assigned within a number range. Example: Survey level names are assigned a number with in the range of 700-899.
- The seed files define the Design File Settings Element Attributes section to use By Level.
- Level naming convention -
 - 18 characters maximum due default field width of level name dialog.

- Level name format of: Object_sv where ‘s’ represents state and ‘v’ represents view. State options are p = proposed, e = existing, d = drafting element (existing and proposed is not relevant for these element). View options are x = cross section, r = profile, and p = plan (DTM is the same as plan). Proposed plan is the default and is not stated in the level name. It is implied. Upper case is used for the first letter of each word and no spaces are to be used.
- Level names are defined by main category then specifics for sorting purposes. Example: CurbFace. See table below for examples:

Name	Number	Description	ByLevelColor	ByLevelStyle	ByLevelWeight
ActivePointCell_dp	150	Active Point Cell	4	0	10
AdhocPoint_dp	151	Adhoc Points Placed by SheetInfo	0	4	0
AdvWarnPanel	100	Advance Warning Arrow Panels	0	0	1
Aggregate	215	Aggregate	8	0	1
ArchSite	216	Archeological Site	2	0	1
AsphaltConc	217	Asphaltic Concrete Quantity Shapes	6	0	3
AsphaltMilling	218	Asphalt Milling Quantity Shapes	7	0	2
AsphaltMisc	219	Asphalt Miscellaneous Material	1	0	1
Attenuator	101	Attenuation Systems	0	attenuator	1
AttenuatorTM	102	Attenuator Truck Mount	6	0	2
Barricade	103	Barricade	0	0	1
Barricade1	104	Barricade Symbol Type 1 or 2 at 15' spacing	0	barricade1	1
Barricade2	105	Barricade Symbol Type 1 or 2 at 30' spacing	0	barricade2	1
Barricade3	106	Barricade Symbol Type 1 or 2 at 50' spacing	0	barricade3	1
Barricade4	107	Barricade Symbol Type 1 or 2 at 100' spacing	0	barricade4	1
BarrierWall	220	Barrier Wall All Types	0	0	2
BarrierWall_ex	300	Barrier Wall for Cross Section (Existing)	0	3	2
BarrierWall_px	301	Barrier Wall for Cross Section	0	0	2
Base	221	Base Material (All Types)	3	0	2
Base_ex	302	Base Material for Cross Sections (All Types) (Existing)	3	3	1
Base_px	303	Base Material for Cross Sections (All Types)	3	0	2



When converting files from MicroStation J to MicroStation V8, the old level number will be converted to the new level name using the file name in which the element resides, its V7 level number, color, weight and line style. If the file is QC compliant with the FDOT 2002 CADD standards, including correct file names, translation of existing elements onto the new level names is an automated and simple process. For those files that are not QC compliant, or were developed with older CADD standards, if the level does not match any defined symbology in the conversion file, the old level name will be brought forward. However most support files will not support the old level numbers.

Discipline Specific Level Libraries

- **FDOT_V8_levels.dgnlib** contains Roadway, Traffic Plans, Landscape, Utility, EMO, and Drainage levels.

Assigned level numbers

- Traffic Control (100 – 149)
- Drafting elements (text, leader lines, summary box items, etc.) (150 – 214)
- Roadway plan & profile view items (215 – 299)
- Cross Section items (300 – 399)
- Drainage plan & profile view items (400 – 499)
- Utilities (500 – 599)
- Traffic Signals (600 – 635)
- Signing and Pavement Markings (636 – 699)
- Landscape (900 – 949)
- Lighting (950 – 990)
- Unknown (997- 999)

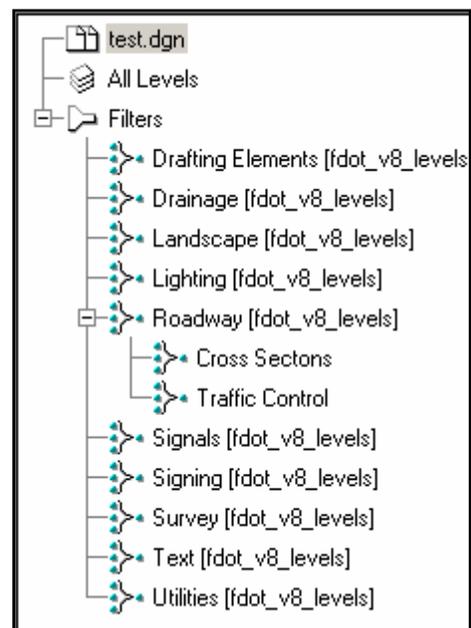
- **Survey_levels.dgnlib** contains Survey levels. The assigned level numbers are 700-899.

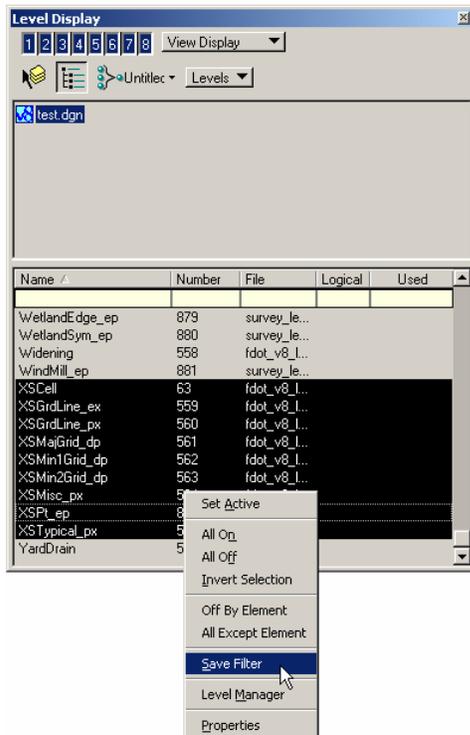
- **RWlevels.dgnlib** contains Right of Way levels. The assigned level numbers are 900-1100.

- **Structure.dgnlib** contains Structure levels.

Filters

Filters are a useful way to group associated levels for purposes of viewing as a group, or to reduce the list of levels to a manageable collection in the levels list box and in the level list in the Attributes tool box. Filters can be predefined in a level library, or in the seed file. FDOT will use filters to segregate discipline levels and the intended function of levels. These filters will reside in the level library. However the user will be able to create additional filters from within the level display dialog, as needed,. The user can then import these from one file to another as desired.



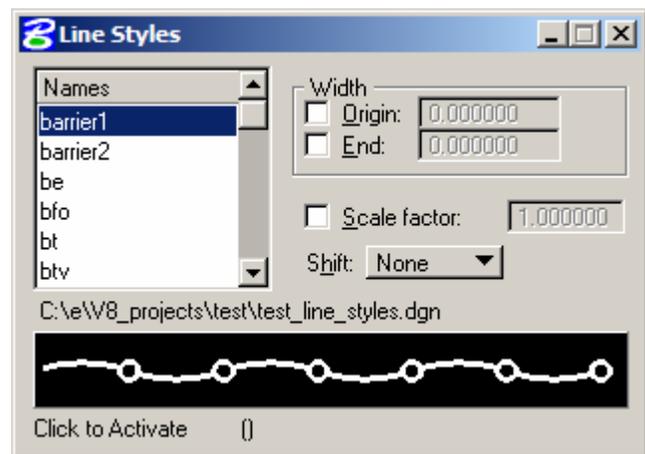


To create a filter:

1. Open the Level Display dialog box.
2. Set the List Filter option to untitled.
3. Select the desired levels.
4. Right click in the level list box and choose Save Filter.
5. Enter a name for the new filter and click OK.

Custom Line Styles

All existing custom line styles will be brought into MicroStation V8 for compatibility purposes within existing projects. However, several of the current line styles will be phased out over time, due to more efficient means to create and use the elements. Those line styles that will be eliminated will remain in external resource files. The line styles that will remain standard have been imported into the seed file and therefore are internal to any new files created in MicroStation V8.



Line Style Standards

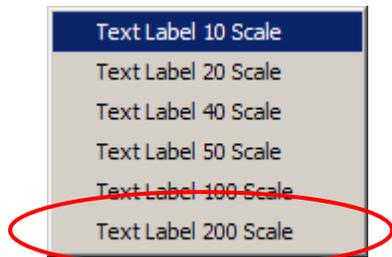
- Naming convention - 11 characters maximum.

Font Resource Files

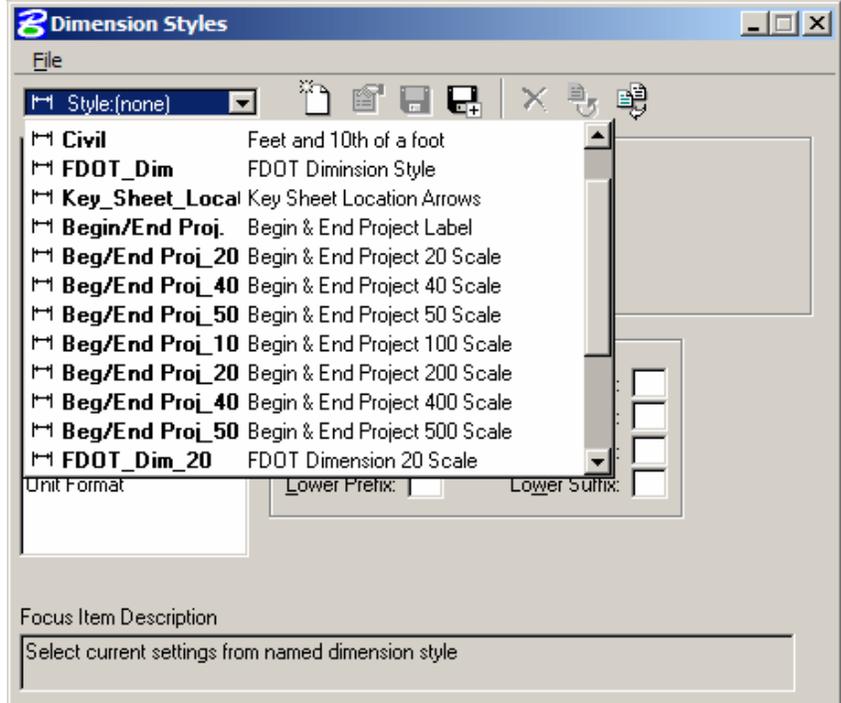
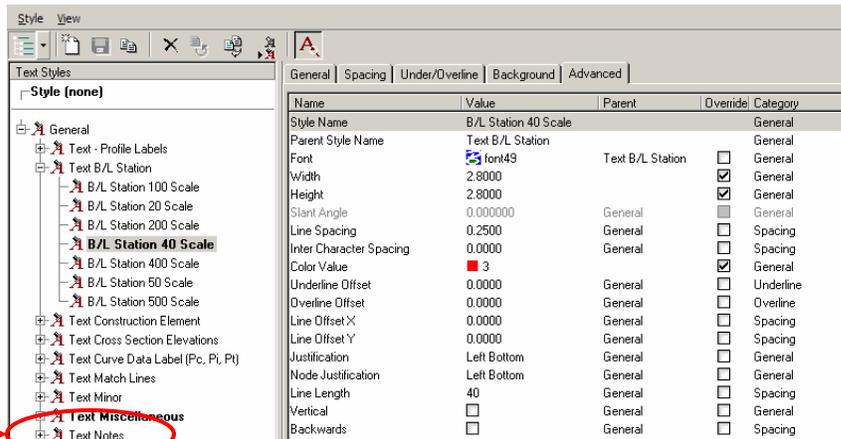
Due to the lack of fractions and special characters in True Type Font resources available in Standard Windows installs, existing font standards will be maintained. TrueType fonts will be used on a very limited basis for some summary tables and text boxes. The TrueType fonts that have been imported into the FDOT font library will remain for the initial release. However these will eventually be removed.

Text Styles

A text style library has been created in the seed file. This will allow users to modify the text styles as desired. The text size, line spacing, and justification and font are defined for each text style. Level names cannot be set with the text style; however this will be set in the SiteMenu using the tool shown below. Parent/child text styles may be used for multiple scales. Use of scale definitions preset for models will be set for the text options from SiteMenu.



The text option from SiteMenu will set the annotation scale, the level name and call the appropriate text style



Dimension styles

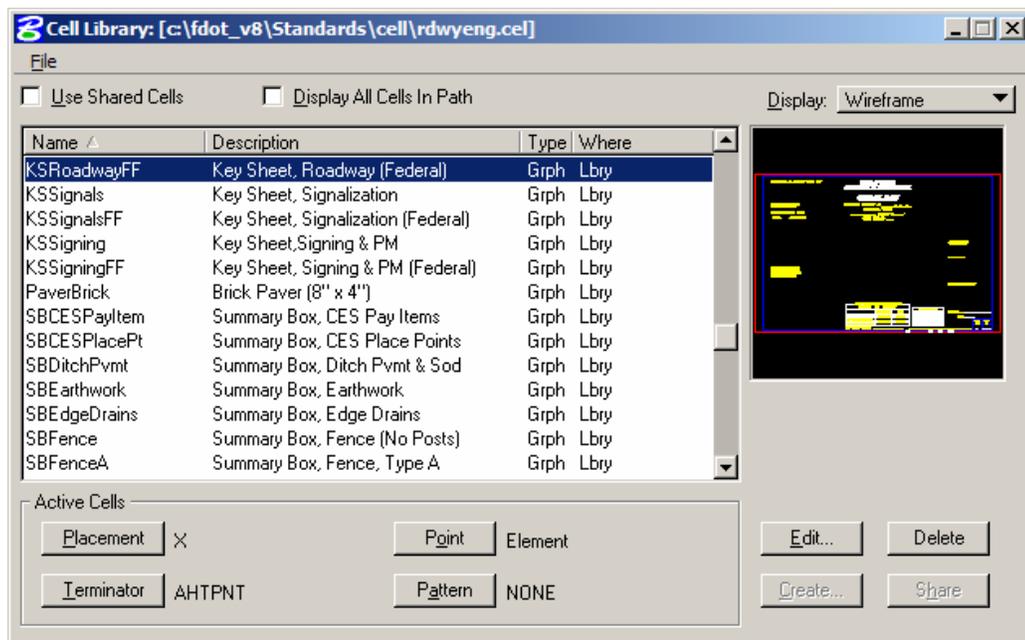
Some dimension styles will be included in the workspace in the seed file. These are editable by the user.

Cell Libraries

The FDOT cell libraries are being totally re-created (Remember Cell libraries are now models). They will be created using ByLevel symbology.

Cell Library standards:

- Combine 2d and 3d cell libs
- Rename all Drainage, Roadway, Traffic Plan, and Landscape cells for clarity.
- 12 characters maximum for cell name (note the default field width in the dialog).
- Cell web pages created for all cell libraries



QC Software and Reports

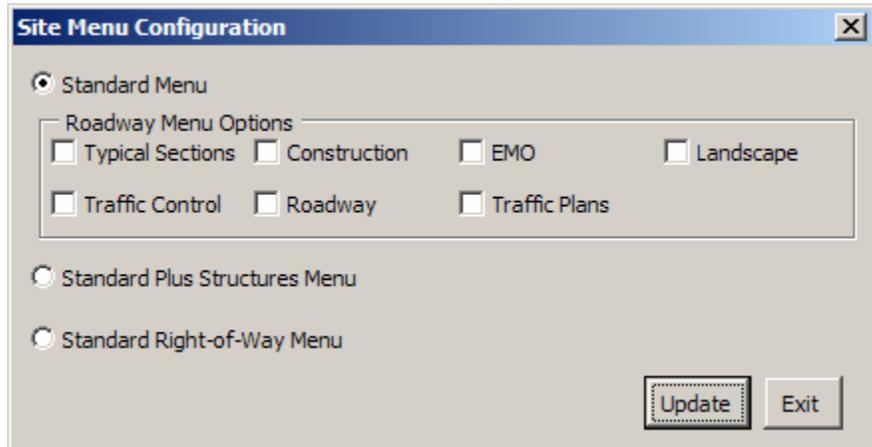
FDOT will continue to use the GDM QC Software for generating QC reports. However, the use of the GDM software to draw with is strongly discouraged. The Design & Computation Manager program should be used for drawing with only a few exceptions.

Plotting

FDOT will review new configuration settings for plotting.

SiteMenus and Applications

The Roadway pull-down is now an optional pull-down menu. The Structures Menu is an optional menu part of the standard menus. It is not an add-on but a separate menu itself. The Right of Way menu is still loaded as an add-on pull-down menu. All of the FDOT MDL Applications that are still needed in V8 have been ported. In addition, some new programs have been added. Many of the FDOT applications are dependent on GEOPAK dll files. This necessitates having the Civil Extension software loaded as a minimum.



Conversion Files

Excel files will be created for remapping of all standard files to V8. The corresponding remapping file will be denoted in a table in the revised CPCH. These files will be used to build batch script files to convert an entire discipline folder or an entire project.

Level	Color	Weight	LineStyle	Class	ElementType	Cell	V8OutputLevel
Level 1	0	2	0				BLSurvey_dp
Level 2	0	2	0				EOP
Level 2	4	1	0				CurbFace
Level 3	4	1	0				CurbBack
Level 4	1	1	0				Building_ep
Level 4	1	2	0				Building
Level 5							
Level 6							

Excel tables have been built that defines the remapping for all standard V7 files to V8 with the new symbology standards.

Running Conversion Files

The conversion of a single file or multiple files can be started by clicking on the Process Batch Convert Job icon, or selecting File > Process... from the main menu in

MicroStation. When the conversion is started, a dialog appears displaying a list of the files to be converted and the progress of the overall conversion job.

Notes on the Batch Conversion Process in MicroStation

- Batch Convert checks to see if the output file exists, and, if so, whether it is the same date as the source file. If so, it does not bother to convert or copy the source file to the output.
- The file time of the output file is set to match the file time of the input. This feature makes it feasible to run batch conversion for a job frequently, updating the output versions of only those source files that have changed. It also makes it possible to restart a batch conversion job. When the destination file is up to date, the Status column indicates that fact.
- When the conversion process is started, the Convert button automatically changes to "Pause." Clicking Pause directs Batch Convert to pause after converting the current file. The button then changes to Resume. The application never stops in the middle of converting a file.
- When the conversion process is finished, the Convert/Pause/ Resume button changes to read *Done*, and the Cancel button is disabled.
- As files are converted, the status of the conversion is displayed in the Status column, and the time required for the conversion or copy is displayed in the Time column.
- Details about the conversion process are written to a log file. This log file can be opened using any text editor, such as Notepad.
- When the conversion process ends, the log file table can be sorted by any column.

Conversion Batch Script Files

FDOT will provide batch script files that run external to MicroStation, that select the appropriate conversion file for all standard file names. The script file will rename the MicroStation version 7 project (for example 2280791v7) for backup, then create a new directory of the project name. As files are converted they will be placed in the new project directory. The file properties of the V7 version will then be set to read only. This will allow the user to easily see what has been converted with no fear of overwriting the files before reviewing them to ensure their proper conversion. The script file will also convert GEOPAK criteria and input files. However it will not convert GEOPAK database files or project specific cell libraries.

The FDOT design file conversion tables are based upon the parameters:

V7 filename + lv + co + wt + lc → V8 filename + model + level name

This conversion process will be defined in the new CPCH as follows:

V7 filename	V8 conversion file
Dsgnrd01.dgn	Design.csv
Rdxsrd01.dgn	Xsect.csv
Planrd01.dgn	Sheets.csv

GEOPAK Support Files

In addition, changes to the GEOPAK support files required by new standards in V8 effect:

- Design and Computation Manager database
- Sheet Clipping files
- Survey Manager database
- Drainage database
- Criteria files
- Input files
- Superelevation files

The criteria and input files are being re-written to use Design and Computation features. If it is necessary to create project versions of the standard GEOPAK databases, these should be placed in the \SYMB direction. The naming convention of the project specific / ser created support file is the project directory name. For example 2280791.ddb.

V7 to V8 Conversion of Existing CADD Files

In order to identify the conversion process of existing CADD files, the data should be considered one of 2 types: Active or Archive.

Active Data:

- Files that are actively being developed for some engineering purpose (Road design, right-of-way control files, current survey files, on-going construction projects, etc.)
- Files that are no longer actively being worked on in the design phase, but which are still in use under construction.

Archive Data:

- Graphic design files that have been completed and that are no longer “active”.

To successfully implement the conversion process without adverse affects to production, three options are available for active data:

1. Finish time-critical projects with GEOPAK 2001 and MicroStation “J.” These are projects that are in the final stages of design that have underlying issues that would cause the conversion of the project to be significantly time consuming, or adding time to the project schedule over riding any benefits gained by converting the files to V8 format. For example the project was begun prior to 1998 and has a very low QC compliancy to current standards, and is close to being 90% complete.
2. Complete near term projects, those 90% or greater that will require a minimum use of GEOPAK in MicroStation V8, but using the V7 Workspace. These projects should not require major rework to bring up to contemporary QC standards.

3. Translate all other projects to MicroStation V8 with the new CADD Standards. This means in addition to the design files being converted using the mentioned tables, the user must use the new GEOPAK support files for any automated process.

Note: Archive data that is needed only for viewing and printing purposes do not have to be converted at this time, these can be converted as needed if necessary in future.

Step 1 - Identification of Conversion Option per Project

Management is tasked with identifying projects that will need to be translated. To complete this task, the operational process must be broken down by evaluating responses to the following questions:

- How much time remains in the schedule?
- What is the current Phase Submittal of the project?
- Does the project require;
 - Minimal use of GEOPAK? → MicroStation “J.”
 - Little to no use of GEOPAK? → V8, but in V7 workmode.
 - Substantial use of GEOPAK? → MicroStation V8.
- What is necessary to make the project QA/QC compliant with contemporary standards?

Management must confer with all disciplines involved in the plans production process to identify and list which projects will be translated to V8. Note that Structures should not be adversely impacted by converting to V8. In order to be a successful candidate for translation:

- The project must be slated for conversion by management,
- The project must be QA/QC compliant (both filenames and symbology)
- The project directory must also be cleaned of miscellaneous garbage files.

When a project is migrated forward, **all disciplines working on that project must be migrated at the same time (no exceptions).**

Step 2 - Workstation Cleanup and Preparation Work

Once a project is defined as a conversion candidate, prior to conversion, all files should be checked into TIMS (if it is an in-house project) or copied to the server and backed up.

“Clean” files (files that do not contain corrupt elements) and adherence to FDOT MicroStationJ standards is critical for a clean and accurate conversion to the FDOT V8 standards.

When converting a Pre-V8 formatted file, the following steps will ensure the file’s integrity at the end of the process.

1. Make sure all files are clean of errors before attempting to convert from V7 to V8. This includes running Axiom’s file fixer (if you don’t have that use EDG), and making sure the files are compliant to FDOT V7QC

standards. (Always work on a copy of the file when running it through EDG or FileFixer).

2. Place the files back on the server, if they are being accessed locally. This applies to all disciplines. Also consider if the project is being done by a consultant and /or sub-consultants- everyone must move their portion of the project to V8 at the same time.
3. Create backup of all the project files.
4. Convert V7 DGN files to V8 file format using FDOT file conversion tables and script files provided.
5. Convert any project specific supporting files that are not handled by the standard FDOT batch conversion script files, such as non-standard criteria files, input files, the Design & Computation Manager database, Drainage database, Quantity Manager database and cell libraries.
6. After the conversion, check the GO, working units, level names and reference attachments. View fit.

Notes: The units.def file will have to reflect any working unit settings designation made for the master units. If they are not defined in this file, MicroStation converts the units to metric by default, and with no warning! We have edited the units.def file to reflect the settings being used in FDOT V8 workspace **only**.

Note: It is highly recommended that only files residing on the server and that have been backed up are attempted to be converted. This is to ensure that the correct versioning of the converted files, that it has been checked for corruption and errors, and that everyone accessing the files after conversion will have the same version when the process is complete.

Deployment of FDOT-V8

To effectively implement the conversion process with minimum confusion and loss to production, there must be coordination from many groups. This includes the Engineering / CADD Systems Office, the District offices and the Consultant community. Some of these tasks are described below.

Districts

District Management should authorize a cross-discipline task team to spearhead the conversion process according to these suggestions:

- The District Design Engineer should be in charge of:
 - a) Requiring Department Heads, Project Managers and Project Engineers to provide a list of potential projects to be slated for translation (final decision to lie with the DDE). This includes review of consultant scopes for designation of conversion to V8 and possible impacts.
 - b) Establishing a conversion Task Team with TAC members from each discipline (Roadway, Drainage, R/W, Traffic, Structures and Survey).

- c) Implementing a schedule for project support (cleaning miscellaneous files, employing the QA/QC process, etc.) and subsequent conversion.
- Task Team members will:
 - a) Ensure;
 1. Files are checked for proper file referencing.
 2. All files involved are registered in TIMS, or located on the server.
 3. Garbage files are removed from project directories.
 4. Each project has an index file and/or project journal file.
 5. Files checked for integrity using File Fixer and or EDG.
 6. QA/QC compliancy with Department CADD standards for 2002 preferably, but as a minimum 1998 or later.
 - b) Work with the CADD Manager to;
 1. Do integrity checks and ensure a repair process is executed against each design file as needed.
 2. Ensure satisfactory translation of all project files using provided script files.
 3. Convert non-standard cell libraries.
- District CADD Manager will coordinate new software roll-out activities and schedule all translation operations. Coordination and roll out should consider which projects are being worked on by which design squad or individual.
- All Project Managers, Project Engineers, Designers and CADD personnel should take some training prior to implementation of the conversion process.
- Once in progress, a target deadline by which all projects will either be finished in V7 or translated to V8 should be defined.

ECSO

ECSO will provide a software package for MicroStation V8, the Electronic Delivery programs and the GEOPAK Support files. ECSO can not convert your projects for you, but will provide support to the extent possible given our available resources. A new version of the CADD Production Criteria Handbook will be available concurrently with the release of the V8 software and support programs and data. In addition, ECSO will provide training to introduce the new standards and software.

Consultants

The benefits of converting to V8 for most projects will greatly outweigh the endeavor required. Consultants must avail themselves of the available training and dispensation of information as it is offered by ECSO and others. They must coordinate closely with District Management on any problems that would adversely affect conversion. During the next few months, projects should be brought into as much QC compliancy as possible. Preferably, the files should be compliant to contemporary QC Standards.

Schedule

- Release FDOT V8 software, estimated between November 2004 – January 2005.
- Conduct FDOT V8 release seminars around January 2005, and other training.