Texas Department of Transportation

San Antonio District

File Management System

The File Management System (FMS) is a specified arrangement of folders and files. The purpose of the FMS is to create uniformity in project development and documentation within the San Antonio District. The FMS consists of a File Manager, Primary Files, Secondary Files, and DGN Libraries. Also included are some general drafting guidelines.

Every electronic file associated with a project should be stored under the appropriate folder by Control-Section-Job (CSJ). The CSJ Folder is located in the ProjectWise Explorer Datasources, organized by Region and District. Below is an example of the folder structure in ProjectWise. Further information about FMS and ProjectWise is included at the end of this document.

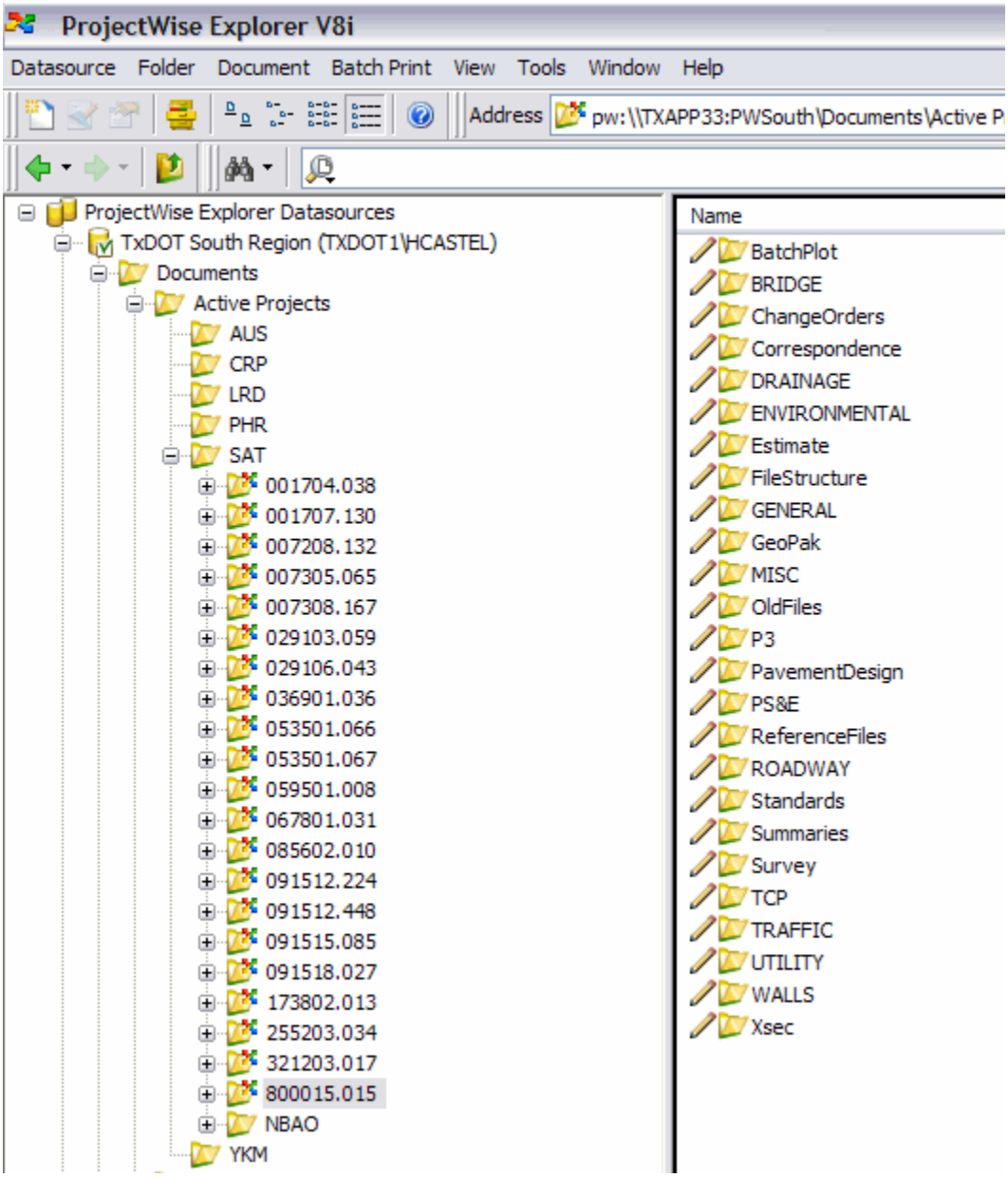


Figure 1. - View of ProjectWise Explorer & FMS Folders

FILE MANAGER

The File Manager is the Designer or Engineer assigned to a project who maintains the integrity of the files, including DGN library, for that project. The File Manager reviews and incorporates all work into the Primary Files, maintains backups, and coordinates multi-user project development. The File Manager should be the only person who accesses and makes changes to the primary files.

PRIMARY FILES

There are eleven **Primary** files for each project; refer to Table 1. Primary files are saved in the **ReferenceFiles** folder (Table 4). These files are attached as references to the secondary files. The intent is for primary files to be accessed only by the File Manager. Refer to Primary File Procedures below, as not all designers should work in the Primary Files. The naming convention should adhere to the following format:

{Prefix}{Abbreviation}

{Prefix} – the roadway or project specific area.
{File Type Abbreviation} – refer to Table 1 for abbreviations

Examples: US90map.dgn, FM462valn.dgn, IH410patt.dgn

Primary File	Abbreviation	Purpose
Map	map	existing topography
Roadway	rdwy	surface improvements, including bridges & retaining walls
Horizontal Alignment	haln	horizontal control
Vertical Alignment	valn	vertical control
Drainage	drn	subsurface improvements
Utility	util	existing and proposed utilities
TCP-SW3P	tcp-sw3p	traffic control and pollution control items
Traffic	traf	proposed pavement markings, signs, signals, & illumination
Border	bord	sheet border with Title Block, legends and engineer seals
Pattern	patt	patterns and/or shading to differentiate project aspects
Quantity Box	qbox	linked plan sheet quantity boxes, summaries, sheet index & narratives

Table 1

Primary File Procedures:

The following method is recommended to minimize errors. Designers other than the File Manager should follow this method:

1. Open the required primary file and “Save As”, placing the designer’s initials at the end of the file name. (ex. US90rdwy-HC.dgn)
2. Delete all elements in the new file and reference in the primary file.
3. Draw necessary elements and, when complete, the File Manager will review and incorporate the new elements into the primary file. The initial file should be moved to the “OldFiles” folder once the work is incorporated.

SECONDARY FILES
Secondary files are the plan sheets of PS&E. The naming convention should adhere to the following format:

{Prefix}{Abbreviation}{sheet number}

{Prefix} – the roadway or project specific area.
{File Type Abbreviation} – refer to Table 2 for abbreviations, limit to 2 or 3 characters
{Sheet number} – always begin with 01

Examples: US90pln01.dgn, FM462tsh01.dgn, IH410ilm01.dgn

Abbreviation	Sheet Type
GENERAL	
TSH	Titlesheet
IND	Index of Sheets
PRJ	Project Layout
TYP	Typical Section
SUM	Project Summary
TRAFFIC CONTROL PLAN	
TCP	Traffic Control Plan
BAR	Barricades & Warning Devices
ROADWAY DETAILS	
HC	Horizontal Control Data
VC	Vertical Control Data
PP	Plan & Profile
PLN	Plan View
PRF	Profile View
DET	Plan Detail
RMV	Removal Layout
WALL DETAILS	
RW	Retaining Wall Layout

Abbreviation	Sheet Type
DRAINAGE DETAILS	
HYD	Hydraulic Computations
DA	Drainage Area Layout
STR	Culvert Layout
SD	Storm Drain Layout
UTILITIES	
UTL	Utility Layout
BRIDGES	
BRG	Bridge
TRAFFIC ITEMS	
SIG	Signal Layout
ILM	Illumination Layout
SGN	Signing Layout
PM	Pavement Marking Layout
TMS	Traffic Management System
ENVIRONMENTAL	
SW3P	SW3P Layout
MISCELLANEOUS ITEMS	
LS	Landscape Layout

Table 2

TxDOT's Internet Site (Crossroads) has a description of Plan Set Development and the different sections of a Plan Set in the PS&E Preparation Manual – Chapter 2. (Crossroads > Online Manuals)

Secondary File Procedures:
When creating secondary files, all reference files will be attached without rotating the references. Instead rotate the view to the reference files. Rotate views keeps the reference file at the correct XY coordinates and maintains the functionality of GEOPAK.

The only references files that may be rotated are the valn, border and qbox. For sheets with two or more views, the top view must not be rotated. Only reference files for the bottom views may be rotated. An example would be a project layout.

DGN LIBRARY

A DGN library provides the level name, color, linestyle, and lineweight. Level libraries are customized to each project; each project will have its own library. All levels utilized in a project exist in the DGN library and all attributes are assigned within the library. Levels can be added or deleted as needed for the project within the library. Levels will not be created in an active file, all levels exist in the DGN library. The naming convention for Levels should adhere to the following format:

D_{Primary File Abbreviation}_{Description}_{Supplemental Descriptions}

{Primary File Abbreviation} – refer to Table 1 for abbreviations
{Description} – description of level use
{Supplemental Descriptions} – supplemental description of level use

A starting library (LEVELS.dgnlib) is available at the following locations:

- T: \ CENTDESN \ Filemanagement \ CSJ \ FileStructure
- In ProjectWise: PWSouth \ Documents \ TxDOT CADD Standards \ Project Templates \ TxDOT SAT-CD Project Template \ FileStructure \ LEVELS.dgnlib
- www.txdot.gov Click on Local Information > SAT > Contractor's Information > Standards and Forms. (http://www.txdot.gov/sat/specinfo/index.htm)

Always rename the library to include the project location (Example: US90LEVELS.dgnlib).

Filters:
The DGN library also contains the Level Filters. Filters can be added as needed to make the Levels easier to locate. The starter library contains Filters for each Primary File.

DGN Library Procedures:
The proper procedure to correctly utilize the DGN Library is to set all attributes (name, color, linestyle, lineweight, plot, etc.) within the DGN Library and to have Symbology (in Level Manager) set to "ByLevel" within the Primary Files & Secondary Files. Doing so will allow manipulation of the attributes of specific levels in other files (such as graying out pavement marking on a roadway plan sheet, making a dashed linestyle solid on an intersection layout).

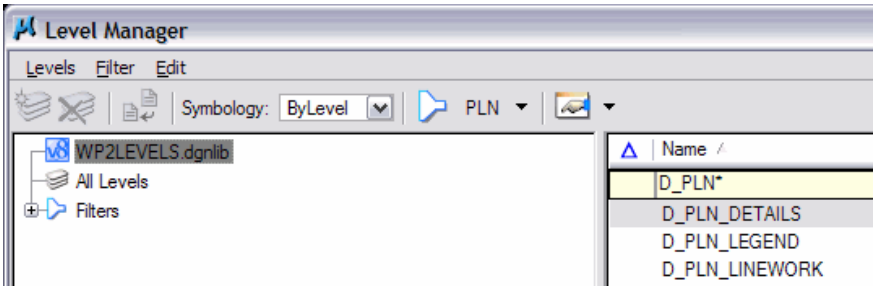


Table 3 is a short listing of Line Weights and Line Styles that can be found, along with other drafting guidelines such as Annotations and Standards in the PS & E Preparation Manual / Chapter 2 – Plan Set Development.

Item	Line Weight (WT)	Line Style (LS)
Existing Topography	0	1 (dot)*
Proposed Features	1 or 2*	0 (solid)
Centerlines & Control Lines	0 or 1	4 (dash-dot)
R.O.W. Lines (Existing)	0 or 1	6 (dash-dot-dot)
R.O.W. Lines (New)	2 or 4	6 (dash-dot-dot)
Hidden Lines	0 or 1	2 (short dash)
Leader, Dimension, & Extension Lines	0*	0 (solid)*

*May be represented with other Line Styles or Line Weights as preferred by the Engineer.

Table 3

File Management System Folders

There will be 25 folders for each CSJ and none should be deleted, regardless of folder content. There are no restrictions to the number of subfolders within the 25 folders.

FOLDER	DESCRIPTION
BatchPlot	BatchPlot
BRIDGE	Bridge Design
Change Orders	Change Orders
Correspondence	Project related letters, memos, etc.
Correspondence / PDP	Project Development Process (utility companies) Utility Company location files (S.U.E. files)
Correspondence / ENV	Environmental Correspondence Documents
DRAINAGE	Culvert Layouts, Storm Sewer Layouts, Hydraulic Data, etc.
ENVIRONMENTAL	Storm Water Pollution Preventions Plans, EPIC sheets
Estimate	Estimates
Estimate / Preliminary	Preliminary Estimates
File Structure	Level Assignment (.dgnlib)
GENERAL	Title Sheet, Project Layout, Typical Sections
GeoPak	GeoPak Files
MISC	Landscape and Irrigation layouts
Old Files	Files determined to not be needed are moved here rather than deleting. Do not delete ANY files.
P3	Contract, Time Determination & Schedules
P3 / Construction	Construction Schedules
P3 / Design	Design Schedules
Pavement Design	Pavement Design
PS&E	Necessary paperwork for PS&E submission
ReferenceFiles	Primary Files ONLY
ROADWAY	Plan Sheets & miscellaneous roadway details
ROADWAY/Driveways	Driveway layouts, Pictures of Driveways
Standards	District Standards included in PS&E package
Standards/Bridge	Bridge Standards
Standards/Drainage	Drainage Standards
Standards/Illumination	Illumination Standards
Standards/Illumination/Electrical	Electrical Standards
Standards/Retaining Walls	Retaining Walls Standards
Standards/Roadway	Roadway Standards
Standards/Signing	Signing Standards
Standards/Pavement Markers	Pavement Markers Standards
Standards/SW3P	SW3P Standards
Standards/TCP	TCP Standards
Standards/Traffic Signals	Traffic Signals Standards
Standards/TMS	TMS Standards
Summaries	Project Summaries
Summaries/Excel	Excel Summaries for calculations & linking
Survey	Survey Data, .arc files
TCP	Traffic Control Plans, Schedule of Barricades & Warning Device
TCP / Phase I, Phase II, etc.	Phase I, II, III, etc. of TCP
TRAFFIC	Illumination, Sign, Pavement Markings, Signal, and TMS layouts
UTILITY	Utility layouts
WALLS	Retaining Wall layouts
Xsec	Cross Sections

Table 4

FMS & PROJECTWISE

PROJECT CREATION

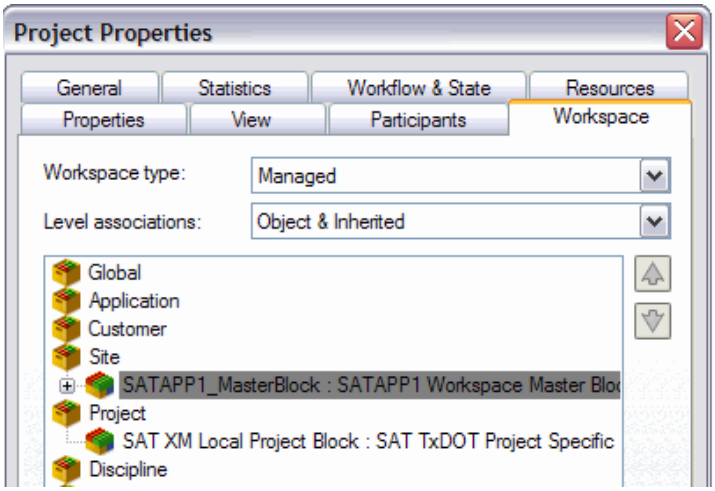
Each project will be created by coping the starter project located in ProjectWise at : PWSouth\Documents\TxDOT CADD Standards\Project Templates\TxDOT SAT-CD Project Template. Copy the "TxDOT SAT-CD Project Template" folder over to PWSouth\Documents\SAT and rename to the correct Controlling CSJ in the following format: CCCSS.JJJ.

PROJECT WORKSPACE BLOCKS

All projects in ProjectWise will have the following workspace blocks attached:

- SATAPP1_MasterBlock
- SAT XM Local Project Block

In ProjectWise, right click on the CSJ folder and select Properties. On the Workspace tab, add the blocks by right clicking on Site, select Add Association, highlight the SATAPP1_MasterBlock and click OK. Right click on Project, select Add Association, highlight the SAT XM Local Project Block and click OK.



GEOPAK & PROJECTWISE

The .gpk file for GEOPAK should be stored outside ProjectWise in a centralized location (Satapp1 Server or a local drive for outlying offices). All other GEOPAK related files, such as the .prj, input or output files should be stored in ProjectWise in the GEOPAK folder of CSJ. To access The Satapp1 Server: In Windows Explorer click on My Network Places \ Entire Network \ Microsoft Windows Network \ Txdot1 \ Satapp1 \ Projects \ Active Projects \ SAT \ Central Design. Each folder here should be named by the correct Controlling CSJ in the following format: CCCC-SS-JJJ.

FMS DOCUMENTATION

This document may be accessed at www.txdot.gov. Click on Local Information > SAT > Contractor's Information > Standards and Forms. (http://www.txdot.gov/sat/specinfo/index.htm).

It is also available in ProjectWise at PWSouth\Documents\TxDOT CADD Standards\Project Templates\TxDOT SAT-CD Project Template\FileStructure\FMS-V8.pdf