FDOT Plans Production Tools Part 2 of 2

This course helps you automate the creation of Sheets, Plan, Plan/Profile and Cross Section sheets.

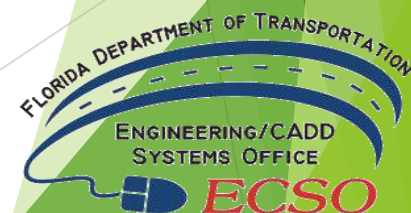## FDOT State Kit for AutoCAD Civil 3D 2014

Mike Racca

CADD APPLICATIONS SUPPORT
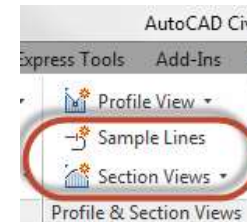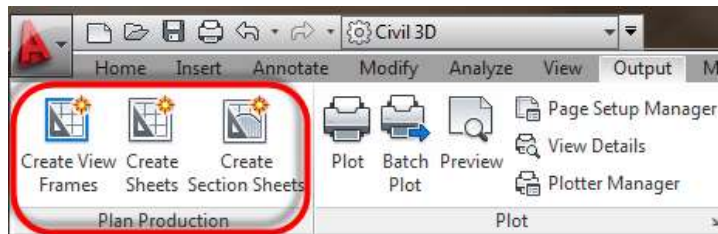
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▶ The workflows created for use with Florida Department of Transportation (FDOT) plans are dependent on the following:

  ▶ ~~Create a Civil 3D FDOT Project. - Information from the creation of the project is carried into the sheet Title Blocks.~~

  ▶ ~~Creating a Sheet Set (dst) file - Displays and organizes named collections of drawings.~~

  ▶ ~~Create a Key Sheet - Add Sheet to Sheet Set file. Insert Location Map. Automatically fill out Title block information.~~

  ▶ ~~Data Shortcuts - Used only for the creation of data references such as Alignments, Surfaces, and View Frame.~~

  ▶ ~~Create View Frames wizard (Clip Borders for Plan and Plan/Profile View Sheets)~~

  ▶ **Create Motif File for Plan Sheet Creation** - Use to create Plan sheets and add to existing Sheet Set file

  ▶ **Create Sheets** wizard (Use to create Plan or Plan/Profile sheets and add to existing Sheet Set file)

  ▶ **Create Section Sheets** wizard (Use to create Cross Section Sheets and add to an existing Sheet Set file)

▶ **Create View frames** are used to represent rectangular areas along the alignment that will be displayed on plan/profile or plan-only sheets. Before you create view frames, an alignment must already exist in your drawing. Depending on the type of sheets you want to produce (plan and profile or profile only), you may also need to have a profile already created. If you are creating a plan only view frame (or sheet set), then you do not need to have a profile in the drawing.

  Command will not execute with out an alignment.

▶ **Create Sheets** wizard to quickly create sheets for construction documents (plans) from View Frames.
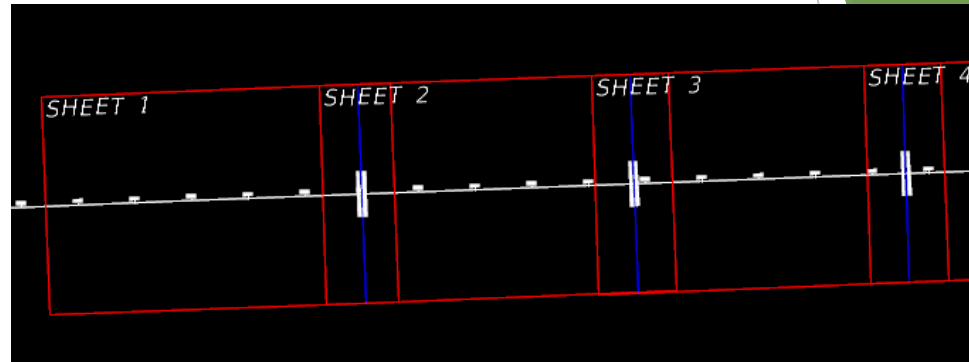
  Command will not execute with out an alignment.

▶ **Create Section Sheets** command to create layouts for plotting section views and Sheets. As a prerequisite to using the Create Section Sheets command, you must use the "Sample Lines" and "Create Multiple Views" command to generate section views before you can Create Section Sheets.

  Requires and Alignment, Sample Line Group Name and Section View Group.

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Create View Frames

❖ View Frames are used to represent rectangular areas along the alignment that will be displayed on Plan/Profile or Plan only sheets. You can only create View Frames when an alignment is present. <u>Before you can create View frames your drawing must contain an alignment</u>.
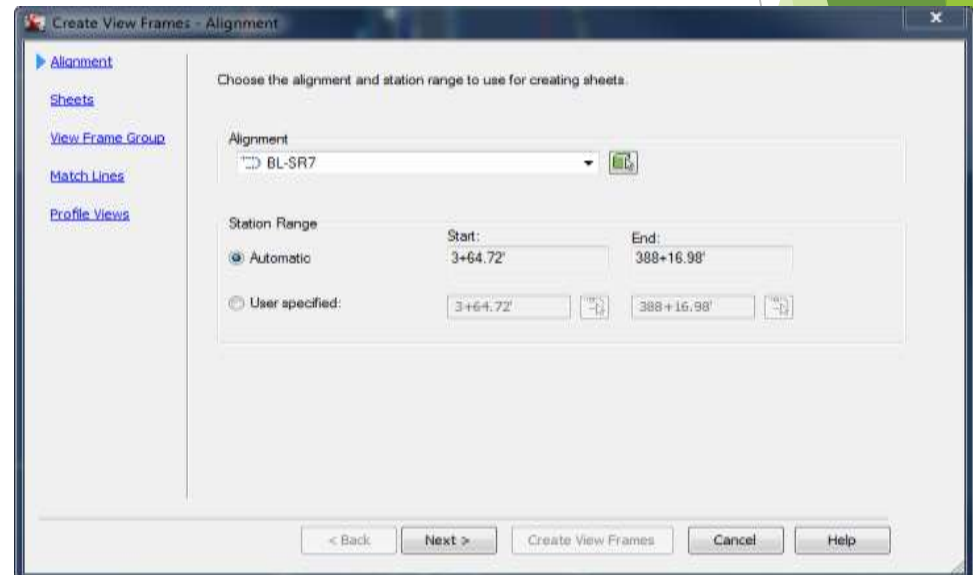

<u>Alignment</u> - Choose the desired Alignment and Station range for creating Sheets.

<u>Sheets</u> – Define a View Frame Group name to help you identify what the View Frame Group is for.

<u>View Frame Group</u> – Specify object creation criteria for the view frames group and view frames.

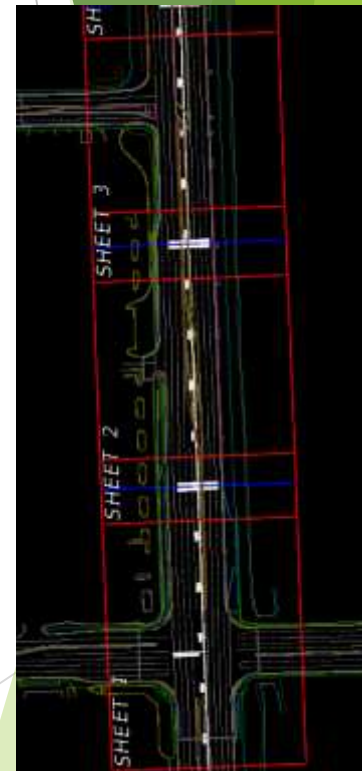<u>Match Lines</u> – Choose to insert match lines automatically and define how they are placed and named.
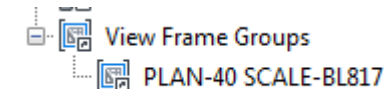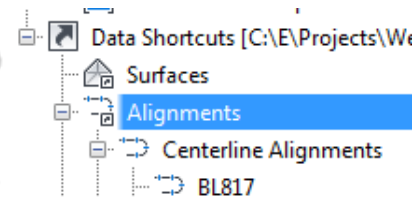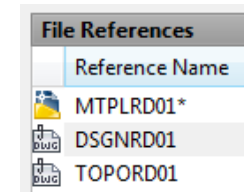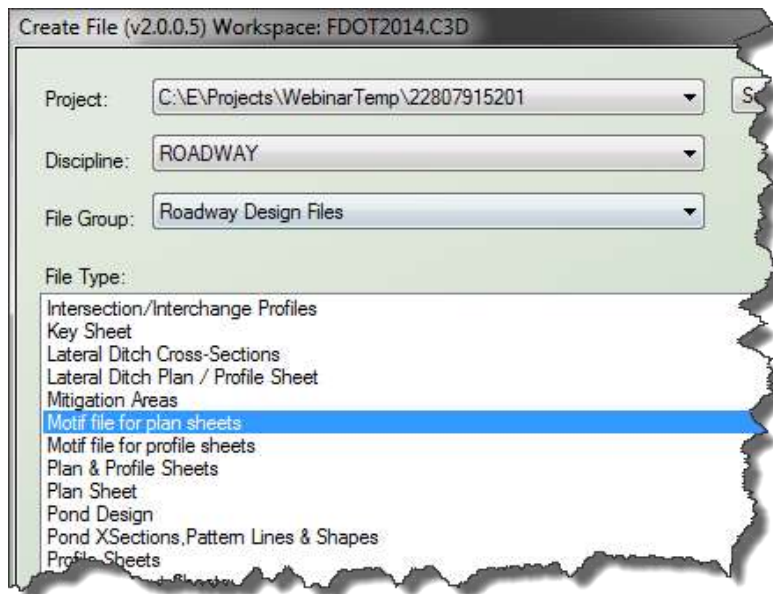
<u>Profile Views</u> - Select the profile view style and band set that will be used for the profile views displayed in the viewports (sheets).

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Create Motif File for Plan Sheet creation - (Use to create Plan or Plan/Profile sheets and add to existing Sheet Set file)
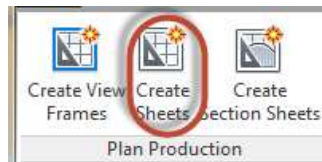
▶ *Exercise: Generate Motif Drawing for Plan Sheets.*

➤ Use the "Motif File for Plan Sheets" template to create a new file called MTPLRD##.dwg using the FDOT Create File tool. This file is used to combine the Design file, Topography file, Alignment data and the View Frame Group.

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Create Sheets

❖ Creates sheets for plotting from existing view frames.

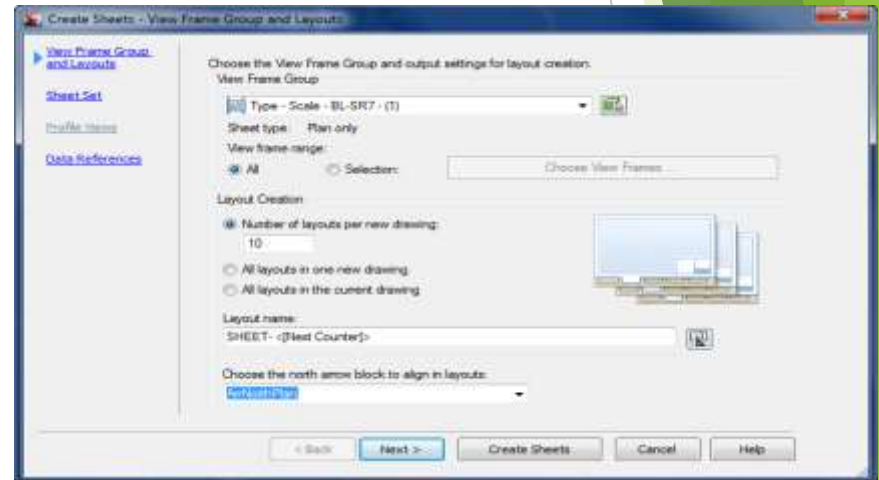❖ CREATE SHEETS command (Output Ribbon → Plans Production Tab).

<u>View Frame Group and Layouts</u> – Choose the desired View Frame Group and output settings for Sheet layout Creation.

<u>Sheet Set</u> – Use these options to create a new sheet set or add to an existing sheet set. You can also specify storage location of the sheet set file association with the new or existing sheet set.

Select "Add to existing sheet set:" Select Roadway Plan.dst file located in the eng_data folder under the roadway folder.

Sheet file name: Plan <[View Frame Group Alignment Name]>

<u>Data References</u> - Select the data you want to reference in your sheets.
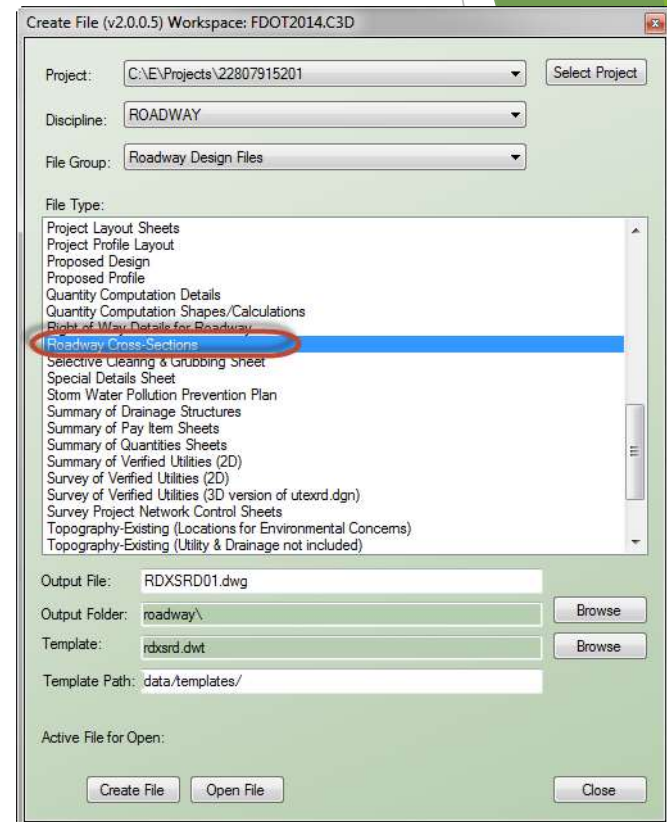

Select CREATE SHEETS when finish

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Create and Set up new sheet for Sample Lines and Cross Sections

1. Select the Create File tool from the FDOT State Kit ribbon.

2. Select the "ROADWAY CROSS-SECTIONS" (RDSXRD##.DWT) and click "OK".

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Create Section Sheets wizard - (Use to create Cross Section Sheets and add to an existing Sheet Set file)

Create Sample Lines

► Sample lines define the stations at which the cross sections are cut, and also the width of the sections to the left and right of the alignment.
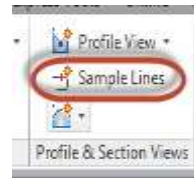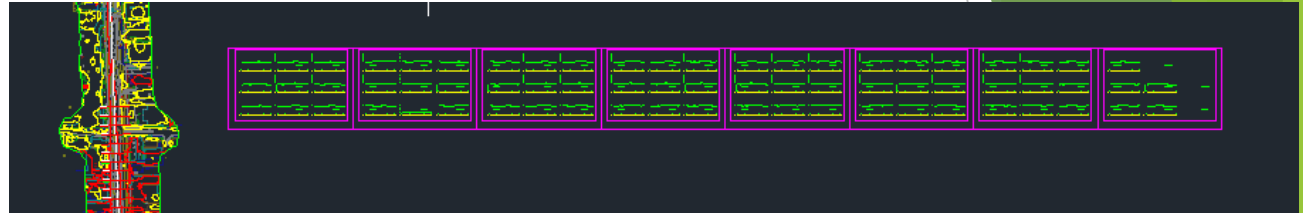
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Create Section Sheets wizard - (Use to create Cross Section Sheets and add to an existing Sheet Set file)

Exercise: Create Multiple Views (Create multiple sections views for a group of sample lines along an alignment).

General - Specify information about the section views, including the parent alignment and sample line group name, range of stations, description, style, and layer. Adjust "Section View Style" to anything other than _No Display.

Section Placement – Pick a placement option, then choose a group plot style. *Specify a drawing template to use for creating production-ready section sheets.*

C:\FDOT2012.C3D\Data\templates\Sheets\Roadway\SHPLAN.dwt
(For PLAN ONLY TEMPLATE)

Offset Range – Use this page to specify the offset range to which the section views are drawn.

Elevation Range - Specify the elevation properties of the selected section view.
Use default settings

Section Display Options – Select Data types and style to display in the X-sections.

Data Bands – Select the data band type to associate with the section view.
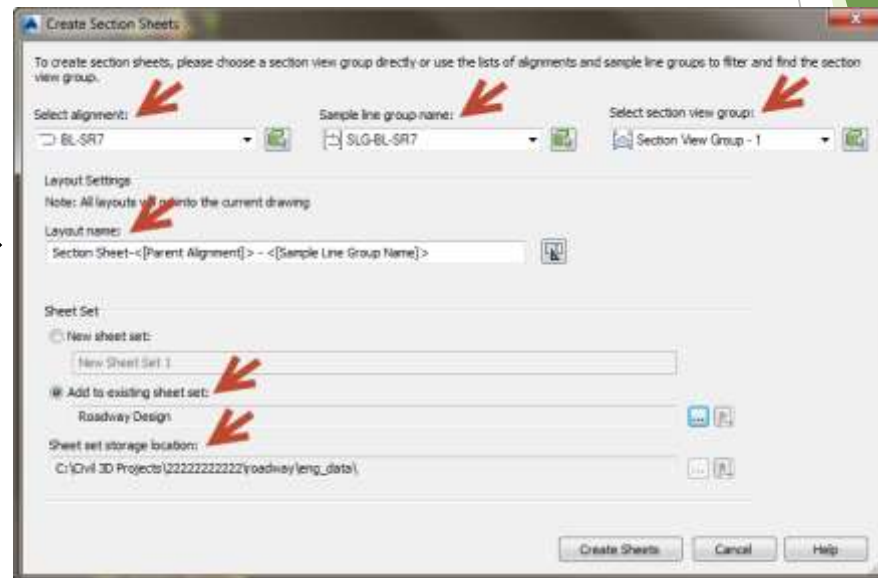*Use FDOT Page Plot option*

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Create Section Sheets wizard - (Use to create Cross Section Sheets and add to an existing Sheet Set file)

❖ Create Layouts for plotting section views. Use this dialog box to create paper space layouts that contain the section views in your drawing

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Any Questions?

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