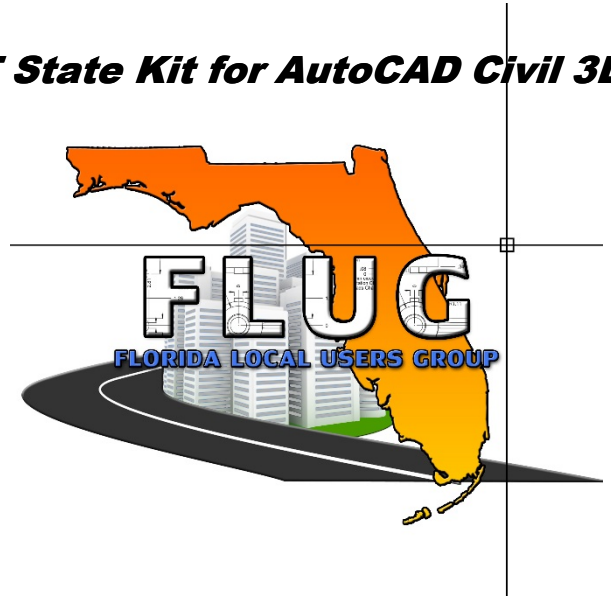
Civil 3D Sheet Sets for FDOT Plans Production

FDOT State Kit for AutoCAD Civil 3D 2015



Mike Racca
CADD APPLICATIONS SUPPORT
Florida Department of Transportation
(ECSO)
Email: Mike.Racca@dot.state.fl.us

Engineering/CADD Systems Office

This session is will focus Civil 3D Sheets Sets for FDOT Plans Production. We will explain and demonstrate how to create and manipulate an FDOT Sheet Set (..dst) file. We will create and edit fields to make a custom sheet or edit the topics/fields to suits specific needs for FDOT title blocks.

Software prerequisites:

- The most current/latest version of the FDOT Civil 3D State kit should be installed.

User prerequisites:

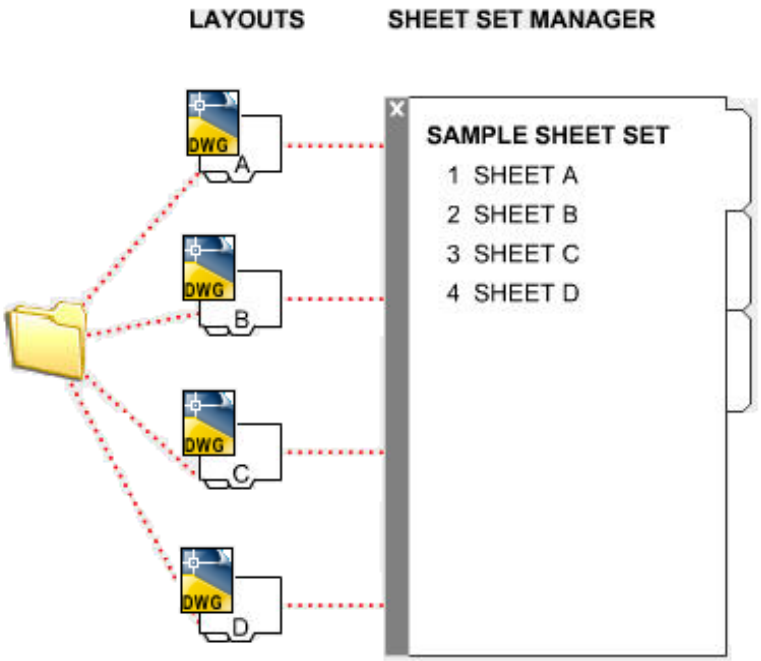
- Should have a good understanding of AutoCAD and a basic understanding of AutoCAD Civil 3D.

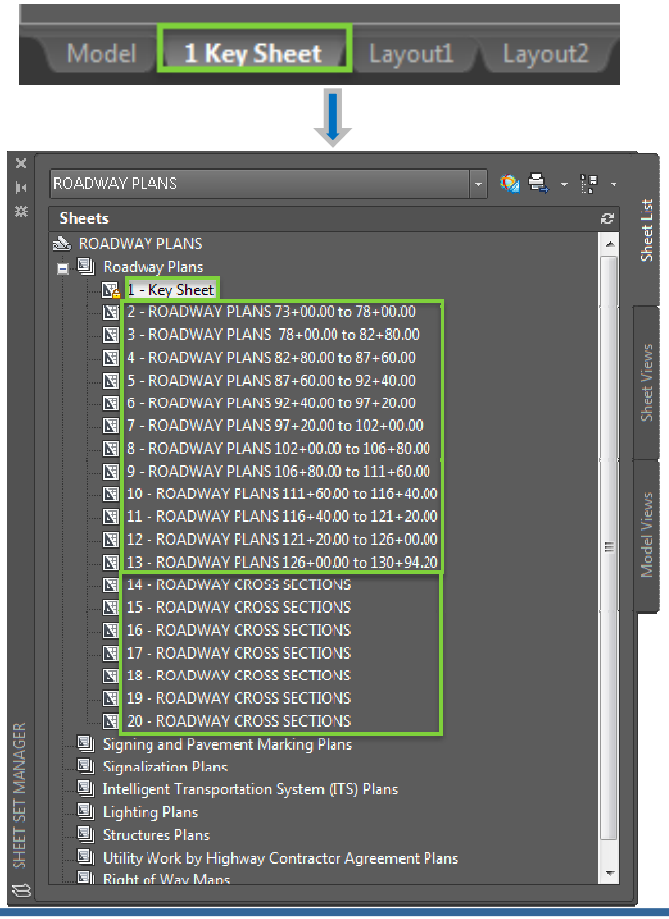
Session Objectives:

- **What is the Sheet Set Manager?**
- **What are Sheet Sets and How Do I Use Them?**
- **How does the FDOT C3D State Kit utilize the Sheet Set Manager?**
  - **How to create an FDOT Civil 3D project.**
  - **Create a new Sheet Set file from an existing template .dst.**
  - **Import existing and new layouts/sheets into Sheet Set Manager.**
  - **Organizing your sheets.**
  - **Plotting using page setups to PDF, DWF or a Plotter.**
  - **Creating Archive/Transmittal Sets**
- **How to go back and edit data in a Sheet Set file.**
- **Exercise: Use Sheet Set fields to automate the insertion of title block text.**
- **Exercise: Use Drawing Properties fields to automate text.**

What is the Sheet Set Manager?

- The Sheet Manager manages layouts in your drawing files by considering each layout to be a “sheet” that is part of that “sheet set”. Whether the layouts are all in one drawing file or distributed among many drawings, you can manage and make changes to them all through the Sheet Set Manager.

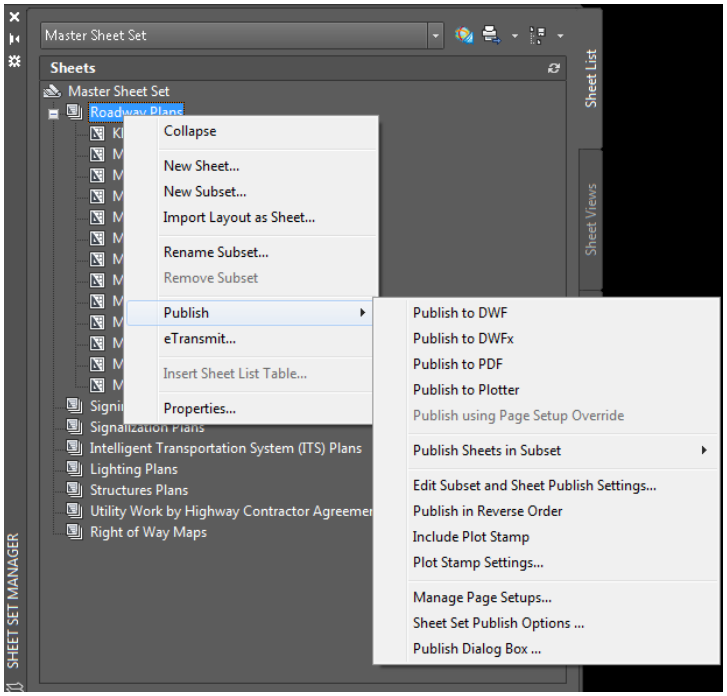




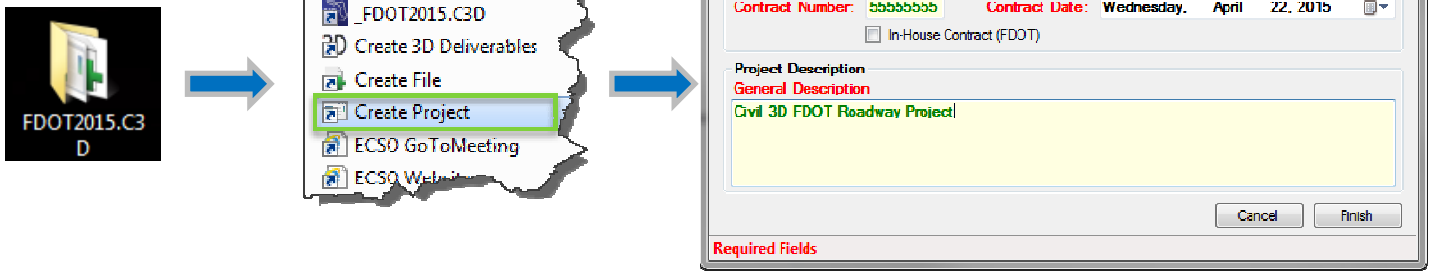
What are Sheet Sets and How Do I Use Them?

- A sheet set is a .dst file that contains the properties of the sheet set. You start with drawings that have model space content; these are your resource drawings. One layout for each drawing becomes the sheet in the sheet set. Therefore, a sheet set is a collection of layouts, one for each drawing.
- Sheet Sets help us keep track of files that are associated with our project.

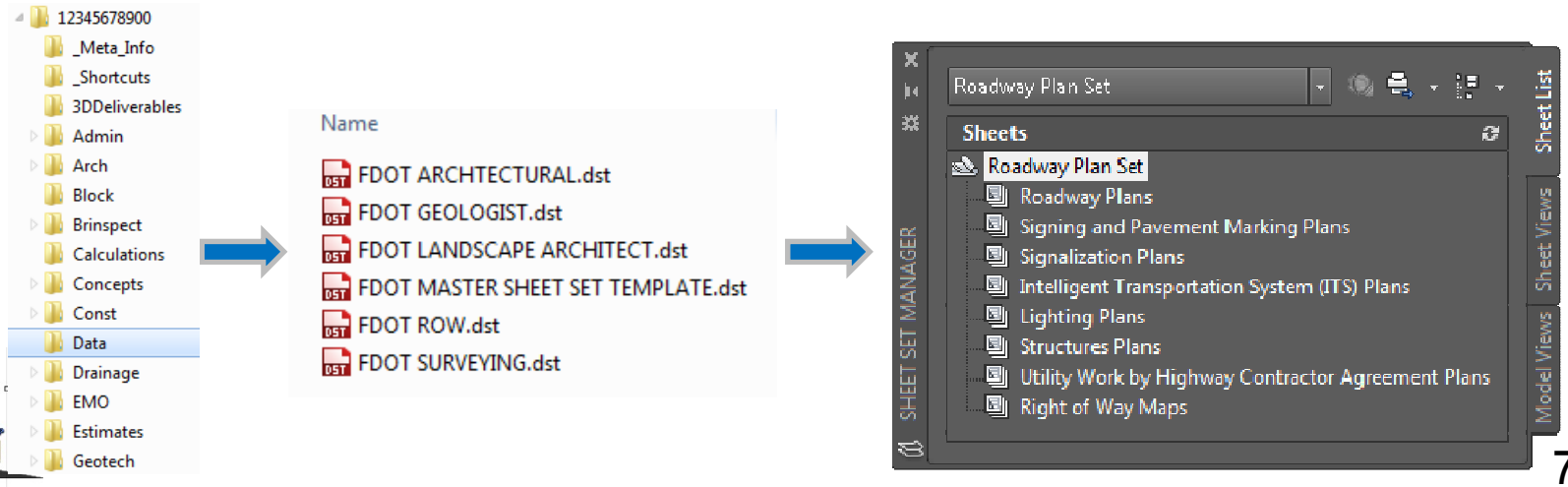
- Number or renumber them
- Organize them in Subsets
- Plot and publish them
- Open them
- eTransmit them
- ZIP them



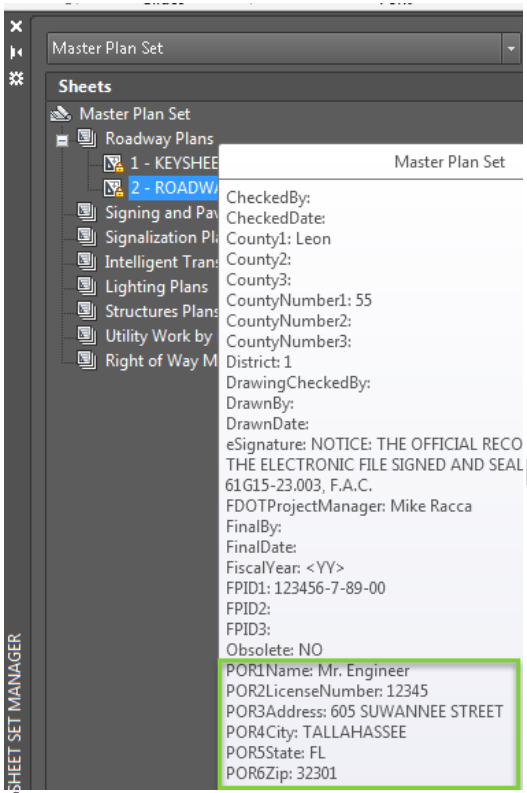
- **How does the FDOT C3D State Kit utilize the Sheet Set's?**
- The FDOT Create Project application creates a Civil 3D FDOT project. The application can setup the appropriate project directory structure and other required components such as:
  - Financial Project Information # (FPID)
  - Project name
  - Project description
  - County
  - Project manager
  - ….Many More.

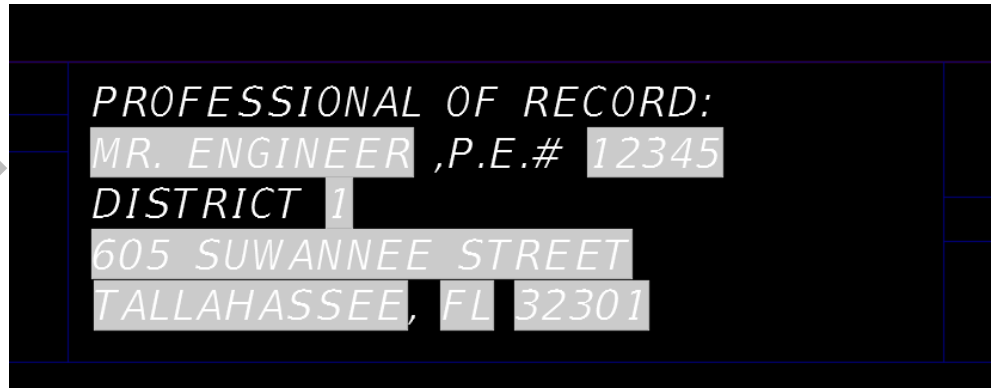


- **How does the FDOT C3D State Kit utilize the Sheet Set Manager?**
- Information from the creation of the project is carried over to the .dst file templates during the FDOT Create Project process.
- You then use Civil 3D to create a new Sheet Set file based on the new or existing .dst templates in the Data folder in your Project directory.
- Sheet Set properties are carried over to your new Sheet Set after creation.
- FDOT .dst files contains all of the sheet and sheet set properties you need for your projects.



- **How does the FDOT C3D State Kit utilize the Sheet Set Manager?**
- FDOT C3D State kit contains templates with intelligent title blocks that reference FDOT standard and custom Sheet Set data.

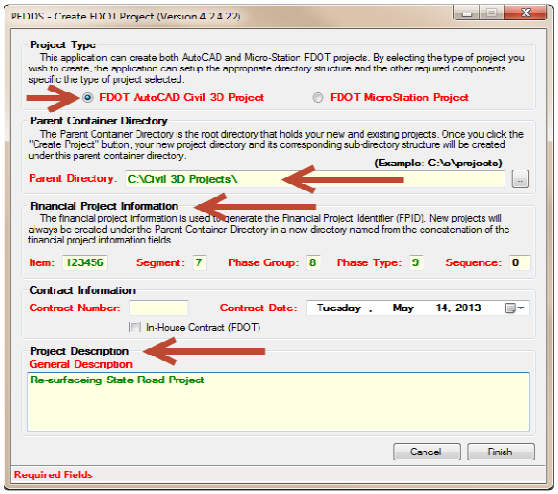


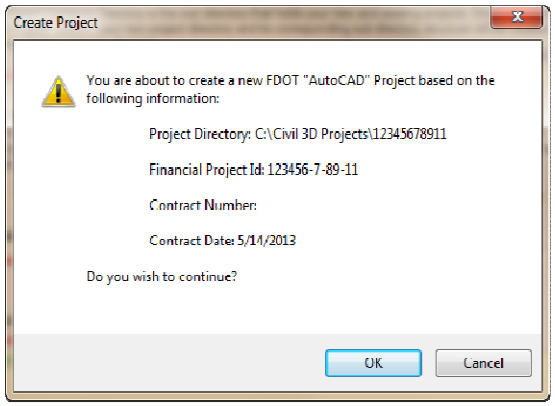


➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

- How to create an FDOT Civil 3D project.

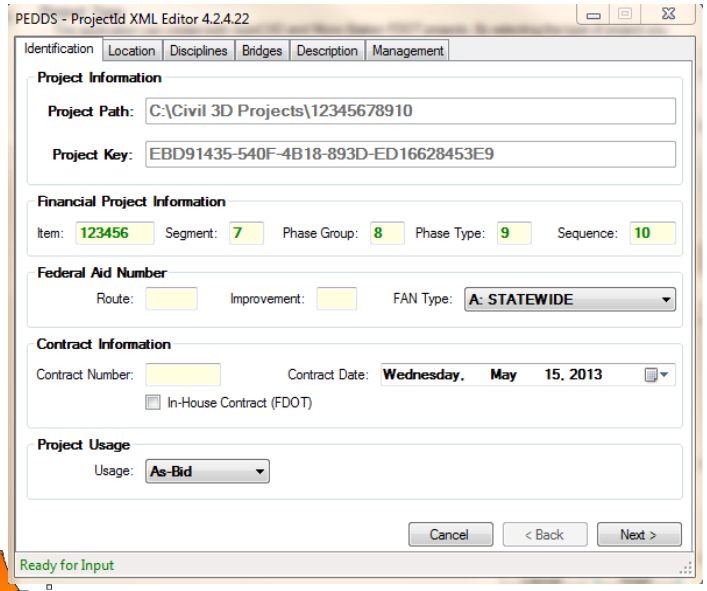
1. Launch CreateProjectC3D. This application is installed with the FDOT C3D state kit. It can be found in the installed application folder on the desktop or launch directly from the Windows program group.
2. Verify that the Project Type is set to “FDOT AutoCAD Civil 3D Project” and the Parent Director is pointing to the desire location. The primary information that needs to be completed is the Financial Project Identifier and the Project Description (General Description). These fields will turn green when the amount of information entered is satisfactory. When complete select “Finish”.
3. You will then receive a Create Project verification notice. If everything looks correct, click “OK”.

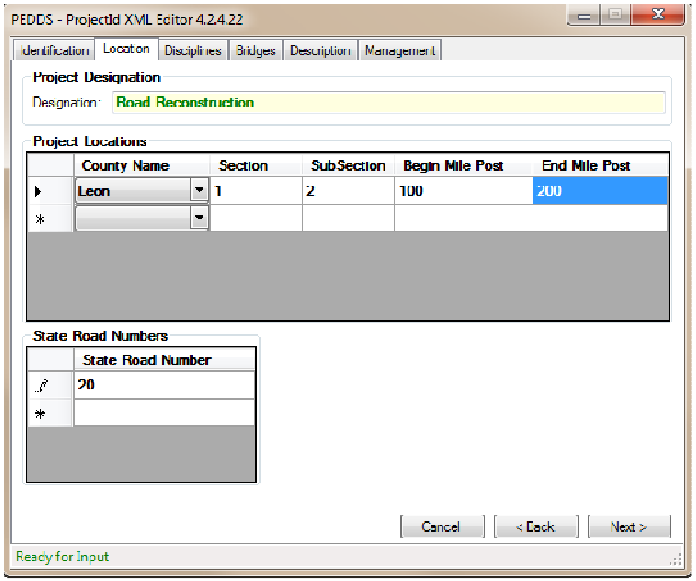




➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

4. In the following dialog boxes, complete as much information as possible by moving through the tabs on top. The County, Road Number and the Project Manager information is vital for all sheets to be created. Select “Save Changes”. Select “OK” to the dialog boxes that follow to confirm changes and updates to Sheet Sets, Projects Summary Report and to confirm that the AutoCAD project has been successfully created.

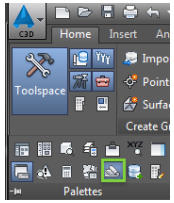


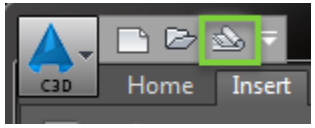


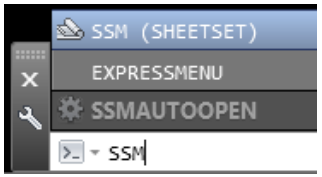
➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

- Create a new Sheet Set file from an existing template (..dst).

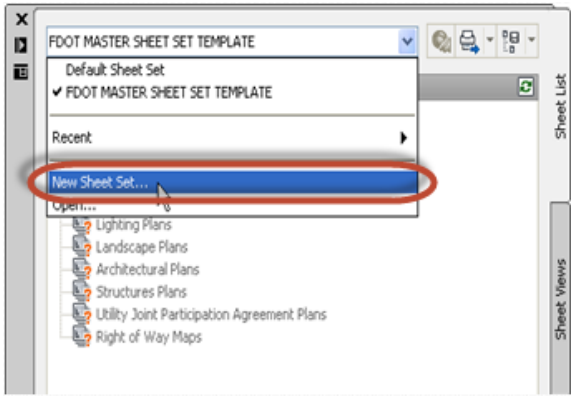
1. Access Sheet Set Manager (SSM) by click the Sheet Set Manager icon on the Home Ribbon > Palettes Tab. Type SSM at the command prompt to launch. Its also one of the few commands that you can launch from the quick access tool bar with out have to open a drawing first.

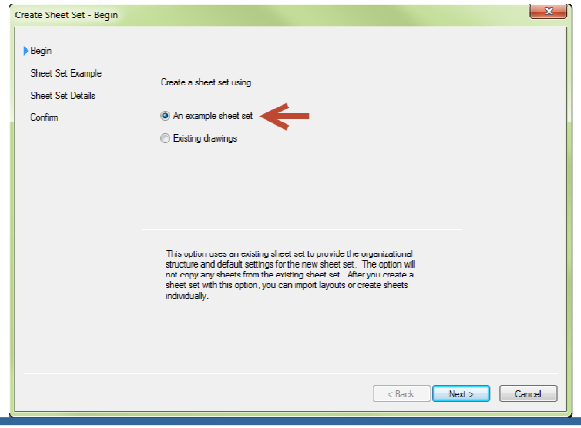






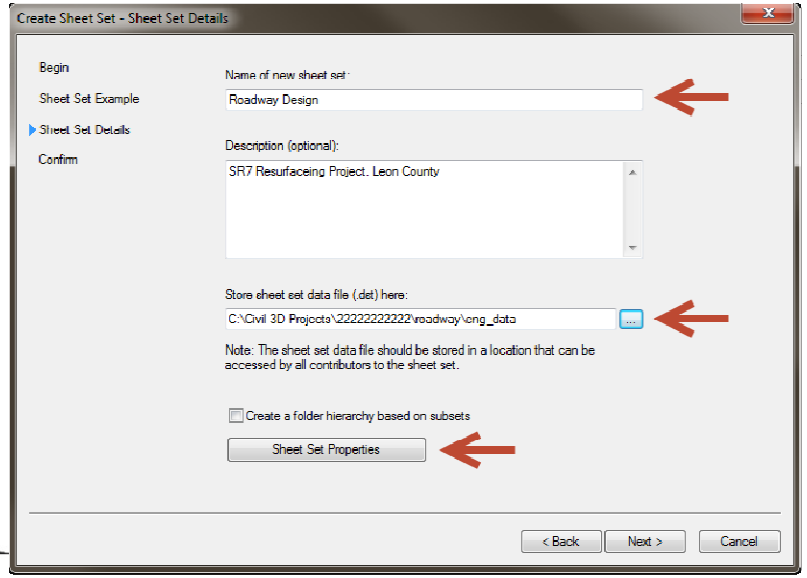
2. Open SSM and select the drop-down arrow to pick the “New Sheet Set…” option.
3. When the Create Sheet Set wizard opens, select to use “An example sheet set” then select Next>.

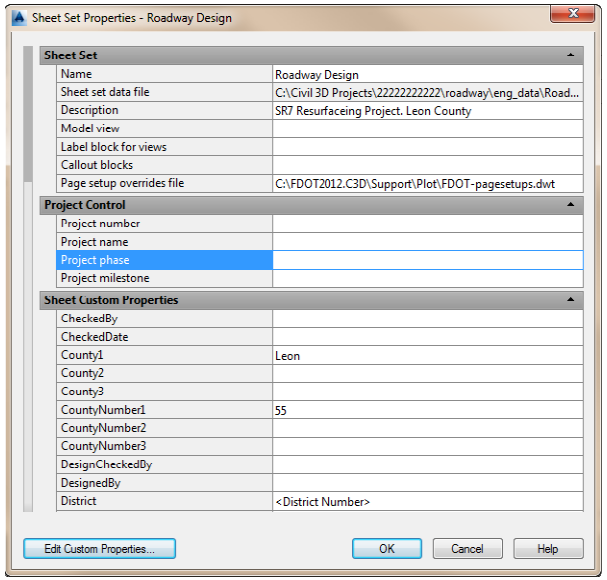




➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

4. Select the “Browse to another sheet set to use as an example” and pick the ellipsis button to browse to the FDOT MASTER SHEET SET TEMPLATE located in the data folder of your project. Click “Next” when you return to the “Create Sheet Set” box.
5. Name your Sheet Set then select the ellipsis button to navigate to your project location. Store the file in the \eng_data folder under the corresponding discipline folder. Select “*Sheet Set Properties*” to add or edit the Custom Properties.
6. Click “NEXT, confirm the Sheet Set Preview setting and select “FINISH” when complete. Your new Sheet Set will display in the Sheet Manager dialog box.



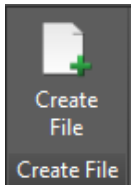


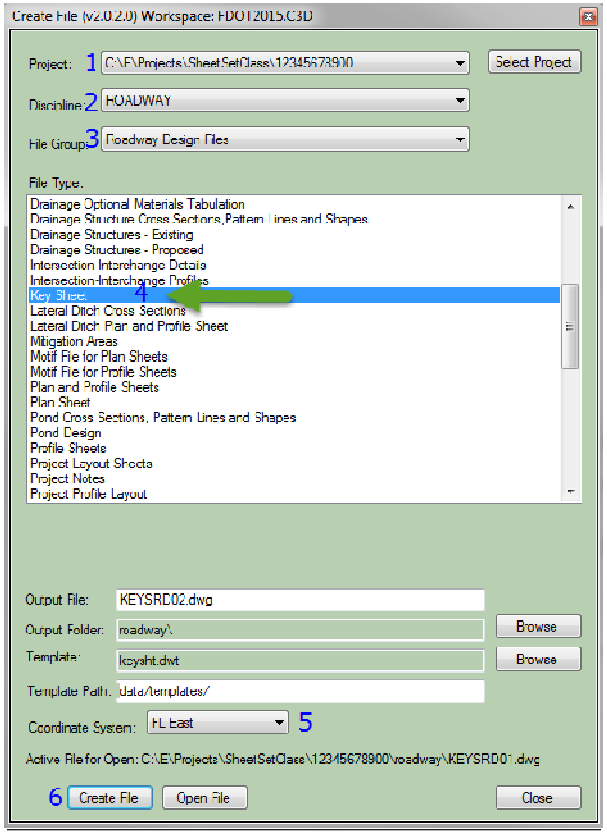
➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

- Import existing and new layout/sheets into SSM.

1. Using the Create File application on the FDOT ribbon create a Key sheet file. Click on the "*Create File"* icon under the FDOT tab. Follow the steps to create a new Key Sheet file inside your current project directory under the Roadway Project folder.

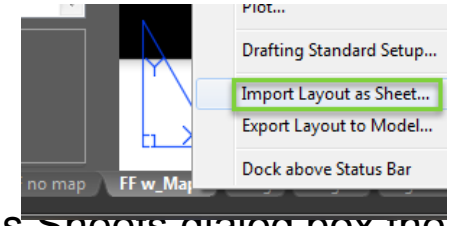
1. Confirm the Project path is correct.
2. Set Discipline = "*ROADWAY*"
3. File Group ="*Roadway Design Files*".
4. For File Type select "*Key Sheet*"
5. Select the desired Project Coordinate System.
6. Select "Create File".



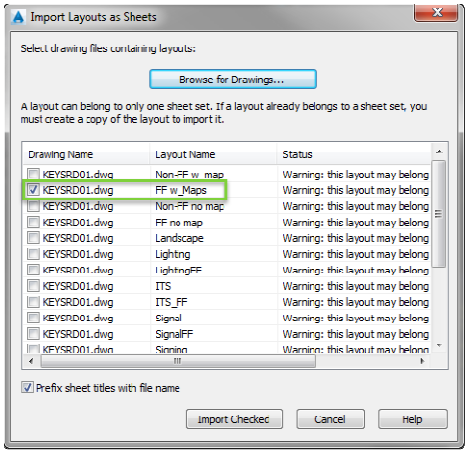


➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

2. Located on the bottom of the .dwg file are several layouts. Select your desired layout, right-click and choose Import Layout as Sheet...

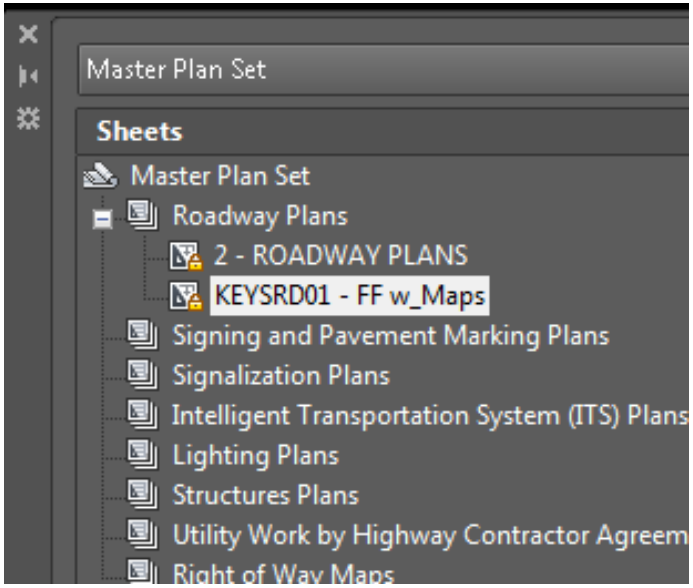


3. In the Import Layouts as Sheets dialog box the layout that you right-clicked on, will already be checked. You can browse for drawings at this point if there are other layouts that you would like to import at this time. Select Import Checked when complete.



➢ How does the FDOT C3D State Kit utilize the Sheet Set Manager?

4. In the SSM dialog box, select the new imported layout and drag it to your desired subset category. Type “regen” at the command line to update your data text field in your sheet.



➢ Using Sheet Set Manger to organize your sheets

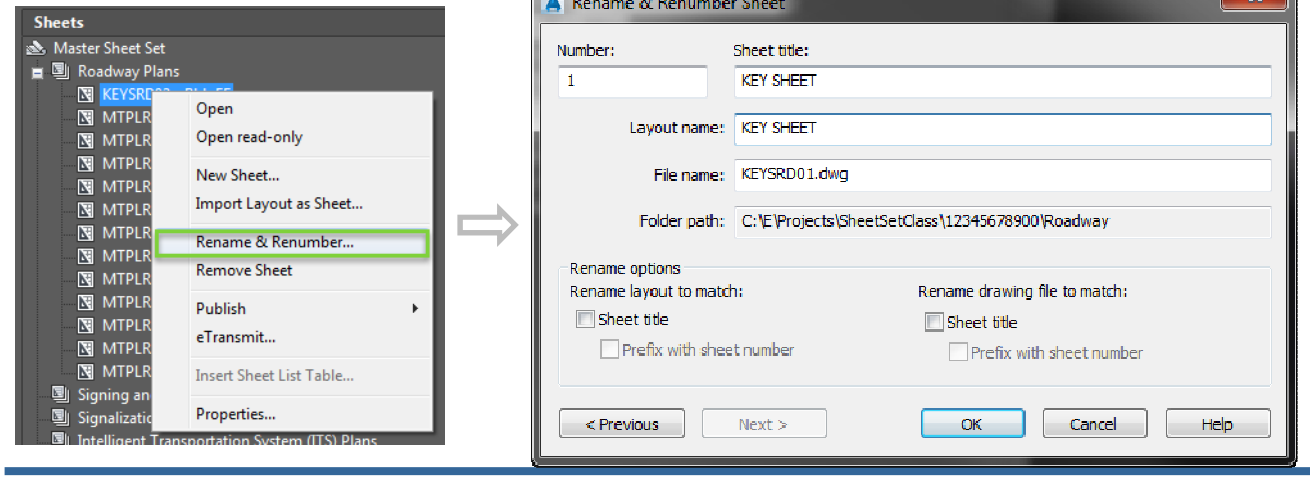
✓ Examine options that allow you edit sheet names and numbers, remove sheets and even rename your drawing file itself..

- To edit names and numbers in your title blocks and in the SSM, right-click on a sheet name and choose Rename and Renumber.

Enter your desired name and number and the Next or Previous buttons to move up and down the sheet list.

- You can also change the name of the file itself to match the new sheet set title. You can only rename the file as long as you do not have it currently open.

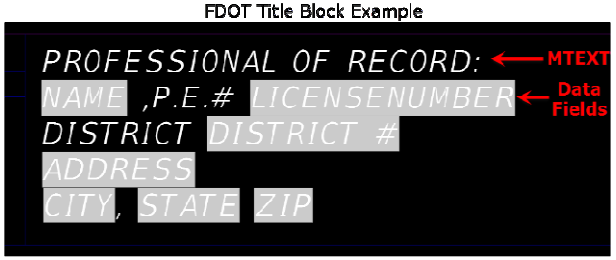
To remove a sheet, right-click and choose Remove Sheet. You remove the sheet from the list, but you are not deleting the file it self. You are only removing the shortcut.



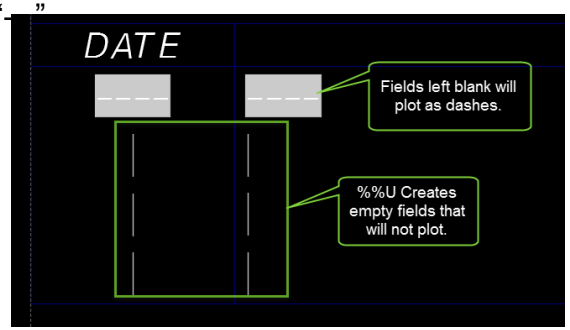
- **Using Sheet Set Manger to organize your sheet**
- Populate and edit information from Sheet Set to Title Block sheet and edit Object Data Fields.
  - Two types of Object Data fields for SSM. Sheet Set Properties and Sheet Properties:
    - Sheet Set Properties displays information specific to the selected Sheet Set.
      - If it applies to all sheets in the Current Sheet Set select the *CurrentSheetSetCustom* Field. Examples: City, State and Project #.
    - Sheet Properties displays information that is specific to the selected sheet, such as the sheet title, sheet number, and also display custom properties if any.
      - If it applies ONLY to the Sheet on which the Field resides Select the *CurrentSheetCustom* Field. Example: Drawn By, Revision, Date.

Data Fields appear in a drawing with a shaded background.

FDOT Title Block Example



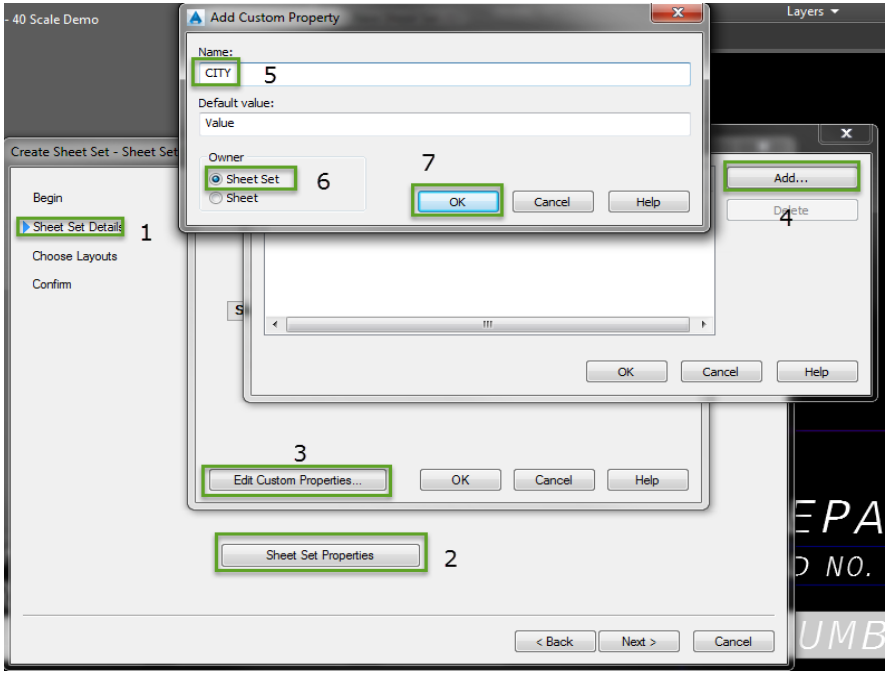
TIP! Empty Sheet Set Fields stay empty Enter %%U in the property box to create empty data fields as opposed to dashes "_"

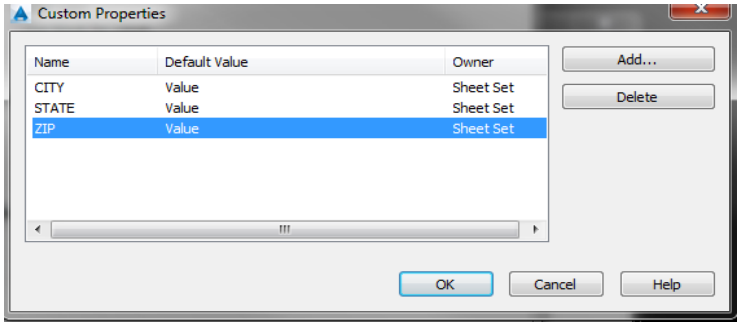


- Exercise: Use Sheet Set fields to automate the insertion of title block text.
- Example below shows how to create a default Sheet Set and add custom sheet set fields.

1. Select the Home tab, and locate the Pallets panel. Click on the Sheet Set Manager icon.
2. Locate the drop-down menu at the top left corner and select New Sheet Set option to create a new Sheet Set file.
3. When the Create Set dialog box opens, choose Existing drawings then click Next>.
4. Give the Sheet Set a name. The Description is optional. Select a location where the new Sheet set data file (..dst) will be stored. Select the Sheet Set Properties button to access the Edit Custom Properties option.
5. In the Custom Properties dialog box, select Add…
6. In the Add Custom Property dialog box, for the name value enter CITY, leave the Default value, Value
7. For Owner, since this is a City value and will more than likely be used on multiple sheets select Sheet Set. Repeat the same steps for STATE and ZIP.

Civil 3D Sheets Sets for FDOT Plans Production



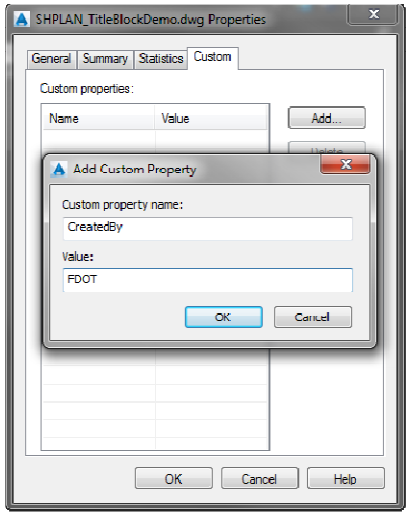


8. Click ok a few times until you return to the Create Sheet Set dialog box.
9. Click Next> to for Choose Layouts option.
10. Select browse, and browse for your drawing file that contains Mtext for your title block. (note: you will not see the drawing file in the dialog box). Click ok.
11. Select the name of the Layout out Tab that that you want to import. Click Next>, confirm you settings and select Finish.
12. Double click the name of your sheet that you just imported in your new Sheet Set.

13. Locate the Mtext you wish to convert to Data fields in your title block. Double click on the Mtext to enter Text Editor mode. You will see the ribbon change accordingly.
14. Highlight the text, and choose Field from the Insert Panel.
15. In the field dialog box, under the Field Category drop-down menu choose, SheetSet then choose CurrentSHeetSetCutom under Field Names.
16. Under Custom property name you will see the custom Data fields you created. Choose CITY then click OK.
17. Select Close Editor on the Ribbon.
18. The word Value will appear in your Mtext with a grey shade behind it representing a data field.
19. To edit the field right-click on the Sheet Set title name in the Sheet Set Manager and choose properties.
20. Locate Sheet Set Custom Properties category, click in the Colum on the left for CITY and enter in your desired City Name. Click OK to close out the dialog box.
21. Type “regen” at the command like to see you text up with the new City name.
22. Repeat the same steps for STATE.

- Use Drawing Properties fields to automate text.
- Exercise: Example below shows how to use the Drawing Properties feature to assign names and values to create custom properties.

1. Choose the Application button> Drawing Utilities> Drawing Properties or choose File>Drawing Properties to open the Drawing Properties dialog box.
2. Click the Summary tab. If you can use any of these properties, start here. For example, you can use the Title field for the drawing name.
3. To add a custom field, c lick the Custom tab. Use a custom field for content that cannot use one of the fields that come with AutoCAD.
4. Click the Add button. In the Add Custom Property dialog box, enter a field name and value and click OK.



5. Repeat Step 4 for all of your custom fields.
6. Click OK to close the Drawing Properties dialog box.
7. To insert fields, start the MTEXT command and define the bounding box (or use the ATTDEF command to create an attribute definition).
8. In the Text Editor (or Value or Default text box of the Attribute Definition dialog box), right-click and choose Insert>Field. You can do the same in a table.
9. To find your custom fields most easily, choose Document from the Field Categories drop-down list. You'll see all your custom fields listed.
10. Choose the field you want, choose a format, and click OK.
11. Repeat Steps 7-10 for all your custom fields.
12. To use any of the fields that come with AutoCAD, again choose Insert>Field, choose a different category, field, and format.

Notes:

1. _____
2. _____
3. _____
4. _____
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6. _____
7. _____
8. _____
9. _____
10. _____

Thank You!

Questions?

Email me:

Mike.Racca@dot.state.fl.us

The Civil 3D FDOT State kit is available for download at:

http://www.dot.state.fl.us/ecso/downloads/software/FDOT2015CADDSoftware.shtm

MIKE RACCA

CADD Applications Support

Florida Department of Transportation (ECSO)

Email: Mike.Racca@dot.state.fl.us

Florida Department of TRANSPORTATION

Engineering/CADD Systems Office

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