

# FDOT Traffic Plans Using Civil 3D



## FDOT Signs Application Pavement Markings Place Block Group

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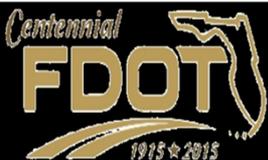
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DO NOT PASS FDOT Signs

Pavement Markings

Place Block Group



*Celebrating 100 Years of Innovation, Mobility and Economic Development*



# Webinar Videos

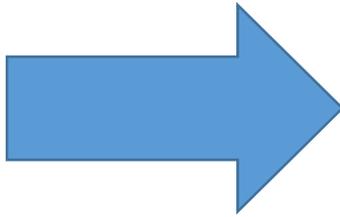
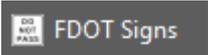
Webinars on this and other subjects are available at:

<http://www.dot.state.fl.us/ecso/downloads/GoToMeetingTraining/PostedWebinars.shtm>

FDOT Traffic Plans <sub>2</sub>						
	<b>FDOT C3D 2015 Sign Tool</b>	This webinar demonstrates using the FDOT Sign Tool located on the FDOT Ribbon to produce Signing & Pavement Marking Plans, will show Editing Techniques and Labeling.	70.4 MB	0:39:24	10/15/2014	Randy Roberts
	FDOT C3D 2015 Sign Tool					
	FDOT C3D 2015 Sign Tool Q & A					
	<b>FDOT C3D Pavement Marking Tools</b>	This webinar demonstrates using the FDOT Sign Tool located on the FDOT Ribbon to produce Signing & Pavement Marking Plans, will show Editing Techniques and Labeling.	103 MB	0:48:16	10/15/2013	Randy Roberts



# FDOT Signs Application



The screenshot shows the FDOT Sign Assembly Tool 1.02.15 interface. At the top, there is a menu bar with "File" and "Settings". Below the menu bar, the assembly name is "sign-006". The interface is divided into several sections:

- Panel Properties:** Includes a "Panel Layout" grid with "Back" and "Front" indicators, and "Preview" and "Mirror" buttons. The "Total Area" is 5.00.
- Post Properties:** Includes "Clear Panel" and "Quick Save" buttons.
- Assembly Location:** Includes "Select Panel" options: "Use Custom Blocks" (unchecked), "Application: Conventional", "Panel Class: School(S)", and "Panel Name: S5-3". There is also a "Search All Panel Label Names" field.
- Labels:** Includes "Panel Size: 24"x30\"", "State: Proposed", "Panel Area: 0.00", and "Main Panel" (checked). There are also "Custom Size" and "Custom Area" fields.
- Preview:** A large preview window shows a sign with the text "END SCHOOL SPEED LIMIT". Below it is a "Show/Update Block Preview" button.
- Panel Custom Label Fields:** Six empty input fields labeled "Field 1" through "Field 6".

At the bottom of the window, it says "Block definition installed: S5-03".



# Do's and Don'ts

- You can't use Entity Manager to place sign posts due to pay items being assigned via the sign XML file, but you can use EMX to place post blocks if no pay item is required.
- You can use AutoCAD copy commands to copy and place the same post (it will maintain the same pay item information that it already has attached)
- You can explode the Guidesign sheet information since it is not dynamic data



# What's New!

- You can now Mirror your front panel assemblies to auto-populate the back side if using the same panels
- You can label all sign panels under one command click now instead of clicking label panels for each instance
- You have options to group panels and/or labels together for easier editing
- Shapes have been introduced with the labels (Ovals and Rectangles)
- Panel Only check box to make it easier to make a Panel Only Assembly
- Easier operation to open previously saved assemblies, has a new preview option



# Application Interface

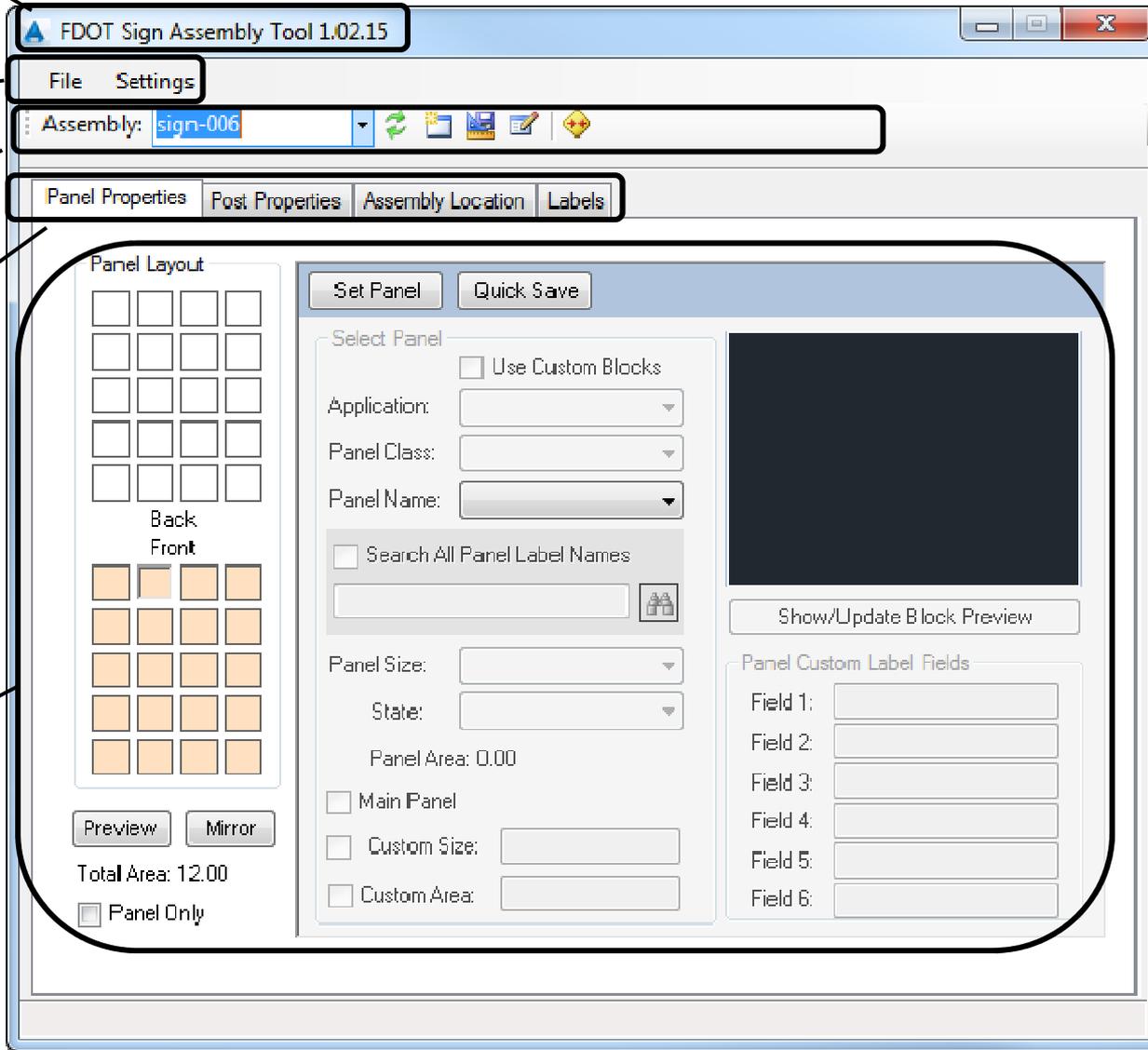
Program Name & Version

Main Menu

Sign Assembly file setup and editing

Properties for panels, posts, location, and labeling specs. & placement details

Specifications, block preview & details





# Post Properties

**Pay Item** – Can be Auto-Selected based on Select Post properties of manually selected from list

**Select Post** – Define the properties needed to identify the proper pay item

**Auto-Select Pay Item** – Will select the appropriate pay item based on post properties

File Settings  
Assembly: sign-005

Panel Properties Post Properties Assembly Location Labels

Pay Item: SINGLE POST SIGN [1 SDED], FURNISH and INSTALL GROUND MOUNT, 12-20 SF | 071

Select Post

Installation: Ground Mount [8]  
Mounting: Single or Multi-Post [4]  
State: Proposed [5]  
Sign Type: Furnish and Install Ground M [4]  
Options: 1 Sided

Total Area: 12.00

Auto-Select Pay Item

Post Block Preview Shows the block for the associated post

**Size and Total Area** – Shows total sign panel areas for Multi panel sign assemblies



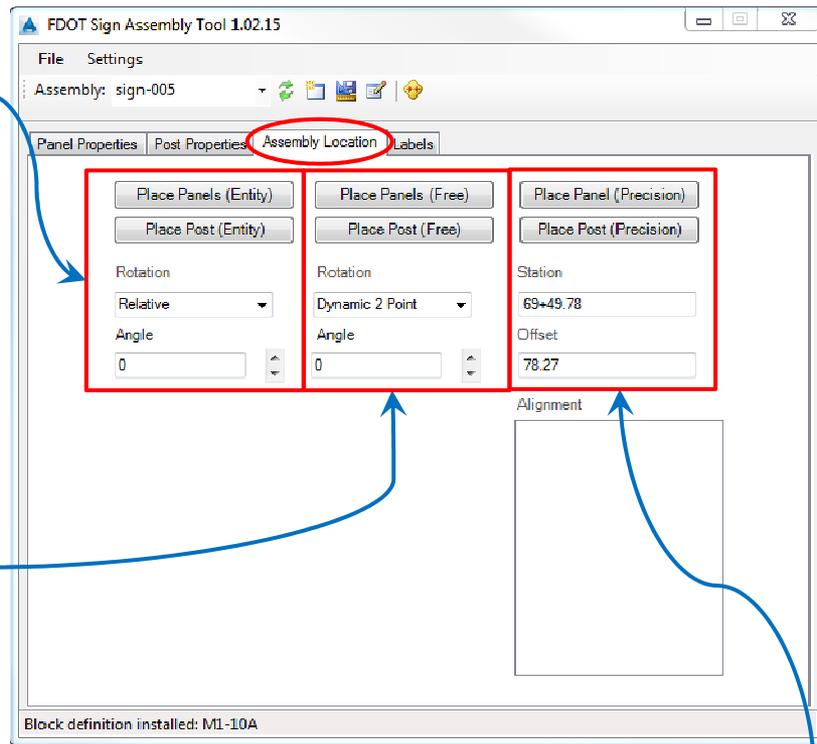
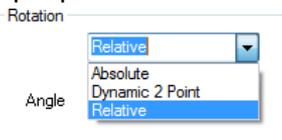
# Assembly Location

## Placing Objects (Entity)

–This is the recommended method because you can use this in conjunction with C3D Transparent Command Station/Offset



You also want to set the rotation to Relative so the panels and posts will rotate the proper direction



## Placing Objects (Free) –

This option places panels and posts in the file not based on any alignment. To get the rotation correct you will have to use the Dynamic 2 point option, otherwise the rotation will be based on your north

## Placing Objects (Precision) -

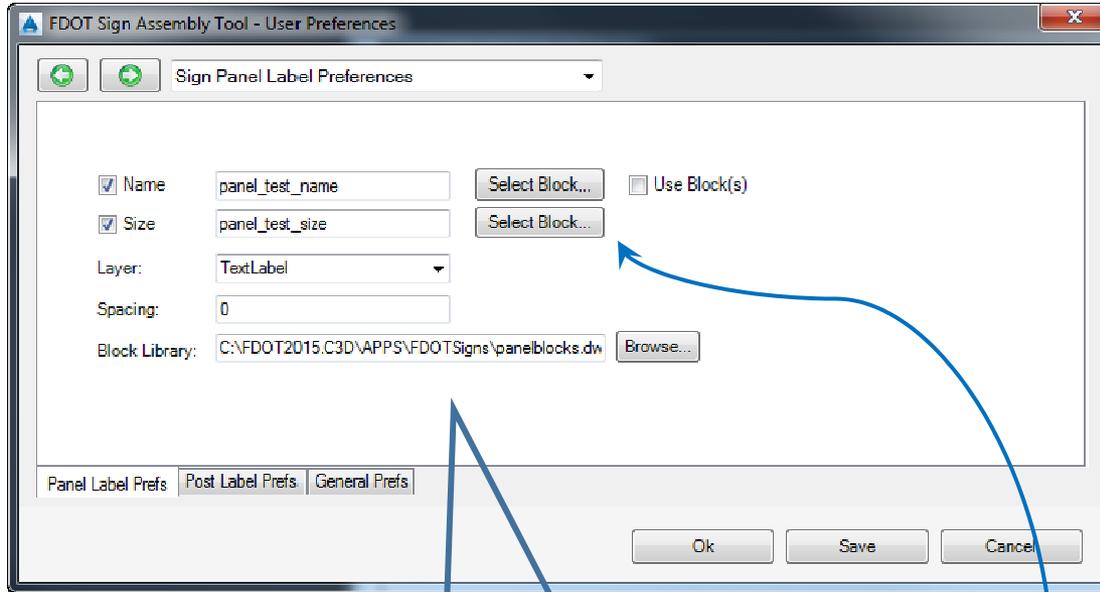
If you have used this application since the beginning you will recognize this option as the first iteration of placing. This option will soon be removed since the entity option can employ the Sta/Offset command





# User Preferences

## Panel Label Preferences



**Options** – When **Name** and **Size** are active the information will be included in the label. The **Layer** should be set to TextLabel. The **Spacing** controls the spacing between the shapes. The **Block Library** points to a temporary file that the application creates when in use.

The select blocks and block library options are seldom used to select other than the default selections listed above. If any changes are required it is if the block library is pointing to a previous software version just change the FDOT201X.C3D to the proper number

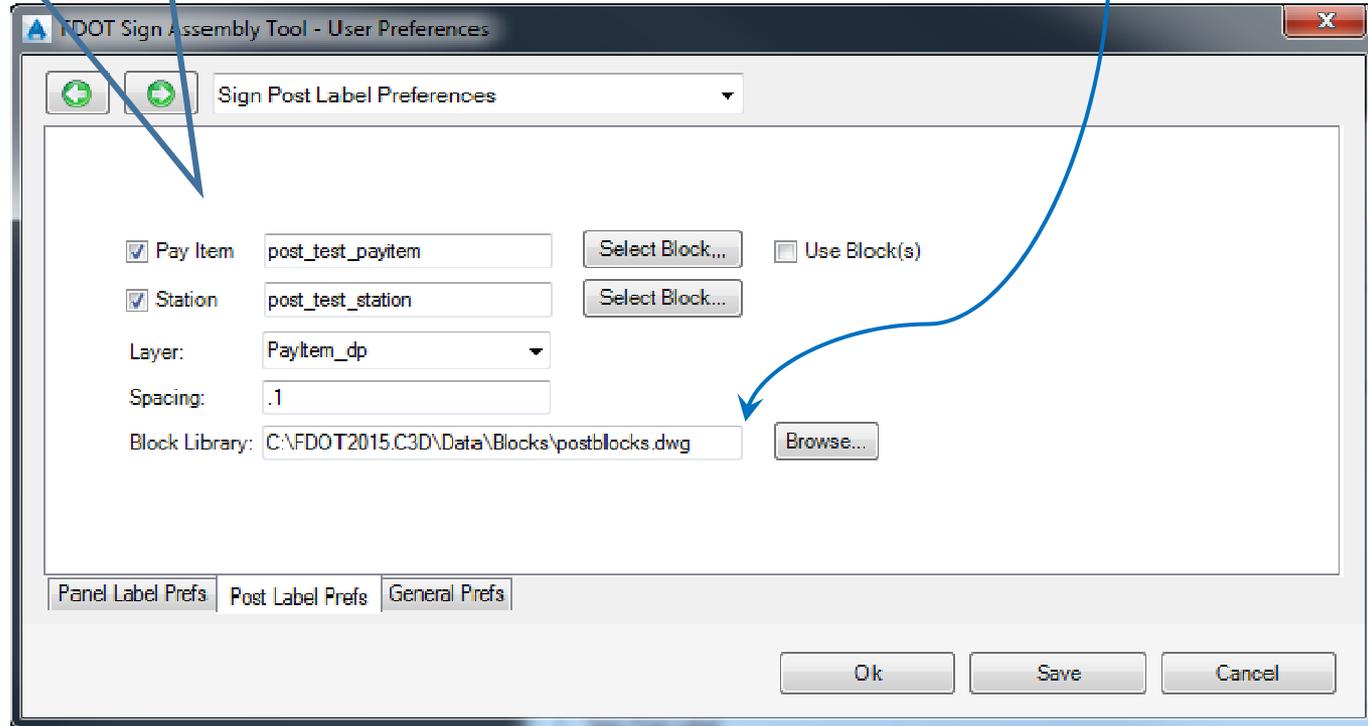


# User Preferences

**Options** – When **Pay Item** and **Station** are active the information will be included in the label. The **Layer** control lets you pick the correct layer that already resides in the file. The **Spacing** controls the spacing between the label shapes. The **Block Library** points to a temporary file that the application creates when in use.

## Post Label Preferences

The select blocks and block library options are seldom used to select other than the default selections listed below. If any changes are required it is if the block library is pointing to a previous software version just change the FDOT201X.C3D to the proper number



# User Preferences

## Highlight Assembly When Selected –

When selected the highlight feature uses the Civil 3D native highlighting feature

**Apply Twist** - This is active by default, but if placing objects using a relative rotation is optimal as shown a few pages back

## Save and Recall Assembly Definitions –

When active it will cycle through already placed signs in a file

**Zoom Factor** – When selecting a sign in the already placed list it will zoom to in MODEL SPACE tab only and this is the control for the zoom factor

## General Preferences

## Import/Export Folder Locations –

This is the location where all of your saved assemblies go. The default location should be a location that can be used across your network due to the fact you are building a library of assemblies that may be used on other projects.

FDOT Sign Assembly Tool - User Preferences

Sign General Preferences

Highlight Assembly when Selected

Apply twist when placing panels and posts

Save and Recall Assembly Definitions

Zoom Sign Assembly when Selected

Zoom Factor: 2

Import/Export Folder Locations:

Import: C:\FDOT2015.C3D\APPS\FDOTSigns\ Browse...

Export: C:\FDOT2015.C3D\APPS\FDOTSigns\ Browse...

Custom Guide Sign Library File:

C:\FDOT2015.C3D\Data\Blocks\gswksp.dwg Browse...

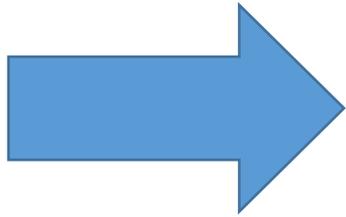
Panel Label Prefs | Post Label Prefs | General Prefs

Ok Save Cancel



# Pavement Markings

Pavement Markings



FDOT Pavement Marking Tool - v2.15.5.13

Pattern

Inside

Enable Outside Distance Between 0.00

Outside

Justification Center

Reference Entity

Draw Pattern Perpendicular to Entity

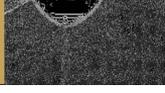
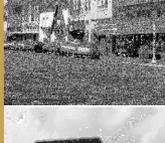
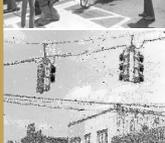
Begin Point

End Point

Beginning Offset 0.00 Ending Offset 0.00

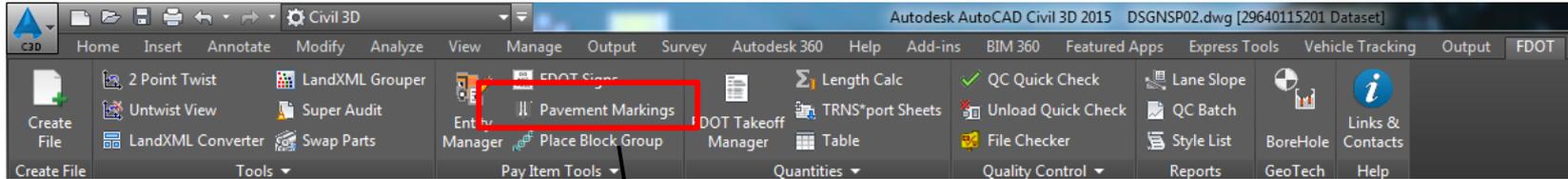
Associate Alignment None  
(for Quantity Takeoff)

Draw Stripes

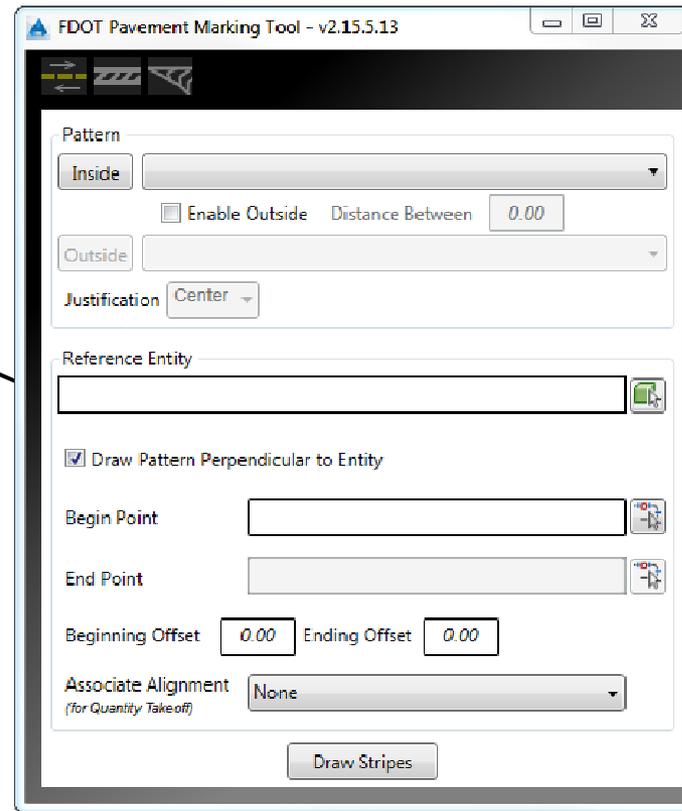


# Pavement Markings

“FDOT Ribbon”



Launches the Application

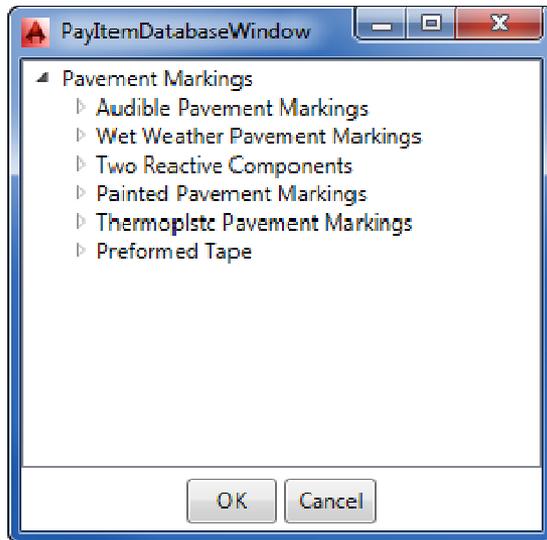


# Pavement Markings

## “Lane Striping” Mode

Mode Selection, Current Mode is shown in Color

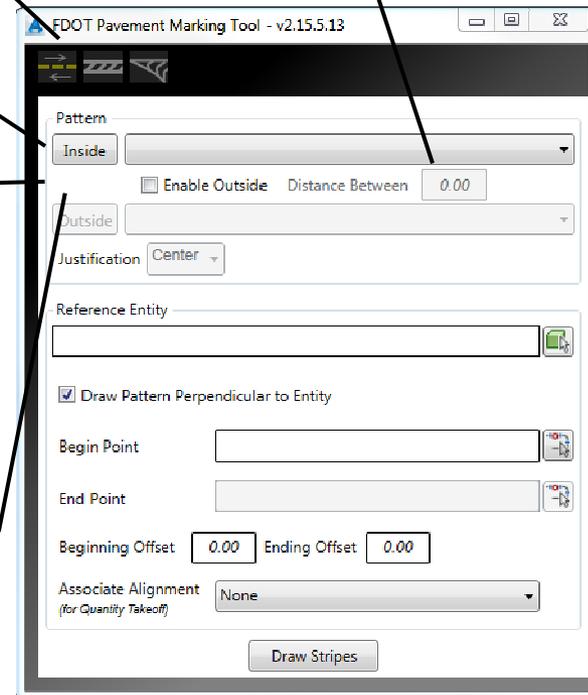
Enter the distance between the two Lane Stripes



Selecting the Inside Pattern button opens the Pay Item Database allowing you to choose your Striping pattern with Pay Item Attached

Optional Outside Striping Pattern Selection an example is if you need a double yellow line. The offset distance is to the center then the “Distance Between” is cut in half and applied on each side.

**Justification** – Center, Inside, Outside are the options, this allows you to control how the distance between patterns is applied.



# Pavement Markings

## “Lane Striping” Mode

A Reference Entity is a Alignment, Polyline, or Line or even an object from an Xref

```
Automatic save to C:\p3d\
Command:
Command:
> Select an object:
```

Once you click, follow the Directions on the Command Line



Reference Entity

Draw Pattern Perpendicular to Entity

Begin

End

Offset

FDOT Pavement Marking Tool - v2.15.5.13

Pattern

Inside

Enable Outside Distance Between

Outside

Justification

Reference Entity

Draw Pattern Perpendicular to Entity

Begin Point

End Point

Beginning Offset  Ending Offset

Associate Alignment (for Quantity Takeoff)

Draw Stripes

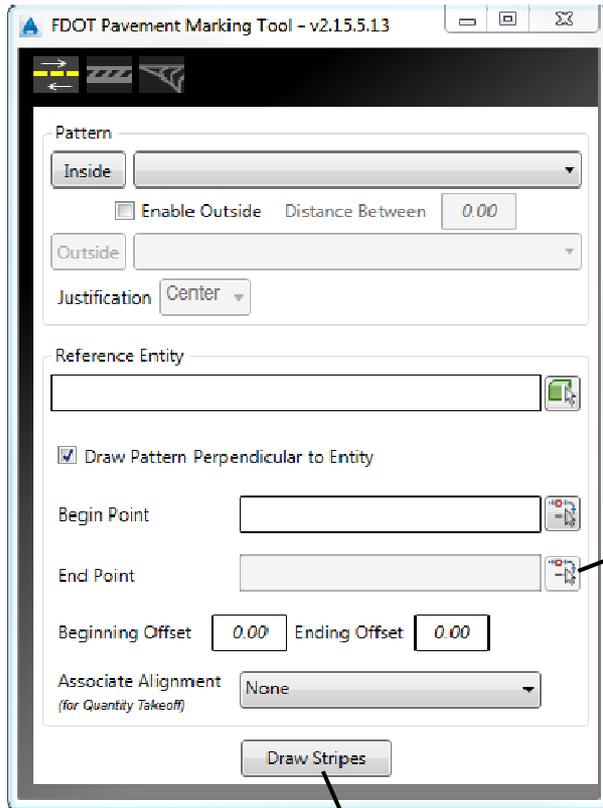
The Placement Range Default is the entire Length of the object selected

Associate Alignment can be used to have patterns placed as part of a specific alignment. (see Quantities or Entity Manager handouts for more information on Alignment association)

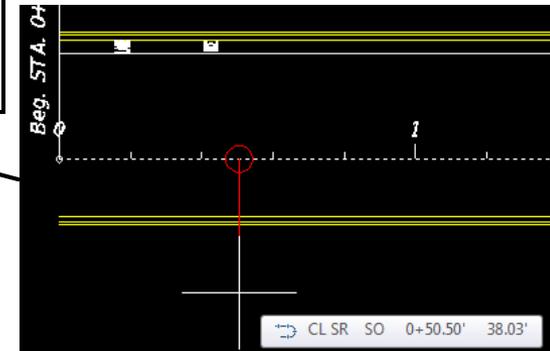


# Pavement Markings

## “Lane Striping” Mode



If you want to do a station range instead of the default you can type in manually or select the pick buttons. A Red Jig will run along the Alignment so you can pick the Beginning and Ending Stations.



Starts The Place Striping Command  
“Pick Side of Offset in your drawing to  
Place Striping”

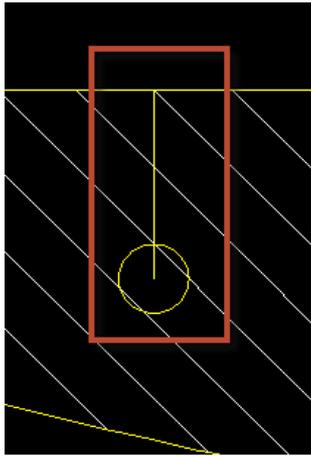
Tip... Once you make a entity selection it will maintain the same object until you select a different one.



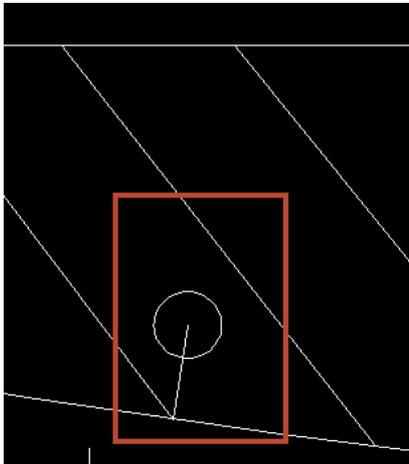


# Pavement Markings

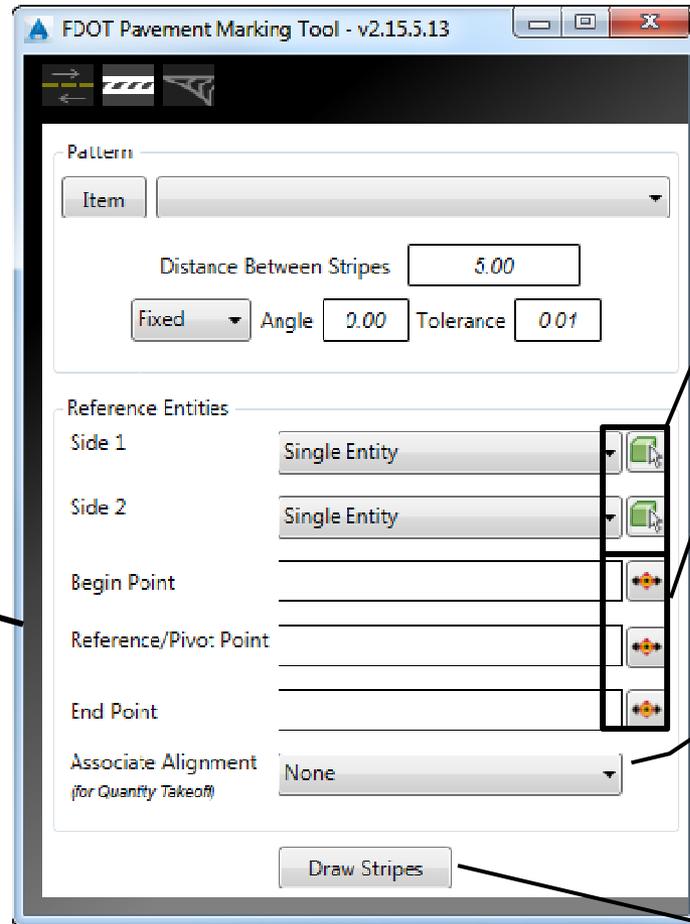
## “Island Striping” Mode



Reference/Pivot Point



Variable Angle Reference/Pivot



Allows you to select both sides in your drawing

Allows you to pick the Beg./Reference/End point in the Drawing

Associate Alignment can be used to have patterns placed as part of a specific alignment. (see Quantities or Entity Manager handouts for more information on Alignment association)

Draws the Stripes



# Pavement Markings

## “Gore Striping” Mode

Current Mode

Select Pattern with Pay Item Attached

Chevron Selector Diverge or Merge Situation

(Narrow End – Wide End) Selector

Distance Between Stripes

Select the Two Sides of The Gore

Places the Chevrons in the Drawing



The top is one polyline (2 line segments combined into one)  
The bottom line segment is one line

Make sure when using this mode you have single segments when you pick side 1 and 2 otherwise it won't work (see Left for example)

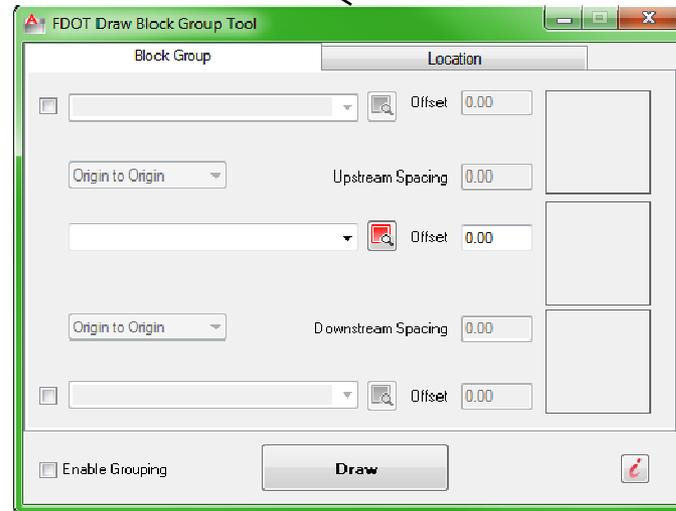


# Place Block Group Tool

“FDOT Ribbon”

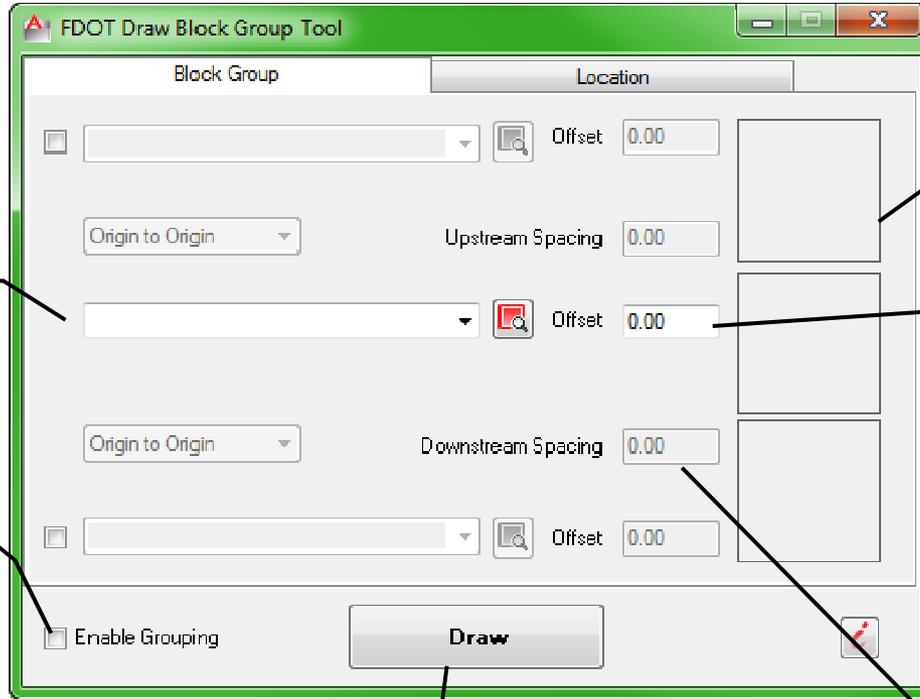


Launches the Application



# Place Block Group Tool

## "Block Group" Tab



Middle Block  
(Default Active)

Groups Blocks  
Together behaves  
like the AutoCAD  
Group Command

Places Block(s)

Block Preview  
Panels

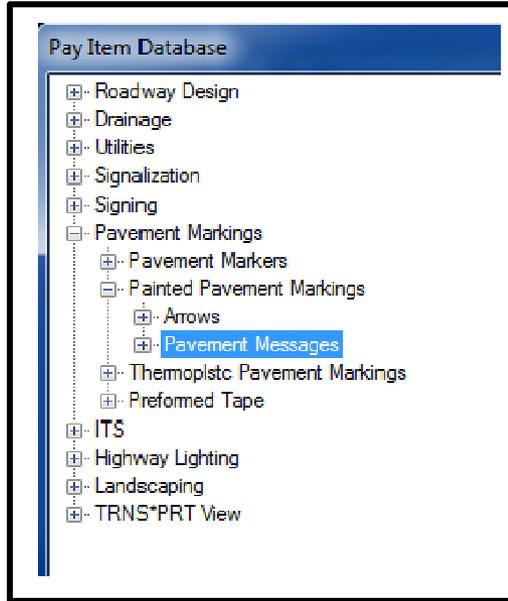
Offset Distance  
From Reference  
Object

Upstream and  
Downstream  
Spacing is  
measured Both  
Ways from the  
center of the  
Middle Block



# Place Block Group Tool

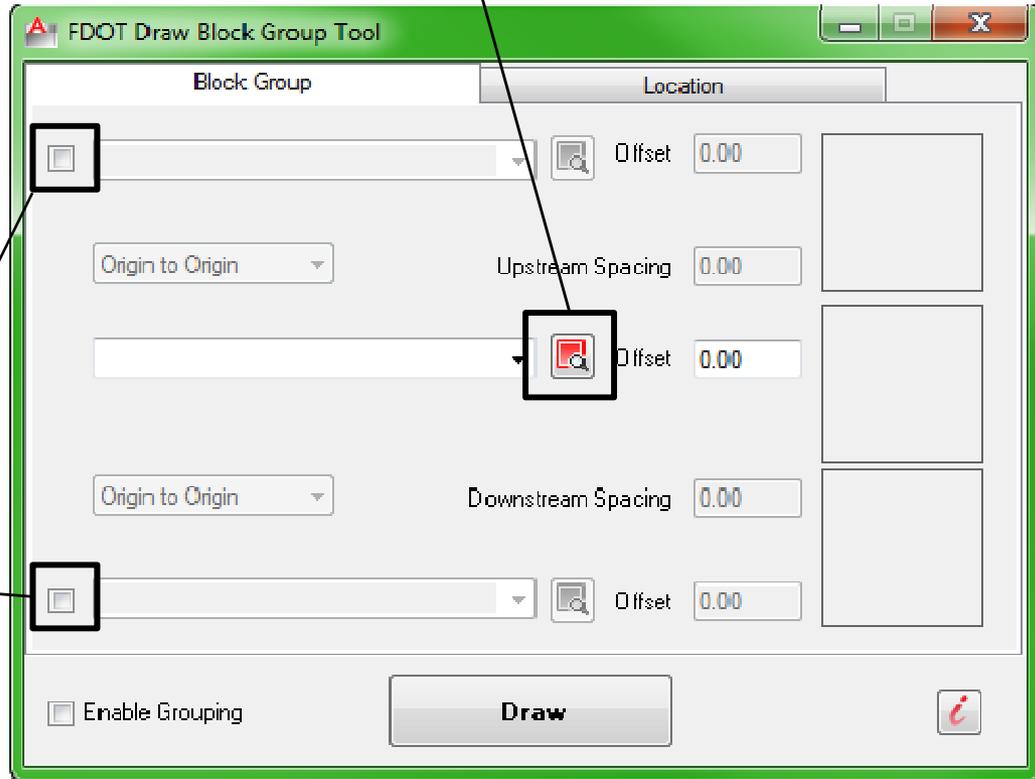
## “Block Group” Tab



Opens the Pay item Database for Block Selection

You can also Browse for your own defined blocks to use with this tool

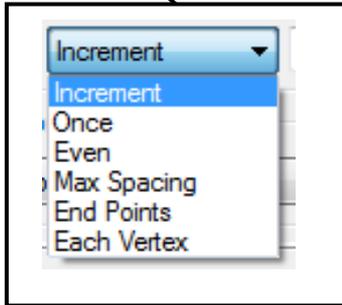
Click Boxes to Activate and build a Multiple Pavement Message



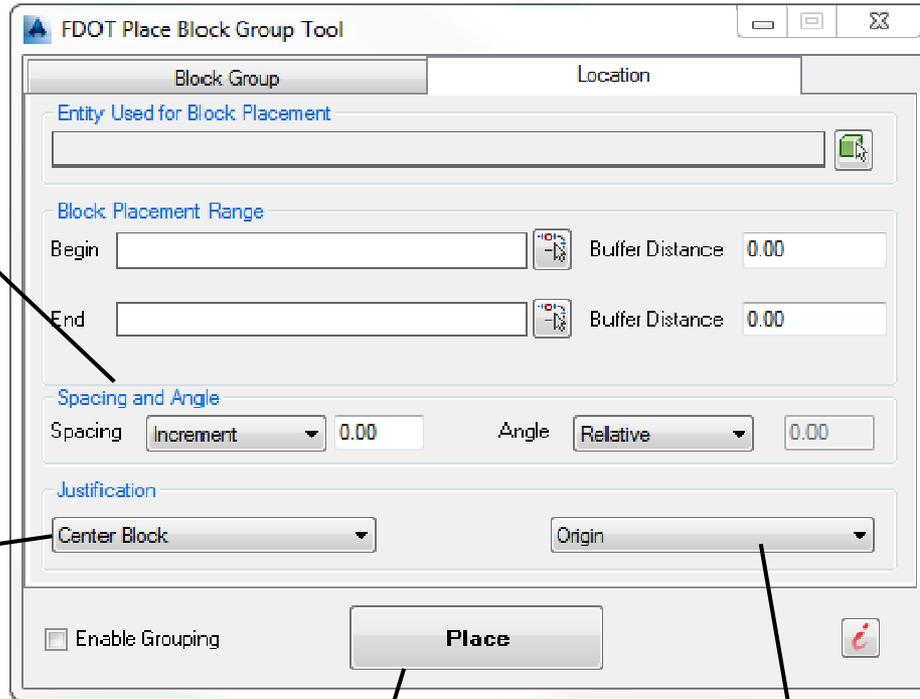
# Place Block Group Tool

## “Location” Tab

Spacing Distance is Measured from Center of Each Block

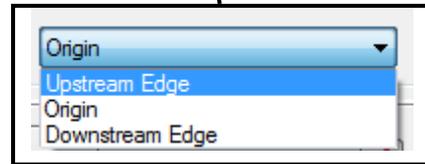


Block Justification



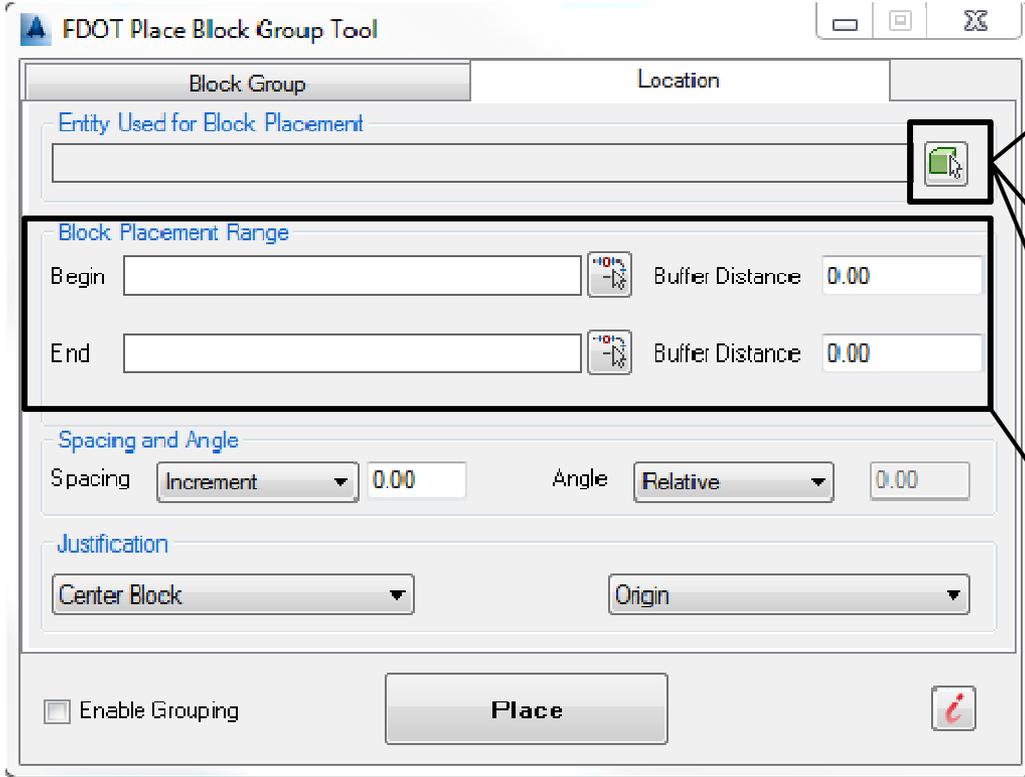
Tip... Once you make a entity selection it will maintain the same object until you select a different one.

Starts The Command to Place Objects.



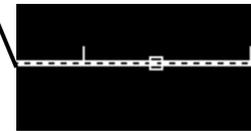
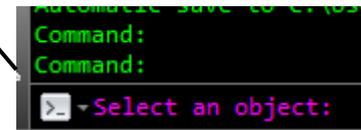
# Place Block Group Tool

## "Location" Tab



Clicking allows user to pick objects; Alignments, Lines, or Polylines and even objects from loaded Xref's.

### Command Line



Picking an Object in your Open Drawing

**Block Placement Range** - Once you have picked your object the Default is the entire Length. You can also type or select a station range. A red jig will guide you in your drawing.

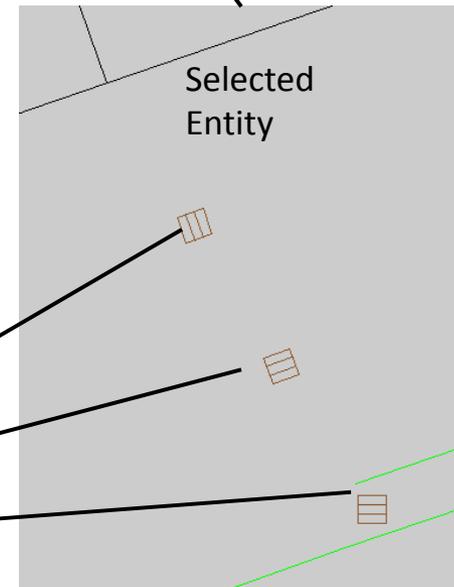
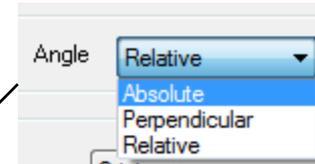


# Place Block Group Tool

## “Location” Tab

The screenshot shows the 'Location' tab of the 'FDOT Place Block Group Tool'. It features several sections: 'Block Group' with a text field for 'Entity Used for Block Placement'; 'Block Placement Range' with 'Begin' and 'End' text fields and 'Buffer Distance' set to 0.00; 'Spacing and Angle' with 'Spacing' set to 'Increment' and 0.00, and 'Angle' set to 'Relative' and 0.00; and 'Justification' with 'Center Block' and 'Origin' dropdowns. At the bottom, there is an 'Enable Grouping' checkbox, a 'Place' button, and an information icon.

Allows user to Pick Angle Placement of Block



Relative

Perpendicular

Absolute

