



Florida Local Users Group

Sign Tool for Civil 3D

Jimmie Prow



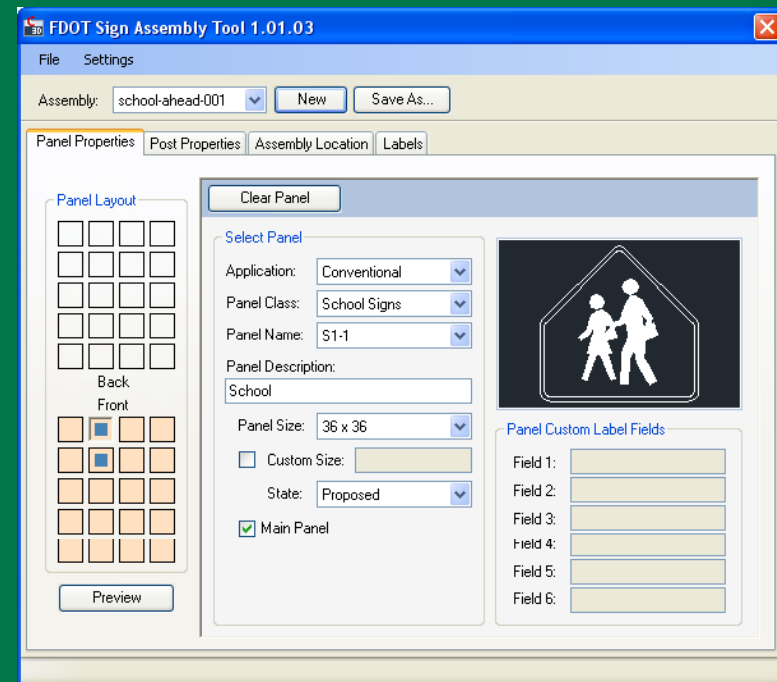
Topics Covered

- Application Overview
- Application Layout
- Preferences
- Creating an Assembly
- Placing an Assembly
- Exporting an Assembly
- Importing an Assembly



FDOT.Signs Overview

- Designed to assist in the placement of “Sign Assemblies”.
- Assemblies will be tagged with pay item attributes for QTO.





Sign Assembly

- Assembly is a unit of measure for sign pay items.
- An Assembly includes the sign panel, post, any foundation or breakaway base required.
- The pay item is determined by mounting, state and the greatest square footage of sign panels any one direction.

Struct. 700- 20- AB SINGLE POST SIGN

A= Operation

1 (Furnish & Install)

3 (Install) Furnished by FDOT or local agency

4 (Relocate) B=0; relocated within project

6 (Remove) B=0

B= Sign Panel Size or Type

1 (less than 12 ft²)

2 (12-20 ft²)

3 (20+ back-to back)

4 (21-30 ft²) effective 1/2010

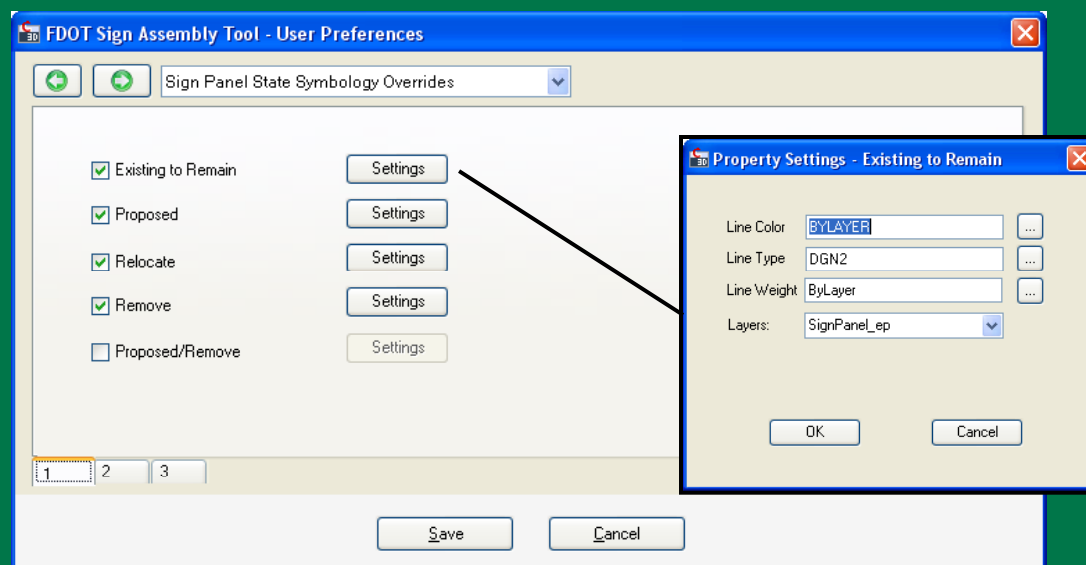
8 (In-Street Flexible Post) see details above

9 (Custom) see details above



User Preferences

- By selecting Settings > User Preferences from the menu you can define the symbology that the objects will be drawn by in their various states.





Settings – Sign Posts

- By selecting Settings > System > Sign Posts you can define the criteria necessary to draw the post and determine the pay item.
 - Block Library and block name
 - Installation Method
 - Mounting
 - State
 - Pay Item

Settings - Sign Posts

Sign Post Block Library
markings_block_library.dwg

Custom Single or Multi-Post
Delineator
Electric Powered
Flashing Beacon
Object Marker
Single or Multi-Post
Existing to Remain
Proposed
Furnish
Furnish and Install
MULTI POST SIGN [2-Post], F&I, 101 150 SF
MULTI POST SIGN [2-Pos
MULTI POST SIGN [2-Pos
MULTI POST SIGN [2-Pos
MULTI POST SIGN [2-Pos
MULTI POST SIGN [2-Pos
MULTI POST SIGN [3-Pos
MULTI POST SIGN [3-Pos

MULTI POST SIGN [2-Post], F&I, ... Pay Items

Add New
New Pay Item

Pay Item Information

Area Min > 100 Max <= 150
Width Min > 4.5 Max < 50
Length Code
Area Code Multi-Post
Option 2-Post

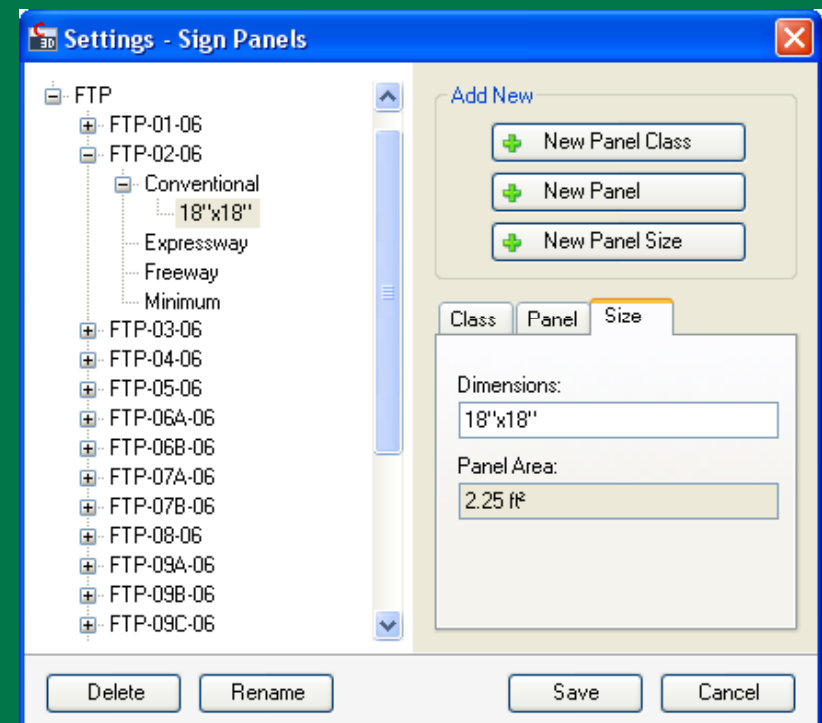
Pay Item ID 0700 21 13 Block Name Sign2Post

Delete Rename Save Cancel



Settings – Sign Panels

- By selecting Settings > System > Sign Panels you can define the criteria necessary to define and draw the panel.
 - Panel Class
 - Block library and block name
 - Panel name
 - Dimensions and square footage





Panel Properties

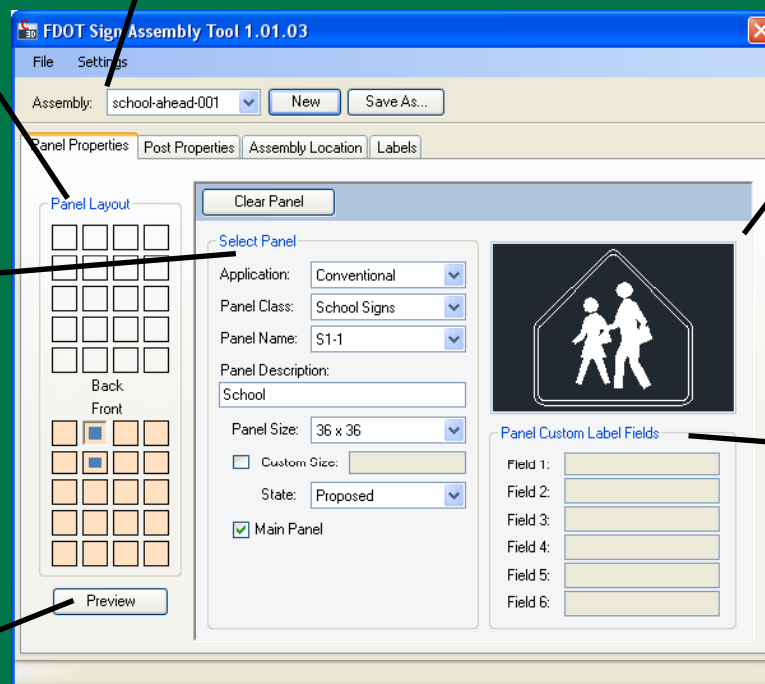
Panel Layout – Shows panel orientation.

Select Panel – Used to define the properties of the panel.

Preview – Gives a preview of all panels in the assembly as it will be drawn.



Assembly – Create and select assemblies



Block Preview – Shows selected panel.

Custom Label Fields – Used for entering variable information like speeds and times.



Post Properties

Pay Item –

Can be Auto-Selected based on Select Post properties or manually selected

Select Post –

Define the properties needed to identify proper pay item.

Auto Select Pay Item –

Will select the appropriate pay item based on post properties.

Block Preview –

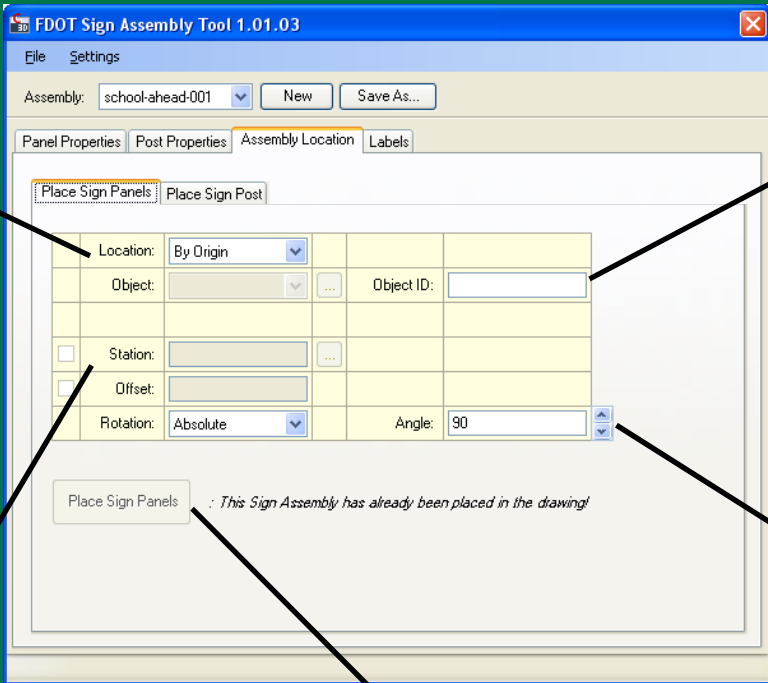
Shows block for associated post.



Assembly Locations-Panel

Location –
Location can be defined By Origin which is selecting a point in the drawing or Along Object which associates it placement with an object in the drawing.

Station and Offset –
The exact placement location can be defined by Station and Offset if an alignment object was selected.



Object ID –
If an object is selected to define placement location it's ID will be populated.

Angle–
Sets the angle the sign panels will be placed into the drawing.

Place Sign Panels –
When all of the placement properties are defined the Place Sign Panels button will place them in the drawing.



Assembly Locations-Post

Location –

Location can be defined By Origin which is selecting a point in the drawing or Along Object which associates it placement with an object in the drawing.

Station and Offset –

The exact placement location can be defined by Station and Offset if an alignment object was selected.

Location	Object	Station	Offset	Rotation	Angle	Object ID
Along Object	Alignment	350.0151	28	Absolute	270	[2127591832]

Object ID –

If an object is selected to define placement location it's ID will be populated.

Angle–

Sets the angle the post will be placed into the drawing.

Place Sign Post –

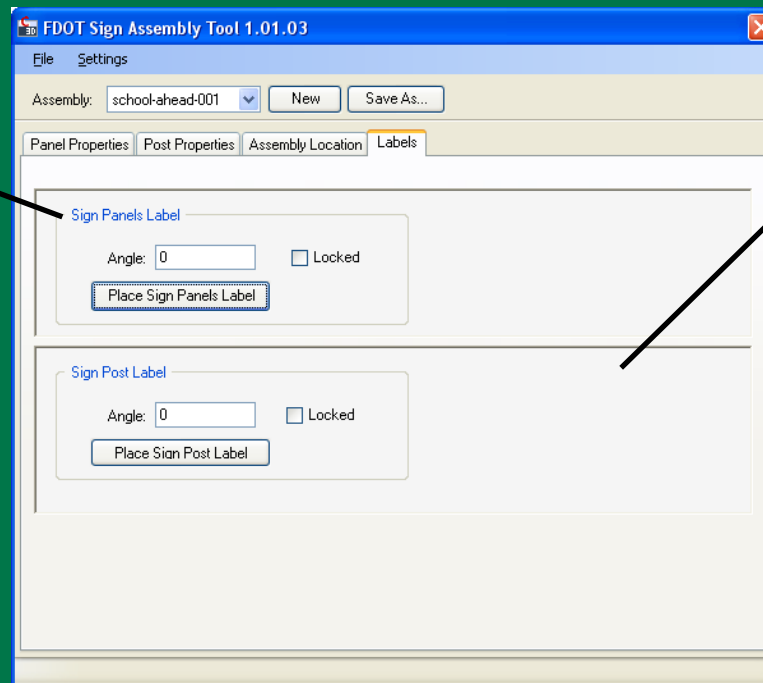
When all of the placement properties are defined the Place Sign Post button will place it in the drawing.



Labels

Angle—

The angle of the label can be set and locked for placement or dynamically set at the time of placement.



Labels –

In the released version there will be a single placement of the label as an mtext object.



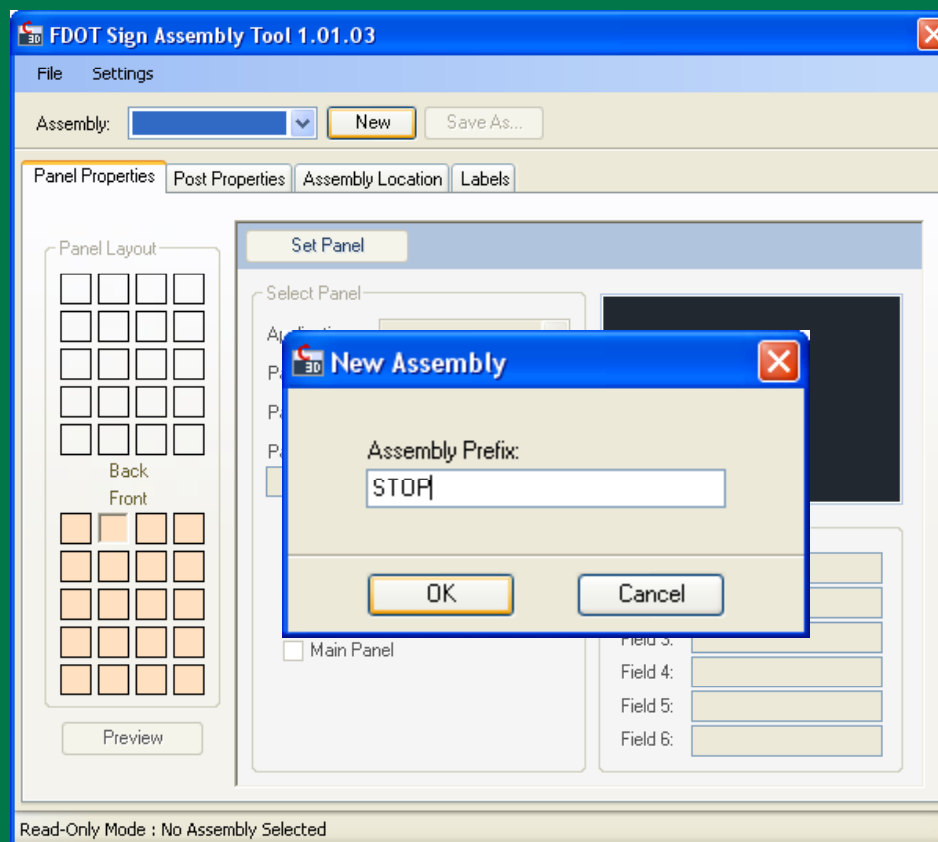
Starting FDOT.Signs

- When delivered, FDOT2011.C3D will have palettes allowing quick access to all of the delivered tools.
- Another method for starting FDOT.Signs is to use the netload command and select Fdot.Signs.dll from the \FDOT2011.C3D\APPS\FDOTSigns directory then keyin FDOTSigns.



Create a New Assembly

- The first step is to create a new Assembly.
 - Click the New button.
 - Enter an Assembly Prefix
 - Click OK.

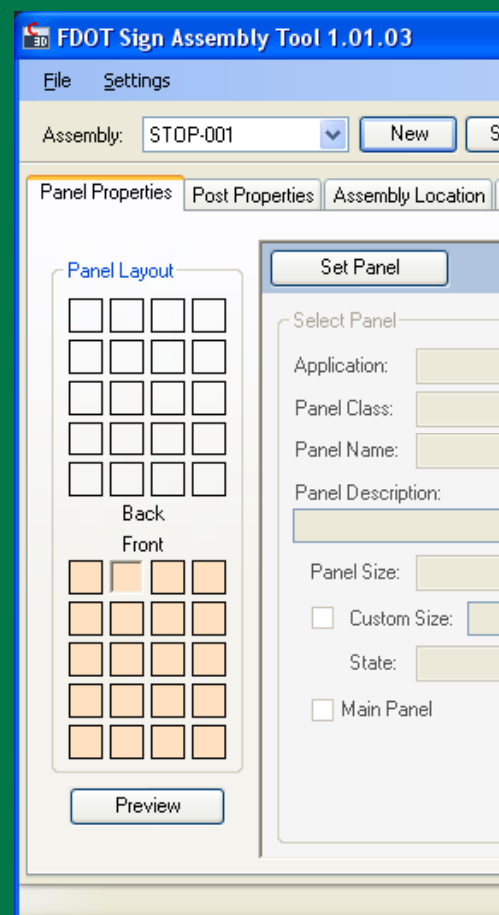


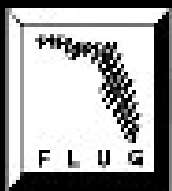
NOTE: The Assembly Prefix can be any alphanumeric entry that can be used to easily understand what is contained in the Assembly.



Set Panel Layout

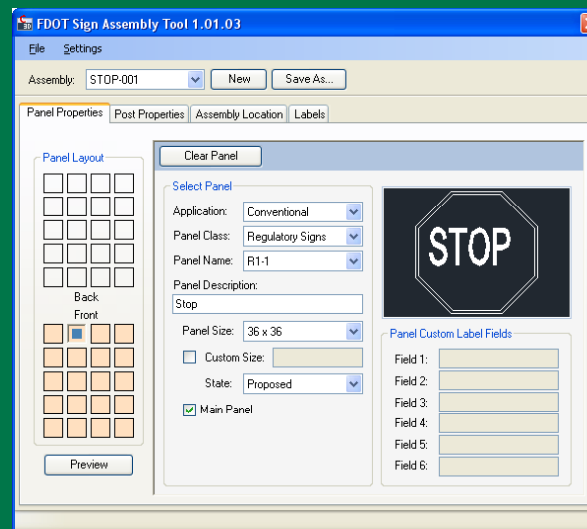
- Select the location in the Panel Layout field where you would like the panel to be located.
- When panel location is defined click Set Panel to enable the panel properties.





Set Panel Properties

- Select the appropriate property for each field.
- Work from the top down because the options available in the fields below will dynamically change based on the properties above.



Application

Conventional
Expressway
Freeway
Minimum

Panel Class

Civil Defense Signs
Destination Signs
FTP Signs
Regulatory Signs
Route Markers
School Signs
Warning Signs

Panel Name

R10-8
R1-1
R11-2
R11-4
R1-2
R12-1
R12-2
R12-5

Panel Size

30 x 30
36 x 36

State

Existing to Remain
Proposed
Remove
Relocate
Proposed/Remove



Set Post Properties

- The purpose for this dialog is to Identify the associated pay item and block for the mounting.
 - You can select the appropriate values for the top 5 fields and then click Auto-Select Pay Item
- or
 - Select the pay item from the Pay Item drop down.

The screenshot shows the 'FDOT Sign Assembly Tool 1.01.04' dialog box. The 'Assembly' is set to 'STOP-001'. The 'Post Properties' tab is active, and the 'Place Sign Post' sub-tab is selected. The following table represents the data entered in the dialog:

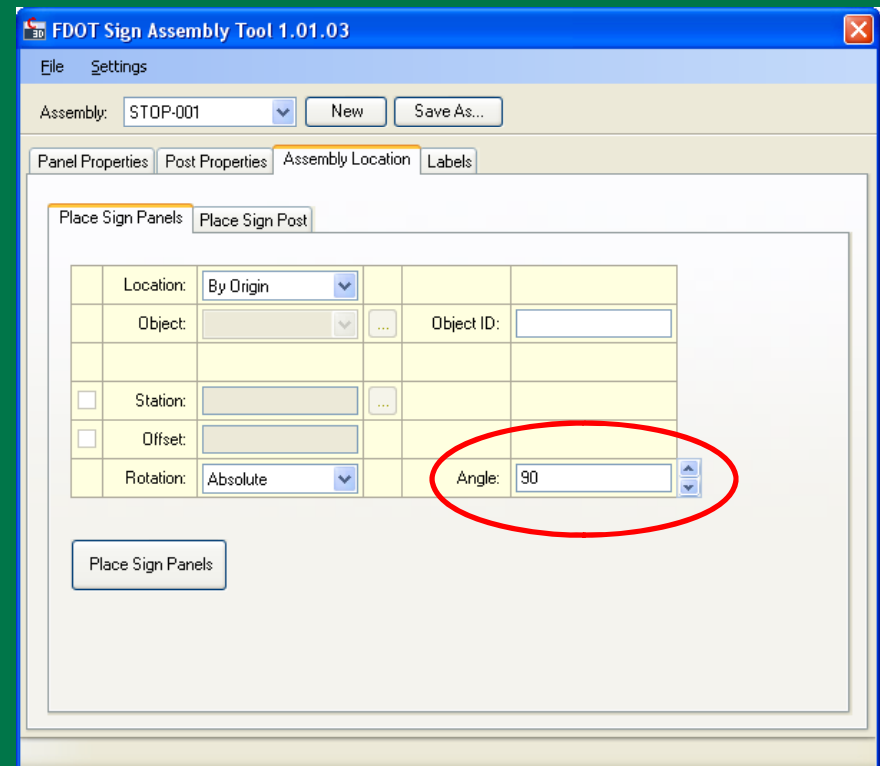
Field	Value
Location	Along Object
Object	Alignment
Object ID	(2127251488)
Station	2+43.296
Offset	3.0158
Rotation	Absolute
Angle	180

A 'Place Sign Post' button is located at the bottom of the dialog.



Place Assembly - Panel

- The panel must be placed first.
- Set the angle so that the panels will be facing in the direction of the traffic.
- Click Place Sign Panels and then click in the drawing where you would like them to be located.





Place Assembly - Post

- To place the post at a specific station and offset:
 - Set location to Along Object.
 - Set Object to Alignment and the select the alignment when prompted
 - Enter Station and Offset.
 - Set Angle.
 - Click Place Sign Post.

The screenshot shows the 'FDOT Sign Assembly Tool 1.01.04' window. The 'Assembly' dropdown is set to 'STOP-001'. The 'Assembly Location' tab is active, and the 'Place Sign Post' sub-tab is selected. The 'Place Sign Post' form contains the following fields:

Location:	Along Object			
Object:	Alignment	...	Object ID:	(2127251488)
<input checked="" type="checkbox"/>	Station:	2+43.296	...	
<input checked="" type="checkbox"/>	Offset:	3.0158		
	Rotation:	Absolute	Angle:	

Below the form is a 'Place Sign Post' button.



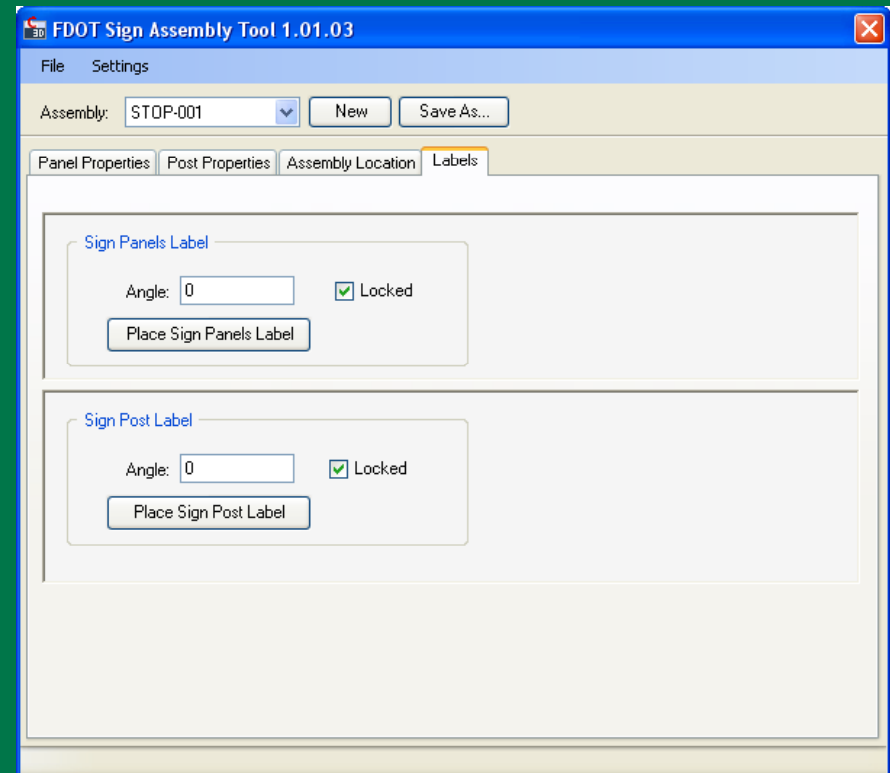
Reusing Assemblies

- You can quickly recreate a complicated Assembly by exporting them for future use using the Export and Import feature.
- You can quickly go from nothing to an Assembly containing several signs in different directions in just a few clicks.



Label Assembly

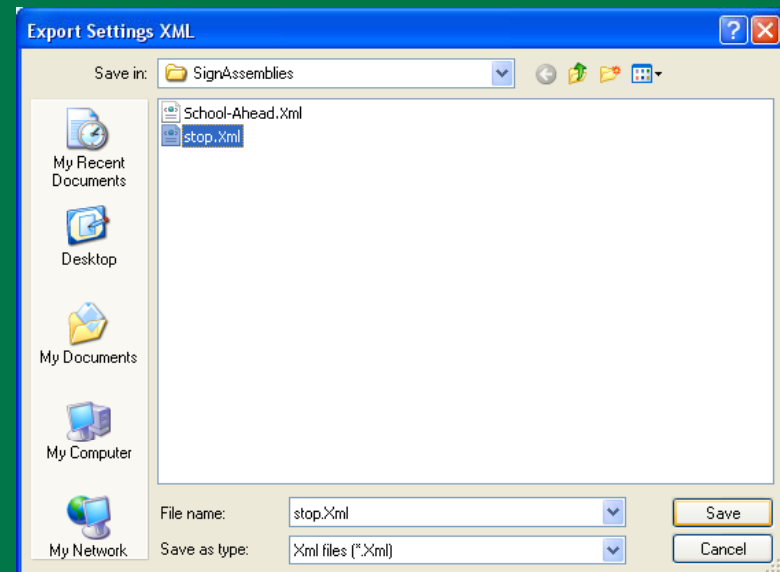
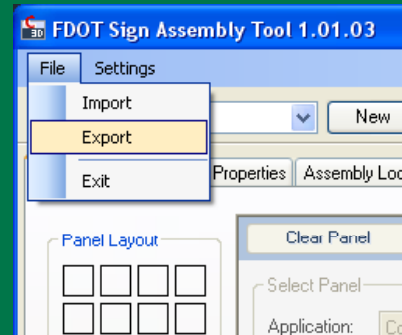
- To place the labels set the angle and select Locked.
- Click the Place Sign Label button. The FDOT.Signs dialog will disappear and you will be prompted to select the sign and then click the location where you would like the text to be placed.
- Repeat these steps for the post.
- When the post label is placed an additional click is necessary to place the leader line.





Exporting Assemblies

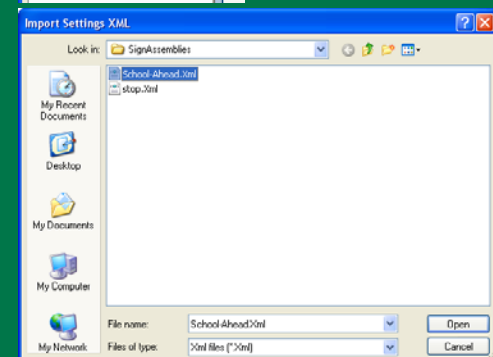
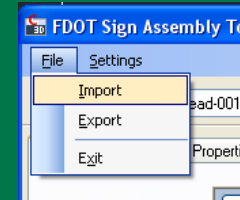
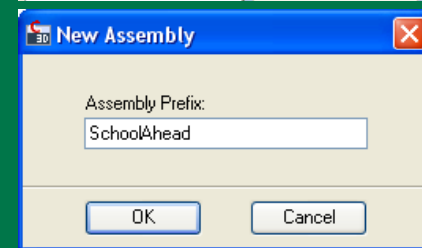
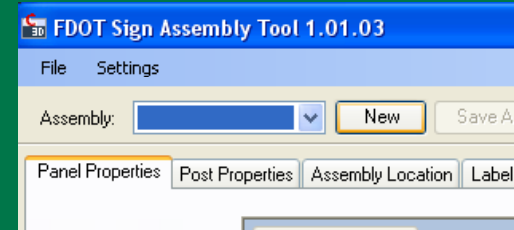
- Commonly used assemblies like a stop sign can be created once and then exported for future use.
- After defining all of the appropriate Assembly properties select File > Export from the menu. When prompted give it a name and click Save.





Importing Assemblies

- To Import an Assembly click the New button.
- Enter a Assembly Prefix then click OK.
- Select File > Import from the menu.
- Select the appropriate Assembly XML and click Open.





Questions?

Jimmie Prow

jimmie.prow@dot.state.fl.us

850-245-1626

ecso.support@dot.state.fl.us

850-245-1600