| Application Name:	ODOT_Sheets.mvba
Tested MicroStation Version:	SELECTseries 3 Version 08.11.09.608
Tested GEOPAK/OpenRoads Version:	Not Applicable

Application Description

The **ODOT_Sheets.mvba** application is used to place ODOT Standard sheet border cells in the active model.

The application can be accessed from the MicroStation pull-down menu by selecting **ODOT > Sheet Management > Place Sheet Cells**. The application can also be accessed with the following key-in command:

**vba load ODOT_Sheets.mvba; vba run modSheets.placeSheetsMain**

When the application is accessed, a dialog shown below is opened.
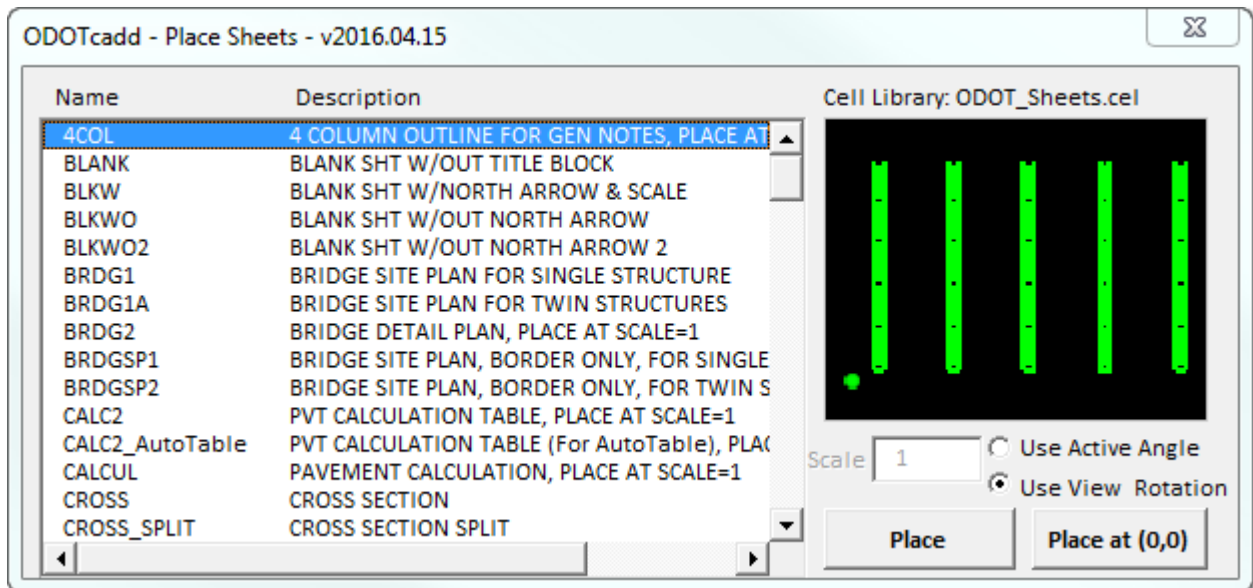
Application Operation

The application will not run if the active model is not a sheet model. If the active model is not a sheet model then the button located in the ODOT pull down menu (**ODOT > Sheet Management > Place Sheet Cells)** will not be selectable. As well as if the key-in is used when the active model is not a sheet model the following message will be displayed and the application will not load.

Power GEOPAK

The active model is not a Sheet model. Application terminating

OK
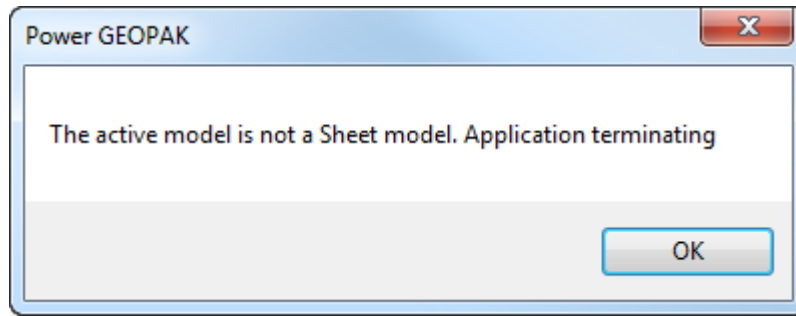
The Application the following features.

Sheet Cell Library List

As imaged to the right, ODOT's sheet cell library is populated into the list open the application was launched. The name of the cell library with was loaded is ODOT_Sheets.cel, which is listed above the Preview Window. The user can select an item in the list. When an item is selected the Preview Window will display a preview of the selected item.

| Name	Description
4COL	4 COLUMN OUTLINE FOR GEN NOTES, PLACE AT
BLANK	BLANK SHT W/OUT TITLE BLOCK
BLKW	BLANK SHT W/NORTH ARROW & SCALE
BLKWO	BLANK SHT W/OUT NORTH ARROW
BLKWO2	BLANK SHT W/OUT NORTH ARROW 2
BRDG1	BRIDGE SITE PLAN FOR SINGLE STRUCTURE
BRDG1A	BRIDGE SITE PLAN FOR TWIN STRUCTURES
BRDG2	BRIDGE DETAIL PLAN, PLACE AT SCALE=1
BRDGSP1	BRIDGE SITE PLAN, BORDER ONLY, FOR SINGLE
BRDGSP2	BRIDGE SITE PLAN, BORDER ONLY, FOR TWIN S
CALC2	PVT CALCULATION TABLE, PLACE AT SCALE=1
CALC2_AutoTable	PVT CALCULATION TABLE (For AutoTable), PLA(
CALCUL	PAVEMENT CALCULATION, PLACE AT SCALE=1
CROSS	CROSS SECTION
CROSS_SPLIT	CROSS SECTION SPLIT

Preview Window

When an item is selected In the Sheet Cell Library List the Preview Window as imaged below will display a preview of the selected item (cell).
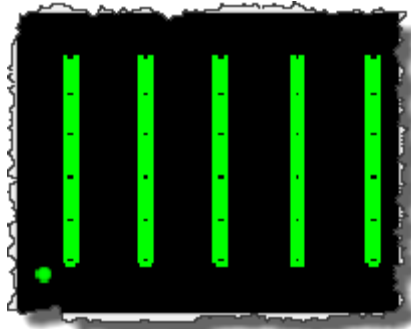
Scale

The Scale option (as imaged to the right) can be used to apply a scale to the selected cell at the time of placement. The Scale option is unavailable (greyed out) for cells designated to be placed at a scale of one. A sheet cell should be scaled to match the desired annotation scale for that sheet.
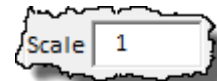
Rotation

There are two options for how a cell is rotated when placed, Use Active Angle or Use View Rotation (as imaged to the right).

Use Active Angle

When the **Use Active Angle** is selected then when the cell is placed it is rotated to match the active angle. Rotation of the cell is about the bottom left corner of the cell. The active angle can be set a couple different ways. The Key-In *AA = XX* will set the active angle where XX is the desired angle. The key-in *Active Angle PT2* will let you set the active angle by two data points, as well is the key-in *Active Angle PI3* will let you set the active angle by three data points. The active angle can also be set from the **Settings > Design File** dialog, the first tab is Active Angle.

Use View Rotation

When the **Use View Rotation** is selected then when the cell is placed it is rotated to match the rotation of the view window. If Place at (0, 0) button is used as Placement Method then the rotation is taken from the active view window.

Placement Method

There are two options for placing a cell, **Place** and **Place at (0,0)**. Both options will place the selected cell in the design file. If am ODOT sheet cell already exists in the model when the application will not place the select cell. This is in order to conform to **ODOTcadd CADD Engineering Standards Manual** section 303.4. The following message will appear if the user tries to place a sheet cell in a model that already contains a sheet cell. See Special Cases section below for exceptions to this.
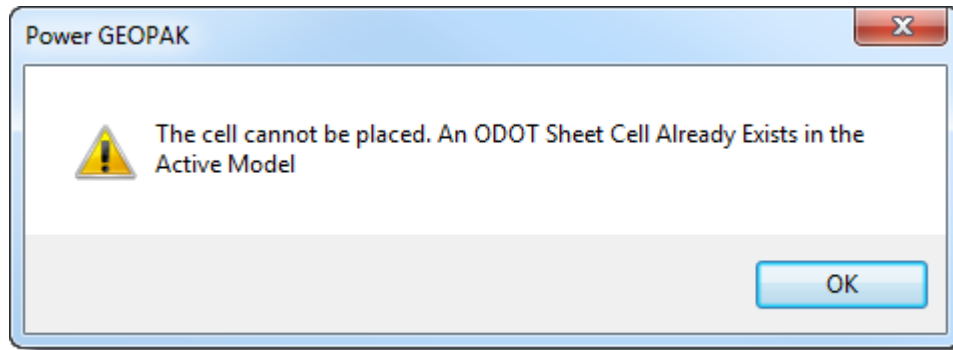
When a cell is placed the sheet border is set as well. The sheet border is not an element but a model property. It can be found by looking at the properties for a sheet model, as imaged below. This boundary is sized to match the Scale, rotated to match the Rotation settings of the cell, and its origin is set to match the origin point of the cell when placed. See Special Cases section for exceptions to this.

The boundary can be edited by change the settings in the Model Properties dialog or with the *Define Sheet Boundary* tool found in **Tasks > Drawing Composition > Sheet Composition**. Note the Tasks dialog can be launched by selecting **Tools >Tasks**.
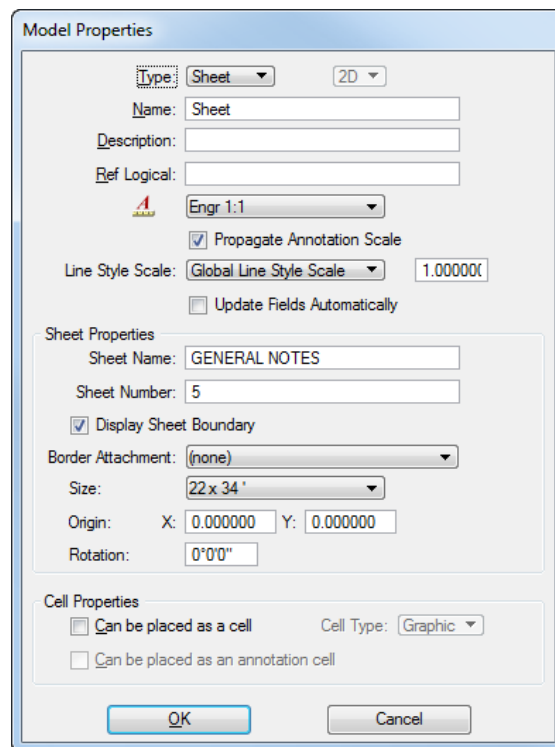
Place

The **Place** button is used to initiate the placement of the selected cell in the design file. When the button is selected move the cursor to the desired location in the view window and issue of data point. Before issuing the data point the selected sheet cell will temporarily be displayed in the view window and will dynamically follow the cursor. The cell will also be rotated based upon the Rotation options discussed in the Rotation Section of the document.

Place at (0, 0)

The **Place at (0, 0)** button will draw the selected cell in the active model with the bottom left corner of the cell located at 0, 0. The cell will also be rotated based upon the Rotation options discussed in the Rotation Section of the document.

Special Cases

The Sheet Cell Library List is populated with all the cells contained in the ODOT_Sheets.cel cell library file. This file does contain some cells that are not ODOT sheet cell borders but cells that can be placed inside a cell. The Placement Method section of this document mentioned that if a sheet cell has already been placed in the model the selected sheet cell cannot be placed. The following cells are an exception to that statement.

4COL, NARROW, ODOT_LOGO, STATE, TITLE1_INTERIOR, TITLE4_INTERIOR, TITLE1NOTEA, TITLE1NOTEB, TITLE1NOTEC, TITLE1NOTED, TITLE1NOTEE, TITLE1NOTEF, GT_COVER2_INTERIOR, GT_COVER_INTERIOR, OUPS NEW LOGO, BRDG1_INTERIOR, BRDG1A_INTERIOR, DRVSB2_INTERIOR, DRVSB2_AutoTable_INTERIOR, RWBOUNDARY_INTERIOR, RWDETAIL_INTERIOR, RWLEGEND_INTERIOR, RWPLAT_INTERIOR, RWPROP_INTERIOR, RWRR_INTERIOR, RWTOPO_INTERIOR.

The Placement Method section also mentioned that a sheet boundary model property is set when a cell is placed. That cells listed above are an exception to that statement.

ODOT sheet cells contain Tagged data. This tagged data is then used with other application like the Sheet Manager application. The Tagged data is contained in the cell itself. If the cell is dropped after placement the tagged data is lost. Some sheets had elements in the interior part of the cell. In most cases the cell needs to be dropped to edit these interior elements. These sheet cells were broken up into two separate cells. One for the sheet cell boundary and the other for the interior elements. An example of this is the TITLE1 cell and the TITLE1_INTERIOR cell. Now the tagged data is only contained in the TITLE1 cell so the TITLE1_INTERIOR cell can be dropped and the tagged data will not be affected. When a selected cell is placed if it has an interior cell that goes with it then the interior cell is placed at the same time. For more information on tagged data see the documentation for the Sheet Manager application.

Contacts

If you have any questions, suggestions, or problem with this application please contact the ODOT Office of CADD and Mapping Services by use of the following form on the ODOT website:

https://odot.formstack.com/forms/cadd_servicerequest