

Appendix "D" - A Quickguide to Plotypus

D A Quickguide to Plotypus

Plotypus is a layout and printing tool developed for use in creating and printing ODOT contract plans. *Plotypus* is a Visual Basic application that runs on the MicroStation platform. It is designed to be used with MicroStation design files created from ODOT seed files (seed2d.dgn and seed3d.dgn) which are located in the ODOT workspace. The seed files contain a columnar area with text annotation to help users visually locate where *Plotypus* places contract plan sheets in a design file.

Running Plotypus

From within a MicroStation design file (preferably a new design file created from seed3d.dgn or seed2d.dgn in the ODOT workspace), select **File>Plotypus** off the MicroStation menu. Alternatively, you can run Plotypus from a key-in. Key-in **vba run [Plotypus]modPlotypus.Plotypus** and press **[Enter]**. This key-in can be assigned to your function key menu, or can be re-run using your key-in history.

Using Plotypus to Place Sheet Borders

The **Layout** tab in *Plotypus* places tagged cells into a columnar area in a design file. The cells contain sheet borders which are placed in one column at a time, beginning at the bottom, with subsequent borders placed directly above the previous border. The column used is determined by the intended printing scale. The user chooses the number of sheet borders to place and has a choice of four different sizes of borders. A=8.5x11 portrait, B=11x17 landscape, C=18x24 landscape, and D=22x34 landscape; all printed borders are 0.5 inches from the edge of the paper when printed; B and D size borders are 0.75 inches from the left edge and 0.25 inches from the right edge. The borders have been drawn into the cells actual size and are scaled up by the intended printing scale factor when they are placed in the file. ***This allows the user to reference data into the borders without scaling.*** Text and symbols placed into the border or design area to create contract plans should be sized or scaled to work with the print scale in each column that is used. The **Layout** tab also allows the user to edit the tag or description that is placed on each sheet border. The default tag for each border is constructed from the selected print scale factor and a number indicating the border's position in a column, with 1 being at the bottom. An enhancement to the **Layout** tab allows users to place borders at 1:1000 and 1:500 metric scales, with the B size sheet at 1:1000 fitting fairly closely into the old dek area.

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Printing with Plotypus

When *Plotypus* is run, the first thing it does is scan the active design file for printable shapes (the tagged border cells) and then it opens to the **Print** tab. Specifically, *Plotypus* looks for a rectangle that is part of a certain cell that is on level #plot_shape, and has a tag from a tag set named plot. When the rectangles are found, *Plotypus* displays information about the cell in a grid on its **Print** tab and makes the shape available for printing. Only borders that contain more than four elements will be available for printing; Plotypus will not print empty sheet borders. The information displayed in the available print grid is the same information that was used to place the border – the tag or description and the scale factor the border was placed at. The sheet size and orientation are taken from the cell name. The printer driver and pen table, by default, will be set to print contract plans. The plans pen table de-emphasizes elements in reference files with logical names that include “exist”. All defaults can be modified for each print.