Moving to MicroStation Print Organizer

MicroStation SS3 allows Print and Print Organizer to attach IPLOT design scripts for plotting. This new feature opens the door for many InterPlot users to make the move to Print Organizer. While Print/Print Organizer does not accept IPLOT settings files directly, MicroStation Print Styles contain most of the same functionality as IPLOT settings files. This paper explains how to convert each section of an IPLOT binary settings file to a MicroStation Print Style. In the cases where no direct conversion applies, alternative solutions are given. The ASCII settings file qualifier equivalent is listed in parenthesis for each option.

IPLOT binary settings file - General tab

Create Settings	_	? ×
General Area Layout Reference Files Levels Display Variables		
Design file:		
	Browse	
User workspace: Project workspace:		
examples General		
Color table:		
C:\Program Files (x86)\Common Files\InterPlot\IPLOT\misc\bw.ctb	Browse	
Resymbolization file		
C Do not set		
None Design script		
○ Feature table		
File name:	Edit	
C:\Program Files (x86)\Common Files\InterPlot\IPLOT\misc\screen.pen	Browse	
MicroStation pen table:		
	Browse	
Property filter (PDF only)		
O not set O None O Publish all properties		
O File name	Browse	
Rasterized Update plots from design files		
	ОК	Cancel

Design file (-design)

This IPLOT setting is not typically set in a settings file as the files are added manually to InterPlot Organizer.

<u>User workspace</u> (-workspace_user)

This IPLOT setting specifies a user workspace name that IPLOT references to access MicroStation font and linestyle resource files. The user workspace is set on the Advanced tab of the Print Style in the Workspaces section (User workspace).

Workspaces	
User workspace:	Project workspace:
examples 🗸 🗸	▼
Clear user workspace	Clear project workspace

This IPLOT setting specifies a project workspace name that IPLOT references to access MicroStation font and linestyle resource files. The project workspace is set on the Advanced tab of the Print Style in the Workspaces section (Project workspace).

Workspaces			
User workspace:		Project workspace:	
	•	Building	•
Clear user workspace		Clear project workspace	

<u>Color table</u> (-color_table)

This IPLOT setting reads a color table saved on disk and applies it to the plot. Most common uses are to attach a BW color table or gray scale color table at plot time. Print styles do not allow the attachment of ancillary color tables. There are two options to achieve the same results in MicroStation printing.

1 – Use a pen table to assign the desired output colors in the Map Pen Colors section.

Global	Actions	
	Text Substitutions	
	Map Pen Colors	
	Map Pen Weights	

2 – Define the colors on the Color Maps tab of the pltcfg.

File General Base Properties Paper Sizes Color Maps Weight Maps Line Styles Font Maps Programs	
General Base Properties Paper Sizes Color Maps Weight Maps Line Styles Font Maps Programs	
Define mans from design color to print symbology	
Define maps non-design color to print symbology	
Design C Print Color Print Transpar Print Grays Print Scree Print Width	
0 0.0.0	
1 0.0.0	
2 0.0.0	
3 0.0.0	
4 0,0,0	
5 0.0.0	
6 0,0,0	
7 0.0.0	
8 0.0.0	
9 0,0,0	
10 0.0.0	
11 0.0.0	
12 0.0.0	
13 0, 0, 0	
15 0,0,0	
16 0.0.0	
18 0,0,0	
Edit	

Resymbolization file (-design_script, -feature_table, -pen_table)

• The resymbolization section allows the attachment of an IPLOT design script/pen table or an IPLOT feature table. The IPLOT design script/pen table can be attached on the Main tab of the Print Style in the Resymbolization section at the bottom in the Design Script field. MicroStation printing does not support using IPLOT feature tables. The IPLOT feature tables should be converted to an IPLOT

design script. To convert a feature table to an IPLOT design script, open the feature table in the feature table editor and save it as an IPLOT Design script.

Resymbolizatio	n	
Pen table:		۹.
Clear pen tab	ble in print definitions	
Design Script:	C:\ST\TestData\DesignScripts\extract.pen	Q
Clear design	script in print definitions	•

<u>MicroStation pen table</u> (-ms_pen_table)

This IPLOT setting defines the MicroStation pen table to be used on the plot. In the Print Style, this setting can be specified on the Main tab in the Resymobolization section at the bottom in the Pen Table field.

Resymbolization	n	
Pen table:	$\label{eq:static} Wulti-Install \end{tabular} 08.11.09.292 \label{eq:static} Work \end{tabular} Space \end{tabular} Projects \end{tabular} Examples \end{tabular} Space \end{tabular} and \end{tabular} Space \end{tabular} Spac$	Q
Clear pen tab	le in print definitions	
Design Script:		Q
Clear design	script in print definitions	•

Property filter (PDF only) (-property_filter)

This IPLOT setting enables you to enable/disable business information in a published PDF document. You can publish all, none, or a subset of the business information contained in a DGN file. Property filters cannot be defined in a Print Style. Property filters are defined under Settings – PDF Property Filter in the MicroStation Print dialog. Property filters only apply when using pdf.pltcfg.

	Settings	Resymbolization
¢	<u>U</u> nits	•
	Update	from <u>V</u> iew
	Set Fer	ice from Fit All
re	Set Fer	ice from Fit <u>M</u> aster
ie	Apply P	rint Style
ole	Print At	tributes
	Print <u>L</u> e	vels/References
in.	<u>R</u> aster	Options
	PDF Pr	operty Filter
DE	3D Plot	ting
p	Visible	Edges Settings
88	Prefere	nces

Rasterized (-rasterized)

The IPLOT setting rasterized indicates that you want the plot to be rasterized on the client using MicroStation's graphics engine. All vectors will be converted to raster data. This option is useful for plotting a rendered view or a view that contains transparency. The rasterized setting is defined on the Main tab of the Print Style in the Area section.

Area		
Print area:		•
View group:		
View:		•
	Rasterized	Print to 3D

Update plots from design files (-update)

The IPLOT setting "Update plots from design files" updates the plots design file state information such as global origin, view settings, display settings, level settings, reference file settings, etc. The "Update from design file" setting is located in the Advanced tab of the Print Style at the bottom.

Vpdate from design file
Update print definition name

IPLOT binary settings file – Area tab

Create Settings			? X
General Area Layout Reference Files L	evels Display Variables		
Plot area C Do not set C Active view C Fence C Volume Plot shape C Fit to element range	Search models:		
C Sheet Define plot area automatically Describe Plot Shape	Define plot area manually Enter Fence Points		
Describe Fit Elements	Enter Volume Points		
		ОК	Cancel

Plot Area (-plot_area)

This IPLOT setting specifies the plot area by active view, plot shape or sheet. The view and sheet can be specified by selecting the Print area list in the Area section on the Main tab in the Print Style.

Print area:	View	•
View group:	View	
	Sheet	
View:	Fence	

The plot shape can be defined in the Print Style on the Fence tab under the Fence creation methods.

Fence creation methods:		
	None	
۵.	Define from shape	

Search models (-model)

This IPLOT setting identifies the design or sheet model that should be used for the plot area when Sheet is selected. In the Print Style, the model can be specified on the Fence tab in the "Create Print Definitions from Models" section. To list a specific model, select "Listed models" and enter the model name.

	•
Prefer sheet models	
All models	
All sheet models	
All design models	
isted models	

<u>View group</u> (-viewgroup)

This IPLOT setting identifies the view group to be used as the plot area. You can specify the viewgroup in the Print Style on the Main tab in the Area section.

Area Print area:		•
View group:		
View:		•
	Rasterized	Print to 3D

<u>View</u> (-view)

This IPLOT setting specifies the view number (1-8) or saved view to be used as the plot area. In the Print Style, the view can be set on the Main tab under the Area section.

Area		
Print area:	View	-
View group:		
View:	View 8	•
	Rasterized	Print to 3D

<u>Define plot area automatically</u> (-area, -area_cellnames, -area_colors, -area_files, -area_levels, - area_styles, -area_types, -area_viewgroups, -area_weights,)

This IPLOT setting identifies the specific shape or group of elements to be used for the plot area. In the Print Style, you can specify the shape or group of elements on the Fence tab under the Fence creation methods. Select Define from shape to specify a shape for the plot area. Select Define from cell or any of the Fit... options to specify the group of elements.

Fence creation methods:			
	None		
۵.	Define from shape		
☆	Define from cell		
٥	Fit to master model		
P	Fit to master model and all reference files		
70	Fit to element range		
2000	Enter fence points		

Define plot area manually (-fence, -volume)

• This IPLOT setting allows the user to specify fence (X,Y) or volume (X,Y,Z) coordinates identifying the plot area. In the Print Style, select Enter fence points... under the Fence creation methods on the Fence tab to specify the plot area in fence points. MicroStation printing does not have a volume concept therefore volume cannot be defined in the Print Style. Use one of the other ways of defining a plot area such as one of the "fit" options.

IPLOT binary settings file - Layout tab

Create Settings	Variables
Paper ✓ Use full paper size Size: ANSIE ▼ Units: millimeters (mm) ▼	Rotation C Align with X axis C Align with Y axis Specify angle: 90.000000
Size and scale Maximize Specify X: Y: Scale: Enable disproportionate scaling Data rescale: Plot rescale:	Origin C Center Specify X: Y: Mirror Image: None C Do not set C About X axis C About Y axis C About both axes
	OK Cancel

Paper (-full_sheet, -units, -paper_size)

This IPLOT setting specifies the form (paper size) and units you want to use for the plot. In the Print Style, set the paper size in the Main tab under the Paper section. You can also define if you want to use full paper size (Full sheet).

Paper Paper size:	ANSI B
Orientation:	
Full sheet	

The units are set in the Layout section on the Main tab in the Print Style.

Layout	
Units:	in 🔻
Size a	nd scale
	•

Rotation (-align_x, -align_y, -rotation)

The IPLOT setting rotation allows the user to specify the plot rotation of the data. In the Print Style, set the rotation in the Layout section of the Main section.

Layout		
Units: in 🔻 R	Rotation:	90

The IPLOT settings align_x and align_y calculate the rotation angle that aligns the longest side of the plot area with the printer's X axis / Y axis respectively. In the Print Style, the fence alignment can be specified in the Layout section on the Main tab under "Fence alignment".

Layout	
Units: in	•
Size and scale	
	•
Mirror:	•
Fence alignment:	X axis 🔹
	X axis
Resymbolization	Y axis
B	

Size and scale (-data_rescale, -maximize, -plot_rescale, -scale, -xsize, -xysize, -ysize)

The IPLOT settings in the Size and Scale section of the IPLOT settings file specify whether to maximize the plot, the x/y size, and disproportionate scaling. In the Print Style, specify these settings under Size and scale in the Layout section of the Main tab.

Size and	scale	
		-
Size X		
Size Y		h
NScale Disprope	tionato roccalo factor	
F Dispropo	rtionate rescale size	

Origin (-center, -origin)

The IPLOT setting origin specifies the plot origin with respect to the paper extents and/or printable area. The IPLOT setting center sets the plot origin to values that center the plot with the plotter's imaging area. In the Print Style, the origin settings can be specified in the Origin section on the Main tab.

Origin		
Unspecified		
Center		
Specify:		

The IPLOT setting mirror produces a mirror image of the plot along the plotter's X or Y axis or both. In the Print Style, the mirror settings can be found in the Layout section on the Main tab.

Layout	
Units:	•
Size and scale	
	•
Mirror:	
Fence alignment:	None
	About X axis
Resymbolization	About both axes
resymbolization	

IPLOT binary settings file - Reference Files tab

ate Settings			? ×
eneral Area Layout	Reference Files Levels Display Variables		
Rename these reference	ce files		
Logical name	File name		
Border	C:\Program Files (x86)\Common Files\InterPlot\IPL	Add	
		Delete	
1			
Attach these reference	files		
Logical name	File name	Add	
		Modify	
		Delete	
Detect these reference	- Floo		
Logical name	a mes		
	-		
		OK	Cancel

Rename these reference files (-ref_filename)

This is an IPLOT setting that allows the user to change the filename of the reference file in an IPARM file. Currently there is no similar feature available in Print Styles.

Attach these reference files (-attach_ref)

This is an IPLOT setting that allows the user to attach a reference file to the IPARM file. Currently there is no similar feature available in Print Styles.

Detach these reference files (-detach_ref)

This is an IPLOT setting that allows the user to detach a reference file to the IPARM file. Currently there is no similar feature available in Print Styles.

You can use the new reference overrides in MicroStation SS3 to specify which references are on or off at plot-time.

IPLOT binary settings file – Levels tab

Create Settings	2 X
General Area Layout Reference Files Levels Display Variables	
Logical name IPLOT_ALL IPLOT_MASTER	Add Delete
Plot levels	Add Delete On Off
Update levels	Select All Deselect All
	OK Cancel

Design files

This IPLOT setting allows the user to specify which file (master or reference file) contains the level.

Plot levels (-levels)

You can add specific levels in the IPLOT settings file and specify whether the level should plot (on) or not plot (off). A similar feature exists in the Print Style on the Levels tab. This allows you to specify levels in the master or specific reference files that you want to ensure are on or off at plot time.

ain Advanced Fence Dis	play Levels References Printer	
Print Levels		
To create a new entry, click N	ew. To edit an entry, double-click the value.	
A Level may contain a level na	ame, a level number, a level filter or a regular ex	kpression.
🗅 🗙 🗛 🗸 🗹		
Level	File/Reference	On/Off
*SCRN	*BORDER	On
Clear levels in print defini	tions	

Update levels (-update_levels)

• This IPLOT setting allows the user to update the level settings in the IPARM with the current levels from the master file and all associated reference files. Because print definitions do not store the detailed level table information like IPLOT does, there is no need to update the level settings. Therefore, there is no similar feature available in Print Styles.

General Area Layou Display options Camera Clip Boundaries Construction Dimension	t Reference Files Level	s Display Variables Apply display options to these files Logical names:	Add Delete	
Image: Second Secon	I Tags Tags Text Text Nodes Transparency V			

IPLOT binary settings file – Display tab

Display options (-display, -nodisplay,-fast, -nofast)

This IPLOT display setting allows you to plot classes of elements or element attributes in specified files. The -nodisplay variable disables the plotting of those classes of elements or attributes. The -fast keyword selects the "fast" representation of the designated elements in specified files. The -nofast keyword selects the "slow" (normal) representation.

Apply display options to these files

This IPLOT setting allowed the user to specify which file (master or reference file) in which to apply the display settings.

In the Print Style, the Display tab allows the user to set the display/fast settings for the plot. A blue square means the setting will come from the design file. A check mark means the setting is enabled. A blank square means the setting is disabled.

/lain	Advanced Fence Display Levels References	Printer
	05-1-1	
	Спр васк	Level overrides
	Clip front	Line styles
	Clip volume	Line weights
	Constructions	Patterns
	Dimensions	Points
	Data fields	🔲 Tags
	Fast cells	V Text
	Fast curves	V Text nodes
\checkmark	Fill	Transparency
\checkmark	Print border	
	Print fence	
	Print broken associations with different symbology	
	Apply print color mode to raster	
	Use view background color when rendering	
Bon	der comment:	

IPLOT binary settings file - Variables tab

	Layout Reference Files Levels Display Variables	
-Set these varia	ables	
Name	Value	
Project	Civil	
,		
Name:	Set	
Value:	Delete	
	۵ ۳	

Set these variables (-environment)

The IPLOT setting stores environment variable names or names and values in the IPARM file. The Submit command transfers these names and values to the plot processing stage. If you are using accounting, these names and values are also stored there.

Delete these variables (-noenvironment)

This IPLOT setting removes one or more environment variable definitions from the IPARM file.

The InterPlot features that use custom environment variables--mainly InterPlot Server accounting, and custom columns/sorting--are not yet present in Print Organizer, so custom environment variables are not a feature of Print organizer yet and not available in Print Styles.