

Appendix C

Image File Requirements

PlotWorks supports a variety of popular image file formats. When you add files to a job, the software automatically detects the file formats. You can combine any supported file formats in a single job to produce digitally collated sets.

The following file formats are supported:

- AutoCAD files (DWG, DXF) (AutoCAD 2000 must be installed to process AutoCAD 2000 plot files)
- BMP
- CalComp plot files (906/907)
- CALS (Type 1)
- CGM, DGN (MicroStation must be installed for either format)
- DWF
- DCX
- HP-GL, HP-GL/2
- JOB files from Repro Desk/Apprentice
- JPG
- PCX
- PDF
- PostScript (Level 1, 2 and 3)
- TIFF and TIFF 5.5.1 (Subset of TIFF is supported)
- VIC (The AutoCAD VIC 24 Driver is not currently supported)
- VRF (vector format only)
- XIF

Support for some of these formats is optional and must be purchased separately. If you receive an **Unrecognized File Format** error, confirm that your PlotWorks system supports the format being used.

Plot Files

The software autodetects HP-GL, HP-GL/2, HP-RTL and CalComp 906/907 formats. We recommend that you choose the following drivers when creating plot files in the source application:

- For HP-GL, select model 7585B
 - For HP-GL/2, select HP-DesignJet 750 driver
 - For HP-RTL, select HP-DesignJet 750 driver (Windows system)
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- For CalComp, select model 1043 or 1044

CalComp Commands

PlotWorks does not support every CalComp command. The unsupported commands are listed below along with error numbers and any additional text. A complete list of all CalComp commands is in the CalComp manual.

Number	Warning		
1007	'0E-06'	(Operator Message)	Not Supported
1008	'0E-06'	(Operator Message With Pause)	Not Supported
1009	'0E-OD'	(User-Defined Symbol)	Not Supported
1010	'0E-OE'	(Erase User-Defined Symbol Set)	Not Supported
1011	'OE-11'	(Negate Image)	Not Supported
1012	'0E-12'	(Set Pen)	Not Supported
1013	'0E-13'	(Paper Cutter)	Not Supported
1014	'0E-14'	(ASYNC)	Not Supported
1015	'0E-15'	(HATCH)	Not Supported
1016	'0E-16'	(Set Pattern)	Not Supported
1017	'0E-18'	(Start Plot)	Not Supported
1018	'0E-19'	(Force Plot)	Not Supported
1019	'0E-1A'	(Plotter Select)	Not Supported
1020	'0E-1 B'	(Plot Copies)	Not Supported
1048	'0E-21'	(PATTERN FILL)	Not Supported
1049	'0E-22'	(SETPAT)	Not Supported
1022	'0E-23'	(COLOR MODIFY)	Not Supported
1023	'0E-26'	(NEW LEVEL)	Not Supported
1024	'0E-28'	(XSETPEN)	Not Supported
1025	'OE-29'	(SETLEVEL)	Not Supported

1026	'0E-2C'	(AREA FILL)	Not Supported
1028	'0B-00-03'	(Manual)	Not Supported
1029	'0B-00-06'	(New Plot)	Not Supported
1030	'0B-00-09'	(Gothic Font)	Not Supported
1031	'0B-00-09'	(Engineering Font)	Not Supported
1032	'0B-00-09'	(German Font)	Not Supported
1033	'0B-00-09'	(French Font)	Not Supported
1034	'0B-00-09'	(Spanish Font)	Not Supported
1035	'0B-00-09'	(Italian Font)	Not Supported
1036	'0B-00-09'	(Finnish & Swedish Font)	Not Supported
1037	'0B-00-09'	(Danish & Norwegian Font)	Not Supported
1038	'0B-00-09'	(United Kingdom Font)	Not Supported
1039	'0B-00-09'	(960 Character Set Font)	Not Supported

CalComp Error Codes

1004		Too Many Segments in 'OD-xx' (Define Dash)
1005		Invalid Length In 'OD-xx' (Define Dash)
1006		Illegal Escape Sequence '08-??' (Escape Sequence)
1027	'0E-??'	(Extended Character) Unknown
1040	'0B-00-??'	(Pass Through To Plotter) Unknown
1041	'0B-05-??'	(Symbol Characteristics) Unknown
1042	'0B-05-??'	Rotate Angle too big
1043	'0B-08-??'	(Dash Bypass) Unknown
1044	'0B-%02x'	(Pass Through to Plotter) Unknown
1045	'??'	Unknown Instruction
1046		Illegal Delta Data

HP-GL Supported Command List

Configuration Group

DF	Default	Supported
IN	Initialize	Supported
IP	Input P1 and P2	Supported
SC	Scale	Supported

Lines and Rectangles

EA	Edge Rectangle Absolute	Supported
ER	Edge Rectangle Relative	Supported
PA	Plot Absolute	Supported
PD	Pen Down	Supported
PR	Plot Relative	Supported
PU	Pen Up	Supported
SP	Select Pen	Supported - Enhanced to support pens 1 to 255

Enhancing Plots

FT	Fill Type	Supported
LT	Line Type	Supported
PT	Pen Spacing	Supported
RA	Fill Rectangle Absolute	Supported
SM	Symbol Mode	Not supported
TL	Tick Length	Not supported
UF	User-Defined Fill Type	Supported
XT	X-Tick	Not supported

YT	Y-Tick	Not supported
CI	Circle	Supported
CT	Chord Tolerance	Supported
EW	Edge Wedge	Supported
WG	Fill Wedge	Supported

Circles, Arcs and Wedges

AA	Arc Absolute	Supported
AR	Arc Relative	Supported
CI	Circle	Supported
CT	Chord Tolerance	Supported
EW	Edge Wedge	Supported
WG	Fill Wedge	Supported

Labelling Plots

BL	Buffer Label	Not supported
CP	Character Plot	Supported
DI	Absolute Direction	Supported
DR	Direction Relative	Not supported
DT	Define Label Terminator	Supported
DV	Direction Vertical	Not supported
ES	Extra Space	Supported
LB	Label	Partially Supported - Only printable characters are supported - backspace, half-backspace, line-feed, inverse-line-feed, carriage-return, shift-in and shift-out are not.

LO	Label Origin	Supported
PB	Print Buffer Label	Not supported
SI	Absolute Character Size	Supported
SL	Character Slant	Supported
SR	Relative Character Size	Supported

Polygons

EP	Edge Polygon	Supported
FP	Fill Polygon	Supported
GM	Graphics Memory	Not relevant
PM	Polygon Mode	Supported

Picture Area and Orientation

IW	Input Window	Supported
OH	Output Hard Clip Limits	Not relevant
OP	Output P1 and P2	Not relevant
OW	Output Window	Not relevant
RO	Rotate Coordinate System	Supported

Advanced Pen Control and Front-Panel Interaction

AP	Automatic Pen Operations	Not relevant
AS	Acceleration Select	Not relevant
CV	Curved Line Generator	Not relevant
FS	Force Select	Not relevant
GP	Group Pen	Not relevant
KY	Define Key	Not relevant

NR	Not ready	Not relevant
OK	Output Key	Not relevant
SG	Select Group	Not relevant
VS	Velocity Select	Not relevant
WD	Write to Display	Not relevant

Digitizing

DP	Digitize Point	Not relevant
DC	Digitize Clear	Not relevant
OD	Output Digitize Point	Not relevant

Roll Feed and Long-Axis Plotting

AF	Advance Full Page	Not supported
AH	Advance Half Page	Not supported
EC	Enable Cut Line	Not supported
PG	Advance Full Page	Supported
PS	Page Size	Partially Supported - Used only to set P1 and P2

Alternate Character Sets and User-Designated Characters

CA	Designate Alt Char Set	Partially Supported - Only sets 0-9, 30-39, and 99 in HP-GL (not supported in HP-GL/2)
CC	Character Chord Angle	Not supported
CM	Character Selection Mode	Not supported
CS	Designate Std Char Set	Partially Supported - Only sets 0-9, 30-39, and 99 in HP-GL (not supported in HP-GL/2)

DL	Def. Downloadable Char	Not supported
DS	Desig. Char Set into Slot	Not supported
IV	Invoke Character Slot	Not supported
SA	Select Alternate Char Set	Supported (only in HP-GL)
SS	Select Standard Char Set	Supported (only in HP-GL)
UC	User-Defined Character	Not supported

Obtaining Information from the Plotter

GC	Group Count	Not relevant
IM	Image Mask	Not relevant
OA	Output Actual Pen Status	Not relevant
OC	O/P Command Pen Status	Not relevant
OE	Output Error	Not relevant
OF	Output Factors	Not relevant
OG	Output Group Count	Not relevant
OI	Output Identification	Not relevant
OL	Output Label Length	Not relevant
OO	Output Options	Not relevant
OS	Output Status	Not relevant
OT	Output Carousel Type	Not relevant

Device Control Instructions

Esc A	Output Identification	Not relevant
Esc B	Output Buffer Space	Not relevant
Esc E	Output Extended Error	Not relevant
Esc J	Abort Device Control	Not relevant

Esc K	Abort Graphics	Not relevant
Esc L	O/P BuffSize When Empty	Not relevant
Esc O	Output Extended Status	Not relevant
Esc Q	Set Monitor Mode	Not relevant
Esc R	Reset	Not relevant
Esc S	O/P Configurable MemSize	Not relevant
Esc T	Alloc. Configurable Mem.	Not relevant
Esc U	End Flush Mode	Not relevant
Esc U	Plotter On	Not relevant
Esc (Plotter On	Not relevant
Esc Z	Plotter Off	Not relevant
Esc)	Plotter Off	Not relevant
Esc@	Set Plotter Configuration	Not relevant

Interfacing and Handshaking

Esc H	Set Handshake Mode 1	Not relevant
Esc I	Set Handshake Mode 2	Not relevant
Esc M	Set Output Mode	Not relevant
Esc N	Set Ext. O/P & Handshake	Not relevant
Esc P	Define Handshake	Not relevant

HP-GL/2

Configuration and Status Group

DF	Default	Supported
IN	Initialize	Supported
IP	Input P1 and P2	Supported
IR	Input Relative P1 and P2	Supported
IW	Input Window	Supported
PG	Advance Full Page	Supported
RO	Rotate Coord System	Supported
RP	Replot	Not Relevant
SC	Scale	Supported

Vector Group

AA	Arc Absolute	Supported
AR	Arc Relative	Supported
AT	Absolute Three Point Arc	Not Supported
CI	Circle	Supported
PA	Plot Absolute	Supported
PD	Pen Down	Supported
PE	Polyline Encoded	Partially Supported - Does not support fractional data
PR	Plot Relative	Supported
PU	Pen Up	Supported
RT	Relative Three Point Arc	Not Supported

Polygon Group

EA	Edge Rectangle Absolute	Supported
ER	Edge Rectangle Relative	Supported
EW	Edge Wedge	Supported
EP	Edge Polygon	Supported
FP	Fill Polygon	Supported
PM	Polygon Mode	Supported
RA	Fill Rectangle Absolute	Supported
RA	Fill Rectangle Relative	Supported
WG	Fill Wedge	Supported

Line and Fill Attributes Group

AC	Anchor Corner	Partially Supported - No raster pattern support currently
FT	Fill Type	Supported
LA	Line Attributes	Partially Supported - Specify <i>W</i> in the Pen Macro field to use; Does not support joins or miter limits currently
LT	Line Type	Supported
PW	Pen Width	Supported
RF	Raster Fill Definition	Partially Supported - 64 bit patterns not supported
SM	Symbol Mode	Not supported
SP	Select Pen	Partially Supported - No pen 0, supports pens 1 to 255
UL	User-Defined Line Type	Supported
WU	Pen Width Unit Selection	Supported

Character Group

AD	Alternate Font Definition	Not supported
CF	Character Fill Mode	Not supported
CP	Character Plot	Supported
DI	Absolute Direction	Supported
DR	Direction Relative	Not supported
DT	Define Label Terminator	Supported
DV	Define Variable Text Path	Not supported
ES	Extra Space	Supported
LB	Label	Partially Supported - Only printable characters are supported - backspace, half-backspace, line-feed, inverse-line-feed, carriage-return, shift-in and shift-out are not.
LO	Label Origin	Supported
SA	Select Alternate Char Set	Not supported (only in HP-GL)
SD	Standard Font Definition	Not supported
SI	Absolute Character Size	Supported
SL	Character Slant	Supported
SR	Relative Character Size	Supported
SS	Select Standard Font	Not supported (only in HP-GL)
TD	Transparent Data	Not supported

Technical Graphics Extension

BP	Begin Plot	Supported
CT	Chord Tolerance Mode	Supported
DL	Downloadable Character	Not supported

EC	Enable Cutter	Not supported
FR	Frame Advance	Not supported
MC	Merge Control	Partially Supported - programmable extensions ignored
MG	Message	Not supported
MT	Media Type	Not supported
NR	Not Ready	Not supported
OE	Output Error	Not relevant
OH	O/P Hard Clip Limits	Not relevant
OI	Output Identification	Not relevant
OP	Output P1 and P2	Not relevant
OS	Output Status	Not relevant
PS	Plot Size	Partially Supported - used only for setting P1 and P2
QL	Quality Level	Not supported
ST	Sort	Not relevant
VS	Velocity Select	Not relevant

Palette Extension

CR	Set Clr Rnge, Rel Clr Data	Supported
NP	Number of Pens	Supported
PC	Pen Color Assignments	Supported
SV	Screened Vectors	Supported
TR	Transparency Mode	Supported

Dual Context Extension

Esc % # A	Enter PCL Mode	Not supported
Esc E	Reset	Supported -- Used in raster mode only
FI	Primary Font Select by ID	Not supported
FN	Sec. Font Selection by ID	Not supported
SB	Scalable or Bitmap Fonts	Not supported

Digitizing Extensions

DC	Digitize Clear	Not supported
DP	Digitize Point	Not Supported
OD	Output Digitized point and pen status — Not Supported	

Advanced Drawing Extensions

BR	Bezier Relative	Supported
BZ	Bezier Absolute	Supported
MC	Merge Control	Partially Supported -- Programmable extensions ignored
PP	Pixel Placement	Not supported

Advanced Text Extensions

LM	Label Mode	Not supported
SB	Scalable or Bitmap Fonts	Not supported
