Documentation for MMPlot View & Print Utility 16.06
Windows Plotfile Viewer (HPGL und HPGL-2)
by MAMAVISION Software Consult
May 1996

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AutoCAD is a registered trademark of Autodesk Corp.

The Index covers all topics of this documentation. Part 1 covers the programs description, in Part 2 are infos about the most important HPGL-commands and some licence stuff.

System Requirements

This program runs on IBM PC,XT,AT,PS/2,Value-Point computers with 80386 CPU   or above with 1 MB of RAM, VGA-Video, DOS/Win3.1 and a mouse

It was thoroughly tested under Win3.x, Windows 95 and WinNT.

List of files

File	Description
MMPlot.HLP	Software Documentation (this file).
MMPlot.EXE	Viewer
MMPlot.REG	Registration form.
MMPLOT16.DLL	DLL required from MMPlot.EXE
SAMPLE.PLT	Demo-Plotfile.
MMPLOT.INI	will be created in your WINDOWS directoy

Uninstall

Mmplot will **not** change system files as Win.ini or System.ini
Normally all files of the MMPlot-package are copied to one directory and run from there. To uninstall the user just has to delete this directory.
MMPlot.INI will be generated automatically in this directory, in case of a network licence. All other configurations create MMPlot.INI in the Windows directory.
Eventually one of the DLLs (or both) were copied manually into the Windows or Windows\ System directory.
On startup with a custom INI-file this will be generated automatically, if it doesnt exist. So please search your plotdata directories for inifiles, if you used that option.

Program description

MMPlot is a utility to view and print plotfiles that use the Hewlett Packard-Graphic Language/2 (this includes the former HP-GL).

The use of MMPlot is very easy.

You can specify plotfilename and/or inifilename as commandline options, for example:

mmplot.exe sample.plt sample.ini

If you do not specify a special inifile, mmplot.ini will be used.

Files
File|Save As.. saves the (active) Picture as Bitmap, Windows Meta File or MMPlot Metafile.
File|Copy will copy as Bitmap or Windows Meta File to Clipboard.
File|Email (32bit version only) will attach Bitmap, Windows Meta File (Aldus), Enhanced Metafile or original plotfile to a mail message and open the Send-Mailmessage-Dialog.

Views
The Orientation can be controlled at View|Rotation
"Zoom in", "Zoom out" and "Zoom all" are available, also a Pan function. The arrow-keys move the picture into the arrows-direction. The plot is initially shown in isotropic-mode, you can switch to anisotropic.

Output
File|Hardcopy sends the contents of the window to your printer, Print 1:N will print the plot in original scale on the actual windows printer. Zoom to Print and Print to Scale is implemented via the GDI.
The best way to reproduce the original output is - of cause - file|send to plotter, if the connected printer or plotter is capable of HPGL. Please set the appropriate port options in the settings menu first.

You can retrieve some information about the plotfile at the menu Info|Plot.

In the Settings dialog some aspects of the plot can be adjusted like pen colors, widths, startup settings, scaling factor and much more.
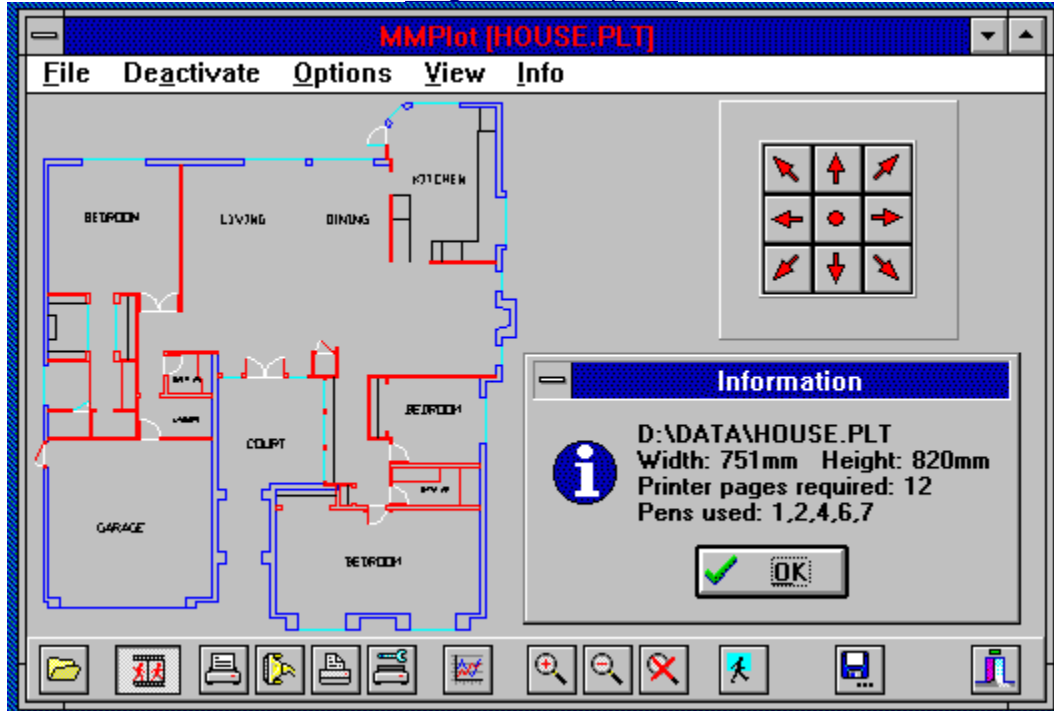
See the overview of the Viewer CommandsMouse and display

Keyboard

Viewer Commands

Click the part of the Viewer window you want to know more about.

For more Information see the [Program Description](#)

Shortcuts

Insert does a Zoom IN, **Del**. zooms out, **Home** will cause a Zoom All.

Using **Alt+Cursor** the draft can be rotated into the desired direction.

Use the **cursor** keys to pan the picture.

The **Esc** key deactivates the window refresh

Enter or **Return** will force a repaint and activate the display.

Ctrl+C will copy the display to clipboard as bitmap.

Inifiles

Mmplot will **not** change system files as Win.ini or System.ini

MMPlot.INI will be generated automatically in the programs directory, in case of a network licence. All other configurations create MMPlot.INI in the Windows directory.

Using custom inifiles in the command line: if a full path is not specified the program will try to generate the inifile in the current directory, which is not necessarily the directory of a plotfile specified in the same command line (see below), but eather the working directory, if specified, or the programs directory.

The following command lines are also possible:

mmplot.exe   f:\draft\house.plt *.ini
or
mmplot.exe *.ini f:\draft\house.plt

which is equal to

mmplot.exe f:\draft\house.plt f:\draft\house.ini

Runstring Parameters

A configuration file can be specified which is specified by the file extension: INI

A Datasourcefile can be specified. The extensions DAT and TMP are reserved for MMPlot Metafiles. Any other extension will be interpreted as plotfile.

/L This commandline option is used to extract Labels from a Plotfile and store them as ASCII textfile. With this option a datasourcefile must be specified..

mmplot.exe   /L f:\draft\house.plt
will store the labels in the file f:\draft\house.txt
or
mmplot.exe   /L   f:\draft\house.plt c:\tmp\browse.txt

Settings

All Settings can be saved in the inifile.

Pen Colors are stored as constants or Hexvalues in the inifile.

Constants which are quite similar to System Colors are:
clAqua, clBlack, clBlue, clDkGray, clFuchsia, clGray, clGreen, clLime, clLtGray, clMaroon, clNavy, clOlive, clPurple, clRed, clSilver, clTeal, clWhite and clYellow.

Constants which represent the Windows Colors are:
clActiveBorder, clActiveCaption, clAppWorkSpace, clBackground, clBtnFace, clBtnHighlight, clBtnShadow, clBtnText, clCaptionText, clGrayText, clHighlight, clHighlightText, clInactiveBorder, clInactiveCaption, clInactiveCaptionText, clMenu, clMenuText, clScrollBar, clWindow, clWindowFrame and clWindowText.

You can specify Colors as 4byte Hexvalue instead of using a constant, The 3 low bytes represent RGB intensity for blue, green and red. The Value $00FF0000 represents highest intensity, pure blue, $0000FF00 is pure green and $000000FF is pure red. $00000000 is black and $00FFFFFF is white.

Desktop

Save settings on exit
All Settings will be saved to the inifile on ending the program.
Save palette
Also actual palette will be saved.
Save position
Actual windows position and size will also be saved.
Show Speedbar

Show navigator

Show hints

Automatic stretching
Will not work in Zoom or Pan. On resizing the window draft will be resized and refreshed.
Preview Pageframes
Shows a preview of the paging if printed scaled.
<--   = Pan Right
Toggle Cursor Key behaviour. If checked, Left Arrow key performs right panning.
Zoom %
Percentage of window diameter will be used for Zoom-In/Out.
Pan %
Percentage of window diameter will be used for panning.
Save now

Standard
Sets all settings on this page to default values.

Startup

Isotropic
If checked, aspect-ratio is maintained, otherwise the draft will be fit into the windows client area.
Autosize (Window)
Windows dimensions will be tried to fit to the plot dimension in isotropic mode. This will work properly only with a topleft alignment (Print section).
Active
If checked, the program expects a valid filename in runstring or will prompt.
Window

Orientation

Information
Operating System and actual inifile

Pens

Colours 1..255 & background
Pencolours and background colour can be changed. Doubleclick on the coloured panels to select from palette. The spinbutton in the lower left corner selects the appropriate pen
Fill density
Fill density used for percent fill can be corrected.
Zoom Width
Pen width will be zoomed. Please not that linestyles other than solid are only supported for a linewidth of 1 pixel (see below).
Width
Pen Width can be adjusted by a factor. The default value is a factor of 4 -> 0.25 * 4 = 1 Pixel. Please note that Windows will only display dashed and dotted lines if they have a width of one Pixel. To determine that all lines have that width, you should enter a value of **0**.
Set width individually
Pen Widths can be overridden and adjusted individually for each pen. Select Pen 1..255 on the spinbutton on the left
ACAD
Sets pens 1 to 9 to common AutoCAD default colours
Plot
Reloads the palette defined in the plot (if any)
INI
Loads the palette saved in the inifile
Standard
Loads the default system palette and sets all other options to default values.

Print

Fill density
Fill density used for percent fill can be corrected.
Size Font
If checked, the program will try to scale the font. The scaling factor can be adjusted.
Alignment
The alignment is applied in isotropic mode. According to these settings the draft will be positioned within the Window.
Pagenumbers
Print pagenumers onto the sheets while printing original scale.
Print black
Just use black pen for printing.
Print to Scale
Scaled output can be shrunk in a fixed relation.
Standard
Sets all settings on this page to default values.
Font
Performs a font-selection-dialog to change the used font. The font information will not be saved in the inifile.

Ports

Copy to
Here you can specify a path to copy the HPGL-File to. You can also copy to ports (not NT16).
Send direct
OpenComm und WriteComm are used to plot to one of the available ports.
Portlist and Settings for baudrate, databits, parity, stopbits and flow control.
Please adjust the appropriate settings for your Plotter- or HPGL/2 Printerport.
Scan
Rescans for available ports.

About

Informations about author, product, licence, copyright and the current revision.

Kill DLL
Symptom : It is not possible to load a plotfile even if it is known to be readable by mmplot.
Solution :
Press this button. This will unload mmplot16.dll or mmplot32.dll from memory and reloads it **once**. This function is needed only in the rare case that the dll is still loaded but in an unstable or paused state.
Caution :
All other instances of the MMPlot program will have a problem because their instance handle of the DLL is invalidated.

Support

Most HPGL/2 instructions are implemented.

If there are still problems with a plotfile, please:
a) print or plot it, to be sure it is a plotfile
b) send me the shortest file with this problem
c) please try to send format A4 or A3
d) information about the creation-program and plotter-driver

Please report all bugs, suggestions, and problems to:

Compuserve ID   :   100335,430
Internet Adresse: 100335.430@CompuServe.com

For Borland Delphi Programmers a TMMPLOT.Component is available to include the features of MMPLot in your own Applications !

MMPlot.DLL is available as import filter for your application.

A 32-Bit Version of MMPlot.Viewer for NT/95 is available as Beta version.

Please email if you need more information.

The following lists contain HPGL/2   Instructions supported by MMPlot

A description can be found in "HP-GL/2 Reference Guide, A Handbook for Program Developers" by HP, published by Addison-Wesley 1990.

HP-GL/2 - instructions supported by MMPlot are typed **bold**.

HP-GL/2 includes the former HP-GL/1.

Menu **File**

[Open](#)
[Save](#)
[Copy](#)
[Print](#)
[Send](#)
[Hardcopy](#)
[Print Setup](#)

Menu **View**
[Zoom](#)
[Rotation](#)
[(An)Isotropic](#)

Menu **Info**

Info|Help invokes this file
Keyboard
Plot

File|Open
Opens the open file dialog to load a draft from plotfile or mmplot meta file

File|Save
Opens the common savedialog to save the draft as bitmap, windows meta file or mmplot meta file

File|Copy
Copies the contents of the window as bitmap or metafile to the clipboard

File|Send Mail
Attaches the contents of the window as bitmap or metafile or the original plotfile to a mail message and opens the MS-Send-Mail Dialog.

File|Print 1:N
Prints the draft scaled on a windows printer or fax

File|Send to plotter
Sends the draft to a port or file as determined in the settings.

File|Hardcopy
Prints the contents of the window to a windows printer or fax

File|Printer Setup
Opens the common printer setup dialog

File|Exit
See you next time

(De)activate
Pauses/enables the window refresh

Menu **Options**

Opens the <u>Settings</u> dialog

<u>Desktop</u>
<u>Startup</u>
<u>Pens</u>
<u>Ports</u>
<u>Print</u>
<u>About</u>

View|Zoom
Zooms in/out/all as determined in the settings

View |Rotation
Orientation of the plot can be determined

View |(An)Isotropic
Switches the mappingmode

Info|Plot

Some information about the selected plot can be retrieved.
for example:

    D:\DATA\HOUSE.PLT
    Width: 751mm   Height: 820 mm
    Printpages required: 12
    Shrunk: 1:1
    Used Pens: 1,2,4,6,7

Navigator
This nice 8-way navigator can be used to pan without the help of the keyboard

Display
.Use the left mousebutton to open a zoom-rectangle.
"Zoom all" is invoked by pressing the right mousebutton

 DF = DeFault Values
 IN = Initialize
 IP = InPut P1 and P2
 IR = Input Relative P1 and P2
*IW = Input Window
*PG = advance full PaGe
 RO = ROtate coordinate system
*RP = Replot

Vector Group

AA = Arc Absolute
AR = Arc Relative
AT = Arc three point
CI = CIrcel
PA = Plot Absolut
PD = Pen Down
PE = Polyline Encoded
PR = Plot Relative
PU = Pen Up
RT = Relative arc Three point

ER = Edge Rectangel relative
EA = Edge rectangel Absolute
EW = Edge Wedge
EP = Edge Polygon
FP = Fill Polygon
PM = Polygon Mode
RA = fill Rectangle Absolute
RR = fill Rectangle Relative
WG = fill WedGe

Line and Fill Attributes Group <u>**5 of 9**</u>

*AC = Anchor Corner
 FT = Fill Type   Fill type,spacing is emulated by pattern fill
*LA = Line Attributes
 LT = Line Type
 PW = Pen Width
*RF = Raster Fill definition
 SM = Symbol Mode
 SP = Select Pen
*UL = Userdefined Line Type
*WU = pen Width Unit selection

Character Group Instructions

*AD = Alternate font Definition
*SD = Standard font Definition
*CF = Character Fill Mode
 CP = Character Plot
 DI = absolute DIrection
*DR = Relative Direction
 DT = Define Label Terminator
*DV = Define Variable text path
*ES = Extra Space
 LB = LaBel
*LO = Label Origin
*SA = Select Alternate font
 SI = absolute Character Size
*SL = character SLant
 SR = Relative character Size
*SS = Select Standard font
*TD = Transparent Data

 BP = Begin Plot
*CT = Chord Tolerance
*DL = DownLoad character
*EC = Enable Cutter
*FR = FRame advance
*MC = Merge Control
*MG = Message
*MT = Media Type
*NR = Not Ready
*OE = Output ERROR
*OH = Output Hardclip limits
*OP = Output P1 and p2
*OS = Output Status
 PS = PlotSize
*QL = Quality Level
*ST = SorT
*VS = Velocity Select

Palette Extension

*CR = Set Color Range for relative color data
 NP = Number of Pens   up to 255 different Pens
 PC = Pen Color Assignment
*SV = Screened Vectors
 TR = Transparency Mode

Miscellaneous

TL = Tick Length
XT = Xaxis Tick
YT = Yaxis Tick

REGISTRATION FORM   MAMAVISION Software Consult

Make Check or money order payable to:

MAMAVISION Software Consult
M.Mayer
Wollmatingerstr. 70B
D-78467 Konstanz

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MMPLOT 16bit____ 32bit____ Language_____

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_____Kopien von MMPLOT Viewer DM 65,- für insgesamt DM_____

+ $8/DM 10,- for Shipping/Handling if no CIS account available

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Good data processing procedure dictates that any program be thoroughly tested with non-critical data before relying on it.   The user must assume the entire risk of using the program.   ANY LIABILITY OF THE SELLER WILL BE LIMITED EXCLUSIVELY TO PRODUCT REPLACEMENT OR REFUND OF PURCHASE PRICE.

Registration

Benefits of registration

Only registered users will be supported with problems concerning particular.file formats.
On registration you receive the newest revision of the package.
The non-registered viewer shows a rememberance message from time to time.

How to register

Registration fee for a desktop licence is $45.00(65,-DM) + $8(10.-DM) S/H.
Registration for a network licence (unlimited users) we consider to be worth $900.00(1.300,-DM).
16 and 32 bit Versions have to be registered and paid separately.
Please send it together with the **registration form** to:

MAMAVISION Software Consult
Wollmatingerstr. 70B
D78467 Konstanz

CompuServe users can register MMPLOT by typing GO SWREG 9835 at any CompuServe prompt.
For 32bit version GO SWREG 11278.

You can save the $8 (10.-DM) shipping fee by specifying a Compuserve account to have your control sent to instead of by mail.