

# Gnuplot for OpenVMS I64

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## 1. Introduction

Thank you for your interest in this port of Gnuplot to OpenVMS. The current release of Gnuplot for OpenVMS is based on the Gnuplot 5.0.2 distribution.

Gnuplot (<http://www.gnuplot.info/>) is a portable command-line driven Open Source graphing utility for Linux, OS/2, MS Windows, OSX, VMS, and many other platforms. It was originally created (in the late 1980's) to allow scientists and students to visualize mathematical functions and data interactively, but has grown into a general-purpose graphing package supporting both interactive and non-interactive uses

This OpenVMS port of Gnuplot includes almost all Gnuplot functionality. The port presently does not provide support for some output formats and font types. It is anticipated these and other deficiencies will be addressed in future releases.

## 2. Acknowledgements

VMS Software Inc. would like to acknowledge the work of the Gnuplot development team for their on-going efforts in developing and supporting this product.

## 3. What's new in this release

For a detailed description of the new features and bug fixes included in this release, please read [http://gnuplot.sourceforge.net/ReleaseNotes\\_5\\_0.html](http://gnuplot.sourceforge.net/ReleaseNotes_5_0.html).

## 4. Requirements

The kit you are receiving has been tested using the operating system version listed below. While it is highly likely that you will have no problems installing and using the kit on systems running higher versions of the operating system, we cannot say for sure that you will be so lucky if your system is running older versions.

- OpenVMS 8.4-1H1 I64
- The software must be installed on an ODS-5 enabled disk (the installation will fail if this requirement is not met)
- A suitable graphics display (if you intend to display graphs created with Gnuplot using XWindows)

In addition to the above requirements, it is assumed that the reader has a good knowledge of OpenVMS and of working with data and files in an OpenVMS environment.

## 5. Recommended reading

It is recommended that you read some of the excellent tutorials and other documentation available via the Gnuplot web site (see <http://www.gnuplot.info/documentation.html> and

<http://www.gnuplot.info/help.html>). These pages provide numerous links to useful examples and information on using Gnuplot.

## 6. Installing the kit

The kit is provided as an OpenVMS PCSI kit (VSI-I64VMS-GNUPLOT-V0500-2-1.PCSI) that can be installed by a suitably privileged user using the following command:

```
$ PRODUCT INSTALL GNUPLOT
```

```
Performing product kit validation of signed kits ...
```

```
The following product has been selected:
```

```
    VSI I64VMS GNUPLOT V5.0-2           Layered Product
[Installed]
```

```
Do you want to continue? [YES]
```

```
Configuration phase starting ...
```

You will be asked to choose options, if any, for each selected product and for any products that may be installed to satisfy software dependency requirements.

```
Configuring VSI I64VMS GNUPLOT V5.0-2
```

```
    VMS Software Inc.
```

```
* This product does not have any configuration options.
```

```
Execution phase starting ...
```

```
The following product will be installed to destination:
```

```
    VSI I64VMS GNUPLOT V5.0-2           DISK$I64SYS:[VMS$COMMON.]
```

```
Portion done: 0%...20%...40%...50%...60%...80%...90%...100%
```

```
The following product has been installed:
```

```
    VSI I64VMS GNUPLOT V5.0-2           Layered Product
```

```
VSI I64VMS GNUPLOT V5.0-2
```

```
Post-installation tasks are required.
```

To start gnuplot at system boot time, add the following lines to SYS\$MANAGER:SYSTARTUP\_VMS.COM:

```
    $ file := SYS$STARTUP:GNUPLOT$STARTUP.COM
    $ if f$search("''file'") .nes. "" then @'file'
```

To stop gnuplot at system shutdown, add the following lines to SYS\$MANAGER:SYSHUTDOWN.COM:

```
    $ file := SYS$STARTUP:GNUPLOT$SHUTDOWN.COM
    $ if f$search("''file'") .nes. "" then @'file'
```

## 6.1. *Post-installation steps*

After the installation has successfully completed, include the commands displayed at the end of the installation procedure into `SYSTARTUP_VMS.COM` to ensure that the logical names required in order for users to use the software are defined system-wide at start-up.

Users will then be able to use Gnuplot by defining a foreign command as follows:

```
$ GNUPLOT := $GNUPLOT$ROOT:[BIN]GNUPLOT.EXE
```

## 6.2. *Privileges and quotas*

Generally speaking there are no special quota or privilege requirements required in order to use the Gnuplot software. Users may require site-specific privileges may be required to output plot created using the package to specific graphics devices.

## 6.3. *Installing in an alternative location*

By default the software will be installed in `SYS$SYSDEVICE:[VMS$COMMON]`. If you wish to install the software in an alternative location this can be achieved using the `/DESTINATION` qualifier with the `PRODUCT INSTALL` command to specify the desired location; however it is important to note that an additional manual step will then be required to complete the installation. Specifically, when an alternative destination is specified, the start-up and shutdown procedures (`GNUPLOT$STARTUP.COM` and `GNUPLOT$SHUTDOWN.COM`) will be placed into a subdirectory `[.SYS$STARTUP]` residing under the specified destination directory. If you wish to run these files from your standard `SYS$STARTUP` directory they will need to be copied from the destination subdirectory into your systems `SYS$STARTUP` directory.

## 7. Sample applications

The directory `GNUPLOT$ROOT:[DEMO]` contains a comprehensive set of example scripts that illustrate many of Gnuplot's capabilities. The script `ALL.DEM` can be used to run many of the provided examples. Note that you will need to set the output device type (using the Gnuplot "set terminal" command) before running the example scripts.

Refer to <http://www.gnuplot.info/screenshots/index.html#demos> for more information about the various demo plots.

## 8. What's missing?

As noted previously, the bulk of Gnuplot functionality is present in this OpenVMS release, and it should be possible to do much of what is described on the Gnuplot web site.

The following output lists supported graphics formats and devices provided by this release:

```
$ gnuplot := $gnuplot$root:[bin]gnuplot.exe
$ gnuplot

      G N U P L O T
      Version 5.0 patchlevel 2      last modified 2015-12-24

      Copyright (C) 1986-1993, 1998, 2004, 2007-2015
      Thomas Williams, Colin Kelley and many others
```

```
gnuplot home:      http://www.gnuplot.info
faq, bugs, etc:   type "help FAQ"
immediate help:   type "help" (plot window: hit 'h')
```

```
Terminal type set to 'unknown'
gnuplot> set terminal
```

```
Available terminal types:
```

```
  canvas HTML Canvas object
  cgm Computer Graphics Metafile
  context ConTeXt with MetaFun (for PDF documents)
  corel EPS format for CorelDRAW
  dpu414 Seiko DPU-414 thermal printer [small medium large]
  dumb ascii art for anything that prints text
  dxf dxf-file for AutoCad (default size 120x80)
  eepic EEPIC -- extended LaTeX picture environment
  emf Enhanced Metafile format
  emtex LaTeX picture environment with emTeX specials
  epslatex LaTeX picture environment using graphicx package
  epson_180dpi Epson LQ-style 180-dot per inch (24 pin) printers
  epson_60dpi Epson-style 60-dot per inch printers
  epson_lx800 Epson LX-800, Star NL-10, NX-1000, PROPRINTER ...
  fig FIG graphics language for XFIG graphics editor
  gif GIF images using libgd and TrueType fonts
  hp500c HP DeskJet 500c, [75 100 150 300] [rle tiff]
  hpdj HP DeskJet 500, [75 100 150 300]
  hpgl HP7475 and relatives [number of pens] [eject]
  hpljii HP Laserjet series II, [75 100 150 300]
  hppj HP PaintJet and HP3630 [FNT5X9 FNT9X17 FNT13X25]
  jpeg JPEG images using libgd and TrueType fonts
  latex LaTeX picture environment
  mf Metafont plotting standard
  mp MetaPost plotting standard
  nec_cp6 NEC printer CP6, Epson LQ-800 [monochrome color draft]
  okidata OKIDATA 320/321 Standard
  pbm Portable bitmap [small medium large] [monochrome gray color]
  pcl5 HP Designjet 750C, HP Laserjet III/IV, etc. (many options)
  pdf PDF (Portable Document File) file driver
  png PNG images using libgd and TrueType fonts
  postscript PostScript graphics, including EPSF embedded files (*.eps)
  pslatex LaTeX picture environment with PostScript \specials
  pstex plain TeX with PostScript \specials
  pstricks LaTeX picture environment with PSTricks macros
  qms QMS/QUIC Laser printer (also Talaris 1200 and others)
  regis REGIS graphics language
  sixel Sixel Graphics
  starc Star Color Printer
  svg W3C Scalable Vector Graphics
  tandu_60dpi Tandy DMP-130 series 60-dot per inch graphics
  tek40xx Tektronix 4010 and others; most TEK emulators
  tek410x Tektronix 4106, 4107, 4109 and 420X terminals
  texdraw LaTeX texdraw environment
  tgif TGIF X11 [mode] [x,y] [dashed] ["font" [fontsize]]
  tkcanvas Tk/Tcl canvas widget [perlTk] [interactive]
  tpic TPIC -- LaTeX picture environment with tpic \specials
  unknown Unknown terminal type - not a plotting device
  vttek VT-like tek40xx terminal emulator
  x11 X11 Window System
  xlib X11 Window System (gnulib_x11 dump)
  xterm Xterm Tektronix 4014 Mode

gnuplot>
```