DEC GKS Installation Guide

Order Number: AA–W156F–TE

February 1990

This document contains instructions for installing the development and run-time kits for DEC GKS (Graphical Kernel System) for VMS systems. It also explains how to read the online release notes before or after installing these products. This document applies to Version 4.1 and all maintenance updates throughout that version.

Revision/Update Information:	This revised manual supersedes the *DEC GKS 4.0 Installation Guide* (Order Number AA–W156E–TE).
Operating System and Version:	VMS Version 5.1 or higher. VAXstation requirement: VAXstation Workstation Software Versions 4.0 or higher, or DECwindows Version 1.0.
Software Version:	DEC GKS Version 4.1

digital equipment corporation
maynard, massachusetts

First Printing, March 1984
Second Printing, November 1984
Revised May 1986, March 1987, March 1989, September 1989, February 1990

ZK5393

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Preface

This document describes how to install the DEC GKS development kit and DEC GKS run-time kit on a VMS operating system. It is intended for system managers. This document applies to Version 4.1 of DEC GKS.

Keep this document with your distribution kit. You will need it to install maintenance updates or to reinstall DEC GKS on your VMS system for any other reason.

At the back of this document are two Reader's Comments forms. If you have any comments about this document, fill out a form and mail it; your comments will be considered for the next revision of the installation guide.

The installation procedure is described step-by-step and is, for the most part, self-explanatory. The system prompts you to answer questions and to change volumes, and waits for you to tell it to continue.

Associated Documents

For more information about installing DEC GKS on a VMS system, see your processor-specific installation/operations guide.

For specific questions on your operating system, refer to the documentation set for that operating system.

Conventions Used in This Document

Defaults appear in brackets ([ ]) throughout the installation procedure.

Red ink indicates user input.

The RETURN key is symbolized as RETURN.

1 Installing DEC GKS for VMS

This manual explains the DEC GKS installation procedure on a VMS platform. The information in this manual covers the following topics:

- Installation prerequisites
- Installation procedures
- Maintenance updates
- Problem reporting
- Sample DEC GKS development kit installation
- Sample DEC GKS run-time kit installation

1.1 Preparing to Install DEC GKS

Your bill of materials (BOM) and indented bills report (BIL) specify the number and contents of your media. Be sure to check the contents of your kit against this information. If your kit is damaged or if you find that parts of it are missing, call your Digital representative.

Distribution media must be mounted in numerical order. The installation procedure prompts you to mount the volumes. For more information on how to mount distribution media, see your processor-specific installation/operations guide, which also details several options to the installation procedure.

1.1.1 Prerequisite Software

To install DEC GKS on a VAXstation, you must have one of the following products installed:

- VAXstation Windowing Software V4.0 or later
- VMS Version 5.1 or higher with its related DECwindows version

1.1.2 Prerequisite VMS Classes

To install DEC GKS, you must have the following VMS classes:

- VMS Required Saveset

- Network Support (for DECwindows)

The DEC GKS development kit also requires the following VMS class:

- Programming Support

1.1.3 Accessing the Online Release Notes

DEC GKS provides online release notes. The prompt to display and print the release notes during the installation appears in step 5 of the installation procedure. At this prompt, invoke VMSINSTAL with the OPTIONS N parameter. (The OPTIONS N parameter is available only with VMS Version 4.4 or higher.) This option lets you to read or print the release notes before installing DEC GKS:

- To obtain the DEC GKS development kit release notes after the installation, type or print the file SYS$HELP:DECGKS04n.RELEASE_NOTES.
- To obtain the DEC GKS run-time kit release notes after the installation, type or print the file SYS$HELP:DECGKSRTO04n.RELEASE_NOTES.

Online help also directs you to the release notes file. After the installation, type the following command:

```
$ HELP GKS RELEASE_NOTES RETURN
```

1.1.4 Installation Procedure Requirements

Before you begin, you should perform a system disk (or disks) backup. The installation takes 5 to 30 minutes, depending on the type of media and your system configuration.

Before installing DEC GKS, you must have the following privileges and resources:

- SETPRV privileges, or CMKRNL, WORLD, and SYSPRV privileges.
- A minimum of 4200 free global pages.
- A minimum of 40 free global sections.
- 150 pages in the CLI symbol table (CLISYMTBL).
- A minimum of 10,300 blocks of free disk space is required for the DEC GKS development kit during installation; 9600 blocks are used after installation.

- A minimum of 5600 blocks of free disk space is required for the DEC GKS run-time kit during installation; 5000 blocks are used after installation.

To determine the number of available global pages on your system, invoke the VMS Install Utility by typing the following commands:

```
$  INSTALL :== $INSTALL/COMMAND_MODE  RETURN
$  INSTALL  RETURN
```

Then type the following commands:

```
INSTALL>  LIST/GLOBAL/SUMMARY  RETURN

        Summary of Local Memory Global Sections

nn Global Sections Used,  nnnn/nnnn Global Pages Used/Unused

INSTALL>  EXIT  RETURN
```

When you issue these commands, the system displays the number of global sections used, global pages used, and global pages unused. To exit from the VMS Install Utility, type the EXIT command.

DEC GKS requires approximately 4200 global pages. If fewer than 4200 pages are available, you can delete an existing known image with the VMS Install Utility. You can also increase the GBLPAGES system parameter with the VMS System Generation Utility (SYSGEN) by editing the file SYS$SYSTEM:MODPARAMS.DAT and then invoking the AUTOGEN command procedure, SYS$UPDATE:AUTOGEN.COM. To increase the number of global pages, add the following line to the file SYS$SYSTEM:MODPARAMS.DAT, where *n* is the number of GBLPAGES to add:

```
ADD_GBLPAGES = n
```

For more information on the AUTOGEN command procedure, see your processor-specific installation/operations guide.

You can determine the number of available global sections by invoking the SYSGEN utility as follows:

```
$  RUN SYS$SYSTEM:SYSGEN  RETURN
SYSGEN>  USE CURRENT  RETURN
SYSGEN>  SHOW GBLSECTIONS  RETURN

Parameter Name     Current    Default    Minimum  Maximum   Unit    Dynamic
--------------     -------    -------    -------  -------   ----    -------
GBLSECTIONS            400        250         20     4095   Sections

SYSGEN>  EXIT  RETURN
```

The first number displayed is the current number of global sections. Compare this number to the number of global sections in use displayed by the VMS Install Utility. DEC GKS requires 40 global sections. Therefore, if the number of global sections used plus 40 exceeds the current number of global sections, you must increase the number of available global sections before you can install DEC GKS. To increase the number, you must increase the GBLSECTIONS system parameter with SYSGEN by editing the file SYS$SYSTEM:MODPARAMS.DAT and then invoking the SYS$UPDATE:AUTOGEN.COM procedure. To increase the number of global sections, add the following line to the file SYS$SYSTEM:MODPARAMS.DAT, where *n* is the number of GBLSECTIONS to add:

```
ADD_GBLSECTIONS = n
```

For more information on the AUTOGEN.COM procedure, see your processor-specific installation/operations guide.

If the number of global sections used plus 40 is less than the maximum number of global sections, you can exit from SYSGEN and continue.

You can determine the current value for CLISYMTBL by invoking SYSGEN as follows:

```
$  RUN SYS$SYSTEM:SYSGEN  RETURN
SYSGEN>  USE CURRENT  RETURN
SYSGEN>  SHOW CLISYMTBL  RETURN

Parameter Name     Current    Default    Minimum  Maximum   Unit   Dynamic
--------------     -------    -------    -------  -------   ----   -------
CLISYMTBL              250        250         10      500   Pages        D

SYSGEN>  EXIT  RETURN
```

1.1.5 User Account Quotas and Privileges

To use DEC GKS, each account should have an open file limit (FILLM) of at least 20.

Use the VMS Authorize Utility (AUTHORIZE) to compare the current values of these quotas with the requirements for DEC GKS. For example, the account used in the following example is the SYSTEM account:

```
$  SET DEFAULT SYS$SYSTEM  RETURN
$  RUN AUTHORIZE  RETURN
UAF>  SHOW SYSTEM  RETURN
```

To change the values of these quotas, use the MODIFY command. For more information, see the *VMS Authorize Utility Manual*.

1.1.6 VMS License Management Facility

The VMS License Management Facility (LMF) is available beginning with Version 5.0 of the VMS operating system.

The license registration information you need is contained in the Product Authorization Key (PAK) that is shipped with DEC GKS. The PAK is a paper certificate that contains information about the license you have to run a particular piece of software.

During the installation, you are asked if you have registered the DEC GKS license and loaded the appropriate authorization key. You must register and load your license for DEC GKS *before* you start the installation in order to run the Installation Verification Procedure (IVP) and use the software.

To register a license under VMS V5.n, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the registration:

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your Product Authorization Key (PAK).
- Issue the LICENSE REGISTER DCL command with the appropriate qualifiers that correspond to information on the PAK.

For complete information on using LMF, see the manual on the License Management Utility in the VMS documentation set.

1.1.7 Using VMSINSTAL

After you log in to a privileged account to install DEC GKS, invoke VMSINSTAL, the command procedure that installs this product. An example of this procedure is shown in steps 1 and 2 in the section entitled ''Installing DEC GKS''.

To install DEC GKS using the VMSINSTAL command procedure, use the following syntax:

DEC GKS DEVELOPMENT KIT

```
$ @SYS$UPDATE:VMSINSTAL DECGKS04n ddcu: [OPTIONS N] RETURN
```

DEC GKS RUN-TIME KIT

```
$ @SYS$UPDATE:VMSINSTAL DECGKSRTO04n ddcu: [OPTIONS N] RETURN
```

ddcu:
A device name where the distribution volumes will be mounted for the DEC GKS installation media, where *dd* is the device code, *c* is the controller code, and *u* is the unit number. You do not need to use the console drive to install DEC GKS. If you do use the console drive, you should replace any media you removed from the drive. The examples in this document use MUA0: as the device name.

OPTIONS N
An optional parameter you should provide if you want to be prompted to display or print the release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not prompt you to display or print the release notes.

VMSINSTAL permits the use of several other options. For more information on the other options, see your processor-specific installation/operations guide.

If you do not supply the first two parameters, VMSINSTAL prompts you for the product and device names. If you wish to be prompted for the product and device names and to display or print the release notes, type the following:

```
$ @SYS$UPDATE:VMSINSTAL RETURN
```

When you invoke VMSINSTAL, it checks the following:

- Whether you logged in to a privileged account. Digital recommends that you install software from the system manager's account with your default device and directory set to SYS$UPDATE.
- Whether you have adequate quotas for installation. VMSINSTAL checks for the following quota values:
  - ASTLM = 24
  - BIOLM = 18
  - BYTLM = 18000

- DIOLM = 18
- ENQLM = 30
- FILLM = 20

- Whether the following conditions exist:
  - DECnet is up and running.
  - Users are logged in to the system.

  If VMSINSTAL detects either of these conditions, you will be asked whether you want to continue the installation. You should discontinue the conditions before resuming the installation procedure. If you want to continue, type YES. If you want to stop the installation, press RETURN.

You must register the information contained in the Product Authorization Key (PAK) that is shipped with DEC GKS by using either the VMS License command procedure (VMSLICENSE) or the LICENSE REGISTER and LICENSE LOAD commands, as described in the *VMS License Management Utility Manual*.

1.2 Installing DEC GKS

This section contains excerpts from the installation procedure and explains each step. Defaults appear in brackets throughout the installation procedure.

To abort the installation procedure at any time, press CTRL/Y. This deletes all files created up to that point and then returns you to DCL level. If you want to retry the installation procedure after pressing CTRL/Y, proceed from step 2.

DEC GKS run-time V4.1 for VMS is the run-time-only version of DEC GKS V4.1. Only programs that have been linked on DEC GKS V4.1 will run on DEC GKS run-time V4.1. Attempting to link programs on DEC GKS run-time results in linker errors. Do not install DEC GKS run-time V4.1 if you have already installed the full development kit of DEC GKS V4.1. If you do, the installation procedure will overwrite the development kit with the run-time-only kit. You can determine which version of DEC GKS is currently installed by issuing the following DCL command:

```
$  ANALYZE/IMAGE SYS$LIBRARY:GKSRTLIB
```

Before installing DEC GKS, Digital recommends that you back up your system disk. Once you have done so, you can begin the installation.

Step 1: Log in to a privileged account and set your default device and directory to SYS$COMMON:[SYSUPD].

```
RETURN
Username:  SYSTEM   RETURN
Password:           RETURN
$  SET DEFAULT SYS$COMMON:[SYSUPD]  RETURN
```

Step 2: Invoke VMSINSTAL.

DEC GKS DEVELOPMENT KIT

```
$  @VMSINSTAL DECGKS041 MUA0:  RETURN

      VAX/VMS Software Product Installation Procedure V5.2


It is 04-JAN-19() at 15:39.
Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]?  RETURN
```

DEC GKS RUN-TIME KIT

```
$  @VMSINSTAL DECGKSRTO041 MUA0:  RETURN

      VAX/VMS Software Product Installation Procedure V5.2


It is 05-JAN-19() at 7:49.
Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]?  RETURN
```

If you are satisfied with the backup of your system disk, press RETURN. Otherwise, type NO and press RETURN to discontinue the installation.

Step 3: Insert the first installation kit volume.

DEC GKS DEVELOPMENT KIT

```
The following products will be processed:

  DECGKS V4.1


    Beginning installation of DECGKS V4.1 at 15:41

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

DEC GKS RUN-TIME KIT

```
The following products will be processed:

    DECGKSRTO V4.1


    Beginning installation of DECGKSRTO V4.1 at 7:50

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

To indicate that you want to continue the installation, mount volume 1, type YES, and press RETURN.

Step 4: Insert the subsequent installation kit volumes.

DEC GKS DEVELOPMENT KIT

```
%BACKUP-I-READYREAD, mount volume 2 on _MUA0: for reading

Enter "YES" when ready:  YES  RETURN
```

DEC GKS RUN-TIME KIT

```
%BACKUP-I-READYREAD, mount volume 2 on _MUA0: for reading

Enter "YES" when ready:  YES  RETURN
```

VMSINSTAL prompts you to insert the next volume and waits for you to type YES after inserting it. If you type NO, VMSINSTAL displays the prompt again. This prompt is displayed only if your installation kit contains more than one volume.

Step 5: Select a release notes option.

This step applies only if you specified OPTIONS N in step 2.

```
Release Notes Options:

    1. Display release notes
    2. Print release notes
    3. Both 1 and 2
    4. Copy release notes to SYS$HELP
    5. Do not display, print or copy release notes

* Select option [3]:  RETURN
```

If you select option 1, VMSINSTAL displays the release notes on line immediately. You can terminate the display at any time by pressing CTRL/C.

If you select option 2, VMSINSTAL prompts you for a queue name. Either type a queue name or press RETURN to send the file to the default output print device.

```
* Queue name [SYS$PRINT]:  RETURN
```

If you select option 3, VMSINSTAL displays the release notes on line immediately. You can terminate the display at any time by pressing CTRL/C. VMSINSTAL then prompts you for a queue name. Either type a queue name or press RETURN to send the file to the default output print device. The release notes are then copied:

- The DEC GKS development kit release notes are copied to SYS$HELP:DECGKS04n.RELE NOTES.
- The DEC GKS run-time kit release notes are copied to SYS$HELP:DECGKSRTO04n.RELE NOTES.

If you select option 4, VMSINSTAL copies the release notes to SYS$HELP immediately.

If you select option 5, VMSINSTAL does not display, print or copy the release notes; typically this option is selected when the user wants to terminate the installation.

NOTE

This version of the release notes file installed by VMSINSTAL is labeled with the current product name and version number. Take care not to delete release notes for previous versions of DEC GKS.

Next, VMSINSTAL displays the following prompt:

```
* Do you want to continue the installation [N]?:  Y RETURN
%VMSINSTAL-I-RELMOVED, The product release notes have been successfully
    moved to SYS$HELP.

    PostScript is a registered trademark of Adobe Systems, Inc.
    LaserWriter is a registered trademark of Apple Computer, Inc.
    Tektronix is a registered trademark of Tektronix, Inc.
    Ada is a registered trademark of the U.S. government
        ( Ada Joint Program Office ).
```

If you want to continue the installation, type YES and press RETURN. If you type NO or press RETURN, VMSINSTAL discontinues the installation. In either case, VMSINSTAL moves the release notes to SYS$HELP.

Step 6: Select installation options.

```
* Do you want to purge files replaced by this installation [YES]? RETURN
```

The directories SYS$LIBRARY and SYS$SYSTEM may contain previous versions of DEC GKS files. These files are replaced during the installation with new files, but the old files are not automatically purged. Purging is recommended. In response to the purging prompt, press RETURN to purge the files or type NO to keep them.

Table 1 lists the files on the system that are added or modified when installing the DEC GKS development kit.

Table 1: Installed Files for the DEC GKS Development Kit

Directory	Filename
SYS$STARTUP:	GKSTARTUP.COM
SYS$MESSAGE:	GKSMSG.EXE
SYS$HELP:	DECGKS041.RELEASE_NOTES
SYS$TEST:	GKSIVP.EXE
SYS$FONT:	GKS$MARKERS.VWS$FONT
	GKS$MARKERS.VWS$VAFONT
SYS$LIBRARY:	GKS.H
	GKS$CGMO_WS_HANDLER.EXE
	GKS$DEV_HAND_DFT_MAC.MLB
	GKS$INQ_LIB.EXE
	GKS$MI_WS_HANDLER.EXE
	GKS$MO_WS_HANDLER.EXE
	GKS$WS_HAND_DFT_MAC.MLB
	GKS$WS_MANAGER.EXE
	GKSCRTLIB.EXE
	GKSDEFS.ADA
	GKSDEFS.BAS
	GKSDEFS.FOR
	GKSDEFS.H
	GKSDEFS.LIB
	GKSDEFS.PAS
	GKSDEFS.PL2
	GKSDEFS.PLI
	GKSDEFS.R32
	GKSERRCON.FOR
	GKSFORBND.OLB
	GKSMSGS.ADA

(continued on next page)

Table 1 (Cont.): Installed Files for the DEC GKS Development Kit

Directory	Filename
	GKSMSGS.BAS
	GKSMSGS.FOR
	GKSMSGS.H
	GKSMSGS.LIB
	GKSMSGS.PAS
	GKSMSGS.PLI
	GKSMSGS.R32
	GKSRTLIB.EXE
	VAXGFX$COLSIX_DEV_HANDLER.EXE
	VAXGFX$DDIF_COLOR_TABLE.DAT
	VAXGFX$DDIF_DEV_HANDLER.EXE
	VAXGFX$DECW_DEV_HANDLER.EXE
	VAXGFX$FONT_NEG01.FNT
	VAXGFX$FONT_NEG02.FNT
	VAXGFX$FONT_NEG03.FNT
	VAXGFX$FONT_NEG04.FNT
	VAXGFX$FONT_NEG05.FNT
	VAXGFX$FONT_NEG06.FNT
	VAXGFX$FONT_NEG07.FNT
	VAXGFX$FONT_NEG08.FNT
	VAXGFX$FONT_NEG09.FNT
	VAXGFX$FONT_NEG10.FNT
	VAXGFX$FONT_NEG11.FNT
	VAXGFX$FONT_NEG12.FNT
	VAXGFX$FONT_NEG13.FNT
	VAXGFX$FONT_NEG14.FNT
	VAXGFX$FONT_NEG15.FNT
	VAXGFX$FONT_NEG16.FNT
	VAXGFX$FONT_NEG17.FNT

(continued on next page)

Table 1 (Cont.): Installed Files for the DEC GKS Development Kit

Directory	Filename
	VAXGFX$FONT_NEG18.FNT
	VAXGFX$FONT_NEG19.FNT
	VAXGFX$FONT_NEG20.FNT
	VAXGFX$FONT_NEG21.FNT
	VAXGFX$FONT_NEG22.FNT
	VAXGFX$FONT_NEG23.FNT
	VAXGFX$FONT_NEG24.FNT
	VAXGFX$HPGL_DEV_HANDLER.EXE
	VAXGFX$PS_DEV_HANDLER.EXE
	VAXGFX$REGIS_DEV_HANDLER.EXE
	VAXGFX$RTL.EXE
	VAXGFX$SIXEL_DEV_HANDLER.EXE
	VAXGFX$TEK41_DEV_HANDLER.EXE
	VAXGFX$TEK_DEV_HANDLER.EXE
	VAXGFX$UIS_DEV_HANDLER.EXE
SYS$HELP:	HELPLIB.HLB (modified)
GKS$EXAMPLES	BACKGAMMON.C
	BUILDESC.MAR
	CHOOSE_OPTS.C
	CLOCK.FOR
	COMPILE_DEMOS.COM
	DEMO_CC.OPT
	GKS$C.LSE
	GKS$C_BINDING.LSE
	GKS_CALC.C
	GLOBAL.H
	GUN.C
	HEALTH_ACTION.C
	HEALTH_CLUB.C

(continued on next page)

Table 1 (Cont.): Installed Files for the DEC GKS Development Kit

Directory	Filename
	HEALTH_CLUB_CONSTANTS.H
	HEALTH_CLUB_WINDOWS.H
	HEALTH_DRAW_CHART.C
	HEALTH_EVALUATE.C
	HEALTH_GET_VALUES.C
	HEALTH_ICONS.C
	HEALTH_MAN.C
	HEALTH_NEW_SNACK.C
	HEALTH_OPSYS.FOR
	HEALTH_SIMULATE.C
	HEALTH_STATION.C
	HEALTH_UPDATE.C
	INPUT_EXAMPLE.C
	OPEN_CLOSE_SCORE.C
	QUEEN.ADA
	READIN.C
	SPACE.H
	SPACEWAR.C
	SPACEWAR.MMS
	SPACEWAR.OPT
	TORPEDO.C
	TWINKLE.C
	UG_ADA_EXAMPLE.ADA
	UG_BASIC_EXAMPLE.BAS
	UG_BLISS_EXAMPLE.B32
	UG_CBND_EXAMPLE.C
	UG_COBOL_EXAMPLE.COB
	UG_C_EXAMPLE.C
	UG_FORBND_EXAMPLE.FOR

(continued on next page)

Table 1 (Cont.): Installed Files for the DEC GKS Development Kit

Directory	Filename
	UG_FORTRAN_EXAMPLE.FOR
	UG_PASCAL_EXAMPLE.PAS
	UG_PLI_EXAMPLE.PLI

Table 2 lists the files on the system that are added or modified when installing the DEC GKS run-time kit.

Table 2: Installed Files for the DEC GKS Run-Time Kit

Directory	Filename
SYS$STARTUP:	GKSTARTUP.COM
SYS$MESSAGE:	GKSMSG.EXE
SYS$HELP:	DECGKSRTO041.RELEASE_NOTES
SYS$TEST:	GKSIVP.EXE
SYS$FONT:	GKS$MARKERS.VWS$FONT
	GKS$MARKERS.VWS$VAFONT
SYS$LIBRARY:	GKS$CGMO_WS_HANDLER.EXE
	GKS$INQ_LIB.EXE
	GKS$MI_WS_HANDLER.EXE
	GKS$MO_WS_HANDLER.EXE
	GKS$WS_MANAGER.EXE
	GKSCRTLIB.EXE
	GKSRTLIB.EXE
	VAXGFX$COLSIX_DEV_HANDLER.EXE
	VAXGFX$DDIF_COLOR_TABLE.DAT
	VAXGFX$DDIF_DEV_HANDLER.EXE
	VAXGFX$DECW_DEV_HANDLER.EXE
	VAXGFX$FONT_NEG01.FNT
	VAXGFX$FONT_NEG02.FNT
	VAXGFX$FONT_NEG03.FNT

(continued on next page)

Table 2 (Cont.): Installed Files for the DEC GKS Run-Time Kit

Directory	Filename
	VAXGFX$FONT_NEG04.FNT
	VAXGFX$FONT_NEG05.FNT
	VAXGFX$FONT_NEG06.FNT
	VAXGFX$FONT_NEG07.FNT
	VAXGFX$FONT_NEG08.FNT
	VAXGFX$FONT_NEG09.FNT
	VAXGFX$FONT_NEG10.FNT
	VAXGFX$FONT_NEG11.FNT
	VAXGFX$FONT_NEG12.FNT
	VAXGFX$FONT_NEG13.FNT
	VAXGFX$FONT_NEG14.FNT
	VAXGFX$FONT_NEG15.FNT
	VAXGFX$FONT_NEG16.FNT
	VAXGFX$FONT_NEG17.FNT
	VAXGFX$FONT_NEG18.FNT
	VAXGFX$FONT_NEG19.FNT
	VAXGFX$FONT_NEG20.FNT
	VAXGFX$FONT_NEG21.FNT
	VAXGFX$FONT_NEG22.FNT
	VAXGFX$FONT_NEG23.FNT
	VAXGFX$FONT_NEG24.FNT
	VAXGFX$HPGL_DEV_HANDLER.EXE
	VAXGFX$PS_DEV_HANDLER.EXE
	VAXGFX$REGIS_DEV_HANDLER.EXE
	VAXGFX$RTL.EXE
	VAXGFX$SIXEL_DEV_HANDLER.EXE
	VAXGFX$TEK41_DEV_HANDLER.EXE
	VAXGFX$TEK_DEV_HANDLER.EXE
	VAXGFX$UIS_DEV_HANDLER.EXE

Step 7: Respond to License Registration Queries.

DEC GKS supports the VMS License Management Facility (LMF). The installation procedure displays license information about your product and then asks if you have registered and loaded your authorization key for DEC GKS. The following is an example of such information:

DEC GKS DEVELOPMENT KIT

```
Product:       GKS
Producer:      DEC
Version:       4.1
Release Date:  1-MAR-1990

* Does this product have an authorization key registered and loaded?
YES [RETURN]
```

DEC GKS RUN-TIME KIT

```
Product:       GKS-RT
Producer:      DEC
Version:       4.1
Release Date:  1-MAR-1990

* Does this product have an authorization key registered and loaded?
YES [RETURN]
```

If you have not registered and loaded your authorization key, answer NO to this question. Stop the installation, register and load your product authorization key, and then restart the installation. You must register and load your product authorization key to successfully complete the installation.

If you are installing the DEC GKS run-time kit, skip step 8 and continue with step 9.

Step 8: Select language bindings.

```
            LANGUAGE BINDING MENU

You can use the following menu to select language bindings.
Bindings marked with a '*' have already been selected. You can remove
a binding from the list of selected bindings by selecting it again. You
may select more than 1 language binding at a time by using a comma-
separated list.

NOTE : Initially ALL bindings are selected.


 1: Fortran binding      *
 2: C binding            *

               3: EXIT the menu phase
*               Menu Choice [3]: [RETURN]

* Have you selected all the bindings you want [YES]? [RETURN]
```

When you install DEC GKS, the language-specific bindings are normally included. If you do not want to include the language-specific binding, type its number in response to this question. Press RETURN to include all language-specific bindings.

After you select from this menu, you must indicate whether you want to select additional bindings. Type NO to change your selection, or press RETURN to continue.

Step 9: Select optional fonts.

```
                  FONT MENU

You can use the following menu to select GKS optional fonts
( Fonts 1 and -1 are ALWAYS provided ). Fonts marked with a '*'
after them have already been selected.  You can remove a font
from the selected list by selecting it again. You may select
more than 1 font at a time by using a comma-separated list.

NOTE: Initially ALL fonts are selected.

 2: Stroke Font (- 2)  *          3: Stroke Font (- 3)  *
 4: Stroke Font (- 4)  *          5: Stroke Font (- 5)  *
 6: Stroke Font (- 6)  *          7: Stroke Font (- 7)  *
 8: Stroke Font (- 8)  *          9: Stroke Font (- 9)  *
10: Stroke Font (-10)  *         11: Stroke Font (-11)  *
12: Stroke Font (-12)  *         13: Stroke Font (-13)  *
14: Stroke Font (-14)  *         15: Stroke Font (-15)  *
16: Stroke Font (-16)  *         17: Stroke Font (-17)  *
18: Stroke Font (-18)  *         19: Stroke Font (-19)  *
20: Stroke Font (-20)  *         21: Stroke Font (-21)  *
22: Stroke Font (-22)  *         23: Stroke Font (-23)  *
24: Stroke Font (-24)  *

               25: EXIT the menu phase

*                Menu Choice [25]:  5,23 RETURN

* Have you selected all the font files that you want [YES]?  RETURN
```

When you install DEC GKS, all the fonts are normally included. If you do not want to include a certain font, type the number associated with the font in response to this question. Do not type negative numbers. Press RETURN to include all the fonts indicated by the asterisks in the list.

After you select from the menu, you must indicate whether you want to select additional fonts. Type NO to select additional fonts, or press RETURN to continue.

If you are installing the DEC GKS run-time kit, skip step 10 and continue with step 11.

Step 10: Select language definition files.

```
                LANGUAGE DEFINITION FILES MENU

You can use the following menu to select language definition files.
Files marked with a '*' have already been selected. You can remove
a file from the list of selected files by selecting it again. You
may select more than 1 language file at a time by using a comma-
separated list.

NOTE : Initially ALL files are selected.


 1: BASIC include file                          *
 2: FORTRAN ( non-binding ) include file        *
 3: C include file                              *
 4: COBOL include file                          *
 5: PASCAL include file                         *
 6: PL/I Procedure definition file              *
 7: PL/I Function definition file               *
 8: Ada package definition file                 *
 9: BLISS include file                          *

                10: EXIT the menu phase

*                Menu Choice [10]:  8  RETURN

* Have you selected all the files you want [YES]?  RETURN
```

All language definition files are normally included. If you do not want to include files for a certain language (for example, if the language is not available on your system), type its number in response to this question. Press RETURN to include all the language files indicated by asterisks in the list.

After you select from the menu, you must indicate whether you want to select additional files. Type NO to select additional files, or press RETURN to continue.

Step 11: Select devices to support.

```
          DEVICE SUPPORT MENU

You can use the following menu to select GKS device support.
GKS device handlers, workstation handlers, or the Workstation
Manager marked with a '*' have already been selected. You can
remove one of these from the selected list by selecting it again.
You may select more than 1 device at a time by using a comma-
separated list.

NOTE: If you choose a device handler marked '(#WM)'
the Workstation Manager will also be selected. You must
also de-select ALL device handlers marked '(#WM)'
BEFORE you can de-select the Workstation Manager.  The
Metafile input and output handlers are ALWAYS provided.

( #WM ) Means that this handler requires the Workstation Manager.

Initially ALL handlers are selected.
```

```
 1: ReGis Handler (VT125/240/241/330/340,LCG01)                  * ( #WM )
 2: Sixel Handler (LA34/50/75/100/210,LN03-Plus)                 * ( #WM )
 3: LVP16,HP7550/7580/7585/7475, LG MPS-2000 Handler             * ( #WM )
 4: PostScript Handler (LN03R,LPS40)                             *
 5: Tektronix 4014 Handler                                       * ( #WM )
 6: Tektronix 4107, 4207, 4128, 4129, VS500  Handler             * ( #WM )
 7: CGM Output Handler                                           *
 8: LJ250 Handler                                                * ( #WM )
 9: DDIF Handler                                                 *
10: VAXstations (running VWS) Handler                            * ( #WM )
11: VAXstations (running DECwindows) Handler                     * ( #WM )
12: Workstation Manager                                          *

               13: EXIT the menu phase
*                Menu Choice [13]:  RETURN

* Have you selected all the files you want [YES]?  RETURN
```

Support for all devices is usually included. If you do not want to support certain devices (for example, if the device is not available on your system), type its number in response to this question. Press RETURN to support all the devices indicated by asterisks in the list.

After you select from the menu, you must indicate whether you want to select additional devices. Type NO to select additional devices, or press RETURN to continue.

If you are installing the DEC GKS run-time kit, skip steps 12 and 13 and continue with step 14.

Step 12: Install the GKS help library.

```
* Do you wish to have the help library for GKS [YES]? RETURN
```

Press RETURN if you want to include the GKS help library. Type NO if you do not want the help library.

Step 13: The Demonstration Source Files.

```
* Do you wish to have the DEC GKS DEMO source files [YES]? RETURN
```

Press RETURN if you want to include the DEC GKS demonstration source files. Type NO if you do not want the files.

Step 14: The Installation Verification Procedure.

```
* Do you wish to perform the Installation Verification Procedure [YES]?
    RETURN

    A copy of the Installation Verification Procedure will be put in
    SYS$TEST:GKSIVP.EXE

Devices supported for running the IVP:
 VT125 VT_OUTPUT VT240 VT3XX TEKTRONIX TEK_OUTPUT TEK4107 TEK4107_OUTPUT
 VSII GPX DECWINDOWS
```

```
* Enter the device type to use [DECWINDOWS]: RETURN
```

The Installation Verification Procedure (IVP) checks that the installation procedure was successful. If you do not want to run the IVP, type NO in response to the question. If you want to run the installation procedure at the end of the installation, press RETURN.

If the IVP runs successfully, it generates the picture shown in Figure 1. If your device provides color output, the illustration will appear in color.

Figure 1: Sample IVP Display

ZK-5416-86

You can display the IVP on any supported device. Enter the device type you want to use, or press RETURN to use the default type.

If you select a device type that has a color option, you must tell the IVP whether the device you will use supports color. Press RETURN if the device has no color support, or type YES if the device supports color.

You can display the IVP on any device of the type specified in the previous prompt or prompts. The default is the device through which you are running the IVP; note that the installation procedure does not check the device type before it displays this prompt. Press RETURN to use this device, or type NO to use another unallocated device.

To display the IVP on a device other than the one through which you are installing DEC GKS, enter the name of the device. If you select an output-only device (such as VT_OUTPUT or TEK41_OUTPUT), VMSINSTAL prompts you to enter a file name, then writes the output to this file.

Step 15: Informational messages.

The DEC GKS installation procedure produces a number of informational messages that report on the progress of the installation.

If the installation is successful, the new or modified files are moved to their target directories.

```
    STARTING to perform all the installation work.  If you are
    using a multi-media kit you will be prompted to insert the
    next distribution media, otherwise no additional user actions
    are necessary from this point.

%VMSINSTAL-I-RESTORE, Restoring product saveset B...

    No user actions are necessary from this point.
    The remaining part of the installation will take
    ( 5 - 20 minutes ) depending on your CPU.


    The DEC GKS on VMS run-time libraries have been processed
    successfully.

    The installation procedure is continuing...


    The DEC GKS on VMS VAXstation marker fonts have been processed successfully.

    The installation procedure is continuing...
```

DEC GKS DEVELOPMENT KIT

```
    The DEC GKS on VMS language bindings have been processed successfully.

    The installation procedure is continuing...

    Fonts installed, installation procedure continuing...


    Language files installed, installation procedure continuing....
```

```
    Handler files installed, installation procedure continuing....

%VMSINSTAL-I-SYSDIR, This product creates system directory [SYSHLP.EXAMPLES.GKS].

    If you intend to execute this layered product on other nodes in your
    VAXcluster, and you have the appropriate software license, you must
    prepare the system-specific roots on the other nodes by issuing the
    following command on each node (using a suitably privileged account):

    $ CREATE /DIRECTORY SYS$SPECIFIC:[SYSHLP.EXAMPLES.GKS]
%VMSINSTAL-I-RESTORE, Restoring product saveset C ...

    DEC GKS on VMS has built successfully.
    Continuing installation...
```

DEC GKS RUN-TIME KIT

```
    Fonts installed, installation procedure continuing...

    Handler files installed, installation procedure continuing....

    DEC GKS on VMS has built successfully.
    Continuing installation...
```

The messages for both DEC GKS kits continue as follows:

```
  System Manager:

Upon completion of this installation, please be sure to
edit the system startup files as described in the DEC GKS
Installation Guide.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

        Beginning the DEC GKS Installation Verification Procedure.

    The image will be generated twice, followed by a 30 second pause to
    review the results.

    Installation Verification Procedure for DEC GKS V4.1 completed.

    If the result of the Installation Verification Procedure looks
    like the illustration provided with the DEC GKS on VMS Installation
    Guide, then installation has been successful.
```

If the installation is successful, the GKS files are moved to their target directory.

In addition, SYS$HELP:HELPLIB.HLB is updated to include the new version of the DEC GKS help text, and the DEC GKS release notes are then copied:

- The DEC GKS development kit release notes are copied to SYS$HELP:DECGKS04n.RELE NOTES.
- The DEC GKS run-time kit release notes are copied to SYS$HELP:DECGKSRTO04n.RELE NOTES.

Step 16: End the installation procedure.

DEC GKS DEVELOPMENT KIT

```
   Installation of DECGKS 4.1 completed at 16:12

   VMSINSTAL procedure done at 16:27

$  LOGOUT  RETURN
SYSTEM     logged out at 04-JAN-1990 16:27:02.47
```

DEC GKS RUN-TIME KIT

```
   Installation of DECGKSRTO 4.1 completed at 8:14

   VMSINSTAL procedure done at 8:29

$  LOGOUT  RETURN
SYSTEM     logged out at 05-JAN-1990 8:29:40.47
```

When the product installation procedure is complete, you can choose to install more products or to log out (as shown here.) If you removed any media from the console drive before beginning the installation, replace it now.

VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you will continue using the system manager's account and want to restore these symbols, log out and log in again.

1.3 Installing DEC GKS on a VAXcluster

If you want to run DEC GKS on multiple nodes of a VAXcluster, first check to see that you have the appropriate software license. Then, follow these steps after installing DEC GKS:

1. Issue the LICENSE LOAD command to activate the license on each node in the VAXcluster on which DEC GKS is to be executed as described in the *VMS License Management Utility Manual*.
2. Run SYS$MANAGER:SYSTARTUP.COM on each node of the cluster that has a software license.

Do not purge files during the installation. You can purge these files after you have run the GKS startup on each node of the cluster.

1.4 After the Installation

DEC GKS is now installed and can be invoked by all users with the GKSTARTUP.COM command.

You must edit the file SYS$MANAGER:SYSTARTUP_V5.COM to invoke the startup procedure GKSTARTUP.COM. This procedure runs the DEC GKS startup routine whenever you reboot your system. To include the procedure in your startup file, edit SYS$MANAGER:SYSTARTUP_V5.COM and add the following line:

```
$ @SYS$STARTUP:GKSTARTUP.COM
```

If you installed DEC GKS on a cluster, GKSTARTUP.COM is automatically performed for the system node from which the installation was performed. However, you may also need to execute this file for other nodes in the cluster to get the newest DEC GKS images installed on those systems. This is particularly true if you purged older versions of GKS during the installation.

If an earlier version of DEC GKS exists on your system, be sure to remove the command that runs the earlier version's startup file.

1.5 Running the Installation Verification Procedure Separately

The Installation Verification Procedure (IVP) is usually run at installation. If you want to run the IVP separately to ensure the integrity of installed files if system problems occur, execute the following command:

```
$  RUN SYS$TEST:GKSIVP.EXE RETURN
```

1.6 Error Conditions

If the IVP fails for any reason, the following messages are displayed:

```
%VMSINSTAL-E-IVPFAIL, The installation of DECGKS 4.1 has failed.
```

An error during the installation can occur if one or more of the following conditions exist:

- The operating system version is incorrect.
- The prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient (see the section entitled ‘‘Installation Procedure Requirements’’.
- Process quotas required by VMSINSTAL are incorrect (see the section entitled ‘‘Using VMSINSTAL’’.

- The VMS HELP library is currently in use.
- The product was registered incorrectly or not registered.
- Your DEC GKS software license is not installed.

For descriptions of the error messages generated by these conditions, see the *VMS Volume 6–System Messages*, your processor-specific installation/operations guide, or the *VMS License Management Utility Manual*.

If you are notified that any of these conditions exist, take the appropriate action as described in the message. You may need to change a system parameter or increase an authorized quota value.

If the installation procedure fails, one or more of the following messages may also appear. These messages notify you of fatal errors caused by incorrect preparation for installation.

```
This kit requires VMS V5.1 or a subsequent version of VMS

System disk does not contain enough free blocks to install DECGKS

Insufficient CLISYMTBL pages - the installation of DECGKS
requires at least 150 pages. Use SYSGEN to change this
parameter and restart the installation.

Incompatible MicroVMS Workstation software for this version of DEC GKS
```

If one of these messages appears, review the section entitled ‘‘Preparing to Install DEC GKS’’, and repeat the installation procedure.

If the following error occurs, VMSINSTAL asks whether you want to continue the installation. If you continue, be aware that DEC GKS may not run properly.

```
WARNING - this is an UPGRADE FTxx baselevel of VMS.
unable to decode the VMS version number. This may or
may not be the correct version of VMS for this GKS. This
version of DEC GKS supports VMS V5.1 or a subsequent version of VMS.
```

Errors during the installation procedure will cause the following messages:

```
            ******* ERROR ********
You did not select the device or workstation handler needed
to use that display. You now have the option of not running
the Installation Verification Procedure or choosing to run
it and providing a valid device.

            ******* ERROR ********
The indicated device could not be allocated. You now have the
option of not running the Installation Verification Procedure
or choosing to run it and providing a valid device.
```

```
            ******* ERROR ********
The file name supplied was invalid. You now have the
option of not running the Installation Verification Procedure
or choosing to run it and providing a valid file name.
```

To recover, make the correction described in the message.

The following warning messages may appear during a successful installation:

```
The file SYS$LIBRARY:[file_name].EXE has not been selected during this
installation although it exists on your system and may be outdated.
You may want to delete this file to avoid erroneous results.


WARNING: The machine which you are running on does not
support the D floating point format in hardware. This
may cause the degradation of performance of many
of DEC GKS's routines.

ERROR - You can not deselect the Workstation Manager before
deselecting all handlers that are listed as '( #WM )'.
```

If the Installation Verification Procedure fails for any reason, the following message is displayed:

```
DEC GKS V4.1 Installation Verification Procedure failed.
Please consult the DEC GKS Installation Guide for further information.
```

If you receive this message, and all the conditions listed above are correct, contact your Digital Customer Services Group representative.

1.7 Maintenance Updates

Digital may periodically issue maintenance updates of DEC GKS. Each update consists of an installation kit. You should install this kit as described in this document or in any documentation that may accompany the maintenance update.

Each time a maintenance update is released, the version number changes. For example, if the current version is 4.1, the version number of the first maintenance update will be 4.2. In addition, each maintenance update includes new release notes. The release notes describe the changes that have been made to DEC GKS since the previous release.

The update release notes are provided on line. You should read the release notes when you first install DEC GKS; they are also accessible at any time after the product is installed. For information on reading the release notes at the time that you install DEC GKS, follow the installation procedure described in the section ''Installing DEC GKS for VMS'' through step 5.

To locate the release notes after DEC GKS is installed, display or print the file SYS$HELP:DECGKS04n.RELEASE_NOTES for the DEC GKS development kit, or SYS$HELP:DECGKSRTO04n.RELEASE_NOTES for the DEC GKS run-time kit, or type the following command:

```
$ HELP GKS RELEASE_NOTES RETURN
```

1.8 Determining and Reporting Problems

If an error occurs while you are using DEC GKS, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).
- Fill out and submit a Reader's Comments form if the problem has to do with the DEC GKS documentation. There are Reader's Comments forms at the back of each manual. Use the form from the manual in which you found the error. Include the page number.

Review the Software Product Description (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as indicated in this section or follow alternate instructions provided by Digital for reporting SPD nonconformance problems.

1.9 DEC GKS Development Kit Sample Installation

This section contains a sample installation of the DEC GKS development kit. Note that this is only a sample. Sometimes the installation procedure is modified in maintenance updates of this product. Because this installation guide is not usually revised for maintenance updates, be sure to read the *Read Before Installing or Using DEC GKS* letter before you install this product. This letter notes any significant changes in the installation that vary from this sample.

```
@vmsinstal decgks041 mua0:

 VAX/VMS Software Product Installation Procedure V5.2

It is 4-JAN-1990 at 15:39.
Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]?
```

```
The following products will be processed:
  DECGKS V4.1

 Beginning installation of DECGKS V4.1 at 15:41

%VMSINSTAL-I-RESTORE, Restoring product saveset A ...
%VMSINSTAL-I-RELMOVED , The product's release notes have been successfully
 moved to SYS$HELP.

 PostScript is a registered trademark of Adobe Systems, Inc.
 LaserWriter is a registered trademark of Apple Computer, Inc.
 Tektronix is a registered trademark of Tektronix, Inc.
 Ada is a registered trademark of the U.S. government
    ( Ada Joint Program Office ).

* Do you want to purge files replaced by this installation [YES]?

        Product:      GKS
        Producer:     DEC
        Version:      4.1
        Release Date: 1-MAR-1990

* Does this product have an authorization key registered and loaded? yes

          LANGUAGE BINDING MENU

You can use the following menu to select language bindings.
Bindings marked with a '*' have already been selected. You can remove
a binding from the list of selected bindings by selecting it again. You
may select more than 1 language binding at a time by using a comma-
separated list.

NOTE : Initially ALL bindings are selected.


 1: Fortran binding      *
 2: C binding            *

                3: EXIT the menu phase
*                Menu Choice [3]:

* Have you selected all the bindings you want [YES]?

          FONT MENU

You can use the following menu to select GKS optional fonts
( Fonts 1 and -1 are ALWAYS provided ). Fonts marked with a '*'
after them have already been selected.  You can remove a font
from the selected list by selecting it again. You may select
more than 1 font at a time by using a comma-separated list.

NOTE: Initially ALL fonts are selected.
```

```
 2: Stroke Font (- 2)  *          3: Stroke Font (- 3)  *
 4: Stroke Font (- 4)  *          5: Stroke Font (- 5)  *
 6: Stroke Font (- 6)  *          7: Stroke Font (- 7)  *
 8: Stroke Font (- 8)  *          9: Stroke Font (- 9)  *
10: Stroke Font (-10)  *         11: Stroke Font (-11)  *
12: Stroke Font (-12)  *         13: Stroke Font (-13)  *
14: Stroke Font (-14)  *         15: Stroke Font (-15)  *
16: Stroke Font (-16)  *         17: Stroke Font (-17)  *
18: Stroke Font (-18)  *         19: Stroke Font (-19)  *
20: Stroke Font (-20)  *         21: Stroke Font (-21)  *
22: Stroke Font (-22)  *         23: Stroke Font (-23)  *
24: Stroke Font (-24)  *

               25: EXIT the menu phase
*                Menu Choice [25]:
```

* Have you selected all the font files that you want [YES]?

LANGUAGE DEFINITION FILES MENU

You can use the following menu to select language definition files. Files marked with a '*' have already been selected. You can remove a file from the list of selected files by selecting it again. You may select more than 1 language file at a time by using a comma-separated list.

NOTE : Initially ALL files are selected.

```
 1: BASIC include file                        *
 2: FORTRAN ( non-binding ) include file      *
 3: C include file                            *
 4: COBOL include file                        *
 5: PASCAL include file                       *
 6: PL/I Procedure definition file            *
 7: PL/I Function definition file             *
 8: Ada package definition file               *
 9: BLISS include file                        *

               10: EXIT the menu phase
*                Menu Choice [10]:
```

* Have you selected all the files you want [YES]?

DEVICE SUPPORT MENU

You can use the following menu to select GKS device support. GKS device handlers, workstation handlers, or the Workstation Manager marked with a '*' have already been selected. You can remove an item from the selected list by selecting it again. You may select more than 1 device at a time by using a comma-separated list.

NOTE: If you choose a device handler marked '(#WM)' the Workstation Manager will also be selected. You must also de-select ALL device handlers marked '(#WM)' BEFORE you can de-select the Workstation Manager. The Metafile input and output handlers are ALWAYS provided.

(#WM) Means that this handler requires the Workstation Manager.

Initially ALL handlers are selected.

```
 1: ReGis Handler (VT125/240/241/330/340,LCG01)        * ( #WM )
 2: Sixel Handler (LA34/50/75/100/210,LN03-Plus)       * ( #WM )
 3: LVP16,HP7550/7580/7585/7475, LG MPS-2000 Handler   * ( #WM )
 4: PostScript Handler (LPS40,LN03R)                   * ( #WM )
 5: Tektronix 4014 Handler                             * ( #WM )
 6: Tektronix 4107,4207,4128,4129,VS500 Handler        * ( #WM )
 7: CGM Output Handler                                 *
 8: LJ250 Handler                                      * ( #WM )
 9: DDIF Handler                                       * ( #WM )
10: VAXstations ( running VWS ) Handler                * ( #WM )
11: VAXstations ( running DECwindows ) Handler         * ( #WM )
12: Workstation Manager                                *

               13: EXIT the menu phase
*                Menu Choice [13]:

* Have you selected all the files you want [YES]?

* Do you wish to have the help library for GKS  [YES]?

* Do you wish to have the DEC GKS DEMO source files [YES]?

* Do you wish to perform the Installation Verification Procedure [YES]?

 A copy of the Installation Verification Procedure will be put in
 SYS$TEST:GKSIVP.EXE


Devices supported for running the IVP:
 VT125 VT_OUTPUT VT240 VT3XX TEKTRONIX TEK_OUTPUT TEK4107 TEK4107_OUTPUT VSII
 GPX DECWINDOWS

* Enter the device type to use [DECWINDOWS]:

        STARTING to perform all the installation work.  If you are
 using a multi-media kit you will be prompted to insert the
 next distribution media, otherwise no additional user actions
 are necessary from this point.

%VMSINSTAL-I-RESTORE, Restoring product saveset B ...

 No user actions are necessary from this point.
 The remaining part of the installation will take
 ( 5 - 20 minutes ) depending on your CPU.


 The DEC GKS on VMS run-time libraries have been processed successfully.

 The installation procedure is continuing...


 The DEC GKS on VMS VAXstation marker fonts have been processed successfully.

 The installation procedure is continuing...


 The DEC GKS on VMS language bindings have been processed successfully

 The installation procedure is continuing...


        Fonts installed, installation procedure continuing...


        Language files installed, installation procedure continuing....
```

```
        Handler files installed, installation procedure continuing....

%VMSINSTAL-I-SYSDIR, This product creates system directory [SYSHLP.EXAMPLES.GKS].

    If you intend to execute this layered product on other nodes in your
    VAXcluster, and you have the appropriate software license, you must
    prepare the system-specific roots on the other nodes by issuing the
    following command on each node (using a suitably privileged account):

 $ CREATE /DIRECTORY SYS$SPECIFIC:[SYSHLP.EXAMPLES.GKS]
%VMSINSTAL-I-RESTORE, Restoring product saveset C ...

 DEC GKS on VMS has built successfully.
 Continuing installation...


  System Manager:

 Upon completion of this installation, please be sure to
 edit the system startup files as described in the DEC GKS on VMS
 Installation Guide.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

        Beginning the DEC GKS on VMS Installation Verification Procedure.

 The image will be generated twice, followed by a 30 second
 pause to review the results.

Installation Verification Procedure for DEC GKS V4.1 completed.

 If the results of the Installation Verification Procedure looks
 like the illustration provided with the DEC GKS on VMS Installation
 Guide, then installation has been successful.

 Installation of DECGKS V4.1 completed at 16:12

 VMSINSTAL procedure done at 16:27
```

1.10 DEC GKS Run-Time Kit Sample Installation

This section contains a sample installation of the DEC GKS run-time kit. Note that this is only a sample. Sometimes the installation procedure is modified in maintenance updates of this product. Because this installation guide is not usually revised for maintenance updates, be sure to read the *Read Before Installing or Using DEC GKS* letter before you install this product. This letter notes any significant changes in the installation that vary from this sample.

```
@vmsinstal decgksrto041 mua0:

 VAX/VMS Software Product Installation Procedure V5.2


It is 5-JAN-1990 at 07:49.
Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]?

The following products will be processed:
```

```
  DECGKSRTO V4.1

 Beginning installation of DECGKSRTO V4.1 at 07:50

%VMSINSTAL-I-RESTORE, Restoring product saveset A ...
%VMSINSTAL-I-RELMOVED , The product's release notes have been successfully
 moved to SYS$HELP.

 PostScript is a registered trademark of Adobe Systems, Inc.
 LaserWriter is a registered trademark of Apple Computer, Inc.
 Tektronix is a registered trademark of Tektronix, Inc.
 Ada is a registered trademark of the U.S. government
    ( Ada Joint Program Office ).


* Do you want to purge files replaced by this installation [YES]?

        Product:      GKS-RT
        Producer:     DEC
        Version:      4.1
        Release Date: 1-MAR-1990

* Does this product have an authorization key registered and loaded? yes

          FONT MENU

You can use the following menu to select GKS optional fonts
( Fonts 1 and -1 are ALWAYS provided ). Fonts marked with a '*'
after them have already been selected.  You can remove a font
from the selected list by selecting it again. You may select
more than 1 font at a time by using a comma-separated list.

NOTE: Initially ALL fonts are selected.


 2: Stroke Font (- 2)  *          3: Stroke Font (- 3)  *
 4: Stroke Font (- 4)  *          5: Stroke Font (- 5)  *
 6: Stroke Font (- 6)  *          7: Stroke Font (- 7)  *
 8: Stroke Font (- 8)  *          9: Stroke Font (- 9)  *
10: Stroke Font (-10)  *         11: Stroke Font (-11)  *
12: Stroke Font (-12)  *         13: Stroke Font (-13)  *
14: Stroke Font (-14)  *         15: Stroke Font (-15)  *
16: Stroke Font (-16)  *         17: Stroke Font (-17)  *
18: Stroke Font (-18)  *         19: Stroke Font (-19)  *
20: Stroke Font (-20)  *         21: Stroke Font (-21)  *
22: Stroke Font (-22)  *         23: Stroke Font (-23)  *
24: Stroke Font (-24)  *

               25: EXIT the menu phase
*                Menu Choice [25]:

* Have you selected all the font files that you want [YES]?

   DEVICE SUPPORT MENU

You can use the following menu to select GKS device support.
GKS device handlers, workstation handlers, or the Workstation
Manager marked with a '*' have already been selected. You can
remove an item from the selected list by selecting it again.
You may select more than 1 device at a time by using a comma-
separated list.
```

```
NOTE: If you choose a device handler marked '( #WM )'
the Workstation Manager will also be selected. You must
also de-select ALL device handlers marked '( #WM )'
BEFORE you can de-select the Workstation Manager.  The
Metafile input and output handlers are ALWAYS provided.

( #WM ) Means that this handler requires the Workstation Manager.

Initially ALL handlers are selected.

 1: ReGis Handler (VT125/240/241/330/340,LCG01)        * ( #WM )
 2: Sixel Handler (LA34/50/75/100/210,LN03-Plus)       * ( #WM )
 3: LVP16,HP7550/7580/7585/7475, LG MPS-2000 Handler   * ( #WM )
 4: PostScript Handler (LPS40,LN03R)                   * ( #WM )
 5: Tektronix 4014 Handler                             * ( #WM )
 6: Tektronix 4107,4207,4128,4129,VS500 Handler        * ( #WM )
 7: CGM Output Handler                                 *
 8: LJ250 Handler                                      * ( #WM )
 9: DDIF Handler                                       * ( #WM )
10: VAXstations ( running VWS ) Handler                * ( #WM )
11: VAXstations ( running DECwindows ) Handler         * ( #WM )
12: Workstation Manager                                *

               13: EXIT the menu phase
*                Menu Choice [13]:

* Have you selected all the files you want [YES]?

* Do you wish to perform the Installation Verification Procedure [YES]?

 A copy of the Installation Verification Procedure will be put in
 SYS$TEST:GKSIVP.EXE


Devices supported for running the IVP:
 VT125 VT_OUTPUT VT240 VT3XX TEKTRONIX TEK_OUTPUT TEK4107 TEK4107_OUTPUT VSII
 GPX DECWINDOWS

* Enter the device type to use [DECWINDOWS]:

        STARTING to perform all the installation work.  If you are
 using a multi-media kit you will be prompted to insert the
 next distribution media, otherwise no additional user actions
 are necessary from this point.

%VMSINSTAL-I-RESTORE, Restoring product saveset B ...

 No user actions are necessary from this point.
 The remaining part of the installation will take
 ( 5 - 20 minutes ) depending on your CPU.


 The DEC GKS on VMS run-time libraries have been processed successfully.

 The installation procedure is continuing...


 The DEC GKS on VMS VAXstation marker fonts have been processed successfully.

 The installation procedure is continuing...

        Fonts installed, installation procedure continuing...

        Handler files installed, installation procedure continuing....
```

```
 DEC GKS on VMS has built successfully.
 Continuing installation...

  System Manager:

 Upon completion of this installation, please be sure to
 edit the system startup files as described in the DEC GKS on VMS
 Installation Guide.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

        Beginning the DEC GKS on VMS Installation Verification Procedure.

 The image will be generated twice, followed by a 30 second
 pause to review the results.

Installation Verification Procedure for DEC GKS V4.1 completed

 If the results of the Installation Verification Procedure looks
 like the illustration provided with the DEC GKS on VMS Installation
 Guide, then installation has been successful.

 Installation of DECGKSRTO V4.1 completed at 08:14

 VMSINSTAL procedure done at 08:29
```