VAX DECgraph Installation Guide

Order Number: AA-R430E-TE

Software Version: DECgraph Version 1.6

Operating System: VAX/VMS Version 5.0 or higher

August 1990

This manual describes the steps required for system managers to install the VAX DECgraph graphic plotting software.

August 1990

The postpaid READER'S COMMENTS form on the last page of this document requests the user's critical evaluation to assist in preparing future documentation.

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Contents

Preface

This installation guide describes how to install VAX DECgraph on the VAX/VMS operating system. It is intended for system managers.

Keep this document with your distribution kit. You will need to refer to it again if you receive any maintenance updates or need to reinstall DECgraph.

The installation procedure is described step by step. The dialog is interactive. The installation procedure prompts you to answer questions.

This installation guide does not contain release notes. Release notes are on-line. You can display and print the release notes from within the installation procedure.

To read the release notes after installation, type or print the file SYS$HELP:GRAPH016.RELEASE_NOTES.

Conventions

This manual uses the following conventions:

Convention	Meaning
RETURN	Keys are shown with boxes around them.
CTRL/X	Two keys separated by a forward slash means you should hold down the first key and press the second. In the example here, you should hold down CTRL and press X.

1 Preinstallation

This chapter describes how to prepare for installing VAX DECgraph V1.6 software on your VAX/VMS system.

1.1 The Distribution Kit

You can receive DECgraph V1.6 on magnetic tape (16MT9) or tape cartridge (TK50) media.

The installation procedure will prompt you to mount the volumes. To mount the distribution medium, see the *Guide to VAX/VMS Software Installation* for your system. The guide also details several options to the installation procedure. Be sure to read it.

Each distribution kit includes all files needed to install and execute DECgraph V1.6. Release notes about installing and operating DECgraph are available on-line. You can display them and print them from within the installation procedure (See section 2.2, step 6).

The DECgraph kit contains two savesets: GRAPH016.A and GRAPH016.B

1.2 Prerequisite Software

To run DECgraph V1.6, you must have VMS V5.0 or later on your system.

1.3 Installation Procedure Requirements

Before you can install DECgraph, you must have the following:

- A DECgraph distribution kit
- Access to a privileged system manager's account
- A minimum of 3500 free blocks on the system disk during installation (1600 blocks are allocated to DECgraph after installation.)
- A minimum of 100 unused global pages and a minimum of 5 global sections
- A DECgraph license installed and loaded

1.3.1 Checking the System Parameters

Before you install DECgraph you must compare the required number of global pages and global sections with the values on your system. The installation procedure checks these system parameters. If a parameter does not meet the minimum value, the results are unpredictable. Refer to the *Guide to Setting Up a VMS System* in the VAX/VMS documentation for information about modifying GBLPAGES and/or GBLSECTIONS values.

To determine the number of global pages and sections on your system, do the following:

1 Invoke the INSTALL utility by entering:

```
$ INSTALL
```

2 Determine the number of available global pages by entering:

```
INSTALL> LIST/GLOBAL/SUMMARY
```

This command determines whether your system has enough available global pages to install DECgraph. It displays a summary of the number of global sections used, the number of global pages used, and the number of global pages unused.

DECgraph requires 100 global pages. If there are fewer than 100 unused pages, you can delete an existing known image (with the INSTALL utility). You can also increase the GBLPAGES system parameter with the SYSTEM GENERATION utility by using AUTOGEN.COM. For more information about using AUTOGEN, refer to the *Guide to Setting Up a VMS System* in the VAX/VMS documentation.

Note the number of global sections used because you will need the information when checking the global sections.

3 Exit from the INSTALL utility by entering:

```
INSTALL> EXIT
```

4 Determine the number of available global sections by using the SYSGEN utility. Enter the following:

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

These commands determine whether your system has enough available global sections to install DECgraph. The first number displayed is the maximum number of global sections. Compare this number to the number of global sections in use displayed by the INSTALL utility (in Step 2).

DECgraph requires five global sections. Therefore, if the amount displayed plus five exceeds the system maximum, you must increase the number of available global sections before you can install DECgraph.

To increase the amount, you must increase the GBLSECTIONS parameter with the SYSTEM GENERATION utility by using AUTOGEN.COM. For more information about AUTOGEN, refer to the *Guide to Setting Up a VMS System* in the VAX/VMS documentation.

If the amount displayed plus five is less than the system maximum, you can install DECgraph.

1.3.2 Special Requirements

DECgraph operation requires permanent disk space in the following directories:

- GRAPH$LIBRARY
- SYS$HELP
- SYS$STARTUP
- SYS$SHARE
- SYS$SYSTEM
- SYS$TEST
- SYS$SYSROOT:[SYSTEST.GRAPH016]

Table 1–1 shows the files in the directories.

Table 1–1 Directories and Files for DECgraph Installation

Directory	File
GRAPH$LIBRARY	GRAPHSIXEL.COM PAL1.GRP PAL2.GRP PAL3.GRP PAL4.GRP PAL5.GRP PAL6.GRP PAL7.GRP PAL8.GRP PAL9.GRP PAL10.GRP PAL11.GRP PAL12.GRP SAMPLE.GRD SAMPLE.GRG SAMPLE.GRI SAMPLE1.GRL SAMPLE2.GRL
SYS$HELP	GRAPH016.RELEASE_NOTES GRAPHHELP.HLB
SYS$STARTUP	GRAPH$START.COM
SYS$SHARE	GRAPHSHR.EXE
SYS$SYSTEM	DECGRAPH.EXE
SYS$TEST	GRAPH$IVP.COM
[SYSTEST.GRAPH016]	GRAPH$IVP.GRO

Your system needs at least 3500 free blocks before you attempt this installation.

Use the following command to determine if you have enough free disk blocks on your system disk (or target disk system) to install DECgraph:

```
$ SHOW DEVICE SYS$SYSDEVICE
```

2 Installation

This chapter explains how to install DECgraph and describes error messages you might receive during the installation.

2.1 Installing DECgraph

This section contains the steps you follow to install DECgraph. You will have to log on to the system manager's account and make a backup of the system disk, checking all parameters. You should install DECgraph in stand-alone mode. You will have to make sure all users have logged off the system and that all batch jobs are complete. Then you will shut down the DECnet network and invoke VMSINSTAL to install DECgraph.

The installation procedure prompts you to enter information. Most queries require a simple YES or NO answer. Respond with Y or N, as appropriate, or press Return to choose the default.

Enhancements to VMSINSTAL in future releases of VMS might result in additional prompts appearing during the course of the installation. Although such prompts might not be documented in this installation guide, the installation will proceed normally.

The DECgraph installation procedure takes between 2 and 30 minutes to complete depending on your particular VAX configuration.

2.2 Installation Procedure

1 Make a backup of the system disk and check the system parameters.

2 Log on to the system manager's account. Set the default directory to SYS$UPDATE by entering:

   $ SET DEFAULT SYS$UPDATE

3 Start the installation by entering:

   $ @VMSINSTAL GRAPH016 *device* OPTIONS N

   device is the name of the device on which you will mount the DECgraph distribution media. VMSINSTAL displays information similar to the following:

```
        VAX/VMS Software Product Installation Procedure V5.0

It is 22-APR-1990 at 08:08.
Enter a question mark (?) at any time for help.
```

   VMSINSTAL displays a warning message if users are logged on to the system or DECnet is running. You can stop the installation procedure by pressing Return when prompted to continue the installation procedure. If you continue, VMSINSTAL then asks you if you are satisfied with the backup of your system disk:

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

If you have not made a backup of your system disk, type N and press Return. You will exit from the installation procedure.

If you have backed up your system disk, enter Y or just press Return to continue the installation procedure.

4 Mount the first installation kit volume when VMSINSTAL displays a message similar to the following:

```
Please mount the first volume of the set on [device].
Are you ready?
```

5 After mounting the first volume, type Y and press Return to continue the installation procedure. VMSINSTAL displays the following messages:

```
%MOUNT-I-MOUNTED, GRAPH mounted on [device]:

The following products will be processed:

        GRAPH V1.6

             Beginning installation of GRAPH V1.6 at 08:10

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

Release Note 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 [2]:
```

6 Select a release notes option. If you select Option 1, VMSINSTAL displays the release notes immediately on your screen. If you select option 2 or 3, VMSINSTAL prompts you for a queue name:

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

Enter a queue name or press Return to indicate the default output print device SYS$PRINT.

If you select Option 4, VMSINSTAL copies the release notes to the SYS$HELP directory.

If you select Option 5, VMSINSTAL does not display, print, or copy the release notes.

VMSINSTAL asks if you want to continue with the installation:

```
Do you want to continue the installation?
```

7 Type N and press Return to stop the installation. Enter Y to continue.

If you enter Y to continue the installation, VMSINSTAL displays the following message:

```
********************************************************
*                                                      *
*                  VAX DECgraph V1.6                   *
*                                                      *
*                Installation Procedure                *
*                                                      *
*    Copyright 1990, Digital Equipment Corporation     *
*                                                      *
********************************************************

        Product:       DECGRAPH
        Producer:      DEC
        Version:       1.6
        Release Date:  24-SEP-1990

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

If your license is loaded, enter Y at the prompt. If you enter Y and you do not have a license loaded, your IVP will fail. The installation proceeds as normal, but you will not be able to use DECgraph until you load a valid license on the system. Refer to the *VMS License Management Utility Manual* for information on installing and loading licenses.

If you enter N at the prompt, VMSINSTAL lets you exit the installation to load the license on to the system with the following prompt:

```
You do not have the DECgraph license currently loaded on your system.
You may continue with this installation, or you may stop to load the
license at this time. If you do continue, you will not be able to use
the DECgraph product until the license is loaded.

*Do you wish to continue with the DECgraph installation? [N]?
```

If you enter N, the installation stops. If you enter Y or you do have a license loaded, VMSINSTAL verifies that you have adequate disk space.

8 Next you will be prompted for the directory into which to place the DECgraph library files. This directory is pointed to by the logical GRAPH$LIBRARY. If this logical is defined, it is translated, and this becomes the default directory. If that directory exists, then you will see the following prompt:

```
The directory SYS$COMMON:[DECGRAPH] currently exists on your system.
* Would you like to place the GRAPH V1.6 library files there [YES]?
```

If the directory does not exist, or the logical GRAPH$LIBRARY is not defined then SYS$COMON:[DECGRAPH] becomes the default directory, and the following prompt is displayed:

```
* Where would you like to place the GRAPH V1.6 library files?
[SYS$COMMON:[DECGRAPH]]:
```

If the directory that you specify does not exist, you will then receive the following message:

```
%GRAPH-I-NOEXIST, SYS$COMMON:[DECGRAPH] does not currently exist.
* Would you like to create SYS$COMMON:[DECGRAPH]:
%VMSINSTAL-I-SYSDIR, This product creates system directory [DECGRAPH].

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:[DECGRAPH]
```

If the directory that you specified does exist, you receive this message:

```
%CREATE-I-EXISTS, SYS$COMMON:[DECGRAPH] already exists

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:[DECGRAPH]
```

9 Next you will be prompted for the DATATRIEVE data entry option. This provides the ability to access data from DATATRIEVE and display it in DECgraph. For more information on using DATATRIEVE with DECgraph, see the *VAX DECgraph User's Manual*. For more information on DATATRIEVE, see the *DATATRIEVE Reference Manual*. If you select the DATATRIEVE interface, the following will be displayed:

```
Enter ? to get help.
* Do you have DATATRIEVE V4.2 or later on the system,
and would you like to link DECgraph with it [NO]? yes

Searching for DATATRIEVE shareable images.
Please wait (less than 5 minutes) ....

The DATATRIEVE shareable image ([SYSLIB]DTRSHR.EXE)
is found on your system.

* Do you want to link DECgraph with it [YES]?

DECgraph will be linked with the DATATRIEVE shareable
image [SYSLIB]DTRSHR.EXE.
```

10 VMSINSTAL asks if you want to purge the files the current installation replaces:

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

Press Return or enter Y to purge the old version of DECgraph from your system. Enter N to keep the old version of DECgraph.

VMSINSTAL then creates a test directory to put the test graph used for the Installation Verification Procedure (IVP):

```
%VMSINSTAL-I-SYSDIR, This product creates system directory
[SYSTEST.GRAPH016].

If you intend to execute this layered product on the 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 suitable
privileged account):

       $ CREATE /DIRECTORY SYS$SPECIFIC:[SYSTEST.GRAPH016]
```

11 VMSINSTAL now gives you the choice of running the Installation Verification Procedure (IVP). The IVP tests to determine if the installation was successful. The IVP takes from 2 to 20 minutes to complete, depending on your configuration.

However, you cannot run the IVP if your DECgraph license is not loaded. If it is *not* loaded, VMSINSTAL displays the following message:

```
You do not have a license installed on your system. Since the
Installation Verification Procedure requires the license to be loaded,
it will not be run. Once this installation has finished and the
license is loaded, it is highly recommended to run the IVP by hand. To
do this, type:

 @SYS$TEST:GRAPH$IVP.COM
```

If your license *is* loaded, VMSINSTAL displays the following prompt:

```
* Do you want to run the IVP after the installation [YES]?
```

12 To run the Installation Verification Procedure, press Return. VMSINSTAL copies files from the distribution kit and performs the installation. It displays the following messages:

```
All questions necessary for the installation of DECgraph have been
answered.

After all files have been copied from the distribution kit, the
DECgraph installation procedure will continue for about 10 minutes.

%VMSINSTAL-I-RESTORE, Restoring product save set B ...

DECgraph is installed with the DATATRIEVE data entry option.

        ******* Modification to SYS$MANAGER:SYSTARTUP_V5.COM *******

To complete the DECgraph installation, you MUST add the following
line to your system startup file (SYS$MANAGER:SYSTARTUP_V5.COM):

    @SYS$STARTUP:GRAPH$START.COM

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

13 If you elected to run the IVP, you will see the following messages:

```
   ************************************************************
   *                                                          *
   *                    VAX DECgraph V1.6                     *
   *                                                          *
   *           Installation Verification Procedure            *
   *                                                          *
   *       Copyright 1990, Digital Equipment Corporation      *
   *                                                          *
   ************************************************************

Please wait for the Installation Verification Procedure to complete.
The IVP takes from 2 to 20 minutes to complete depending on your
configuration.

The VAX DECgraph Installation Verification completed successfully.
```

If the installation did not pass the verification procedures, you will see a failure message.

14 When the installation procedure is complete, VMSINSTAL displays the following message:

```
Installation of GRAPH V1.6 completed at 08:20

VMSINSTAL procedure done at 08:20
```

The DECgraph installation is complete.

15 If you installed DECgraph from the console drive, you must dismount the DECgraph media and remount your console media.

2.3 Installation Error Messages

This section describes error messages you might receive during installation.

Operating System Failure

If the power goes off during the installation procedure or the operating system fails for any other reason, you must restart the system and the installation procedure.

The following errors can occur during the installation procedure:

%GRAPH-E-BADPAGE, DECgraph V1.6 requires 100 free GBLPAGES to install

Facility: VAX DECgraph
Severity: Error
Explanation: DECgraph requires 100 global pages. Make sure that at least 100 global pages are available on your system disk and repeat the VAX DECgraph V1.6 installation.

%GRAPH-E-BADSECT, DECgraph V1.6 requires 5 free GBLSECTIONS to install

Facility: VAX DECgraph
Severity: Error
Explanation: DECgraph requires 5 global sections. Make sure that at least 5 global sections are available on your system disk and repeat the VAX DECgraph V1.6 installation.

%GRAPH-E-BADVMS, GRAPH V1.6 requires VMS Version 5.0 or later to install

Facility: VAX DECgraph
Severity: Error
Explanation: Your VAX system must be running VMS V5.0 or later to install VAX DECgraph V1.6. VMSINSTAL detected that an earlier version of VMS is running on your system. Upgrade to VMS V5.0 and then repeat the VAX DECgraph V1.6 installation.

%GRAPH-E-NOSPACE, There is insufficient disk space to continue the installation. GRAPH V1.6 requires 3500 free blocks to install.

Facility: VAX DECgraph
Severity: Error
Explanation: The system disk on your system must have at least 3500 free blocks to install VAX DECgraph V1.6. VMSINSTAL found less than 3500 blocks and terminated. Make sure that at least 3500 blocks are available on your system disk and repeat the VAX DECgraph V1.6 installation.

3 Post-installation Procedures

This chapter explains how to:

- Modify the system startup command file
- Modify GRAPHSIXEL.COM if your system has an LN03 printer
- Run the Installation Verification Procedure (IVP)
- Verify the DATATRIEVE link

3.1 Modifying the System Startup Command File

Refer to the VMS documentation on system management for further instructions on modifying your system startup command file (SYSTARTUP_V5.COM).

You must add a line to the system startup command file (SYSTARTUP_V5.COM) that makes the DECgraph images known to the system and defines GRAPH$LIBRARY. To do this, you must execute the command procedure GRAPH$START.COM, which is in directory SYS$STARTUP. This file INSTALLs the two DECgraph images, DECGRAPH.EXE and GRAPHSHR.EXE, and defines GRAPH$LIBRARY to be the directory that you specified during installation.

If this is the first time you are installing DECgraph on your system, then add the following line to your system startup command procedure, SYSTARTUP_V5.COM:

```
$ @SYS$STARTUP:GRAPH$START.COM
```

If you are upgrading from a previous version of DECgraph, you must delete the following lines from your SYSTARTUP_V5.COM file:

```
$ INSTALL="$INSTALL/COMMAND_MODE"
$ INSTALL
DELETE SYS$SYSTEM:DECGRAPH.EXE
DELETE SYS$SHARE:GRAPHSHR.EXE
ADD SYS$SYSTEM:DECGRAPH.EXE/OPEN/SHARED
ADD SYS$SHARE:GRAPHSHR.EXE/OPEN/SHARED
^Z
$DEFINE/SYSTEM GRAPH$LIBRARY ...
```

Replace the lines above with the following command:

```
$ @SYS$STARTUP:GRAPH$START.COM
```

3.2 Modifying GRAPHSIXEL.COM

If your system has an LN03 printer, DECgraph provides a command procedure, GRAPHSIXEL.COM, to help you print sixel files. To use GRAPHSIXEL.COM, you must assign the symbol DEFQUEUE to the LN03 print queue on your system.

Modify GRAPHSIXEL.COM as follows:

1 Using an editor, open the file GRAPHSIXEL.COM, and locate the following line:

```
$ defqueue = ""
```

2 Type your LN03 print queue symbol between the quotation marks. For example, if your LN03 print queue symbol is LN03_QUEUE, type the following:

```
$ defqueue = "LN03_QUEUE"
```

3.3 Installation Verification Procedure (IVP)

When you have completed the installation procedure, you can verify that DECgraph has been installed correctly on your system. You will need about 30 minutes to complete this procedure. The first part of the procedure should take 20 minutes, and the second part should take 10 minutes.

Before you begin this procedure, you must have:

- VAX DECgraph V1.6 installed on your system, using the procedures outlined in this manual.
- A supported graphics terminal.
- Correct terminal characteristics to run DECgraph.
- A loaded DECgraph license.

To run the Installation Verification Procedure (IVP), do the following:

1 Verify that your terminal characteristics are correct.

2 To execute the IVP, enter the following:

```
$ @SYS$TEST:GRAPH$IVP
```

Below is a sample of the IVP dialog.

```
************************************************************
*                                                          *
*                     VAX DECgraph V1.6                    *
*                                                          *
*            Installation Verification Procedure           *
*                                                          *
*       Copyright 1990, Digital Equipment Corporation      *
*                                                          *
************************************************************
```

```
Please wait for the Installation Verification Procedure to complete.
The IVP takes from 2 to 20 minutes to complete depending on your
configuration.
```

3 If the IVP completes successfully, it displays the following message:

```
The VAX DECgraph V1.6 Installation Verification completed successfully.
```

If the IVP fails, it displays the following message:

```
The VAX DECgraph V1.6 Installation Verification has failed.
```

3.4 DATATRIEVE Verification

If you installed DECgraph with DATATRIEVE, you should verify that DATATRIEVE is accessible from DECgraph:

1. Log on to a supported graphics terminal and invoke DECgraph by typing GRAPH and then pressing RETURN. The Main Menu screen with the VAX DECgraph logo appears. The highlight is on the HELP icon (question mark).
2. Press the down arrow key and then the left arrow key to select the DATA icon. Next press RETURN. The Data Entry submenu appears below the Main Menu.
3. Press the down arrow key to move the highlight to the DTR icon. Press the RETURN key. The Main Menu screen disappears and the DATATRIEVE prompt (DTR>) appears.
4. Exit from DATATRIEVE by typing EXIT and then pressing the RETURN key. The Keyboard Data Entry Screen appears. This screen contains a number of fields, (for example, Main Title, Subtitle, X data type). Towards the left, a column of single character fields appears with the letters DTR at the top of the column. This verifies DATATRIEVE access.
5. Press CTRL/Z to exit from the Keyboard Data Entry Screen and return to the Main Menu screen.
6. Press the up arrow key. The highlight moves to the STOP icon (hand) in the upper left corner.
7. Press RETURN to exit from DECgraph and return to DCL level.

A Sample Installation

```
 VAX/VMS Software Product Installation Procedure V5.3

It is 28-MAY-1990 at 11:39.

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:
  GRAPH V1.6

 Beginning installation of GRAPH V1.6 at 11:40

%VMSINSTAL-I-RESTORE, Restoring product save set A ...

    Release notes included with this kit are always copied to SYS$HELP.

    Additional Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  None of the above

* Select option [2]: 4
* Do you want to continue the installation [NO]? YES

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

***************************************************************
*                                                             *
*                    VAX DECgraph V1.6                        *
*                                                             *
*                  Installation Procedure                     *
*                                                             *
*        Copyright 1990, Digital Equipment Corporation        *
*                                                             *
***************************************************************

        Product:      DECGRAPH
        Producer:     DEC
        Version:      1.6
        Release Date: 24-SEP-1990


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

The directory SYS$SYSROOT:[DECGRAPH] currently exists on your system.
* Would you like to place the GRAPH V1.6 library files there [YES]?
%VMSINSTAL-I-SYSDIR, This product creates system specific directory
[DECGRAPH].
%CREATE-I-EXISTS, VMI$SPECIFIC:[DECGRAPH] already exists
%GRAPH-I-LIBCRTD, The DECgraph library has been created.
Enter ? to get help.
* Do you have DATATRIEVE V4.2 or later on the system,
and would you like to link DECgraph with it [NO]? YES

Searching for DATATRIEVE shareable images.
Please wait (less than 5 minutes) ....

The DATATRIEVE shareable image ([SYSLIB]DTRSHR.EXE)
is found on your system.
* Do you want to link DECgraph with it [YES]?
DECgraph will be linked with the DATATRIEVE shareable image
[SYSLIB]DTRSHR.EXE.
```

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

%VMSINSTAL-I-SYSDIR, This product creates system directory
[SYSTEST.GRAPH016].
%CREATE-I-EXISTS, VMI$COMMON:[SYSTEST.GRAPH016] already exists
%CREATE-I-EXISTS, VMI$SPECIFIC:[SYSTEST.GRAPH016] already exists

    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:[SYSTEST.GRAPH016]
* Do you want to run the IVP after the installation [YES]?

All questions necessary for the installation of DECgraph have been
answered.

The DECgraph files which are still on the distribution kit will now
be copied to the system.

After all files have been copied from the distribution kit, the DECgraph
installation procedure will continue for about 10 minutes.

%VMSINSTAL-I-RESTORE, Restoring product save set B ...
DECgraph is installed with the DATATRIEVE data entry option.

%DCL-I-SUPERSEDE, previous value of GRAPH$LIBRARY has been superseded


        ******* Modification to SYS$MANAGER:SYSTARTUP_V5.COM *******

To complete the DECgraph installation, you MUST add the following line
to your system startup file (SYS$MANAGER:SYSTARTUP_V5.COM):

    @SYS$STARTUP:GRAPH$START.COM
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...

   ************************************************************
   *                                                          *
   *                    VAX DECgraph V1.6                     *
   *                                                          *
   *          Installation Verification Procedure             *
   *                                                          *
   *       Copyright 1990, Digital Equipment Corporation      *
   *                                                          *
   ************************************************************

Please wait for the Installation Verification Procedure to complete.
The IVP takes from 2 to 20 minutes to complete depending on your
configuration.


The VAX DECgraph Installation Verification completed successfully.

 Installation of GRAPH V1.6 completed at 11:55

 VMSINSTAL procedure done at 11:55
```