AA-NH48A-TE

DECwindows DECnet/SNA 3270 Terminal Emulator for VMS

Installation

This manual describes how to install the DECwindows DECnet/SNA 3270 Terminal Emulator for VMS software. It also explains how to read the online release notes before or after installing the product. This document applies to the DECwindows DECnet/SNA 3270 Terminal Emulator for VMS V1.0 and all maintenance releases throughout that version.

Revision/Update Information: This is a new manual.

Operating System and Version: VMS V5.1 (with DECwindows V1.0)

Software Version: DECwindows DECnet/SNA 3270 Terminal Emulator for VMS V1.0

digital equipment corporation
maynard, massachusetts

September 1989

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

© Digital Equipment Corporation 1989.

All Rights Reserved.
Printed in U.S.A.

The postpaid Reader's Comments forms at the end of this document request your critical evaluation to assist in preparing future documentation.

The following are trademarks of Digital Equipment:

DEC	ULTRIX	VMS
DECnet	ULTRIX-32	VT
DECUS	ULTRIX Worksystem Software	
DECwindows	UNIBUS	
DIGITAL	VAX	
PDP	VAXcluster	

The following are third-party trademarks:

IBM and PROFS are registered trademarks of International Business Machines Corporation.

PostScript is a registered trademark of Adobe Systems, Inc.

Contents

Preface v

1 Preparing for Installation

1.1 Required Operating System Components 1–1
1.2 Prerequisite Software Requirements 1–2
1.2.1 Accessing Online Release Notes 1–2
1.3 VMS License Management Facility 1–2
1.4 Installation Procedure Requirements 1–3
1.4.1 Disk Space 1–4
1.4.2 System Parameters 1–4
1.4.2.1 Checking System Parameter Values 1–5
1.4.2.2 Calculating Values for GBLPAGES and GBLSECTIONS 1–5
1.4.2.3 Changing System Parameter Values with AUTOGEN 1–6
1.4.3 VMSINSTAL Requirements 1–7
1.4.4 Backing Up Your System Disk 1–7
1.4.5 License Management Utility Requirements 1–7

2 Installation

2.1 General Information 2–1
2.1.1 Determining Files Added to the System 2–1
2.1.2 Installation Verification Procedure (IVP) 2–2
2.2 Installation Procedure 2–2
2.2.1 Steps to Install the TE 2–2
2.2.2 Installation Questions 2–3
2.2.3 Informational Messages 2–7

2.2.4 Running the IVP during the Installation 2–8
2.2.5 Completing the Installation Procedure 2–8
2.3 Error Recovery 2–9

3 After Installation

3.1 Copying Font Files to Servers 3–1
3.1.1 Copying Fonts to a VMS Server 3–2
3.1.2 Copying Fonts to an ULTRIX Server 3–3
3.2 Editing System Files 3–4
3.3 Running the IVP After the Installation 3–4
3.4 Rebooting the System 3–4
3.5 Setting User Account Privileges 3–5
3.6 Installing the TE on a VAXcluster System 3–5
3.7 Determining and Reporting Problems 3–5

A Sample Installation

B Files Installed on Your System

C SAMPLE LOGMODE Table Entries

Index

Tables

1–1 Client Disk Space Requirements 1–4
1–2 Server Disk Space Requirements 1–4
1–3 Required System Parameter Values 1–4
3–1 Font Files 3–2
B–1 Client Files B–1
B–2 Server Files B–2

Preface

The DECwindows DECnet/SNA 3270 Terminal Emulator for VMS (TE) is a software product that allows users to interactively communicate with programs running on an IBM host computer. This communication takes place through one of Digital's interconnect systems.

Manual Objectives

This document describes how to install the TE software on the VMS operating system.

Intended Audience

This document is intended primarily for system managers or anyone responsible for installing and maintaining application software.

Keep this document with your distribution kit. You will need it to install maintenance updates or to reinstall the software.

For more information on installing the TE software on VMS systems, refer to the installation/operations guide for your particular processor.

Structure

This manual describes the installation procedure step by step. The system prompts you to answer questions and to perform tasks, such as changing volumes, and waits for you to tell it to continue.

Each question in the installation is marked with an asterisk (*) at the beginning of the line. Some questions show the default response in brackets, for example [YES]. If you want to give the default response for a particular question, simply press Return.

Conventions

The following conventions are used in this guide:

Ctrl/x	A sequence such as Ctrl/x indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
PF1 + x	A sequence such as PF1 + x indicates that you must first press and release the key labeled PF1, then press and release another key.
Return	A key name is shown enclosed to indicate that you press a key on the keyboard.
Ext + x	The expression Ext + x indicates a special combination of two keys. First press the Ext key, then press the appropriate character key.
KP	KP refers to the numeric keypad on your keyboard. For example, KP_9 means key 9 on your numeric keypad.
UPPERCASE LETTERS	Uppercase letters in a command line represent the commands that you must type.
blue-green ink	Blue-green ink indicates information that you must enter using the keyboard or a screen object that you must choose or click on.
italic text	Italic text represents a variable.
( )	In format descriptions, parentheses indicate that if you choose more than one option, you must enclose the choices in parentheses.
[ ]	In format descriptions, brackets indicate that whatever is enclosed is optional; you can select none, one, or all of the choices.
{ }	In format descriptions, braces surround a required choice of options; you must choose one of the options listed.

Acronyms

The following acronyms appear in this manual:

CICS	Customer Information Control System
LMF	License Management Facility
PAK	Product Authorization Key
SNA	IBM's Systems Network Architecture
SPD	Software Product Description
TE	DECwindows DECnet/SNA 3270 Terminal Emulator for VMS software

Associated Documents

The following Digital document should be available for reference:

- *DECwindows DECnet/SNA 3270 Terminal Emulator Use (for VMS and ULTRIX)*

You should also have the documents for your specific interconnect system.

See the following documents for more information about the IBM 3270 system:

- *IBM 3179-G/3192-G Color Graphics Display Station Description*, Order No. GA18-2589-1
- *IBM 3270 Information Display System*, Order No. GA23-0060
- *IBM 3270 Information Display System: Operator's Guide*, Order No. GA27-2742
- *IBM 3270 Information Display System Data Stream Programmer's Reference*, Order No. GA23-0059
- *IBM 3270 Information Display System 3274 Control Unit Description and Programmer's Guide*, Order No. GA23-0061
- *IBM 3270 Information Display System: 3278 Display Station Operator's Guide*, Order No. GA27-2890
- *Systems Network Architecture—Introduction to Sessions Between Logical Units*, Order No. GC20-1869
- *Systems Network Architecture—Sessions Betweeen Logical Units*, Order No. GC20-1868
- *Systems Network Architecture Concepts and Products*, Order No. GC30-3072
- *Systems Network Architecture Technical Overview*, Order No. GC30-3073

See the following document for more information about SNA problem determination:

- *SNA System Problem Determination Guide, IBM Order No. G320-6016*

1

Preparing for Installation

Before you install the DECwindows DECnet/SNA 3270 Terminal Emulator for VMS (TE) software, you must prepare your system, its communications components, and the remote system to ensure proper operation of the software.

This chapter describes the preparations and requirements necessary for installing the TE. The actual installation is covered in Chapter 2.

Your bill of materials (BOM) specifies the number and contents of your media. Check the contents of your kit against this information. If your kit is damaged or if you find that parts are missing, contact your Digital representative before continuing the installation.

1.1 Required Operating System Components

The TE requires the following VMS Version 5.1 classes:

- VMS Required Saveset
- Network Support
- Utilities

For more information on classes and VMS tailoring, see the VMS operating system Software Product Description (SPD).

1.2 Prerequisite Software Requirements

Version 1.0 of the TE requires VMS Version 5.1 (with DECwindows Version 1.0), including the corresponding version of DECnet/VAX. The TE software also requires one of the two following system configurations for proper operation.

- The DECnet/SNA Gateway-ST Version 1.1, the DECnet/SNA Gateway-CT Version 1.0, or the DECnet/SNA Gateway Version 1.5 must be part of your DECnet network.

  or

- The VMS/SNA software must be installed on the node on which you are planning to install the TE software.

For more information on these products, see the following documentation:

- *DECnet/SNA Guide to Gateway Management*
- *DECnet/SNA Gateway-ST Installation*
- *DECnet/SNA Gateway-CT Installation*
- *VMS/SNA Installation*

1.2.1 Accessing Online Release Notes

The TE provides online release notes which you should read before installing the product. The release notes contain the latest product enhancements and may include changes to the installation procedure. If you executed the VMSINSTAL command procedure with the OPTIONS N parameter, you are asked if you want to display or print release notes during step five of the installation procedure.

After you have installed the product, you can read the release notes by either using the TYPE command or by printing SYS$HELP:SNADWTE010.RELEASE_NOTES.

1.3 VMS License Management Facility

The VMS License Management Facility (LMF) is available with Version 5.0 of the VMS operating system. You must install the TE on a VMS Version 5.1 system and register your software license.

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

Digital Equipment Corporation recommends that you register your TE license before you perform the installation. During the installation, VMSINSTAL asks you if you have registered the TE license and loaded the appropriate authorization key. If you have not already done so, you can complete the installation procedure, although you will not be able to run the TE software. Once you perform the license registration and have loaded an authorization key, you will be able to run the TE software.

To register a license under VMS Version 5.0, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the registration:

- Execute the SYS$UPDATE:VMSLICENSE.COM command procedure. When it prompts you for information, respond with the information that is on your Product Authorization Key (PAK) form.
- 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 Version 5.0 documentation set.

1.4 Installation Procedure Requirements

The following sections detail the various requirements for installing TE software.

The installation should take approximately 15 to 20 minutes, depending on the type of media and your system configuration. Before installing the software, you must have the following privileges and resources:

- SETPRV privilege, or CMKRNL, WORLD, and SYSPRV privileges. Note that VMSINSTAL disables BYPASS privilege at the start of the installation.
- A minimum of 2600 blocks of free disk space during installation.
- Enough physical memory to support a minimum configuration of Version 5.1 of the VMS operating system.
- A minimum of 585 free global pages.
- A minimum of three free global sections at installation.

1.4.1 Disk Space

Installing the TE requires a specific amount of free disk space. Table 1–1 and Table 1–2 summarize the storage requirements for the TE on a client and on a server, respectively.

Table 1–1 Client Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
SNADWTE010	2600	1500

Table 1–2 Server Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
SNADWTE010	2600	150

To determine the number of free disk blocks on the current system disk, enter the following command at the DCL prompt:

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

1.4.2 System Parameters

Table 1–3 lists the minimum required system parameter values for the installation. Depending on the kinds of programs and applications running at your site, you might need higher values for some settings.

Table 1–3 Required System Parameter Values

System Parameter	Value
GBLPAGES[1]	*n* + 583
GBLSECTIONS[1]	*n* + 3

[1]The *n* variable refers to the system parameter values that are currently in use. To install the TE, you must raise those values by the number indicated. (See Section 1.4.2.2.)

The following sections explain how to check system parameter values, with the VMS System Generation Utility (SYSGEN); calculate values for the GBLPAGES and GBLSECTIONS system parameters; and change parameter values with the VMS AUTOGEN command procedure.

1.4.2.1 Checking System Parameter Values

To check the values of your system parameters, enter the following command at the DCL prompt to invoke the SYSGEN utility:

```
$  RUN SYS$SYSTEM:SYSGEN
SYSGEN>
```

At the SYSGEN> prompt, enter the SHOW command to display the value of each system parameter. The values displayed should equal or exceed the value of each parameter listed in Table 1–3. The following command displays the value for the WSMAX system parameter:

```
SYSGEN>  SHOW WSMAX
```

After you finish checking the parameters with the SHOW command, you can enter the EXIT command at the SYSGEN> prompt to return to the DCL level.

Dynamic parameters changed with the SYSGEN utility become active immediately; there is no need to reboot your system. In fact, rebooting returns dynamic system parameter values to their previous settings; therefore, you should complete the installation before rebooting the system.

1.4.2.2 Calculating Values for GBLPAGES and GBLSECTIONS

To install and run the TE, you must set the correct values for the GBLPAGES and GBLSECTIONS system parameters.

The *n* + *nnn* values for GBLPAGES and GBLSECTIONS in Table 1–3 indicate that you must have at least 512 unused pages or sections available on your system for the installation to process successfully. To calculate how many unused global pages and global sections your system has, perform the following steps:

1. Run the VMS Install Utility (INSTALL) using the following DCL commands:

   ```
   $  INSTALL LIST/GLOBAL/SUMMARY
   ```

   The INSTALL utility displays a summary of global pages and global sections used by your system, as well as the current number of unused global pages. For example:

   ```
                    Summary of Local Memory Global Sections

   258 Global Sections Used,  22580/3420 Global Pages Used/Unused
   ```

2. Determine if the number of unused pages (3420 in the example) is equal to or greater than the number specified in Table 1–3. If the number of unused pages is less than the number listed in the table, you need to increase the value for GBLPAGES.

3. Note the amount shown for ‘‘Global Sections Used’’ (258 in the example).

4 Run the SYSGEN utility and use the SHOW command to determine the number of global sections that have been allocated:

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


Parameter Name  Current  Default  Minimum  Maximum Unit  Dynamic
--------------  -------  -------  -------  ------- ----  -------
GBLSECTIONS         512      250       20     4095 Sections
```

5 Subtract the global sections used in the summary (258 in the example) from the amount allocated. If the difference is less than the number required in Table 1–3, you need to increase the value of the GBLSECTIONS parameter.

Section 1.4.2.3 describes the procedures for increasing these values as well as those of other system parameters. Refer to the VMS documentation on system management and operations for more information.

1.4.2.3 Changing System Parameter Values with AUTOGEN You use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters that are associated with the ones you reset manually. To change system parameters with AUTOGEN, you must edit the the following file:

```
SYS$SYSTEM:MODPARAMS.DAT
```

For example, to change the setting for the WSMAX system parameter, add this line to the file:

```
WSMAX = 1024
```

Or for incremental SYSGEN parameters:

```
ADD_GBLPAGES = 2000
```

Now, run the AUTOGEN procedure to recalculate your system parameters. Enter the following command at the DCL prompt:

```
$  @SYS$UPDATE:AUTOGEN GETDATA REBOOT
```

AUTOGEN performs an automatic system shutdown and reboots when it has finished. Rebooting your system makes the new parameter values active. Also, on VMS Version 5.1 systems you may wish to add the [NO]FEEDBACK parameter to the AUTOGEN command line. For more information about using AUTOGEN, see the instructions on modifying system parameters in the VMS documentation on System Management and Operations.

1.4.3 VMSINSTAL Requirements

When you run the VMSINSTAL command procedure, it checks whether:

- you have set your default device and directory to SYS$UPDATE.
- you are logged in to a privileged account.
- you have adequate quotas for the installation.
- DECnet is up and running.
- any users are logged in to the system.

If VMSINSTAL detects any problems during the installation, it notifies you of the problem and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process and correct the situation, enter NO or press Return. Then correct the problem and restart the installation.

1.4.4 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you do a system disk backup before installing any software on top of the operating system.

Use the backup procedures that have been established at your site. For details on performing a system disk backup, see the section on the Backup Utility in the VMS documentation set.

1.4.5 License Management Utility Requirements

In order to run the Installation Verification Procedure, you need to register and load your license for the TE before you start the installation.

Refer to the VMS documentation on the License Management Utility for information about registering your license.

2

Installation

This chapter describes how to install the DECwindows DECnet/SNA 3270 Terminal Emulator for VMS (TE). It contains a step-by-step description of the installation procedure.

Note that throughout the installation, default values appear in brackets. To abort the installation procedure at any time, press Ctrl/Y. This action causes the installation procedure to delete all files it has created up to that point and to return to DCL. If you want to retry the installation after aborting it, you must proceed from step two.

2.1 General Information

This section includes information about accessing release notes, determining which files are added to your system, running the Installation Verification Procedure (IVP), and error recovery.

After the installation, you can enter the following command to review the release notes (file) through the help facility:

```
$ HELP SNA_DWTE RELEASE_NOTES
```

2.1.1 Determining Files Added to the System

The TE installation procedure adds a number of new files to your system. Appendix B contains a complete listing of all the files added during the installation procedure.

2.1.2 Installation Verification Procedure (IVP)

The Installation Verification Procedure (IVP) for the TE verifies that the installation was performed correctly. During the installation, you are asked if you want to run the IVP as part of the installation procedure. If you respond YES, VMSINSTAL runs the IVP. Digital recommends that you run the IVP to determine that the TE is installed correctly.

After the TE is installed, you can run the IVP independently to verify that the software is available on your system. You might also want to run the IVP after a system failure to determine if users can run the TE software.

2.2 Installation Procedure

The TE installation process consists of a series of questions and informational messages. The installation procedure takes approximately 10 to 15 minutes to complete.

Digital recommends that you use a hardcopy terminal to install the TE if you want a copy of the installation process. If you do not have a hard-copy terminal, you can produce a copy of the installation procedure by using the following command:

```
$   SET HOST 0/LOG=file-name
```

where *file-name* is the name of the file in which you wish to store the installation procedure log information. After you complete the installation, you can log off from the current session and print the file that contains the log of the installation procedure. If you do not specify a file name, the system automatically creates a file called SETHOST.LOG.

2.2.1 Steps to Install the TE

To start the installation, execute the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. Use the following command to start VMSINSTAL:

```
$  @SYS$UPDATE:VMSINSTAL product-name device-name OPTIONS N
```

where

product-name
is the installation name for the component. For the TE, use the following installation name:

```
SNADWTE010
```

device-name
is the name of the device on which you plan to mount the media. For example, MTA0: is the device name for a tape drive. It is not necessary to use the console tape drive for this installation. However, if you do use the console

tape drive, you should replace any media you removed once the installation is completed.

OPTIONS N
is an optional parameter that indicates 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. You are advised to read the release notes before proceeding with the installation.

VMSINSTAL has several other options. For further information, see the VMS documentation on software installation.

The following example displays the command to invoke VMSINSTAL to install the TE from tape drive MTA0: and the system response. This example uses the OPTIONS N parameter for printing or displaying release notes.

```
$  @SYS$UPDATE:VMSINSTAL SNADWTE010 MTA0: OPTIONS N

       VAX/VMS Software Product Installation Procedure V5.1


It is 15-MAY-1989 at 10:10.
Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later in the installation procedure. VMSINSTAL also prompts you for any options you want to use with the installation.

2.2.2 Installation Questions

This section describes the questions that appear during the installation. See Appendix A for a sample installation procedure.

Each question in the installation is marked with an asterisk (*) at the beginning of the line. Some questions show the default response in brackets, for example [YES]. If you want to give the default response for a particular question, simply press Return.

1 DECnet status

VMSINSTAL notifies you if DECnet is running and displays a list of all active processes. It then asks if you want to continue the installation. NO is the default response to the question. You should install the TE on a standalone system or cluster with DECnet shut down.

```
%VMSINSTAL-W-DECNET, Your DECnet network is up and running.
    .
    .
    .
* Do you want to continue anyway [NO]?
```

2 System backup

VMSINSTAL asks if you have made a backup copy of your system disk. You should always back up your system disk before performing an installation.

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

If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

3 Mounting the media

You should now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. The device name appears in the line preceding the question. VMSINSTAL then asks you if you are ready to continue with the installation.

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing the TE has been mounted on the specified device and that the installation has begun. For example:

```
Please mount the first volume of the set on MTA0:.
* Are you ready?  YES
%MOUNT-I-MOUNTED, SNADWTE010 MOUNTED ON _MTA0:  (NODE 1)
The following products will be processed:
  SNADWTE V1.0

    Beginning installation of SNADWTE V1.0 at 20:01

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

If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, enter NO in response to the ''Are you ready?'' question. To abort the installation for any other reason, press Ctrl/Y.

4 Release Notes

If you specified OPTIONS N when you invoked VMSINSTAL, you are now given five options for reviewing the release notes:

```
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 [2]:
```

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

If you select option 2, VMSINSTAL prompts you for the name of the print queue to which you want to send the file:

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

Either type a queue name or press Return to send the file to the default output print device.

If you select option 3, VMSINSTAL displays the release notes immediately on the console terminal and then prompts you for a queue name for the printed version.

If you choose option 4, VMSINSTAL copies the release notes to the file, SYS$HELP:SNADWTE010.RELEASE_NOTES.

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

5 Continuing the installation

Regardless of the option you choose, the installation procedure now asks if you want to continue the installation. To continue the installation, enter YES. Enter NO to terminate the installation procedure.

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

The release notes are located in the following file:

```
SNADWTE010
```

Note *The name of the release notes file that VMSINSTAL copies consists of the current product name and version number. Do not delete release notes for previous versions of the TE software.*

6 Choosing to install TE software and/or workstation font files

The TE installation kit contains two parts: TE software and workstation fonts. The installation procedure displays the following message and question:

```
This DECwindows DECnet/SNA 3270 TE installation includes both
TE software and workstation font files. You can choose to
install one or both of these on this VMS node.  Note that the
video font files are required on all workstations where the 3270
TE is to be displayed.

* Do you want to install the entire kit [YES]?
```

Answer YES to install the entire kit. If you answer NO, the following question is displayed:

```
* Do you want to install the 3270 TE software [NO]?
```

Important *The font files must be installed on or copied to a workstation before it can run the TE.*

Answer YES to install the 3270 software. If you answer NO, the following question is displayed:

```
* Do you want to install the workstation fonts [NO]?
```

Answer YES to install the server fonts. If you answer NO, the server fonts will not be installed.

Once you have made your installation choices, a message appears, verifying the portion(s) of the kit that you have chosen to install. You are then asked the following question:

```
* Is this correct [YES]?
```

Answer YES if your choice(s) are correct. If you answer NO, you are presented with the installation choices once again. For more information on fonts and how to copy them to other nodes after they are installed, refer to Section 3.1.

7 License Registration

The installation procedure displays information specific to the product and asks if you have registered and loaded your product authorization key for the TE, for example:

```
Product:          DW-SNA-3270-TE-VMS
Producer:         DEC
Version:          1.0
Release Date:     23-AUG-1989


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

If you have not registered and loaded your authorization key, you must answer NO to this question. Successful installation of the TE depends on having an authorization key registered and loaded.

8 Choosing to run the Installation Verification Procedure (IVP)

The installation procedure now asks if you want to run the Installation Verification Procedure. Digital recommends that you run the IVP to determine that the TE is installed correctly.

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

9 Choosing to purge files

You have the option to purge files from previous versions of the TE that this installation supersedes. Purging is recommended, although if you need to keep files from previous versions, enter NO in response to this question.

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

2.2.3 Informational Messages

At this point, the installation procedure displays a number of messages that report on the progress of the installation. There are no further questions, except for any that apply to the IVP.

If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. If you asked for files to be purged, that work is done now.

The following messages are displayed:

```
DECwindows 3270 TE workstation font files for VMS successfully moved.
It is necessary to restart DECwindows on your workstation to install
these fonts for use by the 3270 TE. The following command will
do this:

          $ @SYS$STARTUP:DECW$STARTUP RESTART

To install the DECwindows DECnet/SNA 3270 TE images as shareable
each time the system reboots, you must add the following line
to your system startup procedure:

          $ @SYS$STARTUP:SNADWTE$STARTUP
```

This command installs the software as a shareable image. If you are installing the software on a VAXcluster, you must execute this command file on each node in the cluster. See Section 3.6 for more information. The installation procedure then displays the following message:

```
The IVP for this product, SNADWTE$IVP.COM, can be found in
the SYS$TEST directory.
```

You can run the IVP after the installation has been completed (refer to Section 3.3). The next message reads:

```
   The SYS$COMMON:[SNADWTE$FONTS] directory contains DECwindows 3270
   TE server font files for VMS and ULTRIX display servers. The
   command file, SNADWTE$COPY_FONTS.COM, can be used to copy these
   required font files over the network to desired servers.  See the
   "DECwindows DECnet/SNA 3270 Terminal Emulator for VMS Installation
   Guide" for further details.
```

For information on copying font files to servers after they are installed, refer to Section 3.1.

The installation procedure then displays the following message:

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

2.2.4 Running the IVP during the Installation

If you chose to run the IVP as part of the installation procedure, VMSINSTAL runs it now. When the IVP runs successfully, you see the following display:

```
Starting the SNADWTE V1.0 IVP
SNADWTE V1.0 IVP Successful
```

2.2.5 Completing the Installation Procedure

The following messages indicate that the entire installation procedure is complete:

```
   Installation of SNADWTE V1.0 completed at 15:20

Enter the products to be processed from the next distribution volume set.
* Products: EXIT

   VMSINSTAL procedure done at 15:21
```

The installation procedure also asks you if there are any more products you want to install. If there are more products to install, enter the name of the next software product. If there are no more products to install, type EXIT and press Return.

The installation of the TE is now complete, and you can log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 15-MAY-1989 15:22:23.3
```

Note that VMSINSTAL deletes or changes entries in the process symbol table during the installation. Therefore, if you are going to continue using the system manager's account and you want to restore these symbols, you should log out and then log in again.

2.3 Error Recovery

If errors occur during the installation itself or when the IVP is running, VMSINSTAL displays failure messages. If the installation fails, the following message is displayed:

```
%VMSINSTAL-E-INSFAIL, The installation of SNADWTE V1.0 has failed.
```

If the IVP fails, the following messages are displayed:

```
SNADWTE V1.0 Installation Verification Procedure failed.

%VMSINSTAL-E-IVPFAIL, The IVP for SNADWTE V1.0 has failed.
```

Errors can occur during the installation if any of the following conditions exist:

- Incorrect operating system version.
- Incorrect prerequisite software version.
- Insufficient quotas.
- Insufficient system parameter values.
- The VMS help library is in use.
- The product is not properly licensed.

For descriptions of the error messages generated by these conditions, see the VMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, you should take the appropriate action as described in the message. (You might need to change a system parameter or increase an authorized quota value.) For information on installation requirements, see Chapter 1.

3

After Installation

After installing the TE, you may need to perform some or all of the following tasks:

- Copy font files to servers
- Edit the system startup file
- Run the Installation Verification Procedure (IVP)
- Reboot the system
- Set user account quotas
- Install the TE for use on a VAXcluster

3.1 Copying Font Files to Servers

In all DECwindows applications, the client is the node that contains the executable image; the server is the node (workstation) that displays the executable image. In many cases, the client and server are the same node.

The TE distribution kit contains the font files (see Table 3–1) that enable the product to be displayed on VMS and ULTRIX servers.

Table 3–1 Font Files

VMS Fonts	ULTRIX (VAX-based) Fonts	ULTRIX (RISC-based) Fonts
TERM821_BOLD_ 16WS.DECW$FONT	TERM821_BOLD_ 16WS.DWF	TERM821_BOLD_ 16WS.SNF
TERM821_BOLD_ 21WS.DECW$FONT	TERM821_BOLD_ 21WS.DWF	TERM821_BOLD_ 21WS.SNF
TERM821_NORMAL_ 16WS.DECW$FONT	TERM821_NORMAL_ 16WS.DWF	TERM821_NORMAL_ 16WS.SNF
TERM821_NORMAL_ 21WS.DECW$FONT	TERM821_NORMAL_ 21WS.DWF	TERM821_NORMAL_ 21WS.SNF

If the client is not the server, and you have not installed the font files on the server (refer to Section 2.2.2), you must copy the font files from the client to the server so that the server can run the TE.

You can copy the font files from a VMS client to either a VMS or an ULTRIX server by running the following command file:

```
$  @SYS$COMMON:[SNADWTE$FONTS]SNADWTE$COPY_FONTS.COM
```

The command file contains directions on how to proceed. You can also copy the font files by following the instructions in the following two sections.

3.1.1 Copying Fonts to a VMS Server

The TE can be displayed on a VMS server if you copy the font files to the server. To do this:

1. Install the VMS server fonts on the client (refer to Section 2.2.2).
2. Use the following command to copy the font files from the client to a VMS server.

```
$  COPY SYS$COMMON:[SNADWTE$FONTS]*.DECW$FONT
node-name::SYS$COMMON:[SYSFONT.DECW.USER_75DPI]*.*/PROT=(S:RWED,
O:RWED,G:RWED,W:RE)
```

3. Restart the VMS server using VMS DECwindows startup command:

```
$  @SYS$STARTUP:DECW$STARTUP RESTART
```

3.1.2 Copying Fonts to an ULTRIX Server

The TE can run on an ULTRIX server (workstation) if you copy the font files to the server. The server can be either a VAX-based or a RISC-based machine.

To copy the font files to a VAX-based machine:

1. Install the server fonts on the client (refer to Section 2.2.2).
2. Use the following commands to copy each font file from the client to an ULTRIX server.

```
$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_BOLD_16WS.DWF
node-name"username password"::"/usr/lib/dwf/75dpi/term821_bold_16ws.dwf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_BOLD_21WS.DWF
node-name"username password"::"/usr/lib/dwf/75dpi/term821_bold_21ws.dwf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_NORMAL_16WS.DWF
node-name"username password"::"/usr/lib/dwf/75dpi/term821_normal_16ws.dwf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_NORMAL_21WS.DWF
node-name"username password"::"/usr/lib/dwf/75dpi/term821_normal_21ws.dwf"
```

3. Enter the following command on the ULTRIX server to notify it of the new fonts.

```
% xset fp rehash
```

To copy the font files to a RISC-based machine:

1. Install the server fonts on the client (refer to Section 2.2.2).
2. Use the following commands to copy each font file from the client to an ULTRIX server.

```
$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_BOLD_16WS.SNF
node-name"username password"::"/usr/lib/X11/fonts/decwin/screen75/
term821_bold_16ws.snf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_BOLD_21WS.SNF
node-name"username password"::"/usr/lib/X11/fonts/decwin/screen75/
term821_bold_21ws.snf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_NORMAL_16WS.SNF
node-name"username password"::"/usr/lib/X11/fonts/decwin/screen75/
term821_normal_16ws.snf"

$ COPY SYS$COMMON:[SNADWTE$FONTS]TERM821_NORMAL_21WS.SNF
node-name"username password"::"/usr/lib/X11/fonts/decwin/screen75/
term821_normal_21ws.snf"
```

3. Enter the following command on the ULTRIX server to notify it of the new fonts. Superuser privileges are required.

```
% xset fp rehash
```

3.2 Editing System Files

You must edit the system startup file to provide automatic startup of the TE when your system is rebooted.

Add the command line that starts the TE to the system startup file, SYS$MANAGER:SYSTARTUP_V5.COM.

```
$  @SYS$STARTUP:SNADWTE$STARTUP
```

You must position this new command line *after* the line that invokes the network startup command procedure. The following example shows the network startup command line followed by the startup command line for the TE:

```
$ @SYS$MANAGER:STARTNET.COM
      .
      .
      .
$ @SYS$STARTUP:SNADWTE$STARTUP
```

3.3 Running the IVP After the Installation

During the installation, you are asked if you want to run the IVP as part of the installation. If you respond YES, VMSINSTAL runs the IVP. Digital recommends that you run the IVP to ensure that the TE software is installed correctly.

After the TE is installed, you can run the IVP independently to verify that the software is available on your system.

The IVP for the TE is a command procedure that is stored in the directory SYS$TEST after you install the software. To run the IVP interactively after the installation, issue the following command:

```
$  @SYS$TEST:SNADWTE$IVP
```

Executing this command procedure runs the IVP independently of the installation procedure.

3.4 Rebooting the System

You can reboot your system after you have installed the TE, edited the system startup file, and reset the system parameters (if necessary). A system reboot verifies that the product is ready for use, ensures that the edits to the system startup command file are correct, and establishes any new parameter settings. Note, however, that rebooting is optional.

3.5 Setting User Account Privileges

To use the TE, user accounts on your system must have certain privileges and quotas. Each account must have at least TMPMBX and NETMBX privileges. Use the VMS Authorize Utility to determine whether users have the privileges they require.

3.6 Installing the TE on a VAXcluster System

If you want to run the TE software on multiple nodes of a VAXcluster system, first verify that you have the appropriate software license. Then, follow these steps after installing the software:

Issue the following commands on each node of the cluster:

```
$  LICENSE LOAD DW-SNA-3270-TE-VMS
$  @SYS$STARTUP:SNADWTE$STARTUP.COM
```

3.7 Determining and Reporting Problems

If an error occurs while the TE is being used and you believe it is a TE error, you should take one of the following actions:

- If you have a BASIC or DECsupport Software Agreement, call your Customer Support Center. (With these services, you receive telephone support that provides high-level advisory and remedial assistance.)
- If you have a Self-Maintenance Software Agreement, you can submit a Software Performance Report (SPR).
- If you purchased the TE within the past 90 days and you think the problem is caused by a software error, you can submit a Software Performance Report (SPR).

If you find an error in the TE documentation, you should complete and submit the Reader's Comments form at the back of the document in which the error was found. Include the section and page number of the error.

A

Sample Installation

This appendix contains a sample installation of the DECwindows DECnet/SNA 3270 Terminal Emulator for VMS (TE). This sample was run on a system that had no previous version of the TE installed.

You should assume that in the sample installation, DECnet has been shut down, no users are logged on to the system, and that OPTIONS N is specified to print the release notes. The Installation Verification Procedure (IVP) runs at the end of the installation.

```
Username: SYSTEM
Password:
 Welcome to VAX/VMS version V5.1 on node LULU
    Last interactive login on Wednesday, 10-MAY-1989 09:40
    Last non-interactive login on Sunday,  7-MAY-1989 11:13

$ SET DEF SYS$UPDATE
$ @VMSINSTAL
 VAX/VMS Software Product Installation Procedure V5.1

It is 10-MAY-1989 at 15:18.
Enter a question mark (?) at any time for help.
%VMSINSTAL-W-DECNET, Your DECnet network is up and running.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
 DECW$TE_1
 DECW$WM_1
* Do you want to continue anyway [NO]? YES
* Are you satisfied with the backup of your system disk [YES]?
* Where will the distribution volumes be mounted: MTA0

Enter the products to be processed from the first distribution volume set.
* Products: SNADWTE010
* Options: N
The following products will be processed:
  SNADWTE V1.0
 Beginning installation of SNADWTE V1.0 at 15:19

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

```
    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 [2]:
* Queue name [SYS$PRINT]:
Job SNADWTE010 (queue SYS$PRINT, entry 12) started on SYS$PRINT
* Do you want to continue the installation? YES
%VMSINSTAL-I-RELMOVED , The product's release notes have been successfully
moved to SYS$HELP.

 DECwindows DECnet/SNA 3270 Terminal Emulator for VMS, V1.0
   Installation Procedure

    This DECwindows DECnet/SNA 3270 TE installation includes both
    TE software and workstation font files. You can choose to
    install one or both of these on this VMS node.  Note that the
    video font files are required on all workstations where the 3270
    TE is to be displayed.

* Do you want to install the entire kit [YES]?

Product:      DW-SNA-3270-TE-VMS
Producer:     DEC
Version:      1.0
Release Date: 23-AUG-1989

* Does this product have an authorization key registered and loaded? YES
* Do you want to run the IVP after the installation [YES]?
* Do you want to purge files replaced by this installation [YES]?

    All questions have been asked, installation continuing ...

    DECwindows 3270 TE workstation font files for VMS successfully moved.
    It is necessary to restart DECwindows on your workstation to install
    these fonts for use by the 3270 TE.  The following command will
    do this:

 @SYS$STARTUP:DECW$STARTUP RESTART

    To install the DECwindow DECnet/SNA 3270 TE images as shareable
    each time the system reboots, you must add the following line
    to your system startup procedure:

 $ @SYS$STARTUP:SNADWTE$STARTUP

    The IVP for this product, SNADWTE$IVP.COM, can be found in
    the SYS$TEST directory.
```

```
    The SYS$COMMON:[SNADWTE$FONTS] directory contains DECwindows 3270
    TE server font files for VMS and ULTRIX display servers. The
    command file, SNADWTE$COPY_FONTS.COM, can be used to copy these
    required font files over the network to desired servers.  See the
    "DECwindows DECnet/SNA 3270 Terminal Emulator for VMS Installation
    Guide" for further details.

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

    Starting the SNADWTE V1.0 IVP
    SNADWTE V1.0 IVP Successful


Enter the products to be processed from the next distribution volume set.
* Products: EXIT
     VMSINSTAL procedure done at 15:40
$ LOGOUT
     SYSTEM       logged out at 10-MAY-1989 15:40:33.87
```

B

Files Installed on Your System

The TE installation procedure installs a number of files on your system. These files can be divided into two groups: client files (see Table B–1) and server files (see Table B–2).

Table B–1 Client Files

File	Location	Description
SNADWTE010.RELEASE_NOTES	SYS$HELP	release notes
SNADWTE$MAIN.EXE	SYS$SYSTEM	executable image
SNADWTE$MSG.EXE	SYS$MESSAGE	message file
SNADWTE$STARTUP.COM	SYS$STARTUP	command procedure to execute at system startup
SNADWTE$IVP.COM	SYS$TEST	installation verification procedure
SNADWTE$HELP.HLB	SYS$HELP	DECwindows Help library
SNADWTE$UID.UID	DECW$SYSTEM_DEFAULTS	user interface description
SNADWTE$DEFAULTS.DAT	DECW$SYSTEM_DEFAULTS	user interface defaults
SNADWTE$KBD_LAYOUT.DAT	SYS$LIBRARY	keyboard layout file

(continued on next page)

Table B–1 (Cont.) Client Files

File	Location	Description
TERM821_BOLD_16WS.DECW$FONT TERM821_BOLD_21WS.DECW$FONT TERM821_NORMAL_16WS.DECW$FONT TERM821_NORMAL_21WS.DECW$FONT TERM821_BOLD_16WS.DWF TERM821_BOLD_21WS.DWF TERM821_NORMAL_16WS.DWF TERM821_NORMAL_21WS.DWF TERM821_BOLD_16WS.SNF TERM821_BOLD_21WS.SNF TERM821_NORMAL_16WS.SNF TERM821_NORMAL_21WS.SNF	SYS$COMMON: [SNADWTE$FONTS]	3270 TE system-specific font files
SNADWTE$COPY_FONTS.COM	SYS$COMMON: [SNADWTE$FONTS]	command procedure for copying font files to display servers
SNADWTE$PROFILE.VUE$DAT	VUE$LIBRARY	VUE profile file
SNADWTE$DEF.MAR SNADWTE$FRENCH.MAR	SYS$EXAMPLES	sample translation template files

Table B–2 Server Files

File	Location	Description
SNADWTE010.RELEASE_NOTES	SYS$HELP	release notes
SNADWTE$IVP.COM	SYS$TEST	installation verification procedure
SNADWTE$PROFILE.VUE$DAT	VUE$LIBRARY	VUE profile file
TERM821_BOLD_16WS.DECW$FONT TERM821_BOLD_21WS.DECW$FONT TERM821_NORMAL_16WS.DECW$FONT TERM821_NORMAL_21WS.DECW$FONT	SYS$COMMON: [SYSFONT.DECW.USER_75DPI]	3270 TE specific font files

C

SAMPLE LOGMODE Table Entries

IBM host applications must realize that the TE can handle extended data stream and query (used to identify the graphic capabilities of the TE); therefore, you should define appropriate entries in the LOGMODE table.

The following sample entries define the 3192-G and 3279-S3G in the LOGMODE table:

```
S3192G   MODEENT LOGMODE=S3192G,                                    X
                       FMPROF=X'03',                                X
                       TSPROF=X'03',                                X
                       PRIPROT=X'B1',                               X
                       SECPROT=X'90',                               X
                       RUSIZES=X'8587',                             X
                       PSNDPAC=X'04',                               X
                       SRCVPAC=X'04',                               X
                       SSNDPAC=X'04',                               D
                       COMPROT=X'3080',                             X
                       PSERVIC=X'0280000000000185020507F00'

XT3279M3 MODEENT LOGMODE=XT3279M3,                                  X
                       FMPROF=X'03',                                X
                       TSPROF=X'03',                                X
                       PRIPROT=X'B1',                               X
                       SECPROT=X'B0',                               X
                       RUSIZES=X'8787',                             X
                       PSNDPAC=X'04',                               X
                       SRCVPAC=X'04',                               X
                       SSNDPAC=X'04',                               D
                       COMPROT=X'3080',                             X
                       PSERVIC=X'0280000000000185020507F00'
```

For use with CICS based applications, the following table illustrates how to define the TCT (Terminal Control Table) system:

```
LULABEL  DFHTCT TYPE=TERMINAL,                                        X
                TRMIDNT=LUNAME, TERMINAL ID   : LUNAME                X
                TRMTYPE=3270,   TERMINAL TYPE : 3270                  X
                ACCMETH=VTAM,   ACCESS METHOD : VTAM                  X
                ALTSCRN=(32,80),                                      X
                DEFSCRN=(24,80),                                      X
                FEATURE=(COLOR,EXTDS,HILIGHT,PS,UCTRAN),              X
                GMMSG=YES,                                            X
                PGESIZE=(24,80),                                      X
                RELREQ=(YES,YES),                                     X
                TCTUAL=64,                                            X
                TIOAL=128,                                            X
                TRMMODL=2,                                            X
                TRMSTAT=TRANSCEIVE,                                   X
                BRACKET=YES                                           X
                NETNAME=LUNAME
```

Index

A

AUTOGEN, 1–6

B

Backing up your system disk, 1–7
Backup, 2–3

C

Changing system parameters
  with AUTOGEN, 1–6
Checking system parameters
  with SYSGEN, 1–5
Client, 3–1
Client files, B–1

D

DECnet, 2–3

E

Editing system files, 3–4
Errors, 3–5

F

Files installed
  client, B–1
  server, B–1
Font files, 2–6, 2–8
  copying to servers, 3–1
  copying to ULTRIX servers
    (RISC-based), 3–3
  copying to ULTRIX servers
    (VAX-based), 3–3
  copying to VMS servers, 3–2
  for VMS, 3–1
  ULTRIX, 3–1

G

GBLPAGES
  calculating values for, 1–5
GBLSECTIONS
  calculating values for, 1–5

I

Installation procedure, 2–2
Installation questions, 2–3
Installation Verification Procedure (IVP),
    2–2, 2–7, 2–8, 3–4
Installing on a VAXcluster, 2–7, 3–5
IVP, 2–2, 2–7, 2–8, 3–4

L

License Management Facility (LMF),
    1–2
License registration, 2–6

M

Messages, 2–7
Mounting the media, 2–4

O

Options, 2–3

P

Preparing for installation, 1–1
Privileges, 3–5
Process symbol table, 2–8
Product Authorization Key, 2–7
Product Authorization Key (PAK), 1–2
Purging files, 2–7

R

Rebooting the system, 3–4
Recovery, 2–9
Registering your software license, 1–2
Release notes, 1–2, 2–5
Reporting problems, 3–5
Requirements
  classes, 1–1
  disk space, 1–4
  installation, 1–3
  License Management Utility, 1–7
  software, 1–2
  system parameters, 1–4
  VMSINSTAL, 1–7

S

Sample installation, A–1
Server, 3–1
Server files, B–1
Server fonts, 2–6
SETHOST.LOG, 2–2
Setting privileges, 3–5
Shareable image, 2–7
Software kit components, 2–6

V

VAXcluster, installation on, 3–5
VMSINSTAL, 1–7, 2–2

W

Workstation fonts, 2–6