Digital SNA Printer Emulator for OpenVMS

Installation

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This document describes how to install the Digital SNA Printer Emulator for OpenVMS. Printer Emulator (PrE) allows Digital users on an OpenVMS system to receive and print data from IBM systems in an SNA network.

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Operating System and Version:	OpenVMS VAX Versions 6.1, 6.2, or 7.0 OpenVMS Alpha Versions 6.1, 6.2, or 7.0
Software Version:	Digital SNA Printer Emulator for OpenVMS, Version 1.3

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Preface

The Digital SNA Printer Emulator for OpenVMS software is a Digital Equipment Corporation layered product. It enables an OpenVMS system to receive data from an IBM host system through a Digital interconnect system: one of Digital's SNA Gateway products. To the IBM host system, PrE resembles one or more 3287 printers connected to a 3274 cluster controller. This allows IBM users to send data to the OpenVMS system or a queue on an OpenVMS system in the same way that they would to an actual 3287 printer.

Manual Objectives

Digital SNA Printer Emulator for OpenVMS Installation provides the information needed to install and verify the PrE software.

Intended Audience

This book is intended for system managers and network managers responsible for the installation of the Digital SNA Printer Emulator for OpenVMS.

Structure of the Manual

This manual consists of the following chapters.

- Chapter 1 provides information about the checks and requirements needed for installation.
- Chapter 2 provides step-by-step information about installing the Digital SNA Printer Emulator for OpenVMS software.

Associated Documents

The following documents make up the manual set for PrE:

- *Digital SNA Printer Emulator for OpenVMS Installation*
- *Digital SNA Printer Emulator for OpenVMS Use*

You should have the following Digital documents available for reference when you use the PrE:

- *Digital SNA Domain Gateway Guide to IBM Resource Definition*
- *Digital SNA Domain Gateway Installation*
- *Digital SNA Domain Gateway Management*
- *Digital SNA Gateway-CT Installation Guide*
- *Digital SNA Gateway Problem Determination Guide*
- *Digital SNA Gateway-CT Problem Solving (OpenVMS & ULTRIX)*
- *Digital SNA Gateway-CT Guide to IBM Parameters*
- *Digital SNA Gateway-CT Management (OpenVMS)*
- *Digital SNA Gateway-ST Installation Guide*
- *Digital SNA Gateway-ST Guide to IBM Parameters*
- *Digital SNA Gateway-ST Problem Solving (OpenVMS)*
- *Digital SNA OpenVMS Gateway Management Guide*
- *Digital SNA Peer Server Installation and Configuration*
- *Digital SNA Peer Server Management*
- *Digital SNA Peer Server Network Control Language Reference*
- *Digital SNA Peer Server Guide to IBM Resource Definition*
- *Digital SNA Printer Emulator for OpenVMS Installation*
- *Digital SNA Printer Emulator for OpenVMS Use*

Associated IBM Documents

You should have the following IBM documents for reference.

- *ACF for VTAM Version 2, Messages and Codes* (IBM Order No. SC27-0614)
- *IBM 3270 Information Display System and 3274 Control Unit Description and Programmer's Guide* (IBM Order No. GA23-0061)
- *IBM 3287 Printer Models 1 and 2 Component Description* (IBM Order No. GA27-3153)
- *MVS/TSO/VTAM Data Set Print Program Description/Operations Manual* (IBM Order No. SB21-2070)
- *IBM 3270 Information Display System*, Order No. GA23-0060
- *IBM 3270 Information Display System Data Stream Programmer's Reference*, Order No. GA23-0059
- *Systems Network Architecture—Introduction to Sessions Between Logical Units*, Order No. GC20-1869
- *Systems Network Architecture—Sessions Between Logical Units*, Order No. GC20-1868
- *IBM 3270 Information Display System: Operator's Guide*, Order No. GA27-2742

Terminology

Interconnect System	Refers the Digital SNA Gateway-ST, the Digital SNA Gateway-CT, the Digital SNA Domain Gateway-CT, the Digital SNA Domain Gateway-ST, or OpenVMS/SNA (OpenVMS VAX Version 6.1 only.)
Interconnect Products	Refers to the Digital SNA Gateway-ST, the Digital SNA Gateway-CT, Digital SNA Peer Server the Digital SNA Domain Gateway, the Digital SNA Printer Emulator for OpenVMS, and OpenVMS/SNA (OpenVMS VAX Version 6.1 only.)
Interconnect Manager	Refers to the person responsible for the installation and management of an interconnect product.

Conventions

This manual uses the following conventions:

Convention	Meaning
	Command examples show system output and user input in black special type.
SNAPRE> SET LINE *line-id*	In both command and syntax examples, uppercase letters represent text that you must enter exactly as shown. Lowercase letters in italics represent variables for which you must substitute specific information.
[*opt-arg*]	Square brackets enclose optional parts of a command.
RET	A symbol with a one- to three-character abbreviation indicates that you press a key on the terminal (in this example, the RETURN key). Unless otherwise stated, end every command line by pressing RET.
CTRL/*x*	This symbol indicates that you press and hold down the key labeled CTRL while simultaneously pressing another key (for example, CTRL/C or CTRL/T).

1
Preparing for Installation

Before you install the Digital SNA Printer Emulator for OpenVMS, referred to as PrE, you should prepare your system.

This installation involves writing to your system disk. Digital Equipment Corporation recommends that you make a backup copy of your system disk before you begin.

This manual refers to the base communications software as the "Gateway." Unless otherwise stated, the term "Gateway" applies to any or all of the following:

- OpenVMS/SNA (for OpenVMS VAX Version 6.1 only)
- Digital SNA Domain Gateway-CT
- Digital SNA Domain Gateway-ST
- Digital SNA Gateway for Channel Transport
- Digital SNA Gateway for Synchronous Transport
- Digital SNA Peer Server

1.1 Checking the Distribution Kit

Before beginning the installation, check that you have a complete distribution kit by comparing the kit against the bill of materials (BOM). If any part of the kit is missing, contact your Digital representative. Each PrE kit consists of one or more volumes of software media (depending on the media) and a set of documentation.

1.2 OpenVMS System Requirements

This section discusses OpenVMS requirements. Before you begin to install the PrE software, you need to know what software, system privileges, and disk space are required for your installation.

1.2.1 Installation Requirements

Table 1–1 shows the installation requirements that you must satisfy before you can begin to install the PrE software.

Table 1–1 PrE Software Installation Specifications

Requirements	Specifications
Distribution media	CD-ROM distribution kit, TK50 tape cassette distribution kit, or magnetic tape (1600 bpi) distribution kit
Required software	OpenVMS VAX Versions 6.1, 6.2, or 7.0 OpenVMS Alpha Version 6.1, 6.2, or 7.0
Privileges	System manager level
Disk space	1750 blocks minimum during installation 1050 blocks minimum after installation
BIOLM quota	200 bytes minimum
BYTCNT quota	7000 bytes minimum
BYTLM quota	200 bytes minimum
WSDEF quota	256 bytes minimum
WSQUO quota	1536 bytes minimum
WSEXTENT quota	6144 bytes minimum
Estimated time to install	5 to 15 minutes
PAK	Product Authorization Key for SNA-PRE
Associated documents	The *Guide to OpenVMS Software Installation* contains general installation information. The *OpenVMS System Manager's Reference Manual* contains information on setting recommended user account quotas.

If you plan to use more sessions (in the range of 20-128), you need to take the following VMS parameters into consideration.

- CHANNEL COUNT—PrE uses 5 channels per session and a constant 6 channels for image startup. Increase the CHANNELCNT in SYSGEN accordingly. The system will require a reboot.
- File Limit—PrE needs 3 files per session and a constant 6 files at image startup. This parameter should be changed in the PrE SNAPRE$STARTUP.COM RUN command.

- Buffer Limit—Buffer Limit should be increased appropriately depending upon the number of sessions that you use. This parameter should be changed in the PrE SNAPRE$STARTUP.COM RUN command.
- IO Buffer—IO Buffer should be increased appropriately depending upon the number of sessions that you use. This parameter should be changed in the PrE SNAPRE$STARTUP.COM RUN command.
- Working set—Working set should be increased appropriately depending upon the number of sessions that you use. This parameter should be changed in the PrE SNAPRE$STARTUP.COM RUN command.

1.2.1.1 VAX and Alpha Supported Processors

Refer to the Software Product Description (SPD) for the latest official list of supported processors.

1.2.2 OpenVMS License Management Facility Requirements

Before you install PrE, you should register and load your Product Authorization Key (PAK) with the License Management Facility (LMF). The PAK, which contains information about the license, is a paper certificate shipped with the product.

During the installation, you are asked if you have registered the PrE license and loaded the appropriate PAK. If you have not already done so, you can complete the installation. However, PrE and the IVP will not run if you have not registered the license or loaded the PAK. Once you perform the license registration and have loaded the PAK, you will be able to run PrE and the IVP.

To register and load the license, log in to the system manager's account. Then type the following:

```
@SYS$UPDATE:VMSLICENSE.COM
```

When you are prompted for information, enter the data from your PAK. For more information on LMF, see the *OpenVMS License Management Utility Manual* in the OpenVMS documentation set.

1.2.3 OpenVMS Tailor Requirements

The required classes are: OpenVMS Required Save Set, Network Support, Secure Users, and Utilities. Be certain these classes are installed on your system before installing the product. Refer to the OpenVMS Tailor documentation in the OpenVMS documentation set for more information.

1.3 Checking the background process

If PrE is already installed, use the OpenVMS SHOW SYSTEM command to make sure the background process (SNAPREDET) is not running. If it is, set your privilege to WORLD and stop the process with the STOP/IDENTIFICATION=*pid* command, where *pid* is the process identity of SNAPREDET.

1.4 IVP Requirements

If you choose to run IVP, make sure you know the following values:

- The Gateway node name (the name must be of a Gateway that is running)
- The access name
- The session address

1.5 VMSINSTAL Requirements

Installing PrE on an OpenVMS system involves running the VMSINSTAL procedure. The dialogue is self-explanatory. The system tells you to answer questions and waits for you to tell it to continue. Most questions require a simple YES (Y) or NO (N) answer. The questions display default answers (where applicable) in the following way:

```
[YES]:
```

To answer a question with the default YES, press Return.

When you invoke VMSINSTAL, it checks that:

- You are logged in to a privileged account.
- You have adequate quotas for installation.
- All users are logged off.

If VMSINSTAL detects any violations to these conditions at the beginning of the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process, enter NO or press Return. Then change the condition and restart the installation.

1.5.1 Privileges

Installation of PrE requires that you have the privileges necessary to run VMSINSTAL. Log in to system manager's account to install the PrE software.

1.5.2 Disk space

Make sure that you have adequate disk space before you install the PrE software. You can check your available disk space by entering the following command:

```
$ SHOW DEVICE system-disk
```

where *system-disk* refers to the device name of the system disk. For more information about the SHOW DEVICE command, refer to the *VMS DCL Dictionary*.

1.6 Accessing the On-line Release Notes

This product provides on-line release notes. You should review the release notes before installing the product. They contain the latest enhancements to the product, which may include changes to the installation procedure. If you specify OPTIONS N with VMSINSTAL, you are prompted for how you would like to see the release notes. After installing the product, you can read the release notes in the SYS$HELP:SNAPRE$*vvu*.RELEASE_NOTES, where *vv* is the major software version number and *u* is the update software version number. For example, SNAPRE$013 is version 1.3.

2
Installing the PrE Software

This chapter describes how to install the Digital SNA Printer Emulator for OpenVMS software. It contains a step-by-step description of the installation considerations. The final section includes an actual system installation log using PAK information and VMSINSTAL.

Note

You can install the PrE software from two locations: the Consolidated Software Distribution CD-ROM or a remote node in your local area network using the Remote Installation Service (RIS). The VMSINSTAL procedure presented in this chapter assumes the PrE software is being installed from your local area network.

To install the PrE software from the Consolidated Software Distribution CD-ROM, see the master index table in the document *Consolidated Software Distribution Disk User's Guide* for the directory containing the PrE files.

2.1 The Installation Procedure

The PrE installation consists of a series of questions and informational messages. The process takes 5 to 15 minutes to complete.

2.1.1 Running VMSINSTAL

Digital recommends that you use a hard-copy terminal for installing PrE if you would like a copy of the installation process. If you don't have a hard-copy terminal, you can produce a copy of the installation procedure in a file by typing:

```
$ SET HOST 0/LOG=filename
```

where:

filename is the name of the file in which you want the log file stored.

Step 1: Log in to system manager's account.

To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account.

```
Username: SYSTEM  Return
Password:         Return
```

Step 2: Invoke VMSINSTAL.

Use the following syntax to invoke VMSINSTAL:

```
$ @SYS$UPDATE:VMSINSTAL SNAPREnnn ddcn: OPTIONS N
```

Replace *nnn* in the product name with the version number of the software, for example, SNAPRE013.

Replace *ddcn* with the name of the device on which you plan to mount the media, where *dd* is the device name, *c* is the controller ID, and *n* is the unit number.

OPTIONS N is an optional parameter that indicates you want to be prompted to display or print the release notes, or copy them to SYS$HELP. If you do not include the OPTIONS N parameter, VMSINSTAL does not prompt you to display, print, or copy the release notes. Please read the release notes before proceeding with this installation. The following message displays:

```
    OpenVMS VMS Software Product Installation Procedure Vn.n

It is dd-mmm-yyyy at hh::mm.
Enter a question mark (?) at any time for help.
```

Step 3: Check your system disk backup.

Verify that you are satisfied with the backup copy of your system disk before continuing with the installation.

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

Step 4: Mount your media.

When installing from the distribution medium (not from copied savesets) VMSINSTAL checks that the device is mounted. Then you are prompted to mount the distribution volume, and asked if you are ready to continue the installation.

```
Please mount the first volume of the set on ddcn:
* Are you ready? YES
```

Step 5: Product Installation Begins.

VMSINSTAL displays a message that the media containing PrE has been mounted on the specified device and that the installation has begun.

```
%MOUNT-I-MOUNTED, SNAPRE mounted on _ddcn:
The following products will be processed:
SNAPRE Vn.n

    Beginning installation of SNAPRE Vn.n at hh::mm

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

V*n.n* is automatically replaced with the version number of PrE, for example, V1.3.

Step 6: Select a release notes option.

If you specified OPTIONS N when you invoked VMSINSTAL, the installation procedure prompts you for a release notes option.

```
Release Notes Options:

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

Select option [2]:
```

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

If you select option 2 or 3, VMSINSTAL prompts you for a print queue name:

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

Enter a queue name or press RETURN to send the file to the default output print device, SYS$PRINT.

No matter which option you select, VMSINSTAL then asks you if you want to continue the installation. Answer YES to continue or NO to exit VMSINSTAL.

```
* Do you want to continue the installation? [NO] YES
%VMSINSTAL-I-RELMOVED, The products release notes have been successfully
moved to SYS$HELP.
```

Step 7: Register the product with the License Management Facility.

The installation procedure prints out information specific to the particular license and asks if you have registered and loaded your PAK for PrE.

```
Product:              SNA-PRE
Producer:             DEC
Version:              n.n
Release Date:         dd-mmm-yyyy

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

If you have not registered and loaded your PAK, answer NO to this question. The installation reminds you to register the PAK before you run the product. The installation continues.

Step 8: Choose to purge files.

You have the option to purge files from previous versions of the PrE that are superseded by this installation. Purging is recommended because it will save disk space.

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

Step 9: Choose to run the IVP.

The system now asks if you want to have the IVP run automatically at the end of the installation. The IVP for PrE checks to be sure that the installation is successful. You should run the IVP immediately after installation.

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

Step 10: The IVP is run.

If you answered YES to the IVP question, the IVP begins automatically. The following message displays:

```
Starting PrE Installation Verification Procedure (IVP)
```

When the IVP begins, you must supply the access name, gateway, and session address. It then performs the following:

1. Creates a characteristics file.
2. Displays the characteristics in this file.
3. Starts a connection.
4. Stops the connection.
5. Displays the event log file for that connection.

Make sure that the only messages in the event log file are the SNAPRE-CONNECT and SNAPRE-STOPEOS messages, and possibly the SNAPRE-SESACT and SNAPRE-SESNOLACT messages.

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

```
Installation of SNAPRE Vn.n completed at hh::mm

VMSINSTAL procedure done at hh::mm
```

2.2 Postinstallation Considerations

Verification of the installation can be done either during installation through the VMSINSTAL utility or at any other time by running the SNAPRE$IVP.COM command procedure found in SYS$TEST. This command procedure verifies that the PrE has been installed correctly on your system. It does not verify connection between IBM and the Gateway. Section 2.2.2 shows the command procedure for running the IVP.

2.2.1 Files Created During Installation

During installation, the files listed below are placed on your system.

Table 2–1 PrE Files

File Name	Description
SYS$HELP:SNAPRE$013.RELEASE_NOTES	Release Notes
SYS$HELP:SNAPREHLP.HLB	PrE help library
SYS$SYSTEM:SNAPRE.EXE	User interface
SYS$SYSTEM:SNAPREDET.EXE	Background process
SYS$STARTUP:SNAPRE$STARTUP.COM	Startup command file
SYS$STARTUP:SNAPRE$DETACHED.COM	Used by the Startup command file
SYS$MESSAGE:SNAPREMSG.EXE	PrE message file
SYS$TEST:SNAPRE$IVP.COM	PrE Installation Verification Procedure

2.2.2 Running the Installation Verification Procedure

The Installation Verification Procedure (IVP) verifies the success of the installation. It starts the detached process, starts and stops a connection, and displays the log file. It is a first pass at problem detection. If a problem develops with PrE, run the IVP first. To run the IVP after you install the product, invoke the command:

```
$ @SYSTEST:SNAPRE$IVP
```

If the IVP fails, correct the situation, and run the IVP again.

2.2.3 Starting PrE

When VMSINSTAL has finished, run the command file SNAPRE$STARTUP.COM, which starts the background process.

Each time the system is rebooted, this command procedure must be run on the system where the PrE is installed. To do this, add the following command to the system startup file SYS$STARTUP:SYSTARTUP_V6.COM:

```
@SYS$STARTUP:SNAPRE$STARTUP parameter1 parameter2 parameter3
```

where:

first parameter	defines the disk and directory (or directories) to contain PrE's characteristics files.
second parameter	defines the file or device to contain PrE's error stream. The error stream records error messages which cannot be sent to the event log file.
third parameter	when specified, closes the output file when the session ends. When not specified, closes the output file when PrE receives an End Bracket Indicator (EBI)

.

For example, both the characteristics files and the error logging stream could be held on the system disk in a directory called [SNAPRE]. The error logging stream could be in a file called ERROR.OUT.

```
$@ SYS$STARTUP:SNAPRE$STARTUP SYS$COMMON:[SNAPRE] -
_$ SYS$COMMON:[SNAPRE]ERROR.OUT
```

Note

The characteristics files have the file type *file-name*.SCF. Do not use this file type for any other files in the same directory.

2.2.4 Retry feature for the START command

In addition to starting the background process, the startup command file may define the logicals shown in Table 2–2. If you are using the Retry feature, this is a good place to add the SNAPRE$RETRY_INTERVAL logical definition. For more information on the Retry feature, refer to the START command in chapter 3 Controlling PrE, in the *Digital SNA Printer Emulator for OpenVMS Use* manual.

The background job references the following logicals defined in the startup file:

Table 2–2 Defined Logicals

Logicals	Definition
SNAPRE$CHARACTERISTICS	Points to the directory that stores the characteristics files.
SNAPRE$HOST	Points to the node in the cluster that is running the SNAPREDET process. If the SNAPRE$HOST logical is defined, SNAPRE will eliminate search of the cluster to find the Process Host.
SNAPRE$ONE_FILE_PER_BRACKET	PrE interprets EBI (end bracket indicator) as the end of file, when defined to any valid system logical value.
SNAPRE$SEVERE_NODMP	Suppresses process dump and traceback display.
SNAPRE$RETRY_INTERVAL	Sets the time PrE waits before retrying to establish a broken link with the gateway. Must be in Delta time format.
SNAPRE$TRANSLATE_TRN	Translates the data within a TRN transparency.
SNAPRE$PRINT_OPTION	When set to 1, form feeds are emulated in the output file by line feeds. This option is applicable to LU1 sessions only.

2.2.5 Testing the Product

When you have installed PrE and started the background process, run a test to make sure that the interconnect system, the link with the IBM host system and all hardware is working properly.

Ask somebody on the IBM host system to send some data to PrE. If you have any problems, refer to *Digital SNA Printer Emulator for OpenVMS Use*, which explains error messages, and the problem determination guide for your interconnect system.

2.2.6 Running PrE in a VMScluster

To run PrE on multiple nodes of a VMScluster, check to see that you have the appropriate software license. After installing PrE perform the following steps:

1. Issue the LICENSE LOAD command to activate the license on each node in the VMScluster, as described in the OpenVMS License Management Utility Manual.
2. Run the startup file SNAPRE$STARTUP on the node where you want SNAPREDET to run. Then run the startup file on all other nodes. Before beginning the process on all other nodes, SNAPREDET will wait until the process running on the first node stops.
3. Define the system executive logical SNAPRE$HOST to be the system where the background process will run. This enables SNAPRE to quickly locate the background process.
4. Ensure that each node has access to the directory containing the characteristics files.

After performing the above steps, all cluster users can access SNAPREDET and print files.

2.3 Error Recovery

If errors occur during the installation or when the IVP is running, VMSINSTAL displays error messages.

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

1. The operating system version is incorrect.
2. A prerequisite software version is incorrect.
3. Quotas necessary for successful installation are insufficient.
4. System parameter values for successful installation are insufficient.
5. The OpenVMS help library is currently in use.
6. The product is not properly licensed.
7. Your system has insufficient disk space.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages, recovery procedures, and OpenVMS software installation. If 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.) These

requirements are part of the installation requirements in Chapter 1 of this manual.

2.4 Sample Installation on a VAX System with OPTIONS N

A sample of the entire installation procedure follows:

```
$ @SYS$UPDATE:VMSINSTAL SNAPRE013 MUA0 OPTIONS N

 OpenVMS VAX Software Product Installation Procedure V6.1

It is dd-mmm-yyyy at hh::mm.
Enter a question mark (?) at any time for help.

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

Please mount the first volume of the set on  MUA0:.
* Are you ready? Y
%MOUNT-I-MOUNTED, SNAPRE mounted on _MUA0:
The following products will be processed:
  SNAPRE V1.3

 Beginning installation of SNAPRE V1.3 at hh::mm

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

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

        Product:      SNA-PRE
        Producer:     DEC
        Version:      1.3
        Release Date: dd-mmm-yyyy

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

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

You can verify the installation using the IVP. This starts and stops a
connection, then asks you to verify the contents of the event log file.
To do this, you need the values of the following parameters:

       * The Digital SNA gateway node name
       * The access name
       * The session address (secondary logical unit number)

The terms used above are explained in the User's Guide. Please read the
Software Limitations section of the Release Notes before running the IVP.

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

```
%SNAPRE-I-ASKDONE, All installation questions have been asked. No more input
-SNAPRE-I-ASKDONE, from the terminal will be required until the IVP runs.
```

To start the SNAPREDET background process at system startup the following line must be added to the SYS$STARTUP:SYSTARTUP_V6.COM file:

```
     @SYS$STARTUP:SNAPRE$STARTUP char-acct err-log
```

char-acct is the directory where the PrE characteristic files are to be kept and err-log is the file specification for the background process' error stream.

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

Starting PrE Installation Verification Procedure (IVP)

Starting the background process...

   "SNAPRE$CHARACTERISTICS" = "
%SNAPRE-I-EDNF Error stream log specification for background process is:
              SNAPRE$STARTUP.ERR
%SNAPRE-I-INIBRAK, close file when bracket encountered
%SNAPRE-I-NORETRY, Session retry mechanism has been disabled
%SNAPRE-I-TRANTRN, Data within a TRN will be translated
   "SNAPRE$TRANSLATE_TRN" = "1"
%RUN-S-PROC_ID, identification of created process is 3AE000E7
%SNAPRE-I-OK, DECnet SNA PrE Background Process started OK

You will now be asked for the parameters needed to verify the installation

%SNAPRE-I-NEWCHAR, creating new characteristics file SNAPREIVP
Access_name []: TSO
Gateway []: NYWAY
Session_address [1]: 29

These are the connection's characteristics :

    SESSION ADDRESS:  29      PAGE LENGTH:   66          PAGE WIDTH: 132
    CASE:             MIXED   SPACING:     SINGLE        NOIMAGE
    ACCESS NAME:      TSO                                WAIT
    GATEWAY:          NYWAY
    OUTPUT STREAM:    SYS$SYSTEM:SNAPREIVP.LIS
    LOG_FILE:         SYS$SYSTEM:SNAPREIVP.LOG

The connection will now be started, then stopped:

%SNAPRE-S-CONNECT, connection started with IBM host using characteristics name
SNAPREIVP, SNAPRE V1.3
%SNAPRE-S-STOPPING, connection is stopping for characteristics name SNAPREIVP

The connection's event log file will now be displayed.

dd-mmm-yyyy hh::mm %SNAPRE-CONNECT, connection started with IBM host using
characteristics name  SNAPREIVP, SNAPRE V1.3

dd-mmm-yyyy hh::mm %SNAPRE-STOPPING, connection is stopping for
characteristics name SNAPREIVP
```

```
Please check that the event log file contains an SNAPRE-CONNECT message
followed by an SNAPRE-STOPPING message. It may also contain SNAPRE-SESACT
and SNAPRE-SESNOLACT messages. In either case all is well.

If any other messages are shown please consult the User's Guide, Appendix B,
for their meaning.

Were the contents of the event log file OK? Y

Background process stopped.

SNAPRE-IVPSUCC, IVP ran successfully

 Installation of SNAPRE V1.3 completed at hh::mm

 VMSINSTAL procedure done at hh::mm

$
```