BASEstar Classic Installation Guide

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This manual describes installation prerequisites, installation procedures, and postinstallation tasks for BASEstar Classic, Version 3.4.

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Operating System and Version:	OpenVMS VAX OpenVMS Alpha Refer to BASEstar Classic SPD for current Operating System Version information.
Software Version:	BASEstar Classic, Version 3.4

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Preface

This manual provides instructions for installing BASEstar software.

Intended Audience

This manual is intended for system managers who install and maintain BASEstar software. Readers of this manual must have a thorough understanding of OpenVMS operations to install a BASEstar system. To obtain a complete understanding of BASEstar configuration management before installation, refer to the *BASEstar Classic Configuration and Tuning Guide*.

Document Structure

This document has the following structure:

- Chapter 1 provides a description of the BASEstar installation, software distribution kits, required hardware and software, preliminary installation steps, and VMScluster installation overview.
- Chapter 2 describes step-by-step installation of BASEstar software on a single node or on a VMScluster system. This section also includes instructions for the optional installation of utility, device connection management, and BASEstar Classic CIMfast software. The installation information is applicable for OpenVMS VAX and OpenVMS AXP systems.
- Chapter 3 describes postinstallation tasks.
- Appendix A presents sample installations of BASEstar software on OpenVMS systems.
- Appendix B presents sample Upgade installation of BASEstar software on OpenVMS systems.
- Appendix C lists all BASEstar files created during installation with their directory locations.

Conventions

The following conventions are used in this manual.

Convention	Meaning
Return	In examples, a key name enclosed in a box indicates that you press that key.
Ctrl/*x*	Ctrl/*x* indicates that you hold down the Ctrl key while you press another key.
x	A lowercase *x* indicates the generic use of a letter. For example, *xxx* indicates any combination of three alphabetic characters.
n	A lowercase *n* indicates the generic use of a number. For example, 19*nn* indicates a 4-digit number in which the last 2 digits are unknown.
[ ]	In format descriptions, brackets indicate optional elements. You can choose none, one, or all of the options. Brackets are not optional, however, in the syntax of a directory name in an OpenVMS file specification.
{ }	Braces indicate select one of enclosed items.
( )	In format descriptions, parentheses delimit the argument list.
"point_a + point_b"	Literal string. Using quotation marks is optional unless there is a space, slash (/), or parenthesis in the string.
...	The horizontal ellipsis indicates omitted text within a string.
. . .	The vertical ellipsis indicates omitted text within output. The information is omitted because it is not important to the topic being discussed.
italic type	Italic type emphasizes important information, indicates variables, and indicates complete titles of manuals.
boldface type	Boldface type in examples indicates user input. Boldface type in text indicates the first instance of terms defined either in the text or in the BASEstar master glossary, which is included in the *BASEstar Classic Introduction*.
BASEstar names	Valid characters for the names of BASEstar objects are the alphanumeric characters (A–Z) and (0–9), the underscore (_), the dollar sign ($), and the following multinational characters: ÅÀÁÂÃÄÇÈÉÊËÌÍÎÏÒÓÔÕÖÙÚÛÜÝÆÑ×Øß.

Associated Documents

For further information on installing and configuring BASEstar software, refer to the following documents:

- *BASEstar Classic DEC Rdb Database Server Guide*
- *BASEstar Classic Configuration and Tuning Guide*
- *BASEstar Classic Command Line Interface User's Guide*
- *BASEstar Classic CIMfast Guide to DCM Support*
- *BASEstar CIMfast Guide to DECmessageQ Support*
- *BASEstar CIMfast Programmer's Guide*
- *BASEstar CIMfast User's Guide*
- *OpenVMS System Manager's Manual*

- *OpenVMS System Management Utilities Reference Manual*
- *OpenVMS License Management Utility Manual*
- *OpenVMS System Manager's Manual*

1
Introduction

This chapter is an overview of BASEstar software installation procedures and installation options. It also describes installation preparation and preliminary steps, and provides an overview of VMScluster installation.

1.1 Overview

The BASEstar installation procedures allow you to customize each BASEstar system by installing only those system components that you want for the target system. You can install BASEstar software on a single node or on a **VMScluster** system, provided the cluster member nodes share the same system disk.

The main BASEstar installation procedure is mandatory for all BASEstar systems and installs basic application integration features such as application synchronization and control and distributed name services. The main installation procedure has options, including the ability to install the BASEstar menu interface (OpenVMS VAX only), BASEstar data management capabilities, and BASEstar external data support.

In addition to the main installation options, there are optional installation save sets available with BASEstar software that provide device connection management, BASEstar utilities, and DEC Rdb integration. See the following sections to learn about installation options in the main installation procedures and optional BASEstar kits that you can install.

In addition to installing BASEstar software, you can install BASEstar Classic CIMfast software.

Whether you install BASEstar software on a new system or upgrade an existing BASEstar system to the latest software revision, the VMSINSTAL utility performs the software installation procedures. VMSINSTAL prompts you to choose installation options, set directory specifications, and choose the VMScluster configuration option. This chapter contains a checklist you can follow to ensure the correct BASEstar software is installed on each system.

1.1.1 Main Installation Options

Because the processing requirements for each node within your manufacturing system are unique, the first step in installing BASEstar software is to determine which BASEstar components should be installed on each system. Basic application integration software is installed on all systems. However, during the main BASEstar installation procedure, you are prompted to indicate which of the following additional BASEstar software components you want to install:

- Data management
- External data support
- Menu interface (OpenVMS VAX only)

These components are optional in order to save disk space on systems not requiring these features. Consult the manufacturing system designer or user group to understand which, if any, of this optional software must be installed.

1.1.2 Optional Installation Procedures

In addition to the main installation, you can install any of five optional BASEstar components. This software is installed from separate kits to reduce the amount of system space required for the BASEstar installation if these capabilities are not needed. Optional installation procedures are included for the following BASEstar software components:

- Device connection management
- Utilities
- DEC Rdb database server
- BASEstar Classic CIMfast application enabler

1.1.2.1 Device Connection Management

BASEstar device connection management software is installed after the main BASEstar installation procedure is complete. To communicate with plant equipment, BASEstar **device access software (DAS)** must also be installed for the industrial control devices used at each BASEstar site. Consult the manufacturing system designer or user group to understand which, if any, of this additional software must be installed.

The BASEstar device connection management installation procedure will conditionally install its menu interface component if the BASEstar menu system (OpenVMS VAX only) was installed during the main installation procedure. The device connection management installation procedure also includes installation of BASEstar device access software for RS-232 devices, DECnet and TCP/IP networks, and the DECdevice device communication module. Refer to the *BASEstar Classic Device Access Software Guide* for information on how to configure and use these DAS modules.

1.1.2.2 Utilities

The BASEstar utility kit offers seven BASEstar functions:

- The BCC$BASEGEN.COM utility for tuning BASEstar systems

  Run this procedure on a loaded BASEstar system to analyze its current OpenVMS resource utilization and obtain suggested values for BASEstar parameters, system parameters, and OpenVMS process quota settings.

- BASEstar text services for translating the BASEstar message files

  These services are designed to support international use of BASEstar software by providing the text message files needed when converting message text to a non-English language.

- Software for reconciling OpenVMS version mismatches

  The utility kit contains software for reconciling OpenVMS versions if a version mismatch error occurs during BASEstar installation.

- Logical point value change notification

  Provided with the BASEstar development kit is a tool called the Value Notification Utility (Notify). You supply the utility with a list of logical points. Every time the value of one of the logical points changes, you are notified. This utility requires a BASEstar development license.

- BASEstar process data display

  Use the Monitor BASEstar Utility to analyze the processes running on a BASEstar system. Monitor BASEstar continuously displays a default set of processes or allows the display of a customized set of processes.

- Port activity display

  The Monitor Port Utility provides a continuously updated display of port data for all ports defined on the system. Use the Monitor Port Utility to observe port activity when tuning and troubleshooting.

- BASEstar LSE Environment

  Language-Sensitive Editor (LSE) is a multiple-language text editor that speeds writing and compiling source code. BASEstar software provides an extension to the LSE in the form of expandable tokens for BASEstar callable services, DAS support routines, and BASEstar application programming interface (API) constants. Before the BASEstar LSE environment can be accessed, the LSE and BASEstar Classic Development Kit must be installed with the BASEstar LSE Environment selected. This utility requires a BASEstar development license.

1.1.2.3 DEC Rdb Database Server

BASEstar software includes a DEC Rdb database server to export BASEstar data to a DEC Rdb database. Instructions for installing and using the BASEstar DEC Rdb database server are in the *BASEstar Classic DEC Rdb Database Server Guide*.

1.1.2.4 BASEstar Classic CIMfast Application Enabler

The BASEstar Classic CIMfast application enabler is installed after the main BASEstar and device connection management installation procedures are complete.

1.1.3 Installation Checklist

This section provides a checklist for interviewing BASEstar system users to understand which BASEstar software components need to be installed on each BASEstar system. Answer all of these questions for each node in your network of BASEstar systems.

Option	√	Do users need to...	Then install...
1.	_____	Use DECmessageQ with BASEstar software?	*DECmessageQ* before starting BASEstar software.
2.	_____	Share data on this system?	*Data Management* during the main installation procedure.
3.	_____	Export data from this system?	*External Data Support* during the main installation procedure.
4.	_____	Access the BASEstar menu interface?	*Menu System* during the main installation procedure (OpenVMS VAX only).
5.	_____	Control or monitor plant equipment or collect plant data using this system?	*Device Connection Management* from the DCMVV034/BRIVV034 or DCMVA034/BRIVA034 kit.
6.	_____	Access BASEstar utilities?	*Utilities* from the BCCUTLVV034 /BCCUTLVA034 kit.

Option	√	Do users need to...	Then install...
7.	_____	Export data to a DEC Rdb database?	*DEC Rdb Database Server* from the BRIVV034/BRIVA034 kit.
8.	_____	Develop applications using the BASEstar Classic CIMfast Event Language alone or with a high-level language?	*BASEstar Classic CIMfast* from the BCFVAX022/BCFAXP022 kit.

Once you plan the software to install on each BASEstar system, continue with the instructions in the following section to check hardware, software, and disk space prerequisites before installing BASEstar software.

1.2 Installation Preparation

This section provides information needed to prepare for a BASEstar Classic, Version 3.4 installation.

1.2.1 Distribution Kit

BASEstar software is available in three forms: a 1600 bits/in 9-track tape, a TK50 tape cartridge, or through Digital Consolidated Distribution on CD-ROM for use with development or run-time licenses. Each medium contains the following software kits:

For OpenVMS VAX

- BCCVV034 — BASEstar application integration software
- BCCUTLVV034 — BASEstar utilities software
- BRIVV034 — BASEstar DEC Rdb database server software
- DCMVV034 — BASEstar device connection management software
- BCFVAX022 — BASEstar Classic CIMfast application enabler software

For OpenVMS Alpha

- BCCVA034 — BASEstar application integration software
- BCCUTLVA034 — BASEstar utilities software
- BRIVA034 — BASEstar DEC Rdb database server software
- DCMVA034 — BASEstar device connection management software
- BCFAXP022 — BASEstar Classic CIMfast application enabler software

BASEstar technical documentation is available in either a development media kit or a run-time media kit. The run-time kit contains Volumes 1 and 2 of the documentation, and the development kit contains Volumes 1 to 4 and the BASEstar Classic CIMfast documentation.

System Management Documentation (Volume 1)

- *BASEstar Classic Installation Guide*
- *BASEstar Classic Configuration and Tuning Guide*

General User Documentation (Volume 2)

- *BASEstar Classic Introduction*
- *BASEstar Classic Menu Interface User's Guide*

- *BASEstar Classic Command Line Interface User's Guide*

Programming Documentation (Volume 3)

- *BASEstar Classic Introduction to Callable Services*
- *BASEstar Classic Guide to Writing a Database Server*
- *BASEstar Classic DEC Rdb Database Server Guide*
- *BASEstar Classic Guide to Writing Device Access Software*
- *BASEstar Classic Device Access Software Guide*

Programming Documentation (Volume 4)

- *BASEstar Classic Application Programming Interface Reference Guide*

BASEstar Classic CIMfast Documentation

- *BASEstar Classic CIMfast Guide to DCM Support*
- *BASEstar CIMfast Guide to DECmessageQ Support*
- *BASEstar CIMfast Programmer's Guide*
- *BASEstar CIMfast User's Guide*
- *BASEstar CIMfast Guide to SQL support*

Your bill of materials (BOM) and Indented Bills Report (BIL) specify the number and contents of your media. Be sure to verify the contents of your kit with this information. If your kit is damaged or if you find that parts of it are missing, contact your Digital representative.

BASEstar Classic provides online release notes. Digital strongly recommends that you read the release notes before proceeding with the installation.

1.2.2 Prerequisite Hardware

The minimum hardware configuration required for BASEstar software to run efficiently follows. Refer to the *BASEstar Classic Software Product Description* and *System Support Addendum* for more details.

- VAX processor — For OpenVMS VAX systems, a single VAX or MicroVAX processor with a minimum of 8 Mb of memory supports BASEstar software. The single processor can be networked with other systems or a VMScluster system using DECnet software. Any or all systems in the distributed network can run BASEstar software.
- Alpha processor — For OpenVMS Alpha systems, a single Alpha processor with a minimum of 64 Mb of memory. The single processor can be networked with other systems or a VMScluster system using DECnet software. Any or all systems in the distributed network can run BASEstar software.
- For OpenVMS VAX systems, an RD54 or equivalent disk drive.
- For OpenVMS Alpha systems, an RZ26 or equivalent disk drive.

1.2.3 Prerequisite and Optional Software

The following software must be installed on your system before installing BASEstar software:

For OpenVMS VAX systems:

- OpenVMS VAX Version 5.5-2 or higher. (Refer to BASEstar Classic SPD for official supported VMS Versions)
- DECnet software, as provided with the OpenVMS operating system.
- FMS, Version 2.3 or higher for the BASEstar menu interface only. If you do not install the menu system, you do not need FMS.
- Optionally, DECmessageQ Version 2.0 or higher for interprocess messaging.
- Optionally, Digital RDB for use with BASEstar Classic RDB/VMS Database Server.
- Optionally, LSE (Language Sensitive Editor) for using the BASEstar LSE environment.

For OpenVMS Alpha systems:

- OpenVMS Alpha Version 6.1 or higher. (Refer to BASEstar Classic SPD for official supported VMS Versions)
- DECnet software, as provided with the OpenVMS operating system.
- Optionally, DECmessageQ Version 2.0 or higher for interprocess messaging.
- Optionally, Digital RDB for use with BASEstar Classic RDB/VMS Database Server.
- Optionally, LSE (Language Sensitive Editor) for using the BASEstar LSE environment.

The following software must be installed on your system before installing BASEstar Classic CIMfast software:

- OpenVMS VAX Version 6.1 or higher or OpenVMS Alpha Version 6.1. (Refer to BASEstar Classic SPD for official supported VMS Versions)
- BASEstar for VMS (Kernel and Data Management), Version 3.4 or higher.
- Optionally, DECmessageQ Version 2.0 or higher.
- Optionally, Digital RDB version 6.0 or Oracle version 7.0 for use with CIMfast SQL support.
- Optionally, DEC C for OpenVMS.

1.3 VMScluster Installation

Each BASEstar installation procedure for VMScluster systems allows installation of BASEstar software from one node in a VMScluster for all nodes sharing a system disk. BASEstar software and device connection management software support VMScluster installation.

The installation procedure automatically determines if the node that is executing the VMSINSTAL utility is part of a multinode VMScluster. If not, a single-node installation procedure will be performed. If the executing node is a member of a multinode VMScluster, the installation procedure will prompt you to specify the nodes to be processed and the BASEstar software configuration for each node.

The executing node will automatically be the first node in the list of nodes to be processed.

1.3.1 Disk Space Requirements

The amount of disk space required depends on your BASEstar system configuration. The disk space requirements for the BASEstar software components follow:

Note

Refer to Section 1.5 for additional disk space requirements for a UPGRADE from BASEstar Classic 3.3 database to a 3.4 database.

For OpenVMS VAX systems:

BASEstar Component	Peak Utilization in Blocks (During Installation)	Blocks After Installation
BASEstar software with all main options	31,500	24,600
Device connection management	18,000	16,000
Utility	3,300	400
DEC Rdb Database Server	1,150	800
BASEstar Classic CIMfast	6,000	4,500

For OpenVMS Alpha systems:

BASEstar Component	Peak Utilization in Blocks (During Installation)	Blocks After Installation
BASEstar software with all main options	52,000	29,000
Device connection management	19,000	13,000
Utility	12,000	400
DEC Rdb Database Server	3,000	2,000
BASEstar Classic CIMfast	21,000	13,000

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 Preinstallation Steps

Before installing BASEstar software, review the following checklist. If you need more information on how to perform some of the functions on the checklist, refer to the *OpenVMS System Manager's Manual*.

1.4 Preinstallation Steps

Step	√	Before installing BASEstar software...
1.	_____	Ensure that OpenVMS Version is as required for your processor. If you plan to use DECmessageQ, ensure that DECmessageQ Version 2.0 or higher is installed.
2.	_____	Ensure that DECnet software is configured on your system.
3.	_____	Optionally, ensure that the following software is installed: FMS for the menu interface, DECmessageQ for messaging, and LSE for the LSE environment.
4.	_____	Install the BASEstar product license.
5.	_____	Decide which BASEstar software components to install on each system.
6.	_____	Define your global name server configuration (if you have two or more BASEstar systems in a network that share information).
7.	_____	Verify minimum run-time system parameters. Table 1–2 and Table 1–3 describe the system parameter values recommended for the minimum run-time BASEstar configuration.
8.	_____	Stop interactive processes and disable user logins.
9.	_____	Stop batch queues.
10.	_____	Stop the BASEstar system (upgrades only).
11.	_____	Check VMSINSTAL requirements.
12.	_____	Back up the system disk.
13.	_____	Verify logical names for an upgrade (upgrades only).
14.	_____	Review release notes.
15.	_____	Check required OpenVMS tailoring classes in the BASEstar Classic System Software Addendum (SSA).

Perform these tasks before installing BASEstar software:

1. **Ensure that OpenVMS VAX Version 5.5-2 or higher or OpenVMS AXP Version 6.1 or higher is installed on the system.**

   OpenVMS VAX Version 5.5-2 or higher or OpenVMS AXP Version 6.1 must be installed on each system planned for installation of BASEstar software. (Refer to BASEstar Classic SPD for official supported VMS Versions)

   To install BASEstar Classic CIMfast, OpenVMS VAX Version 6.1 or higher or OpenVMS AXP Version 6.1 or higher must be installed on each system planned for installation of BASEstar Classic CIMfast software. (Refer to BASEstar Classic SPD for official supported VMS Versions)

   DEC C Runtime Components must be installed for OpenVMS for use of CIMfast software.

2. **Ensure that DECnet software is configured on your system.**

   DECnet software must be configured in order to install BASEstar software. Refer to the *BASEstar Classic Configuration and Tuning Guide* for instructions on the minimum DECnet configuration required.

3. **Optionally, ensure that the following software is installed: FMS for the menu interface, DECmessageQ for messaging, and LSE for the Language Sensitive Editor environment.**

   If you plan to use the BASEstar menu interface, ensure that FMS Version 2.3 or higher is installed on each system.

If you plan to use DECmessageQ with your BASEstar system, install DECmessageQ Version 1.0 or higher. Refer to the *DECmessageQ Installation Guide for OpenVMS* for more information about installing DECmessageQ software.

If you plan to use DECmessageQ with BASEstar Classic CIMfast, install DECmessageQ Version 2.0 or higher. Refer to the *DECmessageQ Installation Guide for OpenVMS* for more information about installing DECmessageQ software.

If you plan to use the LSE environment for BASEstar, install Language-Sensitive Editor software.

If you plan to use the CIMfast SQL component, install Digital RDB Version 6.0 or Oracle 7.0.

4. **Install the BASEstar product license.**

   Before you install and run BASEstar Classic, Version 3.4 software on a newly licensed node or cluster, you must first register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The License PAK may be shipped with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order.

   Before installing BASEstar, you must update the LMF database using the License Management Utility. For more information about the License Management Utility, refer to the *OpenVMS License Management Utility Manual*.

   To update the LMF database, log in to a privileged account and follow these steps:

   a. Find the product name listed on the PAK that you received.

   b. To determine if a previous license is already registered and loaded for BASEstar software, enter the following command:

      ```
      $ LICENSE LIST product_name/FULL
      ```

      where *product_name* is the product name.

   c. If a new PAK is required to be registered and loaded, choose one of the following actions:

      - Execute the command procedure VMSLICENSE to register and load the new PAK:

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

        The VMSLICENSE procedure prompts for the information contained in the PAK, and then registers and loads the new PAK on your system.

      - At the DCL prompt, enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to License PAK information.

   Table 1–1 shows the statuses of the licenses listed during the main BASEstar installation.

Table 1–1 BASEstar Licenses

License	Availability
CIMFAST-V	No Longer Available
CIMFAST-RT-V	No Longer Available
BASESTAR	Available
BASESTAR-RT	Available
BASESTAR-CU	Available
BASESTAR-LTD	No Longer Available
BASESTAR-RT-LTD	No Longer Available
BASESTAR-G	Not Yet Available
BASESTAR-RT-G	Not Yet Available
BASESTAR-USER	Not Yet Available

When performing a BASEstar installation, you must preload the licenses you want to use in order to authorize the use of BASEstar on the target node. A new license called BASESTAR-CU was added for BASEstar Classic, Version 3.2. This allows you to license a BASEstar system based on the maximum number of logical points residing on the target system.

At installation, the BASESTAR-CU license is checked for its presence and the installation procedure verifies that the number of logical points is less than the number licensed at startup. If the BASEstar parameter BCC$MAX_POINTS exceeds the number of units specified in the BASESTAR-CU license, the system cannot be started.

At BASEstar Classic CIMfast installation, the BASESTAR license or the BASEstar Classic CIMfast license must be present; either license is acceptable.

5. **Decide which BASEstar software components to install on each system.**

   Review the installation checklist with software developers and process engineers to create a list indicating which BASEstar software components must be installed on each system in your hardware configuration.

6. **Define your global name server configuration.**

   To make BASEstar objects accessible within a distributed system, at least one BASEstar system must be defined as a global name server. Other nodes are designated as name dispatchers. Before installing BASEstar software, determine your global name server configuration so you can enter definitions properly during installation. For information on defining global name servers, refer to the *BASEstar Classic Configuration and Tuning Guide*.

7. **Verify minimum run-time system parameters.**

   Table 1–2 describes the system parameter values recommended for the minimum run-time BASEstar configuration.

Table 1–2 BASEstar Minimum System Parameter Values for OpenVMS VAX

MODPARAMS.DAT Entries	Minimum Value
GBLSECTIONS	250
GBLPAGFIL	4,096
GBLPAGES	18,000
CTLPAGES	60
LOCKIDTBL	2,048
RESHASHTBL	512
MAXPROCESSCNT	35
BALSETCNT	33
VIRTUALPAGECNT	25,000
MAXBUF	4,096
SCSSYSTEMID	Refer to *BASEstar Classic Release Notes*.

Table 1–3 BASEstar Minimum System Parameter Values for OpenVMS Alpha

MODPARAMS.DAT Entries	Minimum Value
GBLSECTIONS	512
GBLPAGFIL	4,096
GBLPAGES	150,000
CTLPAGES	80
LOCKIDTBL	3,840
RESHASHTBL	4,096
MAXPROCESSCNT	40
BALSETCNT	80
VIRTUALPAGECNT	300,000
MAXBUF	8,192
SCSSYSTEMID	Refer to *BASEstar Classic Release Notes*.

Because these values represent minimum BASEstar run-time system parameter settings, you may need to adjust their values as required for systems larger than the minimum BASEstar hardware configuration or for systems running software in addition to BASEstar applications. Use the following steps to adjust the system parameter GBLPAGES:

a. Run the OpenVMS System Generation Utility (SYSGEN) to view the current setting for the GBLPAGES parameter on your system as follows:

```
$ MCR SYSGEN
SYSGEN>USE ACTIVE
SYSGEN>SHOW GBLPAGES
GBLPAGES 18000
SYSGEN>EXIT
```

b. Edit the MODPARAMS.DAT file to increase the global pages available. If the GBLPAGES parameter is already set, change the current value to the value you want. If the parameter is not specified, you can add a line to the MODPARAMS.DAT file to specify your minimum amount as follows:

```
MIN_GBLPAGES=45000
```

In this way, more global pages can be dynamically allocated if needed; however, your system will maintain a minimum number of global pages equal to the value you want.

c. Use the OpenVMS AUTOGEN command procedure to update the new value as follows:

```
1. $ @SYS$UPDATE:AUTOGEN  SAVPARAMS  GENPARAMS
2. $ @SYS$UPDATE:AUTOGEN  SETPARAMS  REBOOT
```

8. **Stop interactive processes and disable logins.**

Ensure that all BASEstar users have logged out and no other users can log in to the system during the installation. To disable users from logging in, enter the following:

```
$ SET LOGINS/INTERACTIVE=0
```

Reenable logins after the installation is complete. Refer to the *OpenVMS System Manager's Manual* for more information on logins.

9. **Stop batch queues.**

To stop the batch queues, enter the following:

```
$ STOP/QUEUE/NEXT  batch_queue_name
```

10. **Stop the BASEstar system.**

If you are performing an upgrade of existing BASEstar software, ensure that the current version of the system is not running. Stopping the BASEstar system also stops device connection management and all user-written BASEstar applications. To stop the BASEstar system, enter the following:

```
$ BSTAR STOP SYSTEM
```

11. **Check VMSINSTAL requirements.**

VMSINSTAL requires that the system account used to install BASEstar software have a minimum of the following quotas:

For OpenVMS VAX systems:

- ASTLM=24
- BIOLM=18
- BYTLM=18,000
- DIOLM=18
- ENQLM=30
- FILLM=20

For OpenVMS Alpha systems:

- ASTLM=100
- BIOLM=50
- BYTLM=32,000
- DIOLM=50
- ENQLM=100
- FILLM=35

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter Y to continue. To stop the installation process and correct the situation, enter N or press Return. Then, correct the problem and restart the installation.

12. **Back up the system disk.**

    Back up the system disk before installing the BASEstar software. This backup is a protection in the event of disk corruption or accidental changes or deletions during installation. The procedure for backing up the system disk is described in the *OpenVMS System Management Utilities Reference Manual*.

13. **Verify logical names (upgrades only).**

    If you are upgrading your BASEstar system, ensure that the logical names BCC$SYSTEM and BCC$SYSDATA are defined by entering the following commands:

    ```
    $ SHOW LOGICAL BCC$SYSTEM
    $ SHOW LOGICAL BCC$SYSDATA
    ```

    If the logical names are not already defined, define them by executing the SYS$STARTUP:BCC$STARTUP.COM procedure.

    If you are upgrading BASEstar device connection management, ensure that the logical name ILAN$SYSTEM is defined in the system startup file by entering the following command:

    ```
    $ SHOW LOGICAL ILAN$SYSTEM
    ```

    If the logical name is not already defined, define it by executing the SYS$STARTUP:ILAN$STARTUP.COM command procedure.

14. **Review release notes.**

    To read or print out the release notes included in the BASEstar distribution kit, invoke VMSINSTAL in the following manner:

    ```
    @VMSINSTAL BCCXX034 mtcu: OPTIONS N

    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]:
    ```

    Where XX = VV for OpenVMS VAX and XX = VA for OpenVMS Alpha. Select an option when the installation procedure prompts for release note options.

15. **Check required OpenVMS tailoring classes in the BASEstar Classic System Software Addendum (SSA).**

    OpenVMS classes are mutually exclusive subsets of OpenVMS files that provide a mechanism by which customers can include only site-specific OpenVMS files on their systems. This frees up space on the system disk and results in performance and maintenance gains. It also tailors the general all-purpose nature of the OpenVMS operating system to specific customer needs. Refer to the BASEstar Classic, Version 3.4 System Support Addendum (SSA) for a list of the required OpenVMS classes.

1.5 Upgrade Overview to a BASEstar Classic 3.4 system

On an upgrade from BASEstar Classic V3.3 to V3.4, all data base files located in BCC$SYSDATA will be converted to the new V3.4 format during the installation IVP. This will require that all BASEstar logical point values, including points set up to be persistant, be set to their initial value on the next startup of the BASEstar system.

The data base conversion execution will log its progress to sys$output during the IVP. Requirements for a successful conversion include the BCC$SYSDATA disk having 1.5 times the block usage in BCC$SYSDATA as free space, which is verified by the installation procedure. In addition, the user can request that log files be kept during the conversion, which would log each characteristic of a data base object both before and after it is converted. If log files are requested, it is reccommended that their location be a scratch disk (ie, NOT the system disk, and NOT the BCC$SYSDATA disk) with at least 100000 free blocks. IF the conversion process seems to hang, it may be due to this disk filling up, at which time the user will have to provide additional free space on the disk for the conversions to continue.

Note that the time required for the conversions to complete is dependant on the size of the BASEstar object data base. This could take an hour or more with larger systems. This amount of time could cause a user to be concerned that the conversion is hung. If so, monitor the process performing the installation, as it should be consuming CPU time on a regular basis.

Also note that all DCM data base files are also converted during the BASEstar IVP. This is because V3.3 of DCM will not run with V3.4 of BASEstar, and so a DCM upgrade is also required before restarting the BASEstar system.

If for any reason the data base conversions fail, you can not start/use the BASEstar system until the problem is resolved. IF the cause of the problem is known (ie exiting via CTRL/Y for some reason, like the log file location disk is not large enough), you may rectify the problem, and re-run the conversions. Once the problem is fixed, execute the procedure SYS$COMMON:[SYSTEM.BCC]BCC$RESTORE_V33_DB.COM

This will replace all the BASEstar object data base files to their V3.3 state. You can then re-execute the conversions, by executing the IVP provided by the installation, and placed in SYS$TEST:BCC$IVP.

If you are unable to determine the cause of the problem, you must collect the following information, and submit it via normal problem reporting channels:

- a LOG of your installation, including the data base conversion failure.

- a FULL directory of the system's BCC$SYSDATA ($ DIR/FULL BCC$SYSDATA:).

- the LOG file of the object type being converted at the time of the failure.

Log files created are as follows;

(where BCC$LOG_DATA is the directory location the user provided for log file placement):

BCC$LOGDATA:DB_DEVICE.LOG

BCC$LOGDATA: DB_PHYPOINT.LOG

BCC$LOGDATA: DB_POLLING.LOG

BCC$LOGDATA: DB_CONFIG.LOG

BCC$LOGDATA: DB_POINT.LOG

BCC$LOGDATA: DB_STRUCTURE.LOG

BCC$LOGDATA: DB_FIELD.LOG

BCC$LOGDATA: DB_ELEMENT.LOG

BCC$LOGDATA: DB_EXTMAP.LOG

BCC$LOGDATA: DB_LOCAL_NAME.LOG

BCC$LOGDATA: DB_GLOBAL_NAME.LOG

BCC$LOGDATA: DB_MEMBER.LOG

BCC$LOGDATA: DB_RELATION.LOG

BCC$LOGDATA: DB_ITEM.LOG

BCC$LOGDATA: DB_NODE.LOG

BCC$LOGDATA: DB_GROUP.LOG

BCC$LOGDATA: DB_SERVERPORT.LOG

BCC$LOGDATA: DB_SESSION.LOG

BCC$LOGDATA: DB_USER.LOG

BCC$LOGDATA: DB_PARAMETER.LOG

2
Installation

This chapter describes the step-by-step installation of BASEstar Classic software. It also contains a list of error messages that may appear during installation and provides a description of recovery procedures for each error.

BASEstar Classic software components are installed using a combination of four procedures:

- Main BASEstar (single node or VMScluster)
- Device connection management (single node or VMScluster)
- Utility (single node)
- BASEstar Classic CIMfast (single node or VMScluster)

There is also an optional software kit that can be installed for DEC Rdb integration. For more information, refer to the *BASEstar Classic DEC Rdb Database Server Guide*.

Read the instructions for installing BASEstar software. Follow the instructions for installing BASEstar device connection management, utility, and BASEstar Classic CIMfast software, all of which are optional installations. Refer to Appendix A and Appendix B for sample installation procedures. All installation procedures will perform both new and upgrade installations.

Note

Digital strongly recommends that you read the release notes before performing an installation.

Be prepared to provide the following information during the installation:

Step	√	Information to prepare before installation...
1.	_____	BCC$SPECIFIC directory location
2.	_____	BCC$COMMON directory location
3.	_____	Global name server or name dispatcher selection
4.	_____	Names of the global name server nodes and size of global name file
5.	_____	Size estimates of local name file, point file, and group file for your BASEstar system

During the installation procedure, you are prompted to respond to questions. Enter Y for yes or N for no, or just press Return to select the default response. You can enter a question mark and press Return after any prompt to receive online help.

To abort the installation procedure at any time, press Ctrl/Y. When you press Ctrl/Y, the installation procedure deletes all files it has created up to that point and exits. You can then start the installation again.

Note

DECnet software must be running during the installation. Do not shut down the network for installation. Even if you do not have a DECnet license and your system is not networked, DECnet must be configured and running to install BASEstar software.

2.1 Installing BASEstar Software

Note

Although this chapter uses the installation example for an OpenVMS VAX system, the procedure is also applicable to OpenVMS Alpha systems.

This section describes how to install BASEstar software. Perform the following steps:

1. **Log in to the OpenVMS user account named SYSTEM.**
2. **Invoke VMSINSTAL.**

   ```
   $ @sys$update:vmsinstal
   ```

   The system displays the following:

   ```
   OpenVMS VAX Software Product Installation Procedure V6.2
   It is dd-mm-yyyy at hh:mm.
   Enter a question mark (?) at any time for help.
   ```

3. **If you have active processes, VMSINSTAL lists them and asks if you want to continue.**

   ```
   %VMSINSTAL-W-ACTIVE, The following processes are still active:
    SYSTEM
   * Do you want to continue anyway [NO]? YES
   ```

4. **Confirm system backup.**

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

   If you have not backed up your system, enter N and refer to the *OpenVMS System Management Utilities Reference Manual*. If you are satisfied with your backup, press Return to continue.

5. **Mount the media.**

   You are prompted for the location of the distribution media, the products you want to install, and options as follows:

   ```
   * Where will the distribution volumes be mounted: SYS$SYSDEVICE:[KIT]

   Enter the products to be processed from the first distribution volume set.
   * Products: BCCVV034
   * Enter installation options you wish to use (none):
   ```

The installation continues with the following:

```
The following products will be processed:
  BCCVV V3.4
        Beginning installation of BCCVV V3.4 at 10:49

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

       BASEstar Kernel V3.4 VAX Installation Procedure
        ----------------------------------------------
This system is using OpenVMS Version 6.2
Image CLINOSHARE.EXE must be registered

%REGISTER-I-ADDED added CLINOSHARE to registry
%REGISTER-I-SUMMARY  images examined: 1, dependent images: 1
```

6. **Respond to license registration queries.**

```
    BASEstar requires one of these licenses to be registered
    and loaded on all nodes on which BASEstar will run:

             Product
             ---------------
        [1]  BASESTAR
        [2]  BASESTAR-G
        [3]  BASESTAR-RT
        [4]  BASESTAR-RT-G
        [5]  BASESTAR-USER
        [6]  BASESTAR-LTD
        [7]  BASESTAR-RT-LTD
        [8]  BASESTAR-CU
        [9]  BASESTAR-CU-RT

* Which of the above licenses will be used? [1]:
        Product:      BASESTAR
        Producer:     DEC
        Version:
        Release Date:
* Does this product have an authorization key registered and loaded? YES
```

The procedure prompts you to ensure that you have the correct BASEstar license installed on the system. Enter the appropriate number if the license is already installed. If not, abort the installation and install the BASEstar license.

7. **DECnet node information is verified and displayed.**

```
Getting data from   $ MCR NCP  LIST EXECUTOR   ...
  ... Done.
SCSNODE and SCSSYSTEMID checks passed.

The DECnet node ID found for this node is:
    36063 (35.223)
```

8. **Respond to node information.**

The procedure determines if the executing node is a member of a multinode VMScluster. If the executing node is a standalone node or clustered with only one active member, the following message is displayed:

```
This node is not a member of a multi-node VMScluster.

A single-node installation will be performed.

_____________________________________
Processing node NODENAME::
_____________________________________
```

If the executing node is a member of a multinode cluster, you will be prompted to indicate if you want a single-node installation:

```
    This node is a member of a multi-node VMScluster.

    A single-node installation or a multi-node installation
    can be chosen.   For a multi-node installation, the nodes
    must share a cluster common system disk, and so must all
    be of the same architecture type (AXP or VAX).

* Do you want to install BASEstar on just one node [YES]? NO
```

If you answer N, the following text is displayed:

```
    A VMScluster installation will be performed.   The current node,
    ALIGTR, will be the first node in the installation.

Verifying node ALIGTR:: information ...
```

9. **Enter additional nodes.**

   If you are performing a cluster installation, you will be prompted to enter the additional nodes on which you want to install BASEstar software:

```
    You will now be prompted to enter the additional VMScluster nodes
    on which BASEstar is to be installed.  End the list with a
    carriage return .

    (Enter Control-Y to abort the installation, if necessary.)

Current node name list is:  ALIGTR

* Enter node name #2   (CR to end list): SAXPHN
Verifying node SAXPHN:: information ...

Current node name list is:  ALIGTR, SAXPHN

* Enter node name #3   (CR to end list):

2 valid node names were entered:
   ALIGTR, SAXPHN

* Is this list correct? Y

_____________________________________
Processing node 1, ALIGTR::
_____________________________________
```

10. **Install additional components.**

    The procedure installs BASEstar software and asks if you want to install additional capabilities. You can optionally install data management software, external data support, and the menu interface now, or in an update installation. For example, if this is a new installation, the following text is displayed:

```
    This is a new BASEstar installation.  The BASEstar CORE must be
    installed, but the Data Management and MENU System subsystems
    are optional.

* Do you want to install BASEstar Data Management [YES]?
* Do you want to install BASEstar External Data Support [YES]?
* Do you want to install BASEstar List Services Support [YES]?
* Do you want to install BASEstar Menu System [YES]?
```

Note

BASEstar Menu, available on VAX systems only.

11. **Provide directory location.**

VMSINSTAL asks for a directory location for the BASEstar command and data files:

```
    A location  must  be  chosen  for the BCC$SPECIFIC directory.
    By default, BASEstar data and command files are installed in
    SYS$SPECIFIC:[BCC$SPECIFIC].    This  specification  may  be
    overridden if desired.

* Enter the BASEstar specific directory specification
[SYS$SPECIFIC:[BCC$SPECIFIC]]:
```

If you do not specify a directory name, the BASEstar files are installed into the [BCC$SPECIFIC] directory under the system-specific root directory. If you enter a different directory, be sure it resides on a permanently mounted disk. (Because these files are data and command files, the system disk may not be an appropriate location.) If you are installing on a VMScluster node and do not use the system disk, specify a different directory name for each node within the VMScluster system. Verify the directory name specified:

```
  The directory entered is:  SYS$SPECIFIC:[BCC$SPECIFIC]

* Is this correct? YES
```

12. **Choose a global name server or name dispatcher.**

    Specify whether the system is to be configured as a global name server or name dispatcher. To perform global name operations, at least one BASEstar system in the BASEstar domain must be a global name server. VMSINSTAL displays the following prompt:

```
    Each BASEstar system must be configured to run either
    a Global Name Server  or  a Name Dispatcher.

* Do you want this system to be configured as a Global Name Server [YES]?
```

    If you enter Y, the system will be a global name server. If you enter N, the system will be a name dispatcher.

13. **Select a target size for data files.**

```
    You must choose a target size for the following data files.

    BCC$POINT_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size

    [1]      500 Points           500 Points          840 Disk Blocks
    [2]    2,000 Points         1,000 Points        2,223 Disk Blocks
    [3]   10,000 Points         5,000 Points       10,675 Disk Blocks
    [4]   30,000 Points        10,000 Points       27,219 Disk Blocks

* Enter BCC$POINT_FILE size [1]: 2

    BCC$GROUP_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size

    [1]      500 Groups           500 Groups          819 Disk Blocks
    [2]    2,000 Groups         1,000 Groups        2,223 Disk Blocks
```

```
* Enter BCC$GROUP_FILE size [1]: 1

    BCC$LOCAL_NAME_FILE
    ___________________

       Initial Allocation   Extend Allocation      Initial File Size

    [1]      500 Names           500 Names           342 Disk Blocks
    [2]    2,000 Names         1,000 Names           867 Disk Blocks
    [3]   10,000 Names         5,000 Names         4,023 Disk Blocks
    [4]   30,000 Names        10,000 Names        10,179 Disk Blocks

* Enter BCC$LOCAL_NAME_FILE size [1]: 2
```

If you are performing a cluster installation, the information in steps 10 through 13 is displayed for each additional node in the cluster.

14. **Choose a location for the BCC$COMMON directory.**

    By default, the BASEstar executable files are installed in SYS$COMMON: [BCC$COMMON]. This specification may be overridden.

```
    A location  must  be  chosen  for the BCC$SPECIFIC directory.
    By default, BASEstar data and command files are installed in
    SYS$SPECIFIC:[BCC$SPECIFIC].    This  specification  may  be
    overridden if desired.


* Enter the BASEstar specific directory specification
    [SYS$SPECIFIC:[BCC$SPECIFIC]]:
  The directory entered is:  SYS$SPECIFIC:[BCC$SPECIFIC]
* Is this correct? Y

    You must now enter a list of the node names of all BASEstar
    Global Name Server systems with which the newly-installed
    BASEstar node (or nodes) will interact.  This list is
    required for both new Global Name Server systems and for
    new Name Dispatcher systems.

    For your convenience, the list will start with the list of
    nodes in this installation that you designated earlier to
    be configured as Global Name Servers.
```

15. **Enter node names.**

```
Current Global Name Server list is:  ALIGTR
* Enter a Global Name Server node name, CR to end list:

  The final list is:  ALIGTR
* Is this list correct? Yes
```

The value of the BASEstar parameter BCC$QUORUM is established from the list of global name servers entered. The following is displayed:

```
%BCCVV-I-QUORUMSET, Global Name Server quorum will be set to 1

    If the above quorum value is not consistent with other Global Name
    Server systems in the same BASEstar domain, the value of BCC$QUORUM
    should be changed after the installation is finished and before
    BASEstar is started on this node for the first time.
```

16. **Choose a target size for the global name file on the global name server systems.**

```
    You must choose a target size for the Global Name File on the
    Global Name Server Systems:

    BCC$GLOBAL_NAME_FILE
    ____________________

       Initial Allocation    Extend Allocation      Initial File Size
```

```
    [1]      500 Names            500 Names            342 Disk Blocks
    [2]    2,000 Names          1,000 Names            867 Disk Blocks
    [3]   10,000 Names          5,000 Names          4,023 Disk Blocks
    [4]   30,000 Names         10,000 Names         10,179 Disk Blocks

* Enter BCC$GLOBAL_NAME_FILE size [1]: 2
```

17. **Read informational messages.**

```
    The installation procedure  has  no further questions to ask during
    the installation process.  Until the IVP executes, it can continue
    without user assistance.

    IF this is a V3.3 to V3.4 UPGRADE, a data base conversion will execute
    during the IVP.  This conversion requires user input regarding log
    file locations.  The IVP will announce the beginning of the data base
    conversions, before prompting for logging information.
    The installation  time  will  vary  depending on the number of nodes
    selected  for  installation  and  the type of processor on which
    the installation is being done.
    If the data base conversions are required, time will vary depending on
    the size of your BASEstar Classic object data base.
```

Note: Please review introduction section, "Upgrade Overview to a BASEstar Classic 3.4 System" for disk space requirements needed for a conversion upgrade.

```
_____________________________________

10:15:59

This installation creates a VMS rights identifier named BCC$USER,
which is used to control access to BASEstar.

After the installation is finished, the VMS Authorize Utility
must be used to grant this identifier to all accounts that will
use BASEstar.

------------------------------------------------------------
A   R E M I N D E R   T O   T H E   I N S T A L L E R

Each VMS user account that will issue BSTAR commands must be
granted the BCC$USER rights identifier, as well as having
certain Authorized privileges set.

>> Remember to grant the BCC$USER identifier to the SYSTEM account
>> (and/or any other accounts you will be using to start the BASEstar
>> system) and to check the Authorized privileges of those accounts
>> BEFORE YOU ATTEMPT TO START THE BASESTAR SYSTEM.
------------------------------------------------------------


%BCCVV-I-IDENTEXISTS, The BCC$USER identifier already exists

Note: The file SYS$SYSTEM:RIGHTSLIST.DAT will be modified to permit
      access by processes that have been granted the BCC$USER identifier.
      If RIGHTSLIST.DAT does not reside in SYS$SYSTEM, the logical name
      RIGHTSLIST will be translated to access the file for modification.
```

The installation procedure restores the save sets, creates system directories, and displays the following:

```
10:16:05
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
10:16:58
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
10:17:09
%VMSINSTAL-I-RESTORE, Restoring product save set D ...
10:17:24
%VMSINSTAL-I-RESTORE, Restoring product save set E ...
```

```
10:17:29

_____________________________________
Installing BASEstar on node ALIGTR:: ...
_____________________________________

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[BCC$COMMON].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[SYS0.BCC$SPECIFIC].

10:17:43
%BCCVV-I-STARTCORE, BASEstar CORE installation beginning on ALIGTR:: .


This  installation  places  a  file  named BCC$STARTUP.COM in the
directory  SYS$SPECIFIC:[SYS$STARTUP]  in  each  system  root  on
which this installation is being performed.  The SYSTARTUP_VMS.COM
file should be edited to invoke this startup file when the system
boots.

10:24:11
BASEstar Data Management installation beginning on ALIGTR

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[BCC$COMMON.DMQ_EXAMPLE].
10:24:58
BASEstar External Data Support installation beginning on ALIGTR

10:25:08
BASEstar List Services Support installation beginning on ALIGTR

10:25:13
%BCCVV-I-STARTMENU, BASEstar Menu System installation beginning on ALIGTR.
```

If you are performing a cluster installation, the system disk directory and installation messages are displayed for each additional node in the cluster.

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

The BASEstar system disk directories are established, the startup command procedure is created, and the installation verification procedure is run.

```
BASEstar Kernel V3.4 Installation Verification Procedure (IVP)

$ DEFINE/NOLOG/PROCESS  BCC$SYSDATA  SYS$SPECIFIC:[BCC$SPECIFIC]
$ DEFINE/NOLOG/PROCESS  BCC$SYSTEM   VMI$ROOT:[BCC$COMMON]
$ set noverify

3.4 conversions checked/done...

%BCCIVP-I-CORESTART, CORE verification starting on node ALIGTR.

%BCCIVP-I-PASS, CORE data files check passed.
%BCCIVP-I-PASS, CORE command files check passed.
%BCCIVP-I-PASS, CORE executable files check passed.
%BCCIVP-I-PASS, CORE support files check passed.
%BCCIVP-I-PASS, CORE system files check passed.
%BCCIVP-I-PASS, CORE installed image check passed.
%BCCIVP-I-PASS, CORE parameter check passed.

%BCCIVP-I-DMGTSTART, DMGT verification starting on node ALIGTR.

%BCCIVP-I-PASS, DMGT file check passed.

%BCCIVP-I-EXTMAPSTART, External Data Server verification starting
   on node ALIGTR.

%BCCIVP-I-PASS, External Data Server file check passed.

%BCCIVP-I-MENUSTART, MENU verification starting on node ALIGTR.
```

```
%BCCIVP-I-PASS, Menu System file check passed.
%BCCIVP-I-PASS, Menu System command check passed.
%BCCIVP-I-PASS, Menu System menu check passed.
```

If you are performing a cluster installation, the check messages are displayed for each node in the cluster.

```
BASEstar V3.4 IVP completed successfully.
```

18. **End the installation procedure.**

```
Installation of BCCVV V3.4 completed at 10:39
VMSINSTAL procedure done at 10:39
```

The BASEstar single-node installation is complete. You can now log out of the privileged account if you do not want to install additional BASEstar software.

Continue with instructions later in this section to install additional BASEstar software or consult Chapter 3 for postinstallation tasks.

2.2 Installing BASEstar Device Connection Management Software

This section describes how to install BASEstar device connection management software. If your main BASEstar installation did not include installing the menu interface, the device connection management installation cannot install or update the device connection management menus.

The BASEstar device connection management upgrade installation consists of the following steps:

1. **Log in to the OpenVMS user account named SYSTEM.**
2. **Invoke VMSINSTAL.**

   The system displays the following:

```
VAX/VMS Software Product Installation Procedure V6.2
It is dd-mm-yyyy at hh:mm.
Enter a question mark (?) at any time for help.
```

3. **If you have active processes, VMSINSTAL lists them and asks if you want to continue.**

```
%VMSINSTAL-W-ACTIVE, The following processes are still active:
 SYSTEM
* Do you want to continue anyway [NO]? YES
```

4. **Confirm system backup.**

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

   If you have not backed up your system, enter N and refer to the *OpenVMS System Management Utilities Reference Manual*. If you are satisfied with your backup, press Return to continue.

5. **Mount the media.**

   You are prompted for the location of the distribution media, the products you want to install, and options as follows:

```
* Where will the distribution volumes be mounted: SYS$SYSDEVICE:[KIT]

Enter the products to be processed from the first distribution volume set.
* Products: DCMVV034
* Enter installation options you wish to use (none):
```

The installation continues with the following:

```
The following products will be processed:
  DCMVV V3.4
Beginning installation of DCMVV V3.4 at 10:42

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

BASEstar Device Connect Management (DCM) V3.4 VAX Installation
Procedure
------------------------------------------------------------------
```

6. **Existing BASEstar installation message is displayed.**

   If BASEstar is already installed on your system, the following message is displayed:

```
BASEstar is installed on this system.
The file SYS$COMMON:[SYSLIB]BCC$SHR.EXE was found.
Its image file identification is:  BCC 3.4
```

7. **Respond to node information.**

   The procedure determines if the executing node is a member of a multinode VMScluster. If the executing node is a standalone node or clustered with only one active member, the following message is displayed:

```
    This node is not a member of a multi-node VMScluster.

    A single-node installation will be performed.

_____________________________________
Processing node NODENAME::
_____________________________________
```

   If the executing node is a member of a multinode cluster, you will be prompted to indicate if you want a single-node installation:

```
    This node is a member of a multi-node VMScluster.

    A single-node installation or a multi-node installation
    can be chosen.

    For a multi-node installation, you will be prompted to
    enter the node names to be processed.  The nodes must
    share a cluster-common system disk.  Also, the current
    node (the node presently executing VMSINSTAL) will
    automatically be the first node processed.

* Do you want to install DCM on just this node  [YES]? NO
```

   If you answer N, the following text is displayed:

```
    ----------------------------------------
    A cluster installation has been selected.
    ----------------------------------------

The current node,  ALIGTR,  will be processed first.


Checking node  ALIGTR::  ...

    BASEstar is installed on this node.  The file
      SYS$SPECIFIC:[SYS$STARTUP]BCC$STARTUP.COM
    was found.

The node passed all checks.
```

8. **Enter additional nodes.**

If you are performing a cluster installation, you will be prompted to enter the additional nodes on which you want to install BASEstar software:

```
    You will now be prompted to enter the additional cluster nodes
    on which BASEstar DCM is to be installed.  End the list with a
    carriage return CR.

    (Enter Control-Y to abort the installation, if necessary.)

Current node name list is:  ALIGTR

* Enter another node name (or CR to end the list): SAXPHN

Checking node  SAXPHN::  ...

    BASEstar is installed on this node.  The file
      SYS$SPECIFIC:[SYS$STARTUP]BCC$STARTUP.COM
    was found.

    ------------------------------------------------
    Wait -- using SYSMAN utility to check certain
    logical names on cluster member ...
      ... Done.
    ------------------------------------------------

The node passed all checks.

Current node name list is:  ALIGTR, SAXPHN

* Enter another node name (or CR to end the list):

2 valid node names were entered:
   ALIGTR, SAXPHN

* Is this list correct? Y
```

The installation continues:

```
_____________________________________
Processing node 1, ALIGTR::
_____________________________________

    The BASEstar Menu System is present.
    The DCM Menu System will be installed on this node.
_____________________________________
```

9. **Choose the size of the file.**

```
    You must choose a initial size for the PHYSICAL POINT data file:

    ILAN$PHYPOINT_FILE
    __________________

      Initial Allocation      Extend Allocation      File Size

     [1]    500 Phypoints         500 Phypoints       1,251 Disk Blocks
     [2]  2,000 Phypoints       1,000 Phypoints       3,333 Disk Blocks
     [3] 10,000 Phypoints       5,000 Phypoints      15,744 Disk Blocks
     [4] 20,000 Phypoints      10,000 Phypoints      32,604 Disk Blocks

* Enter ILAN$PHYPOINT_FILE size [1]: 2
```

Select a file size for the physical point data file. Enter the correct choice from the menu.

If you are performing a cluster installation, VMSINSTAL processes each node in the cluster and you select the size of the PHYSICAL POINT data file.

10. **Read the informational messages.**

```
Post-installation messages for the installer appear next.
Press [Return] to continue:

    Post-installation messages for the installer
    ------------------------------------------------------------

    ILAN$STARTUP.COM, a startup command procedure, is used
    to set up the environment for Device Connect Management.
    During the installation, this file will be placed in the
    SYS$SPECIFIC:[SYS$STARTUP]  directory of the nodes on
    which this installation is being performed.

    If this is a first-time DCM installation on a this system,
    the system startup command procedure

                SYS$MANAGER:SYSTARTUP_VMS.COM
    or
  SYS$MANAGER:SYSTARTUP_V5.COM
            (for VAX VMS versions prior to V6.0)

    needs to be manually edited (after this installation has
    successfully finished).   Locate the line

                $  @ SYS$STARTUP:BCC$STARTUP.COM

    and add this new line immediately after the BCC$STARTUP
    line:
                $  @ SYS$STARTUP:ILAN$STARTUP.COM

    ------------------------------------------------------------

    ------------------------------------------------------------
    The installation procedure has no further questions to ask
    and can continue from this point without user assistance.
    The time needed to finish the installation will vary
    depending on the number of nodes selected for installation
    and the type of processors and disks involved.
    ------------------------------------------------------------


_____________________________________
Installing DCM on node ALIGTR:: ...
_____________________________________
10:44:59

    Creating DCM data files for this node ...

    Providing images to BCC$SYSTEM ...

    Providing DCM example PL/I programs to sub-directory
    of BCC$SYSTEM ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
$2$DUA0:[SYS0.SYSCOMMON.BCC$COMMON.DCM_EXAMPLE].

    Providing RS232 DAS source files to sub-directory
    of BCC$SYSTEM ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
$2$DUA0:[SYS0.SYSCOMMON.BCC$COMMON.RS232_EXAMPLE].

    Providing Network DAS NCT source files to sub-directory
    of BCC$SYSTEM ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
$2$DUA0:[SYS0.SYSCOMMON.BCC$COMMON.NCT_EXAMPLE].

    ... Done.

10:47:47
    Checking the BASEstar Parameter file for
    "ILAN$*"  (DCM)  parameters ...
    ... Done.
```

```
10:48:43
    Installing the DCM Menu System on this node ...
    ... Done.
```

If you are performing a cluster installation, the informational messages for each node in the cluster are displayed and the installation continues:

```
10:50:56
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...

IVP phase beginning on node ALIGTR ...

%SYSMAN-I-ENV, current command environment:
 Individual nodes: ALIGTR
 Username SYSTEM       will be used on nonlocal nodes

%SYSMAN-I-TIMEVAL, timeout value is  00:11:00.00
%SYSMAN-I-OUTPUT, command execution on node ALIGTR

$  @SYS$STARTUP:ILAN$STARTUP.COM

$  @SYS$TEST:ILAN$IVP.COM
------------------------------------------------------------------------
BASEstar DCM V3.4  Installation Verification Procedure (IVP)  starting.
------------------------------------------------------------------------

Checking logical name  BCC$SYSDATA  ...

Checking logical name  BCC$SYSTEM  ...

Checking ILAN files ...
Checking files in SYS$COMMON:[BCC$COMMON.DCM_EXAMPLE] ...
Checking files in SYS$COMMON:[BCC$COMMON.NCT_EXAMPLE] ...
Checking files in SYS$COMMON:[BCC$COMMON.RS232_EXAMPLE] ...
%ILAN$IVP-E-FAIL, File check passed.

Checking ILAN installed images ...
%ILAN$IVP-I-PASS, Installed image check passed.

Checking  "ILAN$*"  BASEstar parameters ...
%ILAN$IVP-I-PASS, Parameter check passed.

------------------------------------------------------------------------
BASEstar DCM V3.4 IVP completed successfully.
------------------------------------------------------------------------
```

If you are performing a cluster installation, the IVP messages for each node in the cluster are displayed.

11. **End the installation procedure.**

```
 Installation of DCMVV V3.4 completed at 10:53
        VMSINSTAL procedure done at 10:53
```

The BASEstar device connection management installation is complete. You can now log out of the privileged account if you do not want to install additional BASEstar software.

Continue with instructions in this chapter for installing additional BASEstar software or consult Chapter 3 for postinstallation tasks.

2.3 Installing BASEstar Utilities Software

This section describes how to install BASEstar utilities, including:

- The BCC$BASEGEN command procedure, which provides suggested settings for BASEstar and system parameters as well as OpenVMS process quotas. Refer to the *BASEstar Classic Configuration and Tuning Guide* for information on how to use this utility.
- Text message files if conversion to a non-English language is necessary. These services can also be used to copy the appropriate files into new BASEstar directories.
- OpenVMS version number mismatch software, which resolves, or relinks the BASEstar shareable image when a new version of OpenVMS software is installed on a system.
- Monitor Port Utility, which provides a continuously updated display of port data for all ports defined on the system.
- Monitor BASEstar Utility, which analyzes the processes running on a BASEstar system. Monitor BASEstar continuously displays a default set of processes or allows the display of a customized set of processes.
- BASEstar LSE environment, which allows you to use VAX LSE, a multiple-language text editor that speeds the writing and compiling of source code. To use the BASEstar LSE environment, you must first install VAX Language-Sensitive Editor software.
- Value Notification Utility, which notifies you of changes in the value of logical points that have been supplied to the utility.

The BASEstar utilities installation consists of the following steps:

1. **Log in to the OpenVMS user account named SYSTEM.**
2. **Invoke VMSINSTAL.**

   ```
   $ @sys$update:vmsinstal
   ```

   The system displays the following:

   ```
   VAX/VMS Software Product Installation Procedure V5.5-2
   It is dd-mm-yyyy at hh:mm.
   Enter a question mark (?) at any time for help.
   ```

3. **If you have active processes, VMSINSTAL lists them and asks if you want to continue.**

   ```
   %VMSINSTAL-W-ACTIVE, The following processes are still active:
    SYSTEM
   * Do you want to continue anyway [NO]? YES
   ```

4. **Confirm system backup.**

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

   If you have not backed up your system, enter N and refer to the *OpenVMS System Management Utilities Reference Manual*. If you are satisfied with your backup, press Return to continue.

5. **Mount the media.**

You are prompted for the location of the distribution media, the products you want to install, and options as follows:

```
* Where will the distribution volumes be mounted: SYS$SYSDEVICE:[KIT]

Enter the products to be processed from the first distribution volume set.
* Products: BCCVVUTL034
* Enter installation options you wish to use (none):
```

The procedure displays the following:

```
The following products will be processed:
  BCCVVUTL V3.4
Beginning installation of BCCVVUTL V3.4 at 10:56

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

Installing BASEstar CORE Utilities Kit
```

6. **Choose the IVP.**

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

If you want to run the IVP, enter Y.

7. **Purge files.**

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

If the installation is an upgrade, enter Y to delete the previous versions of the files created by the installation. Site-specific files or OpenVMS installed images are not purged.

8. **Choose options.**

```
    Enter the option to perform. Type 99 to end selections:

        [1] Install All Options

        [2] BASEstar Text Services

        [3] BCC$BASEGEN.COM Utility

        [4] Monitor Port Utility

        [5] Monitor BASEstar Utility

        [6] BASEstar LSE Environment File  (VAX Only)

        [7] Value Notification Utility

        [8] Resolve VMS Ident Version Mismatches

* Enter Selection: : 1
```

Enter the appropriate number.

9. **VMSINSTAL begins the installation procedure.**

```
BASEstar Text Services have been installed.

The BASEGEN Utility has been installed.

The Monitor Port Utility has been installed.

Monitor BASEstar utility installed.

  The logical name BCC$MONITOR_DATA has been defined.

  Add the following line to the BASEstar startup procedure
  SYS$STARTUP:BCC$STARTUP.COM  to define this logical name
  during system startup:

  $ DEFINE/NOLOG/SYSTEM  BCC$MONITOR_DATA
    BCC$SYSDATA:BCC$MON_BSTAR_APP.DAT
```

```
Installing the Value Notification Utility

Installing the BASEstar LSE Environment File
```

10. **Verify the BASEstar development license.**

```
    A development license is required to be registered
    and loaded for all nodes on which the Value Notification
    or BASEstar LSE Environment File will run:

             Product
             ---------------
        [1]  BASESTAR
        [2]  BASESTAR-LTD
        [3]  BASESTAR-USER
        [4]  BASESTAR-G
        [5]  BASESTAR-CU

* Which of the above licenses will be used? [1]:
Product:      BASESTAR
Producer:     DEC
Version:
Release Date:
* Does this product have an authorization key registered and loaded? y
```

    If you choose either the Value Notification Utility or the BASEstar LSE Environment file, the procedure prompts you to ensure that you have the correct BASEstar development license installed on the system. Enter the appropriate number if the license is already installed. If not, abort the installation and install the license.

11. **Read informational messages.**

    The installation procedure continues without further input as follows:

```
The Value Notification Utility has been installed.

The LSE Environment File has been installed.

Resolving VMS ident version mismatches

No ident version mismatch detected

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

12. **Observe the IVP.**

```
BASEstar Utility V3.4 Installation Verification Procedure

%BCCUTL-I-PASS, Utility file check passed
BASEstar Utility V3.4 IVP completed successfully
```

13. **End the installation procedure.**

```
Installation of BCCVVUTL V3.4 completed at 10:59
VMSINSTAL procedure done at 10:59
```

The BASEstar utilities installation is complete. You can now log out of the privileged account if you do not want to install additional BASEstar software.

Consult Chapter 3 for postinstallation tasks.

2.4 Installing BASEstar Classic CIMfast Software

This section describes how to install BASEstar Classic CIMfast software.

Note

If you plan to use DECmessageQ support, you must start DECmessageQ before installing BASEstar Classic CIMfast software.

If you plan to use CIMfast SQL support, you must install and start the appropriate database software.

To install BASEstar Classic CIMfast software, perform the following steps:

1. **Log in to the OpenVMS user account named SYSTEM**.
2. **Invoke VMSINSTAL**.

   ```
   IVAX20 » @sys$update:vmsinstal BCFxxx022 DISK1:[CIMFAST.KITS]
   ```

   where *BCFxxx022* is the BASEstar Classic CIMfast product name and version, (where xxx=VAX or xxx=AXP for Alpha) *DISK1:[CIMFAST.KITS]* is the name of the directory containing the software kit. If you include the optional *OPTIONS* parameter, a question is displayed that asks you if you want to see the release notes. If you do not include the OPTIONS N parameter, the VMSINSTAL command procedure does not ask you if you want to see the release notes. Ensure that you read the release notes before proceeding with the installation; they may contain additional information about the installation. If you are restarting the installation and have already read the release notes, you do not need to specify OPTIONS N.

   When you invoke VMSINSTAL, there are several other options you can choose, as follows:

   - Auto_answer option (A)

     Creates a file that contains your answers to the VMSINSTAL command procedure questions and prompts. You can then use the option (and the answer file) to save time during a reinstallation or a system upgrade.

   - Get save set option (G)

     Lets you store product save sets temporarily on a magnetic tape or in a disk directory.

   - File log option (L)

     Logs all activity to the terminal during the installation.

   - Alternate root option (R)

     Lets you install the product to a system root other than the root of the system that is running.

   See the OpenVMS documentation on software installation in the OpenVMS System Management Subkit for more information on these options. If you specify more than one option, separate the options with commas (for example, OPTIONS A,N).

The system displays the following:

```
OpenVMS VAX Software Product Installation Procedure V6.1

It is 28-JUN-1996 at 10:45.

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 does not prompt you for any options, so be sure to include OPTIONS N on the VMSINSTAL command procedure command line to access the release notes during the installation.

3. **Confirm system backup**.

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

You must back up the system disk before performing an installation. If you are satisfied with the backup of the system disk, press Return. If you are not satisfied, enter N to stop the installation. After you back up the system disk, you can restart the installation.

4. **Mount the media**.

You must now mount the first distribution volume on the device if you specified one when you invoked VMSINSTAL. An example follows:

```
Please mount the first volume of the set on MTA0:.

* Are you ready? YES
%MOUNT-I-MOUNTED, BASEstar CIMfast for OpenVMS VAX MOUNTED ON _$$MTA0:(NODE 1)

The following products will be processed:
  BCFVAX V2.2
      Beginning installation of BCFVAX V2.2 at 15:44

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

Now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. The device name is displayed in the line preceding the question. VMSINSTAL then asks you if you are ready to continue with the installation. If you enter Y to indicate that you are ready, VMSINSTAL displays a message that the media containing BASEstar Classic CIMfast has been mounted on the specified device and that the installation has started. If you enter the wrong device name when you invoke VMSINSTAL and need to restart the installation, enter N in response to the following question:

```
Are you ready? To abort the installation, press Ctrl/Y.
```

5. **Mount additional media volumes**.

If your installation kit contains more than one volume, VMSINSTAL prompts you to mount the additional volumes and then asks you to indicate that you are ready to continue the installation of BASEstar Classic CIMfast:

```
%BACKUP-I-READYREAD, mount volume 2 on _MTA0: for reading

Enter "YES" when ready:
```

6. **Choose a release notes option**.

If you specified OPTIONS N when you invoked VMSINSTAL, the following is displayed:

```
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]:
```

You must choose one of the four options to read the release notes:

- Option 1

  VMSINSTAL displays the release notes on the console terminal. You can stop the display at any time by pressing Ctrl/C.

- Option 2

  VMSINSTAL prompts you for the name of the print queue that you want to use:

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

  You can press Return to send the file to the default output print device or you can enter another queue name.

- Option 3

  VMSINSTAL displays the release notes on the console terminal and then prompts you for a queue name for the printed version.

- Option 4

  Choose this option if you have already read the release notes and are restarting the installation.

VMSINSTAL displays the following question:

```
* Do you want to continue the installation [N]?:
%VMSINSTAL-I-RELMOVED, Product's release notes have been
moved to SYS$HELP.
```

To continue the installation, enter Y If you do not want to continue, press Return. In either case, the release notes are copied to the following file, located in the SYS$HELP directory:

```
SYS$HELP:BCF022.RELEASE_NOTES
```

Note

The name of the release notes file installed by VMSINSTAL consists of the current product name and version number. Do not delete the release notes for previous versions of BASEstar Classic CIMfast.

7. **Select the target installation directory**.

   Select the directory where you want to install BASEstar Classic CIMfast.

   ```
   * In what directory do you wish CIMfast to be installed
   [SYS$SYSDEVICE:[BCF]]:
   ```

8. **Select installation options**.

You can install the following options:

- Cimfast DCM support.

  If you have BASEstar Classic DCM (Device Connection Manager) installed on your system, you have the option of installing CIMfast DCM programming support option.

- Cimfast SQL support.

```
In order to install CIMfast SQL support for RDB,
a minimum of RDB V6.0 must be installed on your system.
If you answer YES RDB installation, this version check will
be done.

* Do You want to install CIMfast SQL Support for DEC RDB [YES]?
```

  The installation checks for the existence of DEC RDB and Oracle software, and the previous existance of CIMfast SQL support. If BOTH RDB and Oracle are found, the procedure will prompt you for which software you choose to use with CIMfast SQL support.

  The database software MUST be started properly prior to the installation of CIMfast, and the logical SQL$DATABASE must be defined in order to run the IVP test procedure properly for CIMfast SQL support in your selected database. If no logical SQL$DATABASE is found the IVP will display a database location for its use or allow a change before the procedure runs.

  The installation procedure checks for the existence of the DMQ$USER logical to determine whether DECmessageQ is installed. It is possible for DECmessageQ to have been installed and the DMQ$USER logical to remain undefined. If the DMQ$USER logical is not defined, the following message is displayed:

```
Is DECmessageQ installed on this system and do You
want to have the CIMfast DMQ support installed ?

If You answer 'Yes', the CIMfast installation will
be aborted and You have to to run the file DMQ$STARTUP
in the [EXE] directory of Your DMQ installation.

If You answer 'No', the CIMfast installation continues
without installing the CIMfast DMQ support.

* Do You want to install the CIMfast DMQ support  [YES]?
```

  The previous message indicates that you have the following options:

  - Abort the installation, run the DMQ$STARTUP file, and restart the installation.
  - Continue the installation without installing BASEstar Classic CIMfast DECmessageQ support.

- LSE support

```
* Do you want to install LSE support [YES]?
```

  You can install CIMfast support for the Language-Sensitive Editor (LSE) if LSE is installed on the system.

- **Purge files**.

You can purge files from previous versions of BASEstar Classic CIMfast that are superseded by this installation. Purging is recommended, but if you want to keep files from the previous version, enter N in response to the question:

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

- **Choose the installation verification procedure (IVP) option**.

  The installation procedure now asks you if you want to run the IVP:

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

  The IVP for BASEstar Classic CIMfast checks that the installation is successful. Digital recommends that you run the IVP. If the SQL support was installed, it will be tested with the supporting database (RDB or Oracle) option. BASEstar must be running in order for the SQL portion of the IVP to run successfully.

  After BASEstar Classic CIMfast is installed, you may run the IVP independently to verify that the software is available and working on the system. You may need to run the IVP after a system failure to make sure that other users can access BASEstar Classic CIMfast.

- **Read informational messages**.

  The BASEstar Classic CIMfast installation procedure displays a number of informational messages that report on the progress of the installation. If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates or installs the example files, and updates DCL tables, if necessary. If you chose to have files purged, that task is now complete. The following message is displayed:

  ```
  All questions regarding the installation of CIMfast have been
  asked. Depending upon system load and configuration the
  installation will take between 5 and 15 minutes.

  This installation provides a system startup file
  SYS$STARTUP:BCF$STARTUP.COM.  You must edit your
  system startup procedure(s) to invoke this file
  on each node where CIMfast will be run.

  The CIMfast per-user setup command procedure is in
  BCF$HOME:BCF$SETUP.COM. It should be executed at login
  time by each CIMfast user, by including a line such as
  the following in each user's LOGIN.COM procedure:

      $ @BCF$HOME:BCF$SETUP

  Alternatively, the above line may added to the system-wide
  login command procedure (usually SYS$MANAGER:SYLOGIN.COM).
  ```

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[BCF].
SYS$SYSDEVICE:[BCF.EXE].
SYS$SYSDEVICE:[BCF.LIB].
SYS$SYSDEVICE:[BCF.BLD].
SYS$SYSDEVICE:[BCF.BLD.BCF].
SYS$SYSDEVICE:[BCF.BLD.BCC].
SYS$SYSDEVICE:[BCF.BLD.DCM].
SYS$SYSDEVICE:[BCF.BLD.DMQ].
SYS$SYSDEVICE:[BCF.BLD.RDB].
SYS$SYSDEVICE:[BCF.DEMO.POINTS].
SYS$SYSDEVICE:[BCF.DEMO.CBCF_POINTS].
SYS$SYSDEVICE:[BCF.DEMO.CALLABLE_BCF].
SYS$SYSDEVICE:[BCF.DEMO.EXPRESSIONS].
SYS$SYSDEVICE:[BCF.DEMO.MACROS].
SYS$SYSDEVICE:[BCF.DEMO.MESSAGING].
SYS$SYSDEVICE:[BCF.DEMO.CBCF_MESSAGING].
SYS$SYSDEVICE:[BCF.DEMO.BCC_COURSE_LAB3].
SYS$SYSDEVICE:[BCF.DEMO.SQL].
SYS$SYSDEVICE:[BCF.LSE].

        If this product is being installed in a OpenVMS cluster,
        several actions must be taken to enable other nodes in the
        cluster to be able to use this product.  These actions
        include:

                1) Define CIMfast related logical names
                2) Update DCL tables
                3) Load a valid license

        This can be done with the following commands:

                $ RUN SYS$SYSTEM:SYSMAN
                SYSMAN> SET ENVIRONMENT/CLUSTER
                SYSMAN> DO @SYS$STARTUP:BCF$STARTUP.COM
                SYSMAN> DO INSTALL REPLACE SYS$LIBRARY:DCLTABLES.EXE
                SYSMAN> DO LICENSE LOAD BASESTAR ! or any valid license
                SYSMAN> EXIT

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

- **Observe the IVP**.

  If you chose to run installation verification procedure (IVP) option, VMSINSTAL now calls the IVP to verify that BASEstar Classic CIMfast was installed correctly. When the IVP runs successfully, the following is displayed:

```
Welcome to CIMfast V2.2
(c) Digital Equipment Corporation. 1996. All Rights Reserved

Preprocessing CEL file...

Loading CEL file...
***Total lines in input file was 10***
***Total number of EVENTS was 1***
***Total number of ACTIONS was 3***
***Total number of CONDITION EVENTS was 0***
***Total number of CONDITION ACTIONS was 0***

Start time was: Mon Aug 19 15:46:59 1996

End time was  : Mon Aug 19 15:47:00 1996

Press return to begin execution:

**** BASEstar CIMfast IVP successfully executed ****
```

  NOTE: If SQL option was installed, IVP will test this option also.

- **End the installation procedure**.

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

```
Installation of BCFBCCVAX V2.2 completed at 10:55
VMSINSTAL procedure done at 10:55
```

Note

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

2.5 Installation Messages

This section describes the installation message formats and the messages you may receive during the BASEstar installation.

2.5.1 Message Format

BASEstar installation messages are displayed in the following format:

```
%FACILITY-L-IDENT, TEXT
```

where:

FACILITY — The facility or component name.

L — The severity indicator codes, including:

- S for success. The procedure generating the condition value completed successfully.
- I for informational. The procedure generating the condition value successfully completed but has some explanatory information.
- W for warning. A procedure returns data or completes an operation but the results might be incomplete or not what you expected.
- E for error. An error has occurred. The operation was attempted but could not be completed. Any returned information should be regarded as invalid.
- F for severe error. A severe error occurred and the attempted operation was not complete. Any information returned is invalid and further processing will be incorrect.

IDENT — An abbreviation of the message text. The message descriptions are alphabetized according to this abbreviation.

TEXT — The explanation of the message.

2.5.2 BASEstar Classic Message Listing

The installation messages are in alphabetical order by the IDENT abbreviation.

BADBCC, The installed version of BASEstar is obsolete.

Explanation: Error. An old version of BASEstar software is installed.

User Action: Install BASEstar Classic, Version 3.4 before installing this distribution kit.

BADBCCVERS, Incompatible installed version of BASEstar. This kit only upgrades BASEstar for VMS, Version 3.3.

Explanation: Error. The distribution kit being installed can only be used to update BASEstar for VMS, Version 3.3.

User Action: Upgrade your system to Version 3.3, then install Version 3.4. Contact your Digital sales representative for assistance if you do not have Version 3.3.

BADDCMVERS, Incompatible installed version of DCM. This kit upgrades only DCM Version 3.3.

Explanation: Error. The distribution kit being installed can be used to update only DCM, Version 3.3.

User Action: Upgrade your system to Version 3.3 of DCM, then install Version 3.4. Contact your Digital sales representative for assistance if you do not have BASEstar for VMS, Version 3.3.

BADDISK, The system root for this node does not exist on the system disk.

Explanation: Error. During a cluster installation, the OpenVMS system disk of the specified node was found to be a disk separate from the OpenVMS disk of the node executing the VMSINSTAL procedure.

User Action: The cluster installation procedure will execute only on nodes that share a common OpenVMS system disk. Nodes that do not share a common system disk must be installed individually, using the single-node installation option.

BADID, Invalid DECnet ID, please try again.

Explanation: Error. You entered an incorrect DECnet ID.

User Action: The DECnet ID for a system can be obtained by using the OpenVMS Network Control Program. Refer to the *OpenVMS Network Control Program Manual.*

BADVMS, You must be running at least V5.5-2 of VMS.

Explanation: Error. The system is not running OpenVMS Version 5.5-2 or higher.

User Action: Upgrade the system to OpenVMS Version 5.5-2 or higher.

BCCRUNNING, BASEstar cannot be running during an installation.

Explanation: Error. The installation is going to replace BASEstar images and possibly convert data files. Therefore, BASEstar cannot be running during an installation.

User Action: Stop BASEstar software on the node.

FAIL, file check failed

Explanation: Error. The Installation Verification Procedure (IVP) failed.

User Action: Review the installation log file for errors. Make any corrections necessary, then restart the installation procedure.

FAIL, installed image check failed

Explanation: Error. The Installation Verification Procedure (IVP) failed.

User Action: Review the installation log file for errors. Make any corrections necessary, then restart the installation procedure.

FAIL, parameter check failed

Explanation: Error. The Installation Verification Procedure (IVP) failed.

User Action: Review the installation log file for errors. Make any corrections necessary, then restart the installation procedure.

INSFBLOCKS, Insufficient system disk free blocks for installation.

Explanation: Error. There are not enough free blocks on the system disk for this installation.

User Action: The *BASEstar Classic Installation Guide* lists the amount of free blocks required on the system disk for a successful installation. Create enough free space on the system disk and restart the installation.

INSFCTLPAGES, Installation requires the system parameter CTLPAGES to be at least nnn.

Explanation: Error. The value of SYSGEN parameter CTLPAGES is not sufficient to execute this installation procedure.

User Action: Refer to the *BASEstar Classic Installation Guide* for information on setting this parameter.

INSFGBLPAGFIL, Installation requires the system parameter GBLPAGFIL to be at least nnn.

Explanation: Error. The value of SYSGEN parameter GBLPAGFIL is not sufficient to execute this installation.

User Action: Refer to the *BASEstar Classic Installation Guide* for information on setting this parameter.

MISSING, The DCM data file BCC$SYSDATA:FILENAME.DAT is missing.

Explanation: Warning. The installation procedure cannot find a required data file from the previously installed version of BASEstar device connection management.

User Action: The DCM data files will be reinitialized automatically. Try to locate and restore the missing data file from your disk BACKUP save set.

NEEDBCC033, This kit requires BASEstar V3.3.

Explanation: Informational. BASEstar Classic, Version 3.3 is not installed.

User Action: Install BASEstar Classic, Version 3.3.

NEEDDIR, Unable to locate directory for new ILAN files.

Explanation: Error. The BASEstar directories could not be found.

User Action: Ensure that BASEstar software is installed and that the startup procedure SYS$STARTUP:BCC$STARTUP.COM has been executed to define the correct logical names.

NEEDLICENSE, A BASEstar license is required for installation.

Explanation: Error. The BASEstar license was not installed.

User Action: Install the correct BASEstar license before attempting to install BASEstar software.

NOALTROOT, BASEstar cannot be installed in an alternate system root.

Explanation: Error. VMSINSTAL.COM was invoked with OPTIONS R, which requests that the software be installed in an alternate OpenVMS system root.

User Action: Restart the installation without this option.

NODECNET, DECnet node name cannot be translated.

Explanation: Error. The node name specified cannot be found in the DECnet database.

User Action: Define the node name and restart the installation.

NODIR, The logical name BCC$SYSTEM or BCC$SYSDATA is not defined on the installed system.

Explanation: Error. The logical names for the BASEstar directories are not defined.

User Action: Ensure that the BASEstar startup procedure SYS$STARTUP:BCC$SYSTARTUP.COM has been executed before installing this kit.

NOIDENT, The BASEstar Identifier BCC$USER does not exist.

Explanation: Error. The OpenVMS Identifier BCC$USER was not found in the OpenVMS User Authorization File.

User Action: This identifier is created during the BASEstar installation procedure. Reinstall BASEstar or manually create the identifier by using the OpenVMS Authorize Utility (AUTHORIZE).

NOMENUFILE, Menu file BCC$MENU_FILE.DAT was not found in BCC$SYSDATA:.

Explanation: Error. The BASEstar data file for menu definitions is missing.

User Action: Execute the main BASEstar installation procedure and select the menu interface component to reinstall the menu interface.

NOSMISERVER, Process SMISERVER is not running on this node.

Explanation: Error. The OpenVMS SYSMAN server process is not running on this node. SYSMAN is used by the cluster installation procedure to install BASEstar components on multiple nodes.

User Action: See the *OpenVMS SYSMAN Utility Manual* for information on starting SYSMAN. (Single-node installations do not use the SYSMAN Utility.)

NOTCLUSMEM, This node is not a cluster member.

Explanation: Error. The node name specified is not a member of the cluster on which the installation is executing or the node name entered has an error.

User Action: Look closely at the node name entry and reenter the node name if a typing or syntax error was made. If the node name was correct and you want to install software on that node, abort the current VMSINSTAL and log out, log in to the desired node, and restart the installation there.

NOVAXFMS, VAX FMS V2.4 is not installed on this system.

Explanation: Warning. The BASEstar menu system is selected for installation but FMS Version 2.4 (or Version 2.3) is not present on the system.

User Action: Install VAX FMS Version 2.4 or Version 2.3. The ‘‘Forms Driver’’ run-time only component of FMS, FMSFDV, is sufficient.

OLDFMS, The installed version of VAX FMS is obsolete.

Explanation: Error. An old version of VAX FMS is present on the system. The BASEstar menu system requires VAX FMS Version 2.4 or 2.3.

User Action: Install VAX FMS Version 2.4 or 2.3.

REINIT, All DCM data files will be replaced.

Explanation: Warning. One or more of the data files is missing; device connection management will re-create all data files.

User Action: None.

STARTMENU, BASEstar Menu System must be installed.

Explanation: Error. The BASEstar menu system is not installed on this system.

User Action: Execute the main BASEstar installation procedure and select the menu interface component.

SYSTEMACCT, BASEstar must be installed from the SYSTEM account.

Explanation: Error. The installation procedure will execute only from the SYSTEM account.

User Action: Log in to the SYSTEM account before installing BASEstar.

WHERESBASESTAR, The logical name BCC$SYSDATA is not defined.

Explanation: Error. One or both of the BASEstar system logicals are not defined.

User Action: Ensure that BASEstar software is installed and that the startup procedure SYS$STARTUP:BCC$STARTUP.COM has been executed to define the logical names.

WHERESBASESTAR, The logical name BCC$SYSTEM is not defined.

Explanation: Error. One or both of the BASEstar system logicals are not defined.

User Action: Ensure that BASEstar software is installed and that the startup procedure SYS$STARTUP:BCC$STARTUP.COM has been executed to define the logical names.

2.5.3 BASEstar Classic CIMfast Message Listing

The installation messages are in alphabetical order by the IDENT abbreviation.

BADVMSVER, This kit requires OpenVMS VAX Version 5.5-2 or later.

Explanation: Error. This kit will not run with this version of OpenVMS.

User Action: Install OpenVMS Version 5.5-2 or higher.

NOBCC, This kit requires BASEstar for VMS, Version 3.3 or later.

Explanation: Error. BASEstar Classic is not installed.

User Action: Install BASEstar Classic for VMS, Version 3.3 or higher.

2.6 BASEstar Classic CIMfast Error Recovery

If errors occur during the installation 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 BASEstar CIMfast for OpenVMS VAX
V2.2 has failed.
```

If the IVP fails, the following messages are displayed:

```
The BASEstar CIMfast for OpenVMS VAX V2.2 installation verification procedure
failed.

%VMSINSTAL-E-IVPFAIL, The IVP for BASEstar CIMfast for OpenVMS VAX V2.2 has
failed.
```

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

- The operating system version is incorrect.
- A prerequisite software version is incorrect.
- Quotas necessary for a successful installation are insufficient.
- System parameter values for a successful installation are insufficient.
- The OpenVMS help library is currently in use.
- The product license has not been registered and loaded.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages, recovery procedures, and OpenVMS software installation. If you are notified that any of these conditions exist, you must take the appropriate action described in the message. For information on installation requirements, see Chapter 1.

3
Postinstallation

This chapter describes BASEstar Classic and CIMfast postinstallation tasks.

3.1 BASEstar Classic Postinstallation Procedures

When you have completed the BASEstar Classic installation procedures, log in to the system manager's account and perform the following steps:

1. **Delete BASEstar Ada files if not needed (optional).**

   Certain Ada declarations files are rather large; if no Ada programming will be done at your site, you may want to delete the file SYS$COMMON:[SYSLIB]BCC_.ADA (approximately 1400 blocks) and the ILAN*.ADA files in that same directory.

2. **Address VMScluster considerations (optional).**

   If you have a VMScluster and have installed BASEstar software numerous times on several nodes of the cluster, you may want to ''synchronize'' the INSTALLed (VMS Known File Entry) file versions of various shareable images in SYS$COMMON:. Then, purge those files.

   a. Enter the following commands at the DCL prompt:

   ```
   $ dir/size  SYS$COMMON:[SYSLIB]DCLTABLES.EXE
   $ dir/size  SYS$COMMON:[SYSLIB]BCC$*.EXE,ILAN$*.EXE
   $ dir/size  SYS$COMMON:[SYSMSG]BCC$*.EXE,ILAN$*.EXE
   ```

   b. If any multiple file versions are present, continue; otherwise, no further action is needed. Enter the following commands:

   ```
   $ INSTALL := $INSTALL/COMMAND_MODE
   $ MCR SYSMAN
   SYSMAN> set environment /cluster
   SYSMAN> do INSTALL LIST   SYS$COMMON:[SYSLIB]DCLTABLES.EXE
   ```

   c. Examine the file version number shown for each node. If the version number is not the same for every node, enter the following command to synchronize all nodes on the highest version (use command line recall to recall the prior command and change the LIST to REPLACE):

   ```
   SYSMAN> do INSTALL REPLACE SYS$COMMON:[SYSLIB]DCLTABLES.EXE
   ```

   d. Repeat steps b and c for each BCC$ and ILAN$ shareable image in SYS$COMMON:[SYSLIB] and [SYSMSG]. The file type will be .EXE. Refer to the files shown in step 2a.

   e. To exit SYSMAN, enter:

   ```
   SYSMAN> exit   (or Ctrl/Z)
   ```

   f. If multiple versions of any shareable images were found, you may now *carefully* purge those files. This should free a sizable number of disk blocks (the BCC$SHR.EXE image alone is more than 3600 blocks).

3. **Back up the system disk.**

   Back up the system disk after installing BASEstar software. The procedure for backing up the system disk is described in the *OpenVMS System Management Utilities Reference Manual*.

4. **Edit the system startup procedure.**

   If you want BASEstar software to automatically start when the system boots, add the following line to the SYS$MANAGER:SYSTARTUP_V5.COM file:

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

   To automatically start BASEstar device connection management when the system boots, add the following line to the SYS$MANAGER:SYSTARTUP_V5.COM file:

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

   The device control management CLI and API timeouts with the ILAN$DEVSRV process are controlled by the ILAN$DEFAULT_TIMEOUT logical. Refer to the *BASEstar Classic Configuration and Tuning Guide* for additional information. Depending on the types of device access your system will be performing, consider defining this logical in the system logical name table in SYS$MANAGER:SYSTARTUP_V5.COM. This is especially true if you have long uploads and downloads and you enable the ILAN$UP_DOWN_TIME paramater as described in the *BASEstar Classic Configuration and Tuning Guide*.

5. **Set process quotas.**

   Ensure that BASEstar user processes have quotas equal to or greater than those listed in Table 3–1 or Table 3–2.

Table 3–1 Process Resource Limits for OpenVMS VAX Systems

Limit	Minimum Value	Description
ASTLM	100	AST queue limit
BIOLM	80	Buffered I/O count limit
BYTLM	20,000	I/O byte count limit
DIOLM	80	Direct I/O count limit
ENQLM	200	Enqueue quota
FILLM	100	Open file limit
PGFLQUO	20,000	Paging file limit
PRCLM	6	Subprocess creation limit
TQELM	20	Timer queue entry limit
WSDEF	500	Default working set size
WSEXTENT	1,500	Working set extent
WSQUO	800	Working set quota

Table 3–2 Process Resource Limits for OpenVMS AXP Systems

Limit	Minimum Value	Description
ASTLM	150	AST queue limit
BIOLM	100	Buffered I/O count limit
BYTLM	64,000	I/O byte count limit
DIOLM	100	Direct I/O count limit
ENQLM	500	Enqueue quota
FILLM	100	Open file limit
PGFLQUO	64,000	Paging file limit
PRCLM	10	Subprocess creation limit
TQELM	20	Timer queue entry limit
WSDEF	2,000	Default working set size
WSEXTENT	8,192	Working set extent
WSQUO	4,000	Working set quota

6. **Select BASEstar users.**

   Grant the BCC$USER identifier to the SYSTEM account and/or any other accounts you will be using to start or stop the BASEstar system using the OpenVMS Authorize Utility (AUTHORIZE) as follows:

   ```
   UAF> GRANT/IDENTIFIER  BCC$USER  username
   ```

   where *username* is the name of the user account.

7. **Set privileges.**

   Ensure that each BASEstar user has the following minimum OpenVMS privileges:

   - TMPMBX
   - NETMBX

8. **Create DECmessageQ logical name table (if using DECmessageQ)**.

   Before BASEstar applications using DECmessageQ messaging can initiate data changes via the API or receive data change notification via the API and CLI, DECmessageQ logical names must be defined. DECmessageQ relies on logical names to locate DECmessageQ files. These logical names must be defined in order for a process to send DECmessageQ messages.

   For more information about defining DECmessageQ logical names, refer to the *BASEstar Classic Release Notes*.

9. **Ensure that DECnet is running.**

   BASEstar software will not run unless DECnet software is running. If DECnet is stopped, BASEstar software will shut down.

10. **Start DECmessageQ (if using DECmessageQ)**.

    If you will be using DECmessageQ messaging with BASEstar applications, DECmessageQ software must be started before starting BASEstar. For more information on starting DECmessageQ, refer to the *DECmessageQ Management and Configuration Guide for OpenVMS*.

11. **Start BASEstar software.**

BASEstar software can be started from the SYSTEM account after this account has been granted the BCC$USER identifier. It can also be started from any account having the following privileges. These privileges must be in the account's Authorized Privilege list and are added using AUTHORIZE.

ALTPRI	DETACH	LOG_IO
NETMBX	PHY_IO	PSWAPM
SHARE	SYSGBL	SYSLCK
SYSNAM	TMPMBX	

Though accounts used to start BASEstar require these privileges in their Authorized Privilege list, they do not require them in their Default Privilege list for security reasons. The previous list represents the minimum privileges needed by all BASEstar processes and applications. Some BASEstar processes may not need all privileges and can be started with only a subset. Whenever new applications need privileges not in this list, these privileges can be added to the account's Authorized Privilege list. The new privileges are in effect only after the user logs out and logs back in.

Note

The SYSTEM account must be granted the BCC$USER identifier regardless of whether it will be used to start BASEstar. Failure to grant the BCC$USER identifier to the SYSTEM account will cause BASEstar startup attempts to fail.

To start BASEstar software, enter the following command at the DCL prompt:

```
$ BSTAR START SYSTEM
```

12. **Generate BASEstar Classic logicals**.

    All logical names created by the BASEstar Classic, Version 3.4 installation procedures are /SYSTEM logical names. The logical names do not exist until the appropriate SYS$SPECIFIC:[SYS$STARTUP]xxxxxx$STARTUP.COM procedure is invoked.

    Table 3–3 lists the logical names created by the installations.

Table 3–3 Logical Names Created by BASEstar Classic Installation Procedures

Component	System Logical Name
Kernel	BCC$SYSDATA
	BCC$SYSTEM
BRI	BRI$FILES
DCM	ILAN$SYSTEM
Utilities	BCC$MONITOR_DATA[1]

[1]To define this logical, edit the BCC$STARTUP.COM file and add the line $ DEFINE command to it.

3.2 BASEstar Classic CIMfast Postinstallation Procedures

When you have completed the BASEstar Classic CIMfast installation procedures, perform the following steps:

1. **Run the installation verification procedure separately**.

   Digital recommends that you run the installation verification procedure (IVP) during the installation. If you want to run the IVP separately to ensure the integrity of the installed files, execute the following command procedure:

   ```
   $ @SYS$SYSROOT:[SYSTEST.BCF]BCF$IVP.COM
   ```

2. **Edit the system startup file**.

   You must edit the system startup file to provide for automatic startup of BASEstar Classic CIMfast when the system is rebooted.

   Add the command line that starts BASEstar Classic CIMfast to the system startup file, SYS$MANAGER:SYSTARTUP_V5.COM. The following example shows a BASEstar CIMfast for OpenVMS VAX startup command line:

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

3. **Modify BASEstar parameters**.

   There is one BASEstar parameter whose value you may need to increase to use BASEstar Classic CIMfast on the system. The parameter is BCC$DMGT_MAX_REQUESTS, which controls the number of data point change notification requests that may be outstanding on the BASEstar system.

   For every data point with update or change notification requested in a CEL program, one data point change notification request is required.

   If several CIMfast applications using large numbers of data points are running simultaneously on the system, you might need to increase the value of this parameter. Use the following formula to decide whether to increase this parameter:

   $v \geq a * v$

   where v is the value of the BCC$DMGT_MAX_REQUESTS parameter, a is the number of applications running, and p is the number of points per application. For example, if you have 10 applications running, and each one uses 11 data points (the same or different data points), then set the value of the BCC$DMGT_MAX_REQUESTS parameter to at least 110.

   A suggested value for the BCC$DMGT_MAX_REQUESTS parameter is 1000.

   You can modify this parameter using the following command:

   ```
   $ BSTAR SET PARAM BCC$DMGT_MAX_REQUESTS 1000
   ```

   Note

   You must stop and restart BASEstar for this change to take effect.

4. **Address VMScluster considerations**.

BASEstar Classic CIMfast is fully supported in a VMScluster environment. To guarantee the full VMScluster support after the installation of BASEstar Classic CIMfast, you must follow these steps:

1. Define several CIMfast-related logical names before using BASEstar Classic CIMfast on a BASEstar Classic CIMfast system.

   Define CIMfast-related logical names by executing the procedure SYS$STARTUP:BCF$STARTUP.COM.

2. During the installation of BASEstar Classic CIMfast, a new DCL command (CIMFAST) is provided. Ensure that the DCL command definition of the node on which the BASEstar Classic CIMfast installation has taken place (SYS$SHARE:DCLTABLES.EXE) is used or propagated throughout the whole cluster.

5. **Modify user accounts**.

   To work with BASEstar Classic CIMfast, you must execute the CIMfast startup procedure (BCF$HOME:BCF$SETUP) and have sufficient account quotas. The file BCF$HOME:BCF$SETUP.COM, installed during the CIMfast installation, must be executed as part of each user's login procedure. Alternatively, you can execute this file from the systemwide login command procedure, SYS$MANAGER:SYLOGIN.COM.

   Make sure that the appropriate user accounts have sufficient quotas to use BASEstar Classic CIMfast. Table 3–4 summarizes the required user account quotas.

Table 3–4 User Account Quotas for BASEstar Classic CIMfast

Account Quota	Value
PGFLQUOTA	13,000
WSEXTENT	1,024[1]

[1]The values for WSEXTENT and WSQUO must be equal to or greater than the WSDEF value.

User account quotas are stored in the file SYSUAF.DAT. Use the OpenVMS Authorize Utility (AUTHORIZE) to verify and change user account quotas as follows:

1. Set your directory to SYS$SYSTEM and enter the OpenVMS VAX command AUTHORIZE:

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

2. At the UAF> prompt, enter the SHOW command with an account name to check a particular account. The following example checks the SMITH account:

   ```
   UAF> SHOW SMITH
   ```

3. To change a quota, enter the MODIFY command.

The following example changes the WSEXTENT quota for the SMITH account and then exits from the utility:

```
UAF> MODIFY SMITH /WSEXTENT=1024
UAF> EXIT
```

After you exit from the utility, the system displays messages indicating whether the changes were made. Once the changes have been made, you must log out and log in again for the new quotas to take effect.

For more information on modifying account quotas, see the description of the Authorize Utility in the OpenVMS System Management Subkit.

6. **Install BASEstar Classic CIMfast as a shared image**.

   If BASEstar Classic CIMfast is to be used extensively on the system, you can reduce the system overhead and memory requirements by installing BASEstar Classic CIMfast as a shared image.

   To install BASEstar Classic CIMfast as a shared image on a system that is currently running, use the OpenVMS Install Utility (INSTALL). It is recommended that you install BASEstar Classic CIMfast as a shared image on a system that has recently been rebooted because the available space in the global page table is less likely to be fragmented.

   Installing BASEstar Classic CIMfast as a shared image requires 4 global sections and 250 global pages. To install BASEstar Classic CIMfast as a shared image, follow these steps:

   1. Determine the number of available global pages and global sections on the system using the following command:

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

      The values for the global pages and global sections are controlled by the system parameters GBLSECTIONS and GBLPAGES. You may need to increase the values of these parameters to meet the required numbers of 4 global sections and 250 global pages.

      Use the AUTOGEN mechanism for any modifications to system parameters. See the *OpenVMS System Manager's Manual* for more information about changing the system parameters.

   2. Reset the system parameter values.

   3. Invoke the OpenVMS Install Utility from a privileged account and then install BASEstar Classic CIMfast as a shared image:

      ```
      $ INSTALL
      INSTALL> ADD BCF$ROOT:[EXE]BCF$SHR.EXE /OPEN HEAD/ SHARED
      INSTALL> EXIT
      ```

   To install BASEstar Classic CIMfast as a shared image when the system boots, remove the comment symbols (!) from the following lines in SYS$STARTUP:BCF$STARTUP.COM:

   ```
   $! IF
   F$FILE_ATTRIBUTES("BCF$ROOT:[EXE]BCF$SHR.EXE","KNOWN") THEN -
   $!    INSTALL REMOVE BCF$ROOT:[EXE]BCF$SHR
   $! INSTALL ADD BCF$ROOT:[EXE]BCF$SHR/OPEN/HEAD/SHARE
   ```

7. **Generate BASEstar Classic CIMfast logicals**.

The logical names created by the BASEstar Classic CIMfast installation procedures are both /SYSTEM and /PROCESS logical names. The system logical names are stored in the product's startup file and are automatically entered into the system logical name table when the system reboots or when the software is invoked. The process logical names are entered into the process logical name table when BCF$HOME:BCF$SETUP.COM is executed. Table 3–5 lists the logical names created by the installation procedures.

Table 3–5 Logical Names Created by BASEstar Classic CIMfast Installations

Component	Logical Name
CIMfast	BCF$HOME[1]
	BCF$ROOT[1]
	BCF$SHR[1]
	C$INCLUDE[2]
	BCF$INCLUDE[2]
	LSE$ENVIRONMENT[2]

[1]System logical name

[2]Process logical name

A

Sample BASEstar Classic Installations for OpenVMS Systems

This appendix contains sample installation procedures for BASEstar software. The dialogs are examples of the following types of BASEstar installations:

- Main BASEstar installation
- Device connection management (DCM)
- BASEstar Utilities
- BASEstar Classic CIMfast full development kit

A.1 Main BASEstar Installation

This section contains a sample BASEstar first-time installation.

```
$ @sys$update:vmsinstal BCCVA034 sys$sysdevice:[.kits]

 OpenVMS AXP Software Product Installation Procedure V6.2

1-JUN-1996 at 14:49.
Enter a question mark (?) at any time for help.

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

The following products will be processed:
  BCCVA V3.4
 Beginning installation of BCCVA V3.4 at 10:49

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

 BASEstar Kernel V3.4 AXP Installation Procedure
 ----------------------------------------------
This system is using OpenVMS Version 6.2
Image CLINOSHARE.EXE must be registered

%REGISTER-I-ADDED added CLINOSHARE to registry
%REGISTER-I-SUMMARY  images examined: 1, dependent images: 1

    BASEstar requires one of these licenses to be registered
    and loaded on all nodes on which BASEstar will run:

             Product
             ---------------
        [1]  BASESTAR
        [2]  BASESTAR-G
        [3]  BASESTAR-RT
        [4]  BASESTAR-RT-G
        [5]  BASESTAR-USER
        [6]  BASESTAR-LTD
        [7]  BASESTAR-RT-LTD
        [8]  BASESTAR-CU
        [9]  BASESTAR-CU-RT
```

Sample BASEstar Classic Installations for OpenVMS Systems
A.1 Main BASEstar Installation

```
* Which of the above licenses will be used? [1]:
        Product:      BASESTAR
        Producer:     DEC
        Version:
        Release Date:

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

Getting data from   $ MCR NCP  LIST EXECUTOR   ...
  ... Done.

SCSNODE and SCSSYSTEMID checks passed.

The DECnet node ID found for this node is:
    2154 (2.106)

    This node is a member of a multi-node VMScluster.

    A single-node installation or a multi-node installation
    can be chosen.   For a multi-node installation, the nodes
    must share a cluster common system disk, and so must all
    be of the same architecture type (AXP or VAX).

* Do you want to install BASEstar on just one node [YES]? NO
 (NOTE: Answering NO will perform a multi-node install. If only
 a single note installation is desired, chose the defaut of yes.)

    A VMScluster installation will be performed.   The current node,
    SRVR4, will be the first node in the installation.

Verifying node SRVR4:: information ...

    You will now be prompted to enter the additional VMScluster nodes
    on which BASEstar is to be installed.  End the list with a
    carriage return [CR].

    (Enter Control-Y to abort the installation, if necessary.)

Current node name list is:  SRVR4

* Enter node name #2   ([CR] to end list): BST1
Verifying node BST1:: information ...

Current node name list is:  SRVR4, BST1

* Enter node name #3   ([CR] to end list): [CR]

2 valid node names were entered:
   SRVR4, BST1

* Is this list correct? yes

_____________________________________
Processing node 1, SRVR4::
_____________________________________

    This is a new BASEstar installation.  The BASEstar CORE must be
    installed,   but the Data Management subsystems are optional.

* Do you want to install BASEstar Data Management [YES]? YES
* Do you want to install BASEstar External Data Support [YES]? YES
* Do you want to install BASEstar List Services Support [YES]? YES

    A location  must  be  chosen  for the BCC$SPECIFIC directory.
    By default, BASEstar data and command files are installed in
    SYS$SPECIFIC:[BCC$SPECIFIC].    This  specification  may  be
    overridden if desired.

* Enter the BASEstar specific directory specification
  [SYS$SPECIFIC:[BCC$SPECIFIC]]:

  The directory entered is:  SYS$SPECIFIC:[BCC$SPECIFIC]
* Is this correct? YES

    Each BASEstar system must be configured to run either
    a Global Name Server  or  a Name Dispatcher.
```

```
* Do you want this system to be configured as a Global Name Server [YES]? YES

    You must choose a target size for the following data files.

    BCC$POINT_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size

    [1]      500 Points           500 Points          840 Disk Blocks
    [2]    2,000 Points         1,000 Points        2,223 Disk Blocks
    [3]   10,000 Points         5,000 Points       10,675 Disk Blocks
    [4]   30,000 Points        10,000 Points       27,219 Disk Blocks

* Enter BCC$POINT_FILE size [1]: 1

    BCC$GROUP_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size

    [1]      500 Groups           500 Groups          819 Disk Blocks
    [2]    2,000 Groups         1,000 Groups        2,223 Disk Blocks

* Enter BCC$GROUP_FILE size [1]: 1

    BCC$LOCAL_NAME_FILE
    ___________________

       Initial Allocation   Extend Allocation      Initial File Size

    [1]      500 Names            500 Names           342 Disk Blocks
    [2]    2,000 Names          1,000 Names           867 Disk Blocks
    [3]   10,000 Names          5,000 Names         4,023 Disk Blocks
    [4]   30,000 Names         10,000 Names        10,179 Disk Blocks

* Enter BCC$LOCAL_NAME_FILE size [1]: 1

_____________________________________
Processing node 2, BST1::
_____________________________________

    This is a new BASEstar installation.  The BASEstar CORE must be
    installed,   but the Data Management subsystems are optional.

* Do you want to install BASEstar Data Management [YES]? YES
* Do you want to install BASEstar External Data Support [YES]? YES
* Do you want to install BASEstar List Services Support [YES]? YES

    A location  must  be  chosen  for the BCC$SPECIFIC directory.
    By default, BASEstar data and command files are installed in
    SYS$SPECIFIC:[BCC$SPECIFIC].    This  specification  may  be
    overridden if desired.

* Enter the BASEstar specific directory specification
  [SYS$SPECIFIC:[BCC$SPECIFIC]]:

  The directory entered is:  SYS$SPECIFIC:[BCC$SPECIFIC]
* Is this correct? YES

    Each BASEstar system must be configured to run either
    a Global Name Server  or  a Name Dispatcher.

* Do you want this system to be configured as a Global Name Server [YES]? YES

    You must choose a target size for the following data files.

    BCC$POINT_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size
```

```
    [1]      500 Points           500 Points          840 Disk Blocks
    [2]    2,000 Points         1,000 Points        2,223 Disk Blocks
    [3]   10,000 Points         5,000 Points       10,675 Disk Blocks
    [4]   30,000 Points        10,000 Points       27,219 Disk Blocks

* Enter BCC$POINT_FILE size [1]: 1

    BCC$GROUP_FILE
    ______________

       Initial Allocation    Extend Allocation      Initial File Size

    [1]      500 Groups           500 Groups          819 Disk Blocks
    [2]    2,000 Groups         1,000 Groups        2,223 Disk Blocks

* Enter BCC$GROUP_FILE size [1]: 1

    BCC$LOCAL_NAME_FILE
    ___________________

       Initial Allocation   Extend Allocation      Initial File Size

    [1]      500 Names            500 Names           342 Disk Blocks
    [2]    2,000 Names          1,000 Names           867 Disk Blocks
    [3]   10,000 Names          5,000 Names         4,023 Disk Blocks
    [4]   30,000 Names         10,000 Names        10,179 Disk Blocks

* Enter BCC$LOCAL_NAME_FILE size [1]: 1

    A location must be chosen for the BCC$COMMON directory.
    By default, BASEstar executable files are installed in
    SYS$COMMON:[BCC$COMMON].   This  specification  may be
    overridden if desired.

* Enter the BASEstar common directory specification
  [SYS$COMMON:[BCC$COMMON]]:

  The directory entered is:  SYS$COMMON:[BCC$COMMON]
* Is this correct? YES

    You must now enter a list of the node names of all BASEstar
    Global Name Server systems with which the newly-installed
    BASEstar node (or nodes) will interact.  This list is
    required for both new Global Name Server systems and for
    new Name Dispatcher systems.

    For your convenience, the list will start with the list of
    nodes in this installation that you designated earlier to
    be configured as Global Name Servers.

Current Global Name Server list is:  SRVR4, BST1
* Enter a Global Name Server node name, [CR] to end list: [CR]

  The final list is:  SRVR4, BST1

* Is this list correct? YES

%BCCVA-I-QUORUMSET, Global Name Server quorum will be set to 2

    If the above quorum value is not consistent with other Global Name
    Server systems in the same BASEstar domain, the value of BCC$QUORUM
    should be changed after the installation is finished and before
    BASEstar is started on this node for the first time.

    You must choose a target size for the Global Name File on the
    Global Name Server Systems:

    BCC$GLOBAL_NAME_FILE
    ____________________

       Initial Allocation    Extend Allocation      Initial File Size
```

```
    [1]      500 Names            500 Names           342 Disk Blocks
    [2]    2,000 Names          1,000 Names           867 Disk Blocks
    [3]   10,000 Names          5,000 Names         4,023 Disk Blocks
    [4]   30,000 Names         10,000 Names        10,179 Disk Blocks

* Enter BCC$GLOBAL_NAME_FILE size [1]: 1

_____________________________________

    The installation procedure  has  no further questions to ask during
    the installation process.  Until the IVP executes, it can continue
    without user assistance.

    IF this is a V3.3 to V3.4 UPGRADE, a data base conversion will execute
    during the IVP.  This conversion requires user input regarding log
    file locations.  The IVP will announce the beginning of the data base
    conversions, before prompting for logging information.
    The installation  time  will  vary  depending on the number of nodes
    selected  for  installation  and  the type of processor on which
    the installation is being done.
    If the data base conversions are required, time will vary depending on
    the size of your BASEstar Classic object data base.

_____________________________________
14:51:02

    This installation creates a VMS rights identifier named BCC$USER,
    which is used to control access to BASEstar.

    After the installation is finished, the VMS Authorize Utility
    must be used to grant this identifier to all accounts that will
    use BASEstar.

    ----------------------------------------------------------------
    A   R E M I N D E R   T O   T H E   I N S T A L L E R

    Each VMS user account that will issue BSTAR commands must be
    granted the BCC$USER rights identifier, as well as having
    certain Authorized privileges set.

    >> Remember to grant the BCC$USER identifier to the SYSTEM account
    >> (and/or any other accounts you will be using to start the BASEstar
    >> system) and to check the Authorized privileges of those accounts
    >> BEFORE YOU ATTEMPT TO START THE BASESTAR SYSTEM.
    ----------------------------------------------------------------

%BCCVA-I-IDENTEXISTS, The BCC$USER identifier already exists

Note: The file SYS$SYSTEM:RIGHTSLIST.DAT will be modified to permit
      access by processes that have been granted the BCC$USER identifier.
      If RIGHTSLIST.DAT does not reside in SYS$SYSTEM, the logical name
      RIGHTSLIST will be translated to access the file for modification.

14:51:03
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
14:51:35
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
  No MENU installation requested
14:51:40
%VMSINSTAL-I-RESTORE, Restoring product save set E ...

14:51:43

_____________________________________
Installing BASEstar on node SRVR4:: ...

_____________________________________

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[BCC$COMMON].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[SYS0.BCC$SPECIFIC].
```

```
14:51:44
%BCCVA-I-STARTCORE, BASEstar CORE installation beginning on SRVR4:: .

    This  installation  places  a  file  named BCC$STARTUP.COM in the
    directory  SYS$SPECIFIC:[SYS$STARTUP]  in  each  system  root  on
    which this installation is being performed.  The SYSTARTUP_VMS.COM
    file should be edited to invoke this startup file when the system
    boots.
14:52:33
BASEstar Data Management installation beginning on SRVR4

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[BCC$COMMON.DMQ_EXAMPLE].
14:52:40
BASEstar External Data Support installation beginning on SRVR4

14:52:41
BASEstar List Services Support installation beginning on SRVR4

14:52:41

14:52:43

_____________________________________
Installing BASEstar on node BST1:: ...
_____________________________________

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[SYS10.BCC$SPECIFIC].

14:52:44
%BCCVA-I-STARTCORE, BASEstar CORE installation beginning on BST1:: .

14:53:10
BASEstar Data Management installation beginning on BST1

14:53:14
BASEstar External Data Support installation beginning on BST1

14:53:15
BASEstar List Services Support installation beginning on BST1

14:53:15
%VMSINSTAL-I-SYSDIR, This product creates system directory [SYSTEST.BCC].
14:53:19
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

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BASEstar Kernel V3.4 Installation Verification Procedure (IVP)

$ DEFINE/NOLOG/PROCESS  BCC$SYSDATA  SYS$SPECIFIC:[BCC$SPECIFIC]
$ DEFINE/NOLOG/PROCESS  BCC$SYSTEM   VMI$ROOT:[BCC$COMMON]
$ set noverify

3.4 conversions checked/done...
%BCCIVP-I-CORESTART, CORE verification starting on node SRVR4.

%BCCIVP-I-PASS, CORE data files check passed.
%BCCIVP-I-PASS, CORE command files check passed.
%BCCIVP-I-PASS, CORE executable files check passed.
%BCCIVP-I-PASS, CORE support files check passed.
%BCCIVP-I-PASS, CORE system files check passed.
%BCCIVP-I-PASS, CORE installed image check passed.
%BCCIVP-I-PASS, CORE parameter check passed.

%BCCIVP-I-DMGTSTART, DMGT verification starting on node SRVR4.

%BCCIVP-I-PASS, DMGT file check passed.

%BCCIVP-I-EXTMAPSTART, External Data Server verification starting
   on node SRVR4.

%BCCIVP-I-PASS, External Data Server file check passed.
```

```
$ DEFINE/NOLOG/PROCESS  BCC$SYSDATA  SYS$SPECIFIC:[BCC$SPECIFIC]
$ DEFINE/NOLOG/PROCESS  BCC$SYSTEM   VMI$ROOT:[BCC$COMMON]
$ set noverify
3.4 conversions checked/done...
%BCCIVP-I-CORESTART, CORE verification starting on node BST1.

%BCCIVP-I-PASS, CORE data files check passed.
%BCCIVP-I-PASS, CORE command files check passed.
%BCCIVP-I-PASS, CORE executable files check passed.
%BCCIVP-I-PASS, CORE support files check passed.
%BCCIVP-I-PASS, CORE parameter check passed.

%BCCIVP-I-DMGTSTART, DMGT verification starting on node BST1.

%BCCIVP-I-PASS, DMGT file check passed.

%BCCIVP-I-EXTMAPSTART, External Data Server verification starting
   on node BST1.

%BCCIVP-I-PASS, External Data Server file check passed.


BASEstar V3.4 IVP completed successfully.

 Installation of BCCVA V3.4 completed at 14:54

    Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY

    Creating installation data file: VMI$ROOT:[SYSUPD]BCCVA034.VMI_DATA

 VMSINSTAL procedure done at 14:54
```

A.2 Device Connection Management installation

This section contains a sample BASEstar device connection management installation.

```
SRVR4    >@sys$update:vmsinstal dcmva034 SYS$SYSDEVICE:[KIT]

 OpenVMS AXP Software Product Installation Procedure V6.2

It is 02-JUN-1996 at 01:58.
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:
  DCMVA V3.4
 Beginning installation of DCMVA V3.4 at 01:59

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

    BASEstar Device Connect Management (DCM) V3.4 AXP Installation Procedure
    ------------------------------------------------------------------------

BASEstar is installed on this system.
The file SYS$COMMON:[SYSLIB]BCC$SHR.EXE was found.
Its image file identification is:  BCC 3.4

    This node is a member of a multi-node VMScluster.

    A single-node installation or a multi-node installation
    can be chosen.

    For a multi-node installation, you will be prompted to
    enter the node names to be processed.  The nodes must
    share a cluster-common system disk.  Also, the current
    node (the node presently executing VMSINSTAL) will
    automatically be the first node processed.

* Do you want to install DCM on just this node  [YES]? YES
```

```
    ------------------------------------------
    A single-node installation will be performed.
    ------------------------------------------

Checking node  SRVR4::  ...

    BASEstar is installed on this node.  The file
      SYS$SPECIFIC:[SYS$STARTUP]BCC$STARTUP.COM
    was found.

The node passed all checks.

_____________________________________
Processing node SRVR4::
_____________________________________

    You must choose a initial size for the PHYSICAL POINT data file:

    ILAN$PHYPOINT_FILE
    ____________________

      Initial Allocation      Extend Allocation      File Size

     [1]    500 Phypoints         500 Phypoints       1,251 Disk Blocks
     [2]  2,000 Phypoints       1,000 Phypoints       3,333 Disk Blocks
     [3] 10,000 Phypoints       5,000 Phypoints      15,744 Disk Blocks
     [4] 20,000 Phypoints      10,000 Phypoints      32,604 Disk Blocks

* Enter ILAN$PHYPOINT_FILE size [1]:

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

Post-installation messages for the installer appear next.
Press [Return] to continue:

    Post-installation messages for the installer
    ------------------------------------------------------------

    ILAN$STARTUP.COM, a startup command procedure, is used
    to set up the environment for Device Connect Management.
    During the installation, this file will be placed in the
    SYS$SPECIFIC:[SYS$STARTUP]  directory of the nodes on
    which this installation is being performed.

    If this is a first-time DCM installation on a this system,
    the system startup command procedure

                SYS$MANAGER:SYSTARTUP_VMS.COM

    or
  SYS$MANAGER:SYSTARTUP_V5.COM
            (for VAX VMS versions prior to V6.0)

    needs to be manually edited (after this installation has
    successfully finished).   Locate the line

                $  @ SYS$STARTUP:BCC$STARTUP.COM

    and add this new line immediately after the BCC$STARTUP
    line:
                $  @ SYS$STARTUP:ILAN$STARTUP.COM

    ------------------------------------------------------------
    The installation procedure has no further questions to ask
    and can continue from this point without user assistance.
    The time needed to finish the installation will vary
    depending on the number of nodes selected for installation
    and the type of processors and disks involved.
    ------------------------------------------------------------

_____________________________________
Installing DCM on node SRVR4:: ...
_____________________________________
02:01:23
```

```
    Creating DCM data files for this node ...

    Providing images to BCC$SYSTEM ...

    Providing DCM example PL/I programs to sub-directory
    of BCC$SYSTEM ...

    Providing RS232 DAS source files to sub-directory
    of BCC$SYSTEM ...

    Providing Network DAS NCT source files to sub-directory
    of BCC$SYSTEM ...

    ... Done.

02:01:34
    Checking the BASEstar Parameter file for
    "ILAN$*"  (DCM)  parameters ...
    ... Done.
02:01:44

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

IVP phase beginning on node SRVR4 ...

$  @SYS$SPECIFIC:[SYS$STARTUP]ILAN$STARTUP.COM

$  @SYS$COMMON:[SYSTEST]ILAN$IVP.COM

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  ------------------------------------------------------------------------
BASEstar DCM V3.4  Installation Verification Procedure (IVP)  starting.
------------------------------------------------------------------------

Checking logical name  BCC$SYSDATA  ...

Checking logical name  BCC$SYSTEM  ...

Checking ILAN files ...
Checking files in SYS$COMMON:[BCC$COMMON.DCM_EXAMPLE] ...
Checking files in SYS$COMMON:[BCC$COMMON.NCT_EXAMPLE] ...
Checking files in SYS$COMMON:[BCC$COMMON.RS232_EXAMPLE] ...
%ILAN$IVP-I-PASS, File check passed.

Checking ILAN installed images ...
%ILAN$IVP-I-PASS, Installed image check passed.

Checking  "ILAN$*"  BASEstar parameters ...
%ILAN$IVP-I-PASS, Parameter check passed.

------------------------------------------------------------------------
BASEstar DCM V3.4 IVP completed successfully.
------------------------------------------------------------------------

 Installation of DCMVA V3.4 completed at 02:02

    Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY

    Creating installation data file: VMI$ROOT:[SYSUPD]DCMVA034.VMI_DATA

 VMSINSTAL procedure done at 02:02
```

A.3 Utilities Installation

This section contains a sample BASEstar utility installation.

```
$ @sys$update:vmsinstal

Enter the products to be processed from the next distribution volume set.
* Products: BCCVVUTL034
The following products will be processed:
  BCCVVUTL V3.4
 Beginning installation of BCCVVUTL V3.4 at 23:47
```

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

        Installing BASEstar CORE Utilities Kit

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

    Enter the option to perform. Type 99 to end selections:

 [1] Install All Options

 [2] BASEstar Text Services

        [3] BCC$BASEGEN.COM Utility

 [4] Monitor Port Utility

 [5] Monitor BASEstar Utility

 [6] BASEstar LSE Environment File  (VAX Only)

 [7] Value Notification Utility

 [8] Resolve VMS Ident Version Mismatches

* Enter Selection: : 1

BASEstar Text Services have been installed.

The BASEGEN Utility has been installed.

The Monitor Port Utility has been installed.

Monitor BASEstar utility installed.

  The logical name BCC$MONITOR_DATA has been defined.

  Add the following line to the BASEstar startup procedure
  SYS$STARTUP:BCC$STARTUP.COM  to define this logical name
  during system startup:

  $ DEFINE/NOLOG/SYSTEM  BCC$MONITOR_DATA  BCC$SYSDATA:BCC$MON_BSTAR_APP.DAT

Installing the Value Notification Utility

Installing the BASEstar LSE Environment File

    A development license is required to be registered
    and loaded for all nodes on which the Value Notification
    or BASEstar LSE Environment File will run:

             Product
             ---------------
        [1]  BASESTAR
        [2]  BASESTAR-LTD
        [3]  BASESTAR-USER
        [4]  BASESTAR-G
        [5]  BASESTAR-CU

* Which of the above licenses will be used? [1]:
 Product:  BASESTAR
 Producer: DEC
 Version:
 Release Date:

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

The Value Notification Utility has been installed.

The LSE Environment File has been installed.

Resolving VMS ident version mismatches
```

```
No ident version mismatch detected

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

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BASEstar Utility V3.4 Installation Verification Procedure


%BCCUTL-I-PASS, Utility file check passed
BASEstar Utility V3.4 IVP completed successfully
 Installation of BCCVVUTL V3.4 completed at 23:50
```

A.4 CIMfast Installation

This section contains a sample BASEstar CIMfast Application Enabler with SQL support option installation.

```
NEP2UN> @sys$update:vmsinstal

 OpenVMS AXP Software Product Installation Procedure V6.1

%VMSINSTAL-W-ACTIVE, The following processes are still active:
 _FTA124:
 SQLSRV$SERVER
* Do you want to continue anyway [NO]? y
* Are you satisfied with the backup of your system disk [YES]?
* Where will the distribution volumes be mounted:
DISK1:[CIMFAST.V22.KIT}

Enter the products to be processed from the first distribution volume set.
* Products: bcfaxp022
* Enter installation options you wish to use (none):
The following products will be processed:
  BCFAXP V2.2

 Beginning installation of BCFAXP 2.2 at 16:29

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

    BASEstar CIMfast for OpenVMS installation procedure.
    Copyright (c) 1996 Digital Equipment Corporation.  All Rights Reserved.

    Enter ? at any time for help.


    Please select one of the following options:

 1) Install CIMfast support for BASEstar Classic
 2) Install CIMfast support for BASEstar Open

 3) Abort the Installation

* Which BASEstar support do you want to install [1]:

* In what directory do you wish to install CIMfast [SYS$SYSDEVICE:[BCF]]:
* Do You want to install CIMfast DCM support  [YES]?

    In order to install CIMfast SQL support for RDB,
    a minimum of RDB V6.0 must be installed on your system.
    If you answer YES RDB installation, this version check will
    be done.

* Do You want to install CIMfast SQL Support for DEC RDB [YES]?
* Do You want to install CIMfast DMQ support  [YES]?
* Do you want to install LSE support [YES]?

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

```
 All questions regarding the installation of CIMfast have been
 asked. Depending upon system load and configuration the
 installation will take between 5 and 15 minutes.

 This installation provides a system startup file
     SYS$STARTUP:BCF$STARTUP.COM.  You must edit your
     system startup procedure(s) to invoke this file
 on each node where CIMfast will be run.

 The CIMfast per-user setup command procedure is in
 BCF$HOME:BCF$SETUP.COM. It should be executed at login
 time by each CIMfast user, by including a line such as
 the following in each user's LOGIN.COM procedure:

     $ @BCF$HOME:BCF$SETUP

 Alternatively, the above line may added to the system-wide
 login command procedure (usually SYS$MANAGER:SYLOGIN.COM).

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[BCF].
SYS$SYSDEVICE:[BCF.EXE].
SYS$SYSDEVICE:[BCF.LIB].
SYS$SYSDEVICE:[BCF.BLD].
SYS$SYSDEVICE:[BCF.BLD.BCF].
SYS$SYSDEVICE:[BCF.BLD.BCC].
SYS$SYSDEVICE:[BCF.BLD.DCM].
SYS$SYSDEVICE:[BCF.BLD.DMQ].
SYS$SYSDEVICE:[BCF.BLD.RDB].
SYS$SYSDEVICE:[BCF.DEMO.POINTS].
SYS$SYSDEVICE:[BCF.DEMO.CBCF_POINTS].
SYS$SYSDEVICE:[BCF.DEMO.CALLABLE_BCF].
SYS$SYSDEVICE:[BCF.DEMO.EXPRESSIONS].
SYS$SYSDEVICE:[BCF.DEMO.MACROS].
SYS$SYSDEVICE:[BCF.DEMO.MESSAGING].
SYS$SYSDEVICE:[BCF.DEMO.CBCF_MESSAGING].
SYS$SYSDEVICE:[BCF.DEMO.BCC_COURSE_LAB3].
SYS$SYSDEVICE:[BCF.DEMO.SQL].
SYS$SYSDEVICE:[BCF.LSE].

 If this product is being installed in a OpenVMS cluster,
 several actions must be taken to enable other nodes in the
 cluster to be able to use this product.  These actions
 include:

  1) Define CIMfast related logical names
  2) Update DCL tables
  3) Load a valid license

 This can be done with the following commands:

  $ RUN SYS$SYSTEM:SYSMAN
  SYSMAN> SET ENVIRONMENT/CLUSTER
  SYSMAN> DO @SYS$STARTUP:BCF$STARTUP.COM
  SYSMAN> DO INSTALL REPLACE SYS$LIBRARY:DCLTABLES.EXE
  SYSMAN> DO LICENSE LOAD BASESTAR ! or any valid license
  SYSMAN> EXIT

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

Welcome to CIMfast V2.2
(c) Digital Equipment Corporation. 1996. All Rights Reserved

Preprocessing CEL file...

Loading CEL file...
```

```
***Total lines in input file was 10***
***Total number of EVENTS was 1***
***Total number of ACTIONS was 3***
***Total number of CONDITION EVENTS was 0***
***Total number of CONDITION ACTIONS was 0***

Start time was: Tue Aug 20 16:35:23 1996

End time was  : Tue Aug 20 16:35:23 1996

Press return to begin execution:

**** BASEstar CIMfast IVP successfully executed ****


Beginning CIMfast SQL Support IVP
---------------------------------

BASEstar 3.4 for VMS
Copyright (c) 1994, Digital Equipment Corporation.  All Rights Reserved.

%BCC-S-OBJCRE, DOG created.
Database name (RETURN to use default access): work1:[rdb]time_db
Welcome to CIMfast V2.2
(c) Digital Equipment Corporation. 1996. All Rights Reserved

Preprocessing CEL file...

Loading CEL file...
.
.
***Total lines in input file was 362***
***Total number of EVENTS was 3***
***Total number of ACTIONS was 65***
***Total number of CONDITION EVENTS was 11***
***Total number of CONDITION ACTIONS was 22***

Start time was: Tue Aug 20 17:01:06 1996

End time was  : Tue Aug 20 17:01:08 1996

Press return to begin execution:

connecting...
creating table dogs...
inserting rows...
.
.
.
(Messages from IVP to test CIMfast and SQL option will print out here.)
.
.
.

CIMfast SQL Support IVP has succeeded.
 Installation of BCFAXP 2.2 completed at 17:01

    Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY

    Creating installation data file: VMI$ROOT:[SYSUPD]BCFAXP022.VMI_DATA

Enter the prducts to be processed from the next distribution volume set.
* Products:
 VMSINSTAL procedure done at 17:01
NEP2UN > logout
  SYSTEM      logged out at 20-AUG-1996 17:01:47.33
```

B

Sample BASEstar Classic Installation Upgrade for OpenVMS Systems

This appendix contains sample upgrade examples.

The following types of upgrades will be,

- BASEstar Classic Upgrade from Version 3.3 to 3.4, with database conversions.
- BASEstar CIMfast Upgrade with SQL Support option.

B.1 Main Upgrade Installation

```
$ @sys$update:vmsinstal  BCCVV034 SYS$SYSDEVICE:[VAX_KIT]

 VAX/VMS Software Product Installation Procedure 6.2
It is 27-MAY-1996 at 20:37.
Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? YES

The following products will be processed:
  BCCVV V3.4
 Beginning installation of BCCVV V3.4 at 20:38

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

 BASEstar Kernel V3.4 VAX Installation Procedure
 ----------------------------------------------


    BASEstar requires one of these licenses to be registered
    and loaded on all nodes on which BASEstar will run:

              Product
              ---------------
        [1]  BASESTAR
        [2]  BASESTAR-G
        [3]  BASESTAR-RT
        [4]  BASESTAR-RT-G
        [5]  BASESTAR-USER
        [6]  BASESTAR-LTD
        [7]  BASESTAR-RT-LTD
        [8]  BASESTAR-CU
        [9]  BASESTAR-CU-RT

* Which of the above licenses will be used? [1]: 1
        Product:      BASESTAR
        Producer:     DEC
        Version:
        Release Date:
* Does this product have an authorization key registered and loaded? YES

Getting data from   $ MCR NCP  LIST EXECUTOR   ...
  ... Done.
SCSNODE and SCSSYSTEMID checks passed.
```

Sample BASEstar Classic Installation Upgrade for OpenVMS Systems
B.1 Main Upgrade Installation

```
The DECnet node ID found for this node is:
    36074 (35.234)

    This node is a member of a multi-node VMScluster.

    A single-node installation or a multi-node installation
    can be chosen.   For a multi-node installation, the nodes
    must share a cluster common system disk, and so must all
    be of the same architecture type (AXP or VAX).

* Do you want to install BASEstar on just one node [YES]? YES

    A single-node installation will be performed.

BASEstar is already installed on this system.
The file SYS$COMMON:[SYSLIB]BCC$SHR.EXE was found.
Its image file identification is:  BCC V3.3-001

       This BASEstar Classic System is being upgraded from V3.3 to V3.4.
       This upgrade will convert the object data bases on each system
       upgraded, which requires that the data global sections be deleted.
       This will cause all BASEstar logical data points to be set to their
       initial value on the first startup after this installation,
       including points that are set PERSISTANT.
       For more information on the data base conversions, please read
       the BASEstar Classic V3.4 release notes before upgrading.

* Do you wish to continue this installation [YES]? YES

_____________________________________
Processing node REPROD::
_____________________________________

BASEstar is already installed on this node.  The file
SYS$SPECIFIC:[SYS$STARTUP]BCC$STARTUP.COM  was found.

%BCCVV-I-COREUPGRADE, BASEstar CORE will be upgraded.

%BCCVV-I-DMGTUPGRADE, BASEstar Data Management will be upgraded.

%BCCVV-I-DMGTUPDATE, BASEstar External Data Support will be updated.

%BCCVV-I-DMGTUPDATE, BASEstar List Services Support will be updated.

%BCCVV-I-MENUUPGRADE, BASEstar Menu System will be upgraded.

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

    The installation procedure  has  no further questions to ask during
    the installation process.  Until the IVP executes, it can continue
    without user assistance.
    IF this is a V3.3 to V3.4 UPGRADE, a data base conversion will execute
    during the IVP.  This conversion requires user input regarding log
    file locations.  The IVP will announce the beginning of the data base
    conversions, before prompting for logging information.
    The installation  time  will  vary  depending on the number of nodes
    selected  for  installation  and  the type of processor on which
    the installation is being done.
    If the data base conversions are required, time will vary depending on
    the size of your BASEstar Classic object data base.

 Press [Return] to continue the installation process: [CR]

_____________________________________
20:42:29

    This installation creates a VMS rights identifier named BCC$USER,
    which is used to control access to BASEstar.

    After the installation is finished, the VMS Authorize Utility
    must be used to grant this identifier to all accounts that will
    use BASEstar.
```

```
    ------------------------------------------------------------
    A   R E M I N D E R   T O   T H E   I N S T A L L E R

    Each VMS user account that will issue BSTAR commands must be
    granted the BCC$USER rights identifier, as well as having
    certain Authorized privileges set.

    >> Remember to grant the BCC$USER identifier to the SYSTEM account
    >> (and/or any other accounts you will be using to start the BASEstar
    >> system) and to check the Authorized privileges of those accounts
    >> BEFORE YOU ATTEMPT TO START THE BASESTAR SYSTEM.
    ------------------------------------------------------------

%BCCVV-I-IDENTEXISTS, The BCC$USER identifier already exists

Note: The file SYS$SYSTEM:RIGHTSLIST.DAT will be modified to permit
      access by processes that have been granted the BCC$USER identifier.
      If RIGHTSLIST.DAT does not reside in SYS$SYSTEM, the logical name
      RIGHTSLIST will be translated to access the file for modification.

20:42:37
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
20:44:00
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
20:44:14
%VMSINSTAL-I-RESTORE, Restoring product save set D ...
20:44:37
%VMSINSTAL-I-RESTORE, Restoring product save set E ...

20:44:45

_______________________________________
Installing BASEstar on node REPROD:: ...
_______________________________________
20:44:58
%BCCVV-I-STARTCORE, BASEstar CORE update beginning on REPROD:: .

%SYSMAN-I-ENV, current command environment:
 Individual nodes: REPROD
 Username SYSTEM       will be used on nonlocal nodes

%SYSMAN-I-OUTPUT, command execution on node REPROD

    This  installation  places  a  file  named BCC$STARTUP.COM in the
    directory  SYS$SPECIFIC:[SYS$STARTUP]  in  each  system  root  on
    which this installation is being performed.  The SYSTARTUP_V5.COM
    file should be edited to invoke this startup file when the system
    boots.
20:48:52
BASEstar Data Management installation beginning on REPROD

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
REPROD$DUA0:[SYS0.SYSCOMMON.][BCC$COMMON.DMQ_EXAMPLE].

%CREATE-I-EXISTS, REPROD$DUA0:[SYS0.SYSCOMMON.][BCC$COMMON.DMQ_EXAMPLE]
already exists
20:49:23
BASEstar External Data Support installation beginning on REPROD

20:49:31
BASEstar List Services Support installation beginning on REPROD

20:49:38
%BCCVV-I-STARTMENU, BASEstar Menu System update beginning on REPROD.

20:50:24
%VMSINSTAL-I-SYSDIR, This product creates system directory [SYSTEST.BCC].
20:51:36
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

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BASEstar Kernel V3.4 Installation Verification Procedure (IVP)
```

Sample BASEstar Classic Installation Upgrade for OpenVMS Systems
B.1 Main Upgrade Installation

```
$ DEFINE/NOLOG/PROCESS  BCC$SYSDATA  REPROD$DUA0:[SYS0.BCC$SPECIFIC]
$ DEFINE/NOLOG/PROCESS  BCC$SYSTEM   REPROD$DUA0:[SYS0.SYSCOMMON.][BCC$COMMON]
$ set noverify

Beginning BASEstar Classic V3.4 Data Base Conversions.
The BASEstar Classic V3.4 Data Base Conversions can be logged
This would provide files with object definitions of the V3.3
environment being converted.
If requested, these files can be VERY large, and so their
location should be a scratch disk, that is NOT the BCC$SYSDATA
disk.  This way, the conversions can complete, even if the log files
use up the entire disk.

Do you wish to have object log files created? [Y/N]: Y
Enter disk:[directory] location for log files: DISK$SCRATCH:[BCC_UPGRADE]
The location entered for the .LOG files does not exist...
Do you wish to have object log files created? [Y/N]: Y
Enter disk:[directory] location for log files: DISK$SCRATCH:[BCC_UPGRADE]

   BASEstar / DCM V3.4 Data Base Conversion Utility

   Copyright (c) 1995, Digital Equipment Corporation

   The log files will be BCC$LOGDATA:DB_object_type.LOG

   BCC$LOGDATA currently translates to:
   "BCC$LOGDATA" [user] = "DISK$SCRATCH:[BCC_UPGRADE]" (LNM$PROCESS_TABLE)

SAVING Device File
BEGIN processing Device File
convert/fdl=bcc$fdldata:device_file.fdl
bcc$sysdata:save_ilan$device_file.dat bcc$sysdata:seq_device_file.dat
     Converting the DEVICE Data Base...
convert/fdl=bcc$fdldata:ilan$device_file.fdl
bcc$sysdata:seq_aligned_device_file.dat bcc$sysdata:ilan$device_file.dat
delete: delete bcc$sysdata:seq_device_file.dat;*,
bcc$sysdata:seq_aligned_device_file.dat;*

          FINISHED processing Device File

SAVING Phypoint File
BEGIN processing Phypoint File
convert/fdl=bcc$fdldata:phypoint_file.fdl
bcc$sysdata:save_ilan$phypoint_file.dat bcc$sysdata:seq_phypoint_file.dat
     Converting the PHYPOINT Data Base...
convert/fdl=bcc$fdldata:ilan$phypoint_file.fdl
bcc$sysdata:seq_aligned_phypoint_file.dat bcc$sysdata:ilan$phypoint_file.dat
delete: delete bcc$sysdata:seq_phypoint_file.dat;*,
bcc$sysdata:seq_aligned_phypoint_file.dat;*
          FINISHED processing Phypoint File

SAVING Pollset File
convert/fdl=bcc$fdldata:polling_file.fdl
bcc$sysdata:save_ilan$polling_file.dat bcc$sysdata:seq_polling_file.dat
     Converting the Pollset Data Base...
convert/fdl=bcc$fdldata:ilan$polling_file.fdl
bcc$sysdata:seq_aligned_polling_file.dat bcc$sysdata:ilan$polling_file.dat
delete: delete bcc$sysdata:seq_polling_file.dat;*,
bcc$sysdata:seq_aligned_polling_file.dat;*
          FINISHED processing POLLSET File

SAVING PATH/TYPE CONFIG File
     Converting the Path/Type Data Base...
convert/fdl=bcc$fdldata:config_file.fdl
bcc$sysdata:save_ilan$config_file.dat bcc$sysdata:seq_config_file.dat
convert/fdl=bcc$fdldata:ilan$config_file.fdl
bcc$sysdata:seq_aligned_config_file.dat bcc$sysdata:ilan$config_file.dat
delete: delete bcc$sysdata:seq_config_file.dat;*,
bcc$sysdata:seq_aligned_config_file.dat;*
          FINISHED processing PATH/TYPE CONFIG File
```

```
SAVING Point File
     Converting the POINT Data Base...
convert/fdl=bcc$fdldata:point_file.fdl
bcc$sysdata:save_bcc$point_file.dat bcc$sysdata:seq_point_file.dat
convert/fdl=bcc$fdldata:bcc$point_file.fdl
bcc$sysdata:seq_aligned_point_file.dat bcc$sysdata:bcc$point_file.dat
delete: delete bcc$sysdata:seq_point_file.dat;*,
bcc$sysdata:seq_aligned_point_file.dat;*
          FINISHED processing Point File

SAVING Structure File
     Converting the STRUCTURE Data Base...
convert/fdl=bcc$fdldata:structure_file.fdl
bcc$sysdata:save_bcc$structure_file.dat bcc$sysdata:seq_structure_file.dat
convert/fdl=bcc$fdldata:bcc$structure_file.fdl
bcc$sysdata:seq_aligned_structure_file.dat bcc$sysdata:bcc$structure_file.dat
delete: delete bcc$sysdata:seq_structure_file.dat;*,
bcc$sysdata:seq_aligned_structure_file.dat;*
          FINISHED processing Structure File

SAVING FIELD File
     Converting the FIELD Data Base...
convert/fdl=bcc$fdldata:field_file.fdl
bcc$sysdata:save_bcc$field_file.dat bcc$sysdata:seq_field_file.dat
convert/fdl=bcc$fdldata:bcc$field_file.fdl
bcc$sysdata:seq_aligned_field_file.dat bcc$sysdata:bcc$field_file.dat
delete: delete bcc$sysdata:seq_field_file.dat;*,
bcc$sysdata:seq_aligned_field_file.dat;*
          FINISHED processing Field File

SAVING Element File
     Converting the ELEMENT Data Base...
convert/fdl=bcc$fdldata:element_file.fdl
bcc$sysdata:save_bcc$element_file.dat bcc$sysdata:seq_element_file.dat
convert/fdl=bcc$fdldata:bcc$element_file.fdl
bcc$sysdata:seq_aligned_element_file.dat bcc$sysdata:bcc$element_file.dat
delete: delete bcc$sysdata:seq_element_file.dat;*,
bcc$sysdata:seq_aligned_element_file.dat;*
          FINISHED processing Element File

SAVING EXTMAP File
     Converting the EXTMAP Data Base...
convert/fdl=bcc$fdldata:extmap_file.fdl
bcc$sysdata:save_bcc$extmap_file.dat bcc$sysdata:seq_extmap_file.dat
convert/fdl=bcc$fdldata:bcc$extmap_file.fdl
bcc$sysdata:seq_aligned_extmap_file.dat bcc$sysdata:bcc$extmap_file.dat
delete: delete bcc$sysdata:seq_extmap_file.dat;*,
bcc$sysdata:seq_aligned_extmap_file.dat;*
          FINISHED processing Extmap File

SAVING Local Name File
     Converting the LOCAL NAME Data Base...
convert/fdl=bcc$fdldata:lname_file.fdl
bcc$sysdata:save_bcc$local_name_file.dat bcc$sysdata:seq_local_name_file.dat
convert/fdl=bcc$fdldata:bcc$local_name_file.fdl
bcc$sysdata:seq_aligned_local_name_file.dat
bcc$sysdata:bcc$local_name_file.dat
delete: delete bcc$sysdata:seq_local_name_file.dat;*,
bcc$sysdata:seq_aligned_local_name_file.dat;*
          FINISHED processing Local Name File
```

```
SAVING Global Name File
     Converting the GLOBAL NAME Data Base...
convert/fdl=bcc$fdldata:gname_file.fdl
bcc$sysdata:save_bcc$global_name_file.dat bcc$sysdata:seq_global_name_file.dat
convert/fdl=bcc$fdldata:bcc$global_name_file.fdl
bcc$sysdata:seq_aligned_global_name_file.dat
bcc$sysdata:bcc$global_name_file.dat
delete: delete bcc$sysdata:seq_global_name_file.dat;*,
bcc$sysdata:seq_aligned_global_name_file.dat;*
          FINISHED processing global Name File

SAVING MEMBER File
     Converting the MEMBER Data Base...
convert/fdl=bcc$fdldata:member_file.fdl
bcc$sysdata:save_bcc$member_file.dat bcc$sysdata:seq_member_file.dat
convert/fdl=bcc$fdldata:bcc$member_file.fdl
bcc$sysdata:seq_aligned_member_file.dat bcc$sysdata:bcc$member_file.dat
delete: delete bcc$sysdata:seq_member_file.dat;*,
bcc$sysdata:seq_aligned_member_file.dat;*
          FINISHED processing MEMBER File

SAVING RELATION File
     Converting the RELATION Data Base...
convert/fdl=bcc$fdldata:relation_file.fdl
bcc$sysdata:save_bcc$relation_file.dat bcc$sysdata:seq_relation_file.dat
convert/fdl=bcc$fdldata:bcc$relation_file.fdl
bcc$sysdata:seq_aligned_relation_file.dat bcc$sysdata:bcc$relation_file.dat
delete: delete bcc$sysdata:seq_relation_file.dat;*,
bcc$sysdata:seq_aligned_relation_file.dat;*
          FINISHED processing RELATION File

SAVING ITEM File
     Converting the ITEM Data Base...
convert/fdl=bcc$fdldata:item_file.fdl
bcc$sysdata:save_bcc$item_file.dat bcc$sysdata:seq_item_file.dat
convert/fdl=bcc$fdldata:bcc$item_file.fdl
bcc$sysdata:seq_aligned_item_file.dat bcc$sysdata:bcc$item_file.dat
delete: delete bcc$sysdata:seq_item_file.dat;*,
bcc$sysdata:seq_aligned_item_file.dat;*
          FINISHED processing ITEM File

SAVING NODE File
     Converting the NODE Data Base...
convert/fdl=bcc$fdldata:node_file.fdl
bcc$sysdata:save_bcc$node_file.dat bcc$sysdata:seq_node_file.dat
convert/fdl=bcc$fdldata:bcc$node_file.fdl
bcc$sysdata:seq_aligned_node_file.dat bcc$sysdata:bcc$node_file.dat
delete: delete bcc$sysdata:seq_node_file.dat;*,
bcc$sysdata:seq_aligned_node_file.dat;*
          FINISHED processing NODE File

SAVING GROUP File
     Converting the GROUP Data Base...
convert/fdl=bcc$fdldata:group_file.fdl
bcc$sysdata:save_bcc$group_file.dat bcc$sysdata:seq_group_file.dat
convert/fdl=bcc$fdldata:bcc$group_file.fdl
bcc$sysdata:seq_aligned_group_file.dat bcc$sysdata:bcc$group_file.dat
delete: delete bcc$sysdata:seq_group_file.dat;*,
bcc$sysdata:seq_aligned_group_file.dat;*
          FINISHED processing group File
```

```
SAVING SERVERPORT File
     Converting the SERVERPORT Data Base...
convert/fdl=bcc$fdldata:server_port_file.fdl
bcc$sysdata:save_bcc$server_port_file.dat bcc$sysdata:seq_server_port_file.dat
convert/fdl=bcc$fdldata:bcc$server_port_file.fdl
bcc$sysdata:seq_aligned_server_port_file.dat
bcc$sysdata:bcc$server_port_file.dat
delete: delete bcc$sysdata:seq_server_port_file.dat;*,
bcc$sysdata:seq_aligned_server_port_file.dat;*
          FINISHED processing SERVERPORT File

SAVING SESSION File
     Converting the SESSION Data Base...
convert/fdl=bcc$fdldata:session_file.fdl
bcc$sysdata:save_bcc$session_file.dat bcc$sysdata:seq_session_file.dat
convert/fdl=bcc$fdldata:bcc$session_file.fdl
bcc$sysdata:seq_aligned_session_file.dat bcc$sysdata:bcc$session_file.dat
delete: delete bcc$sysdata:seq_session_file.dat;*,
bcc$sysdata:seq_aligned_session_file.dat;*
          FINISHED processing SESSION File

SAVING USER File
     Converting the USER Data Base...
convert/fdl=bcc$fdldata:user_file.fdl
bcc$sysdata:save_bcc$user_file.dat bcc$sysdata:seq_user_file.dat
convert/fdl=bcc$fdldata:bcc$user_file.fdl
bcc$sysdata:seq_aligned_user_file.dat bcc$sysdata:bcc$user_file.dat
delete: delete bcc$sysdata:seq_user_file.dat;*,
bcc$sysdata:seq_aligned_user_file.dat;*
          FINISHED processing USER File

SAVING PARAMETER File
     Converting the PARAMETER Data Base...
convert/fdl=bcc$fdldata:parameter_file.fdl
bcc$sysdata:save_bcc$parameter_file.dat bcc$sysdata:seq_parameter_file.dat
convert/fdl=bcc$fdldata:bcc$parameter_file.fdl
bcc$sysdata:seq_aligned_parameter_file.dat bcc$sysdata:bcc$parameter_file.dat
delete: delete bcc$sysdata:seq_parameter_file.dat;*,
bcc$sysdata:seq_aligned_parameter_file.dat;*
          FINISHED processing parameter File

Data Base Conversion Complete...

BASEstar V3.4 Data Base Conversions done...

3.4 conversions checked/done...
:BCCIVP-I-CORESTART, CORE verification starting on node REPROD.

:BCCIVP-I-PASS, CORE data files check passed.
:BCCIVP-I-PASS, CORE command files check passed.
:BCCIVP-I-PASS, CORE executable files check passed.
:BCCIVP-I-PASS, CORE support files check passed.
:BCCIVP-I-PASS, CORE system files check passed.
:BCCIVP-I-PASS, CORE installed image check passed.
:BCCIVP-I-PASS, CORE parameter check passed.

:BCCIVP-I-DMGTSTART, DMGT verification starting on node REPROD.

:BCCIVP-I-PASS, DMGT file check passed.

:BCCIVP-I-EXTMAPSTART, External Data Server verification
starting on node REPROD.

:BCCIVP-I-PASS, External Data Server file check passed.

:BCCIVP-I-MENUSTART, MENU verification starting on node REPROD.

:BCCIVP-I-PASS, Menu System file check passed.
:BCCIVP-I-PASS, Menu System command check passed.
:BCCIVP-I-PASS, Menu System menu check passed.
```

```
BASEstar V3.4 IVP completed successfully.

 Installation of BCCVV V3.4 completed at 23:47
```

Note

NOTE: If DCM "Device Connect Management software" is installed on this system, it should be upgraded at this time. See example in appendix "A" on installing DCM.

B.2 CIMfast Upgrade

This section contains a sample CIMfast with SQL Support upgrade.

```
IVAX20::> def sql$database WORK1:[SQL.DB]TEST_DB
%DCL-I-SUPERSEDE, previous value of SQL$DATABASE has been superseded

IVAX20::> @sys$update:vmsinstal
 OpenVMS VAX Software Product Installation Procedure V6.1

Enter a question mark (?) at any time for help.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
 SYSTEM
* Do you want to continue anyway [NO]? y
* Are you satisfied with the backup of your system disk [YES]?
* Where will the distribution volumes be mounted: bcf:[kit_target]

Enter the products to be processed from the first distribution volume set.
* Products: bcfvax022
* Enter installation options you wish to use (none):
The following products will be processed:
  BCFVAX V2.2
 Beginning installation of BCFVAX V2.2 at 15:44

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

    BASEstar CIMfast for OpenVMS installation procedure.
    Copyright (c) 1996 Digital Equipment Corporation.  All Rights Reserved.

    Enter ? at any time for help.

* In what directory do you wish to install CIMfast [SYS$SYSDEVICE:[BCF]:
* Do You want to install CIMfast DCM support  [YES]?


    In order to install CIMfast SQL support for RDB,
    a minimum of RDB V6.0 must be installed on your system.
    If you answer YES RDB installation, this version check will
    be done.

* Do You want to install CIMfast SQL Support for DEC RDB [YES]?
%BCFVAX-W-INSTALLED, CIMfast SQL support for Oracle is already installed.

    In order to install CIMfast SQL support for DEC RDB
    the SQL support for Oracle must be removed. To remove
    CIMfast SQL support for Oracle respond "yes" to the
    following question; otherwise the SQL support for DEC RDB
    will not be installed.

* Do you want to remove CIMfast SQL support for Oracle [YES]?
* Do You want to install CIMfast DMQ support  [YES]?
* Do you want to install LSE support [YES]?

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

```
 All questions regarding the installation of CIMfast have been
 asked. Depending upon system load and configuration the
 installation will take between 5 and 15 minutes.

 This installation provides a system startup file
     SYS$STARTUP:BCF$STARTUP.COM.  You must edit your
     system startup procedure(s) to invoke this file
 on each node where CIMfast will be run.

 The CIMfast per-user setup command procedure is in
 BCF$HOME:BCF$SETUP.COM. It should be executed at login
 time by each CIMfast user, by including a line such as
 the following in each user's LOGIN.COM procedure:

     $ @BCF$HOME:BCF$SETUP

 Alternatively, the above line may added to the system-wide
 login command procedure (usually SYS$MANAGER:SYLOGIN.COM).

%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.EXE] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.LIB] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD.BCF] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD.BCC] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD.DCM] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD.DMQ] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.BLD.RDB] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.POINTS] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.CBCF_POINTS] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.CALLABLE_BCF] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.EXPRESSIONS] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.MACROS] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.MESSAGING] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.CBCF_MESSAGING] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.BCC_COURSE_LAB3] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.DEMO.SQL] already exists
%CREATE-I-EXISTS, SYS$SYSDEVICE:[BCF.LSE] already exists

 If this product is being installed in a OpenVMS cluster,
 several actions must be taken to enable other nodes in the
 cluster to be able to use this product.  These actions
 include:

  1) Define CIMfast related logical names
  2) Update DCL tables
  3) Load a valid license

 This can be done with the following commands:

  $ RUN SYS$SYSTEM:SYSMAN
  SYSMAN> SET ENVIRONMENT/CLUSTER
  SYSMAN> DO @SYS$STARTUP:BCF$STARTUP.COM
  SYSMAN> DO INSTALL REPLACE SYS$LIBRARY:DCLTABLES.EXE
  SYSMAN> DO LICENSE LOAD BASESTAR ! or any valid license
  SYSMAN> EXIT

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

Welcome to CIMfast V2.2
(c) Digital Equipment Corporation. 1996. All Rights Reserved

Preprocessing CEL file...
Loading CEL file...
```

```
***Total lines in input file was 10***
***Total number of EVENTS was 1***
***Total number of ACTIONS was 3***
***Total number of CONDITION EVENTS was 0***
***Total number of CONDITION ACTIONS was 0***

Start time was: Fri Aug 16 09:12:55 1996

End time was  : Fri Aug 16 09:12:58 1996

Press return to begin execution:

**** BASEstar CIMfast IVP successfully executed ****


Beginning CIMfast SQL Support IVP
---------------------------------

BASEstar V3.4 for VMS
Copyright (c) 1994, Digital Equipment Corporation.  All Rights Reserved.

%BCC-S-OBJCRE, DOG created.
Database name (RETURN to use default access):

Welcome to CIMfast V2.2
(c) Digital Equipment Corporation. 1996. All Rights Reserved
Preprocessing CEL file...
Loading CEL file...
.
.
***Total lines in input file was 362***
***Total number of EVENTS was 3***
***Total number of ACTIONS was 65***
***Total number of CONDITION EVENTS was 11***
***Total number of CONDITION ACTIONS was 22***

Start time was: Fri Aug 16 09:30:35 1996

End time was  : Fri Aug 16 09:30:46 1996

Press return to begin execution:

connecting...
creating table dogs...
inserting rows...
.
.
.

(CIMfast IVP for SQL support will now display a series of messages and will
report successful completion.)

.
.
.

CIMfast SQL Support IVP has succeeded.
 Installation of BCFVAX V2.2 completed at 09:31

Enter the products to be processed from the next distribution volume set.
* Products:
 VMSINSTAL procedure done at 09:36
```

C
Files Created During Installation

This appendix lists BASEstar files created during the installation of the BASEstar software including its device connection management, and utility software. Note that the directory locations in which the files are placed reflect the default placement of files by each installation procedure.

C.1 Files Created by BASEstar Installation Procedure

Table C–1 lists the files created during the BASEstar main installation. These files are present only when BASEstar data management, menu interface, and external data support software are installed. Do not delete any of these files.

Table C–1 BASEstar Main Installation Files

Directory	Module	File Name
BCC$SYSDATA:	Core	BCC$BCC_MSG.DAT
		BCC$GLOBAL_NAME_FILE.DAT
		BCC$GROUP_FILE.DAT
		BCC$HISTORY_FILE.DAT
		BCC$ITEM_FILE.DAT
		BCC$LOCAL_NAME_FILE.DAT
		BCC$MEMBER_FILE.DAT
		BCC$MSG_SECTION.DAT (Run time)
		BCC$NAME_SECTION.DAT (Run time)
		BCC$NODE_FILE.DAT
		BCC$PARAMETER_FILE.DAT
		BCC$RPC_STORE_FILE.DAT
		BCC$SERVER_PORT_FILE.DAT
		BCC$SESSION_FILE.DAT
		BCC$SYSTEM_STARTUP.COM
		BCC$USER_FILE.DAT
		SITE_STARTUP.TEMPLATE
	Data	BCC$DMGT_DATA_SECTION.DAT (Run time)
	Management	BCC$DMGT_EXTDAT_SECTION.DAT (Run time)
		BCC$DMGT_MSG.DAT

(continued on next page)

Table C–1 (Cont.) BASEstar Main Installation Files

Directory	Module	File Name
		BCC$DMGT_SECTION.DAT (Run time)
		BCC$ELEMENT_FILE.DAT
		BCC$EXTMAP_FILE.DAT
		BCC$FIELD_FILE.DAT
		BCC$POINT_FILE.DAT
		BCC$RELATION_FILE.DAT
		BCC$STRUCTURE_FILE.DAT
	Menu	BCC$MENU_FILE.DAT
BCC$SYSTEM:	Core	BCC$CLI.EXE
		BCC$DISPATCHER.EXE
		BCC$GBLSERVER.EXE
		BCC$LOGGER.EXE
		BCC$MONITOR.EXE
		BCC$RPCR.EXE
		BCC$SERVER.EXE
	Data	BCC$DMGTSUP.EXE
	Management	BCC$EVALUATOR.EXE
		BCC$EXTDATSRV.EXE
		BCC$LS_SERVER.EXE
	Menu	BCC$CFG_COLORS.EXE
		BCC$CFG_EXTERNAL_MAP.EXE
		BCC$CFG_KEYS.EXE
		BCC$CFG_POINT.EXE
		BCC$CFG_STRUCTURE.EXE
		BCC$CFG_USER.EXE
		BCC$SHOW_EXTERNAL_MAP.EXE
		BCC$SHOW_POINT.EXE
		BCC$SHOW_STRUCTURE.EXE
		BCC$SHOW_SYSTEM.EXE
		BCC$SHOW_USER.EXE
		BCC$UI.EXE
BCC$SYSTEM:[.DMQ_EXAMPLE]	Data	CANCELNOTIF.C

(continued on next page)

Table C–1 (Cont.) BASEstar Main Installation Files

Directory	Module	File Name
	Management	CANCELNOTIF.COM
		DATAPROC.C
		DATAPROC.COM
		PUTVALUE.C
		PUTVALUE.COM
SYS$COMMON:[SYSHLP]	Core	BCC$CLI_HELP.HLB
		BCC031.RELEASE_NOTES
	Menu	BCC$USER_HELP.HLB
SYS$COMMON:[SYSLIB]	Core	BCC$$SHR.EXE
		BCC$SHR.EXE
		BCCDEFS.BAS
		BCCDEFS.FOR
		BCCDEFS.H
		BCCDEFS.MAR
		BCCDEFS.PAS
		BCCDEFS.PLI
		BCCDEFS.R32
		BCCDEFS_UPCASE.H
		BCC_.ADA
SYS$COMMON:[SYSMSG]	Core	BCC$MSG.EXE
		BCC$MSG.MSG
SYS$COMMON:[SYSTEST]	Core	BCC$IVP.COM
SYS$SPECIFIC:[SYS$STARTUP]	Core	BCC$STARTUP.COM

C.2 Files Created by BASEstar Device Connection Management Installation Procedure

Table C–2 lists the files created during the device connection management installation. Device connection management requires that these files always be present on your system.

Table C–2 BASEstar Device Connection Management Installation Files

Directory	Module	File Name
BCC$SYSDATA:		DCM_NET_CONFIG.TEMPLATE
		ILAN$CONFIG_FILE.DAT
		ILAN$DEVICE_FILE.DAT
		ILAN$PHYPOINT_FILE.DAT
		ILAN$POLLING_FILE.DAT
		ILAN$SPT_SECTION.DAT (Run time)
		ILAN$SYSTEM_STARTUP.COM
		ILAN$_SECTION.DAT (Run time)
		DCM_DECDEVICE_CONFIG.TEMPLATE
		DCM_RS232_CONFIG.TEMPLATE
BCC$SYSTEM:		DEC_DEV_SIM.EXE
		ILAN$DEVSRV.EXE
		ILAN$CLI.EXE
		ILAN$SPT_PARAM.COM
	DCM Menu	ILAN$CFG_DEVICE.EXE
		ILAN$CFG_PHYPOINT.EXE
		ILAN$CFG_POLLSET.EXE
		ILAN$DELETE.EXE
		ILAN$DEV_CONTROL.EXE
		ILAN$DEV_DIRECTORY.EXE
		ILAN$DEV_READ_DATA.EXE
		ILAN$DEV_READ_IPOINT.EXE
		ILAN$DEV_STATUS.EXE
		ILAN$DEV_WRITE_DATA.EXE
		ILAN$DEV_WRITE_IPOINT.EXE
		ILAN$DOWNLOAD_FILE.EXE
		ILAN$SHOW_CONNECT.EXE
		ILAN$SHOW_DEVICE.EXE
		ILAN$SHOW_PHYPOINT.EXE
		ILAN$SHOW_POLLSET.EXE

(continued on next page)

Table C–2 (Cont.) BASEstar Device Connection Management Installation Files

Directory	Module	File Name
		ILAN$UPLOAD_FILE.EXE
BCC$SYSTEM:[.DCM_EXAMPLE]		ILAN_READ_EXAMPLE.PLI
		ILAN_WRITE_EXAMPLE.PLI
BCC$SYSTEM:[.NCT_EXAMPLE]		(Network DAS example files)
BCC$SYSTEM:[.RS232_EXAMPLE]		(RS-232 DAS example files)
SYS$COMMON:[SYSHLP]		ILAN$DEVICE_SPECIFIC.HLB
		ILAN$HELP.HLB
SYS$COMMON:[SYSLIB]		BCC$DCM_EAI.EXE
		BCC$DCM_EUI.EXE
		ILAN$CLI_SHR.EXE
		ILAN$SERVER_SHR.EXE
		ILAN$SHR.EXE
		ILANDEFS.ADA
		ILANDEFS.BAS
		ILANDEFS.FOR
		ILANDEFS.H
		ILANDEFS.MAR
		ILANDEFS.PAS
		ILANDEFS.PLI
		ILANDEFS.R32
		ILANDEFS_UPCASE.H
		ILANSUPPORT.ADA
		ILANSUPPORT.BAS
		ILANSUPPORT.FOR
		ILANSUPPORT.H
		ILANSUPPORT.MAR
		ILANSUPPORT.PAS
		ILANSUPPORT.PLI
		ILANSUPPORT.R32
		ILANSUPPORT_UPCASE.H
		ILAN_DEC.EXE
		ILAN_DN.EXE

(continued on next page)

Table C–2 (Cont.) BASEstar Device Connection Management Installation Files

Directory	Module	File Name
		ILAN_MIRROR.EXE
		ILAN_NET.EXE
		ILAN_NULL.EXE
		ILAN_RS232.EXE
		ILAN_TCP.EXE
SYS$COMMON:[SYSMSG]		ILAN$MSG.EXE
		ILAN$MSG.MSG
SYS$COMMON:[SYSTEST]		ILAN$IVP.COM
SYS$SPECIFIC:[SYS$STARTUP]		ILAN$STARTUP.COM

C.3 Files Created by BASEstar Utility Installation Procedure

Table C–3 lists the files created during the utilities' software installation. Only the utilities selected during the execution of the installation procedure will be installed on the system.

Table C–3 BASEstar Utility Installation Files

Utiltiy	Directory	File Name
BASEstar Text Services	BCC$SYSTEM:	BCC$GET_TEXT_FILE.EXE
		BCC$PUT_TEXT_FILE.EXE
BASEGEN Utility	BCC$SYSTEM:	BCC$BASEGEN.COM
Monitor Port Utility	BCC$SYSTEM:	BCC$MONITOR_PORT.EXE
	SYS$HELP	BCC$MONITOR_PORT.HLB
Monitor BASEstar Utility	BCC$SYSDATA:	BCC$MON_BSTAR_APP.DAT
	BCC$SYSTEM:	BCC$MONITOR_BASESTAR.EXE
	SYS$HELP:	BCC$MONITOR_BASESTAR.HLB
Value Notification Utility	BCC$SYSTEM:	BCC$NOTIFY.EXE
LSE Environment	SYS$LIBRARY:	BASESTAR.ENV

C.4 Files Created by CIMfast Installation Procedure

Table C–4 lists the files created during the CIMfast installation. Do not delete any of these files.

Table C–4 CIMfast Installation Files

Directory	File Name
SYS$STARTUP:	BCF$STARTUP.COM
SYS$SYSROOT:[SYSTEST.BCF]	BCF$IVP.COM
	BCF$IVP.CEL
BCF$HOME:	BCF$SETUP.COM
BCF$ROOT:[BLD]	BCF$SHR.LNK
	BCF_ACT_TABLE.OBJ
	BCF_BLD.COM
	BCF_EXP_TABLE.OBJ
	BCF_MAIN.OBJ
	BCF_MAKE_TABLE.COM
	BCF_XXX_TABLE.MAR
	BCF_XXX_TABLE_END_STRUCT.H
	BCF_XXX_TABLE_HEADER.H
	BCF_XXX_TABLE_START_STRUCT.H
	CPP.EXE
BCF$ROOT:[BLD.BCC]	BCC_ACT_FUNC.H
	BCC_ACT_NAMES.H
	BCC_EXP_FUNC.H
	BCC_EXP_NAMES.H
	BCF$BCC.OLB
	BCF$BCC.OPT
BCF$ROOT:[BLD.BCF]	BCF$BCF.OLB
	BCF$BCF.OPT
	BCF$ID.OPT
	BCF$IMAGES.OPT
	BCF_ACT_FUNC.H
	BCF_ACT_NAMES.H
	BCF_EXP_FUNC.H
	BCF_EXP_NAMES.H

(continued on next page)

Table C–4 (Cont.) CIMfast Installation Files

Directory	File Name
BCF$ROOT:[EXE]	BCF$SHR.EXE
	BCF_MAIN.EXE

Table C–5 lists the files that are installed if BASEstar DCM support is installed.

Table C–5 CIMfast DCM Support Files

Directory	File Name
BCF$ROOT:[BLD.DCM]	BCF$DCM.OLB
	BCF$DCM.OPT
	DCM_ACT_FUNC.H
	DCM_ACT_NAMES.H
	DCM_EXP_FUNC.H
	DCM_EXP_NAMES.H

Table C–6 lists the files that are installed if BASEstar DQM support is installed.

Table C–6 CIMfast DQM Support Files

Directory	File Name
BCF$ROOT:[BLD.DMQ]	BCF$DMQ.OLB
	BCF$DMQ.OPT
	DMQ_ACT_FUNC.H
	DMQ_ACT_NAMES.H
	DMQ_EXP_FUNC.H
	DMQ_EXP_NAMES.H

Table C–7 lists the files that are installed only if the BASEstar Classic CIMfast development option is installed.

Table C–7 CIMfast Development Option Files

Directory	File Name
BCF$ROOT:[BCF.DEMO.BCC_COURSE_LAB3]	BCF$CREATE_POINTS_LAB3.COM
	BCF$LAB3B.C
	BCF$LAB3B.CEL
	BCF$MACHINE.CEL
	BCF$MRP.CEL
	BCF$README.LAB3
	BCF$WO_MESSAGES.CFH

(continued on next page)

Table C–7 (Cont.) CIMfast Development Option Files

Directory	File Name
BCF$ROOT:[BCF.DEMO.CALLABLE_BCF]	BCF$CALLBACKS.C
	BCF$CALLBACKS.FOR
	BCF$CALLBACKS.PAS
	BCF$MAKE_C_CBCF.COM
	BCF$MAKE_FOR_CBCF.COM
	BCF$MAKE_PAS_CBCF.COM
	BCF$README.CBCF
	BCF_CALLBACKS.C
	BCF_CBCF.CEL
	BCF_MAKE_CBCF.COM
BCF$ROOT:[BCF.DEMO.CBCF_MESSAGING]	BCF$CBCF_MESSAGE.C
	BCF$MAKE_C_CBCF_MESSAGE.COM
	BCF_CBCF_RECEIVER.CEL
	BCF_CBCF_SENDER.CEL
	BCF_README.CBCF_MESSAGING
	BCF_START_CBCF_MESSAGE_DEMO.COM
BCF$ROOT:[BCF.DEMO.CBCF_POINTS]	BCF$CBCF_POINTS.C
	BCF$CBCF_POINTS.FOR
	BCF$CREATE_POINTS_CBCF_POINTS.COM
	BCF$MAKE_C_CBCF_POINTS.COM
	BCF$MAKE_FOR_CBCF_POINTS.COM
	BCF$README.CBCF_POINTS
	BCF_CBCF_POINTS.C
	BCF_CBCF_POINTS.CEL
	BCF_MAKE_CBCF_POINTS.COM
BCF$ROOT:[BCF.DEMO.EXPRESSIONS]	BCF_ARITHMETIC_OPERATOR_DEMO.CEL
	BCF_EQUIVALENCE_OPERATOR_DEMO.CEL
	BCF_LOGICAL_OPERATOR_DEMO.CEL
	BCF_README.EXPRESSIONS
	BCF_RELATIONAL_OPERATOR_DEMO.CEL
	BCF_STATISTIC_OPERATOR_DEMO.CEL
	BCF_STRING_OPERATOR_DEMO.CEL
BCF$ROOT:[BCF.DEMO.MACROS]	BCF_MACRODEFS.CFH

(continued on next page)

Table C–7 (Cont.) CIMfast Development Option Files

Directory	File Name
	BCF_MACRO_DEMO.CEL
	BCF_MACRO_DEMO.LIS
	BCF_README.MACROS
BCF$ROOT:[BCF.DEMO.MESSAGING]	BCF$CREATE_POINTS_MESSAGING.COM
	BCF$README.MESSAGING
	BCF$RECEIVER.CEL
	BCF$SENDER.CEL
	BCF$START_MESSAGE_DEMO.COM
BCF$ROOT:[BCF.DEMO.POINTS]	BCF$CREATE_POINTS_POINTS.COM
	BCF$POINT_SET.CEL
	BCF$README.POINTS
BCF$ROOT:[BCF.LIB.]	BCF$CBCF_MAIN.C
	BCF$CBCF_MAIN.OBJ
	BCF$DEFS.FOR
	BCF$DEFS.H
	BCF$DEFS.PAS
	BCF$DEFS.PLI
	BCF$LINK.COM
	BCFDEFS.H
	BCF_CBCF_MAIN.C
	BCF_CBCF_MAIN.OBJ

Table C–8 lists the file that is installed only if the Language-Sensitive Editor (LSE) is installed.

Table C–8 CIMfast LSE File

Directory	File Name
BCF$ROOT:[BCF.LSE]	BCF$CEL.ENV

Table C–9 lists the files that are installed if BASEstar SQL support is installed.

Table C–9 CIMfast SQL Support Files

Directory	File Name
BCF$ROOT:[BLD.RDB]	BCF$RDB.OLB
	BCF$RDB.OPT

(continued on next page)

Table C–9 (Cont.) CIMfast SQL Support Files

Directory	File Name
	SQL_ACT_FUNC.H
	SQL_ACT_NAMES.H
	SQL_EXP_FUNC.H
	SQL_EXP_NAMES.H

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