AA–JD83E–TE

VAX Data Distributor

Installation Guide

October 1990

This manual describes how to install VAX Data Distributor Version 2.2.

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digital equipment corporation
maynard, massachusetts

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Contents

2 Installing VAX Data Distributor

3 After Installing VAX Data Distributor

A Sample Installation

Tables

Preface

This manual describes how to install VAX Data Distributor Version 2.2. The installation procedure uses VMSINSTAL.

VAX Data Distributor is referred to as Data Distributor throughout this document.

Intended Audience

Those responsible for installing and maintaining Data Distributor should review this manual before beginning the installation procedure. You must have access to a privileged account to install Data Distributor.

Product Compatibility

For information on the compatibility of other software products with this version of Data Distributor, refer to the System Support Addendum (SSA) that comes with the Software Product Description (SPD). You can use the SPD/SSA to verify which versions of your operating system are compatible with this version of Data Distributor.

Structure

This manual contains three chapters and two appendixes:

Chapter 1	Describes how to prepare for the installation.
Chapter 2	Walks you through the installation procedure.
Chapter 3	Describes the tasks to perform after successfully completing the installation.

Appendix A	Contains a sample log of the installation procedure.
Appendix B	Contains the directory location for the files that are copied to your system during the installation.

Related Manuals

You can find detailed information and guidelines about installing software on your VMS system and related system management tasks in the VMS documentation set. You can find additional information about Data Distributor in the following manuals:

- *VAX Data Distributor Handbook*—Provides information, guidelines, and examples for distributing all or portions of VAX Rdb/VMS or VIDA databases in a network.
- *VAX Data Distributor Release Notes*—Describes new and changed features, problems corrected in this release, and current restrictions.

Always check the *VAX Data Distributor Release Notes* for information that might affect installation.

Conventions

In examples, an implied carriage return occurs at the end of each line, unless otherwise noted. You must press the RETURN key at the end of a line of input.

This manual uses the following conventions:

Color	In printed manuals, color in examples shows user input.
$	The dollar sign represents the DIGITAL Command Language prompt. This symbol indicates that the DCL interpreter is ready for input.

References to Products

Data Distributor documentation to which this manual belongs often refers to products by their abbreviated names:

- VAX CDD/Plus software is referred to as CDD/Plus.
- VAX Data Distributor software is referred to as Data Distributor.
- VAX Rdb/VMS software is referred to as Rdb/VMS.
- VIDA with IDMS/R™ software is referred to as VIDA, unless differentiation from the VIDA for DB2™ product is necessary.

- VIDA for DB2 software is referred to as VIDA, unless differentiation from the VIDA with IDMS/R product is necessary.
- DEC RdbAccess for ORACLE on VMS software is referred to as RdbAccess for ORACLE.

1

Preparing to Install VAX Data Distributor

This chapter discusses the preparations and requirements necessary for installing Data Distributor. If you are responsible for the installation, read this manual in its entirety before you begin to install the Data Distributor software.

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.

Data Distributor provides online release notes. Digital strongly recommends that you read the release notes before proceeding with the installation. For information on accessing the online release notes, see Section 2.1.1.

1.1 Required Operating System Components

The VMS operating system comes with a variety of support options, or classes. Classes include such features as networking and RMS journaling. To use Data Distributor, your system should be running a version of VMS that includes the following classes:

- Network Support
- Programming Support
- Secure User's Environment
- Utilities

For a complete list of required classes, see the Software Support Addendum (SSA) that comes with the Software Product Description (SPD).

1.2 Prerequisite and Optional Software

This section discusses the software you must have installed on your system before installing Data Distributor. The section also includes information about optional software that you can use with Data Distributor. The SSA contains a complete list of prerequisite and optional software and their required version numbers. The SSA is part of the SPD.

1.2.1 Prerequisite Software

To install Data Distributor Version 2.2, you must have installed on your system:

- VMS operating system Version 5.3 or higher
- Rdb/VMS Version 4.0

You must have completed all database conversions, including any on databases created with Data Distributor Version 2.1 or earlier. See the *VAX Rdb/VMS Installation Guide* Version 4.0 or higher for information on database conversion.

Note *Data Distributor requires an additional conversion step for a transfer database. After converting the transfer database to the Rdb/VMS Version 4.0 database format and installing Data Distributor, you must then convert the transfer database using a command procedure provided by Data Distributor. Section 3.2.2 describes the conversion procedure for the transfer database.*

If you plan to use Data Distributor to transfer data between two or more nodes, you must also install DECnet. Refer to the SSA for availability and required versions of prerequisite software.

1.2.2 Optional Software

Data Distributor Version 2.2 is compatible with the following Digital software products:

- VIDA with IDMS/R
- VIDA for DB2
- RdbAccess for ORACLE

Please refer to the SSA for a complete list of compatible products and their required version numbers. The SSA is part of the SPD.

1.3 Prerequisite Hardware

You can install Data Distributor only when your system meets or exceeds the minimum hardware requirements specified in the SSA, included with the SPD.

1.4 License Registration

You must register the Data Distributor license through the VMS License Management Facility (LMF) in accordance with the license agreement signed by your site. The license registration information you need is contained in the Product Authorization Key (PAK) that is shipped with Data Distributor. The PAK is a paper certificate that contains information about the license you have to run a particular piece of software.

During installation, the system asks whether or not you have registered the Data Distributor license and loaded the appropriate authorization key. You must register the PAK information in the LICENSE database and load your license for Data Distributor **before** you start the installation. Otherwise, the Installation Verification Procedure (IVP) does not run, and you cannot use the Data Distributor software.

To register a license under VMS, first log in to the system manager's account, SYSTEM. Then choose one of the following ways to register and load the license:

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your PAK.
- At the DCL prompt, issue the LICENSE REGISTER command using the appropriate qualifiers that correspond to PAK information. Then issue the LICENSE LOAD DATA-DISTRIBUTOR command to load the license.

If you plan to use Data Distributor on more than one node in a VAXcluster, you must perform a license load on the other nodes after you complete this installation. Refer to Section 3.1 for further information.

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

1.5 Special Requirements for Installing Data Distributor

You should install Data Distributor on a standalone system. If users are logged in when you are installing Data Distributor, the installation could fail. To ensure successful installation, perform the following steps:

1. Make sure no users are currently logged in to the system.
2. Make sure all batch jobs are completed.
3. Disable all logins.

4. Make sure transfer monitors (one for each node if you have a VAXcluster) are shut down if you have a previous version of Data Distributor installed.
5. Make sure you have installed Rdb/VMS Version 4.0 or higher, including the Rdb/VMS license.
6. Make sure CDD/Plus is started up if it is installed on your system.

Note *Data Distributor does not require your system to have CDD/Plus installed. However, if the full CDD/Plus CDDSHR image (not the CDDSHR image provided by VMS) is already installed, the Data Distributor Installation Verification Procedure (IVP) requires starting CDD/Plus before Data Distributor is installed. Otherwise, the Data Distributor IVP fails and the installation procedure stops. Data Distributor displays the following error message, or one similar to it, for an image referenced by CDDSHR.EXE:*

```
%DCL-W-ACTIMAGE, error activating image CDDSHR
-CLI-E-IMGNAME, image file $222$DUA3:[SYS14.][SYSLIB]CDDSHR.EXE;1
-SYSTEM-F-PROTINSTALL, protected images must be installed
```

After a failure of this type, start CDD/Plus using the CDD/Plus-supplied SYS$STARTUP:CDDSTRTUP.COM command procedure. For more information about starting CDD/Plus, refer to the VAX CDD/Plus Installation Guide.

1.6 VAXcluster System Considerations

If you plan to use Data Distributor in a VAXcluster system, note the following requirements:

- Before installing Data Distributor, ensure that a VMS rights database exists on **every** node in the VAXcluster system on which you plan to run Data Distributor. Refer to Section 1.8 for the required procedures.
- After successfully installing Data Distributor, perform a license load on each node in the VAXcluster system. Section 3.1 describes the procedure.

1.7 Installation Procedure Requirements

The following sections discuss the requirements for installing Data Distributor.

1.7.1 Time

Installing Data Distributor on a standalone VAX 11/780 system takes approximately 10 minutes, not including the Installation Verification Procedure (IVP). The automatic IVP takes approximately 10 minutes. Thus, installing Data distributor and running the IVP on a standalone VAX 11/780 system takes less than 25 minutes, depending on the type of media you use and your system configuration.

However, you should allow approximately 30 minutes to perform the entire installation procedure, including the procedures you perform before and after the installation.

1.7.2 Privileges

To install Data Distributor, you must be logged in to an account that has SETPRV or at least the following privileges:

- CMKRNL
- WORLD
- SYSPRV (with which you can modify privileges to include SETPRV)

VMSINSTAL turns off BYPASS privilege at the start of the installation.

On most systems, the SYSTEM account has SETPRV and is used to install software. The procedures described in this installation guide refer to the SYSTEM account, but they are the same for any account with SETPRV. If your account does not have SETPRV but does have SYSPRV, you **must** modify the privileges to include SETPRV. This section shows you how to check and change the privileges for your account.

To check the default privileges of the SYSTEM account, log in under user name SYSTEM, and enter this DCL command:

```
$  SHOW PROCESS/PRIVILEGES
```

If the account lacks SETPRV, you cannot install Data Distributor. You have two options:

- Ask your system manager to use the VMS Authorize utility (AUTHORIZE) to modify the default privileges of the account to include SETPRV.
- Run AUTHORIZE and make the changes yourself, if your account has SYSPRV:

  ```
  $  SET DEFAULT SYS$SYSTEM
  $  RUN AUTHORIZE
  UAF>  MODIFY SYSTEM/PRIVILEGES=(SETPRV)
  UAF>  EXIT
  ```

After you make this change, you must log out and log back in for the new privileges to take effect.

1.7.3 Disk Space

You must provide sufficient free disk storage space to handle peak requirements during the installation. After Data Distributor is installed, less storage is required. Table 1–1 summarizes the storage requirements for Data Distributor.

Table 1–1 Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
Data Distributor Version 2.2	6000	3000

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
```

1.7.4 System Parameters

Data Distributor requires no additional system parameter settings beyond those required for VAX Rdb/VMS. If you have VAX Rdb/VMS Version 4.0 correctly installed on your system, you can install Data Distributor without adjusting any system parameters.

1.7.5 Process Account Quotas

Data Distributor requires no additional quota settings beyond those required for VAX Rdb/VMS. If you have VAX Rdb/VMS Version 4.0 correctly installed on your system, you can install Data Distributor without adjusting any quotas.

1.7.6 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks to see if you have performed the following tasks:

- Set your default device and directory to SYS$UPDATE
- Logged in to a privileged account
- Set adequate quotas for installation

VMSINSTAL also determines if any users are logged in to the system.

VMSINSTAL requires the installation account to have quotas with the following minimum values:

ASTLM = 24
BIOLM = 18
BYTLM = 20,480
DIOLM = 18

ENQLM = 2000
FILLM = 50
PGFLQUOTA = 20,000

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

1.7.7 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you do a system disk backup before installing any software. Backing up the system disk is a standard precaution for the installation of any VMS layered product.

Use the backup procedures established at your site. For details on performing a system disk backup, see the section on the Backup Utility in the VMS System Management Subkit.

1.7.8 Data Distributor Requirements

The Data Distributor installation procedure checks the following items:

- Rdb/VMS and Data Distributor licenses registered and loaded
- Minimum VMS version
- Rdb/VMS version
- Disk space
- System parameters
- Installation account quotas
- VMS rights database

If VMSINSTAL encounters problems in any of these areas, it terminates the installation procedure. You must correct the problems and then restart the installation process.

Refer to Section 3.1 for information on loading licenses. See the appropriate sections in this chapter for information about requirements for the VMS version, the Rdb/VMS version, disk space, system parameters, installation account quotas, and the VMS rights database.

1.8 Creating a VMS Rights Database

Before you can install Data Distributor, a VMS rights database must exist on **every** standalone system or on **every** node in a VAXcluster on which Data Distributor is running. To check for the existence of a VMS rights database on your node, set default to SYS$SYSTEM and get a directory listing. If a system logical, RIGHTSLIST, is defined, make sure that the RIGHTSLIST.DAT file is present in the directory that the RIGHTSLIST system logical points to.

If the system logical is not defined, the RIGHTSLIST.DAT file should be present in the SYS$SYSTEM directory. If the RIGHTSLIST.DAT file does not exist in either of these two directories, you must create the rights database. Use the CREATE/RIGHTS command in the VMS Authorize utility:

```
$  SET DEFAULT SYS$SYSTEM
$  RUN AUTHORIZE
UAF>  CREATE/RIGHTS
UAF>  EXIT
```

Once a rights database exists on your system, make sure the SYSTEM identifier is defined in the rights database. Check whether the SYSTEM identifier exists on your system by using the SHOW/IDENTIFIER command in the VMS Authorize Utility:

```
$  SET DEFAULT SYS$SYSTEM
$  RUN AUTHORIZE
UAF>  SHOW/IDENTIFIER SYSTEM
UAF>  EXIT
```

If the SYSTEM identifier does not exist, you must add it to your rights database by using the ADD/IDENTIFIER/USER command in the VMS Authorize utility:

```
$  SET DEFAULT SYS$SYSTEM
$  RUN AUTHORIZE
UAF>  ADD/IDENTIFIER/USER=SYSTEM
UAF>  EXIT
```

The protection of the rights database file, RIGHTSLIST.DAT, must be set for World Read privilege. Set the protection using the following command:

```
$  SET PROTECTION=(W:R) RIGHTSLIST.DAT
```

For more information on creating and maintaining a VMS rights database, see the documentation on VMS system security and the VMS Authorize utility.

2 Installing VAX Data Distributor

This chapter describes how to install Data Distributor Version 2.2. Section 2.2 contains a step-by-step description of the installation procedure.

2.1 General Information

This section includes information about the following topics:

- Accessing release notes
- Locating installed files
- Running the Installation Verification Procedure (IVP)
- Aborting the installation

2.1.1 Accessing Online Release Notes

Data Distributor provides online release notes. You must specify OPTIONS N when you invoke VMSINSTAL to see the online release notes question. This question comes near the beginning of the installation.

You should review the release notes in case they contain any information about changes that occurred in the installation procedure after the installation guide was published. If you are starting the installation over again and have already reviewed the release notes, you do not need to specify OPTIONS N.

Once Data Distributor has been installed, the release notes are located in the following file:

`SYS$HELP:DDAL022.RELEASE_NOTES`

Hardcopy release notes are included with the Data Distributor documentation set.

2.1.2 Locating Files Added to the System

The list of files added to the system during the Data Distributor installation procedure is copied to a file on your system. Refer to Appendix B for details.

2.1.3 Considerations in Running the Installation Verification Procedure (IVP)

The IVP for Data Distributor verifies that the software was installed properly. During installation, you are asked if you want to run the IVP as part of the installation. If you respond YES, VMSINSTAL runs the IVP. Digital recommends that you run the verification procedure.

After Data Distributor is installed, you can run the IVP independently to verify that the software is available on your system. In addition, you might want to run the IVP after a system failure to be sure that users can access Data Distributor. See Section 3.12 to learn about running the IVP independent of the installation.

Note *To execute the IVP, the Rdb/VMS monitor must be running on your system.*

2.1.4 Aborting the Installation

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

2.2 The Installation Procedure

The Data Distributor installation process consists of a series of questions and informational messages. The following sections describe this process.

Note *You can install Data Distributor on a single CPU system or from any node on a VAXcluster.*

2.2.1 Invoking VMSINSTAL

To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. VMSINSTAL is in the SYS$UPDATE directory. Use the following syntax to invoke VMSINSTAL:

@SYS$UPDATE:VMSINSTAL saveset-name device-name OPTIONS N

saveset-name
The installation name for the product. For Data Distributor, use the following installation name:

```
DDAL022
```

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

OPTIONS N
An optional parameter that indicates you want to see the release notes question. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You should review the release notes before you proceed with the installation in case they contain new information about the installation.

There are several other options you can select when you invoke VMSINSTAL. See the VMS documentation on software installation in the VMS System Management Subkit for information on these options. If you specify more than one option, separate the options with commas, for example: OPTIONS A,N.

The following example invokes VMSINSTAL to install Data Distributor from tape drive MTA0: and shows the system response. This example uses the OPTIONS N release note parameter.

```
$ @SYS$UPDATE:VMSINSTAL DDAL022 MTA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.3

It is 1-MAY-1990 at 09:05.
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 on in the installation procedure. VMSINSTAL does not prompt you for any options, so be sure to include the OPTIONS N parameter on the VMSINSTAL command line to access the release notes during installation.

2.2.2 Installation Questions

This section discusses the questions that appear during installation. Appendix A contains a sample installation procedure showing how the questions can be answered.

Each question is marked with an asterisk (*) at the beginning of the line. Some questions show the default response in brackets, for example [YES]. To use the default response, press Return.

Perform the following steps to install Data Distributor:

1 System backup

VMSINSTAL asks if you are satisfied with your system backup. You should always back up your system disk before you perform an installation. If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

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

2 Mounting the media

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

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

```
Please mount the first volume of the set on MTA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED, DDAL MOUNTED ON _$$MTA0:  (NODE 1)
The following products will be processed:
  DDAL V2.2

    Beginning installation of DDAL V2.2 at 09:06

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

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

3 Release Notes

If you specified OPTIONS N when you invoked VMSINSTAL, VMSINSTAL asks a release notes question. You have four options for handling the release notes under VMS Version 5.3 or higher.

For VMS Version 5.3 or higher, you see the following display:

```
The release notes included with this kit are always copied
                                   to SYS$HELP.

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

* Select option [2]:
```

If you are installing Data Distributor Version 2.2 for the first time and have not previously reviewed the release notes, select option 2. The release notes for Data Distributor are quite long and should be read thoroughly before you proceed any further with the installation.

If you have already reviewed the release notes and are restarting the installation, select option 4. Regardless of the option, the installation procedure moves the release notes into SYS$HELP.

Select one of the following options:

- Option 1

  VMSINSTAL immediately displays the release notes on the console terminal. You can terminate 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 immediately displays the release notes on the console terminal. It then prompts you for a queue name and prints the release notes on the output print device you selected.

- Option 4

  VMSINSTAL neither displays nor prints a copy of the release notes.

4 Continuing the installation

The installation procedure now asks if you want to continue the installation. To continue, enter YES. Otherwise, press Return. A message indicates that the release notes are copied to a file in the SYS$HELP directory. For example:

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

The release notes are located in the following file:

```
SYS$HELP:DDAL022.RELEASE_NOTES
```

5 License Registration

The installation procedure displays license information about your product and then asks if you have registered and loaded your authorization key for Data Distributor. For example:

```
Product:       DATA-DISTRIBUTOR
Producer:      DEC
Version:       2.2
Release Date:  25-AUG-1990
```

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

If you have not registered and loaded your authorization key, you must answer ''NO'' to this question. You must register and load your product authorization key to complete the installation successfully. If you have not, stop the installation, register and load your product authorization key, and restart the installation. If you encounter any LMF error messages, refer to the *VMS License Management Utility Manual*.

6 Package to be installed

The installation procedure now displays the name of the package you are installing:

```
Installation procedures for VAX Data Distributor V2.2-0
```

7 Checking system requirements

The installation procedure displays the following message while checking several system requirements:

```
Checking system requirements ...
```

```
Checking user limits ...
```

The installation procedure displays an error message and aborts if the procedure finds that your system does not have the following software and hardware requirements:

- VMS Version 5.3 or higher
- Rdb/VMS Version 4.0 or higher
- Adequate disk space (at least 2800 free blocks)
- BYTLM (byte limit) is at least 20,480
- FILLM (file limit) is at least 50
- ENQLM (lock request quota) is at least 2000
- ASTLM (AST queue limit) is at least 24
- BIOLM (buffered I/O count limit) is at least 18

- DIOLM (direct I/O count limit) is at least 18
- PGFLQUOTA (page file quota) is at least 20,000

If you encounter an error at this point, take steps to meet your system requirements and then restart the installation procedure.

8 Choosing to purge files

You have the option to purge files that are superseded by this installation and that exist from previous versions of Data Distributor. Purging is recommended; however, if you need to keep files from the previous version, enter NO in response to the question.

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

9 Choosing to run the IVP

The installation procedure now asks if you want to run the IVP. The Data Distributor IVP makes sure that the installation is successful. Digital recommends that you run the IVP.

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

Section 3.12 describes how to run the IVP independent of the installation procedure. The independent IVP allows you a way to check that Data Distributor software components are functioning correctly after the product is installed.

10 Choosing to continue the installation procedure

The installation procedure displays a message indicating the approximate time to complete the installation. If you entered YES to the previous question about running the IVP, the installation procedure also displays the time required for the IVP to run. Before the actual installation begins, you have the option of terminating the procedure.

```
   To complete the installation on a standalone VAX 11/780
   will take approximately:

        10 minutes to install
        10 minutes to run the IVP

   All required questions have been asked.
   You may terminate the installation procedure at this time.

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

If you enter YES, the installation procedure displays messages indicating that the actual installation has started.

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

If you respond NO, the Data Distributor installation procedure terminates.

2.2.3 Informational Messages

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation. There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL displays a message about system command files, creates system disk directories, moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. If you asked for files to be purged, that work is done now. Refer to Appendix A for examples of informational messages that VMSINSTAL displays.

2.2.4 Running the Installation Verification Procedure (IVP)

If you chose to run the IVP, VMSINSTAL runs it now. When the IVP runs successfully, you see the following display:

```
                COPYRIGHT (c) 1987, 1988, 1989, 1990 BY
                DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASS.

    *************************************************************

       The VAX Data Distributor IVP verifies that all critical
       files are in place and all its components are functional.

    *************************************************************

Executing IVP for: VAX Data Distributor V2.2-0

    *************************************************************
        Creating the Transfer Database...
    *************************************************************

    *************************************************************
        Starting the Transfer Monitor...
    *************************************************************

    *************************************************************
        Running VAX Data Distributor...
    *************************************************************

    *************************************************************

        VAX Data Distributor IVP completed successfully

    *************************************************************

IVP completed for: VAX Data Distributor V2.2-0
```

2.2.5 Completing the Installation Procedure

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

```
Installation of DDAL V2.2 completed at 09:22

VMSINSTAL procedure done at 09:22
```

You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 1-MAY-1990 09:22:12.18
```

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

2.3 Error Recovery

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

```
%VMSINSTAL-E-INSFAIL, The installation of DDAL V2.2 has failed.
```

If the IVP fails, you see these messages:

```
*************************************************************

              VAX Data Distributor IVP failed
           See SYS$UPDATE:DDAL$IVP.LOG for errors

*************************************************************
```

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

- The Rdb/VMS monitor is not running
- The operating system version is incorrect
- The prerequisite software version is incorrect
- The quotas necessary for successful installation are insufficient
- The system parameter values for successful installation are insufficient
- The VMS 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 VMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, take the appropriate action as described in the message. (You might need to change a system parameter or increase an authorized quota value.) For information on installation requirements, see Chapter 1.

3 After Installing VAX Data Distributor

After you install Data Distributor, you must perform a number of tasks. You also have the option of performing others. Read each section to determine whether or not it contains required or optional tasks for your site. The list of tasks follows:

- Register and load the Data Distributor license
- Create or convert a transfer database
- Edit the system startup file
- Edit the system shutdown file
- Start the transfer monitor on every node in the cluster if you plan to run Data Distributor in a VAXcluster
- Create command files for installing and deinstalling VIDA images if you plan to use VIDA with Data Distributor
- Check user account parameters
- Reboot the system
- Modify Data Distributor command procedures if necessary

This chapter also explains how to run the Installation Verification Procedure (IVP) independently after the software has been installed. Finally, this chapter suggests what to do when you find an error in either the software or the documentation.

3.1 Loading Licenses in a VAXcluster System

You must perform the following tasks before you install Data Distributor:

1. Register the Data Distributor license in the LICENSE database on the installing system.
2. Load the license on that same system.

After you perform these procedures and install Data Distributor, you now must load the license on each of the other nodes in your VAXcluster. To load the Data Distributor license on each node in the cluster, enter the following command:

```
$  LICENSE LOAD DATA-DISTRIBUTOR
%LICENSE-I-LOADED, DEC DATA-DISTRIBUTOR was successfully loaded with 0 units.
```

LMF displays a message showing that the license loaded properly. For further information about loading licenses, see the *VMS License Management Utility Manual* in the VMS Documentation set.

3.2 Preparing the Transfer Database

This section describes how to create and convert a transfer database.

If you plan to install Data Distributor on a VAXcluster, you can have one transfer monitor for each node on the cluster, but you can have only one transfer database for each cluster.

Note *If you have installed Data Distributor on a cluster so that each node has a transfer monitor* and *a transfer database, you run the risk of having two transfers with the same name defined to access the same database. Replication transfer definitions are stored in the source database as well as in the transfer database. If you have more than one transfer database on your system, you might have two transfers with the same name trying to access the same source database. Both transfers are started, but inconsistent results can occur in the target databases.*

Problems can also arise if you have several transfer databases on one VAXcluster system and you have transfers of the same name trying to target the same existing *database.*

Ensuring that you have only one transfer database in a cluster environment always resolves this problem.

3.2.1 Creating the Transfer Database

You must create the transfer database if you do **not** already have one on your system or cluster. If for any reason you need to create a new transfer database when you already have one, you must stop the transfer monitors and delete the old transfer database before you create a new one.

Run the command procedure to create a transfer database after you finish installing Data Distributor. You must have write access to the target directory to create the transfer database. Enter the following command at the DCL prompt to invoke the command procedure:

```
$  @SYS$MANAGER:DDAL$CREATE_TR_DB.COM
```

This command procedure prompts you for a location in which to store the transfer database. The default location is SYS$COMMON:[SYSEXE]. The name of the transfer database file is DDAL$TR_DB.RDB. You can specify a different device and directory as long as both currently exist. Data Distributor always sets the database file name to DDAL$TR_DB.RDB. In a VAXcluster environment, the location you specify for the transfer database should be accessible from all nodes in the cluster.

The command procedure displays the default location as a prompt to the user to specify a disk and a directory for the transfer database location. In the following example, the user specifies DISK1 as the device and [DBA.DDIS] as the directory.

```
Transfer Database location <SYS$COMMON:[SYSEXE]>: DISK1:[DBA.DDIS]
```

After you enter the device and directory specifications, Data Distributor displays the location and the name of the database.

```
*** Transfer Database is  DISK1:[DBA.DDIS]DDAL$TR_DB
```

Because the transfer database contains privileged information, the device and directory you specify should be protected from casual access. The transfer monitor, which uses the transfer database, runs with special privileges, so it can always access the transfer database regardless of the protection you have on the transfer database directory.

3.2.2 Converting the Transfer Database

If you already have a transfer database on your system or cluster, you must convert it before you can use the new version of Data Distributor. Two different kinds of conversion must be done:

- The first type of conversion, mentioned in Section 1.2.1, requires that all existing Rdb/VMS databases be converted to the new Rdb/VMS database format after installation of Rdb/VMS Version 4.0. Refer to the *VAX Rdb/VMS Installation Guide* for information about converting databases to the Rdb/VMS Version 4.0 format.

- The second type of conversion, required by Data Distributor, adds new columns and tables to the Data Distributor tables in a transfer database. It also changes the internal format of existing transfer definitions to conform with changes made in Data Distributor Version 2.1.

To convert your database, you must execute the DDAL$CONVERT_TR_DB.COM command procedure from a privileged account with a system UIC. Before you run the procedure, be sure that Data Distributor is not running. (You need to check that Data Distributor is not running on all nodes if it is installed in a VAXcluster.) Do not convert the transfer database when it is in use. Enter the following command at the DCL prompt to invoke the conversion procedure:

```
$  @SYS$MANAGER:DDAL$CONVERT_TR_DB.COM
```

The conversion command procedure asks for responses to the following five questions:

- What is the file specification for the transfer database?

  Enter an explicit file specification or logical name.

- Did you remember to shut down Data Distributor on all machines in your VAXcluster (if you have one) or on your system (if it is not part of a VAXcluster)?

  Conversion should not occur while Data Distributor is running.

- Did you remember to make a backup copy of the transfer database as a normal precaution before running this conversion procedure?

  Conversion does not make a copy of the existing transfer database before making changes to it; in the interest of safety, make a copy of the transfer database.

- Are you satisfied that the transfer database is in a format that can be read by the latest version of Rdb/VMS?

  You must convert existing Rdb/VMS databases to the disk format of Rdb/VMS Version 4.0; refer to the *VAX Rdb/VMS Installation Guide* for instructions.

- Do you wish the conversion to take place?

  This question gives you a last chance to abort; a YES response starts the conversion of the transfer database.

The first question asks for the file specification or the logical name of the transfer database you want to convert. The system logical name for the system's transfer database is DDAL$TRANSFER_DATABASE. The last four questions require YES or NO responses. If you answer NO to any of the last four questions, the procedure ends, no changes are made to the transfer database, and control is returned to DCL command level.

After you enter a file specification and answer YES to the remaining questions, the conversion procedure displays a series of informational messages and a statistical summary. For example:

```
    ... Adding fields and relations

    ... Converting stored transfer definitions

Conversion not needed for the transfer named SALARY_RANGES

Conversion not needed for the transfer named JOB_CODES

Converted definition for transfer named MA_EMP

Converted definition for transfer named NH_EMP

Converted definition for transfer named ALL_EMP
---------------------------------------------------

Number of transfers converted  . . . . . . . .    3
Number of transfers not requiring conversion .    2
Number of transfers with conversion errors . .    0
                                                ----
        Total number of transfer definitions .    5
---------------------------------------------------

All transfer definitions have been processed.
Now setting the database revision number.
```

Finally, the conversion command procedure ends with the following message:

```
Conversion of the transfer database to VAX Data Distributor V2.2
format has completed.  For further steps needed in order to resume
operation of Data Distributor, consult Data Distributor documentation.
```

Make sure to protect the device and directory you specify for the transfer database. Because the transfer monitor runs with special privileges, it can always access the transfer database regardless of the protection you have on the transfer database directory.

3.3 Editing the System Startup File

Edit the following system startup file to start Data Distributor automatically when your system is booted:

SYS$MANAGER:SYSTARTUP_V5.COM

Add a line to the startup file to run the transfer monitor startup command procedure, DDAL$START_TR_MON.COM. Be sure to place this new line **after** the line to process the Rdb/VMS startup file.

If VIDA is installed on your system, you must edit the file SYS$MANAGER:SYSTARTUP_V5.COM to install the VIDA images mentioned in Sections 3.6 and 3.7.

If RdbAccess for ORACLE is installed on your system, you must edit the file SYS$MANAGER:SYSTARTUP_V5.COM to install the RdbAccess for ORACLE images mentioned in Section 3.8.

If Rdb/ELN is not installed on your system, no additional edits are necessary. If Rdb/ELN is installed on your system, you must edit your SYS$MANAGER:SYSTARTUP_V5.COM file to install the Rdb/ELN images as follows:

```
$  @SYS$MANAGER:RDBB$STARTUP.COM
```

The DDAL$START_TR_MON command procedure requires two parameters: the transfer database location and the log file location. You must include these parameters in the line that invokes the DDAL$START_TR_MON command procedure. The transfer database location must be the same one that you specified when you created the transfer database.

Data Distributor sets the transfer database file name to DDAL$TR_DB.RDB. The name of the log file includes the node on which the log file is located. The format is:

DDAL$node-name_TR_MON.LOG

The following example shows the new line added after the one that invokes the Rdb/VMS RMONSTART command procedure. The transfer database location is DISK1:[DBA.DDIS]. In this example, the log file location is the same:

```
$ @SYS$MANAGER:RMONSTART.COM
$ @SYS$STARTUP:DDAL$START_TR_MON.COM DISK1:[DBA.DDIS] DISK1:[DBA.DDIS]
$ @SYS$MANAGER:VIDA_INSTALL.COM
$ @SYS$MANAGER:VIDA2_INSTALL.COM
$ @SYS$MANAGER:VIDAO_INSTALL.COM
$ @SYS$MANAGER:RDBB$STARTUP.COM
```

3.4 Editing the System Shutdown File

Edit the following file to stop Data Distributor automatically when the system is shut down:

SYS$MANAGER:SYSHUTDWN.COM

You must add a line to the shutdown file, SYSHUTDWN.COM, to stop the transfer monitor. Be sure to place this new line **before** the lines that process the Rdb/VMS shutdown files. In a VAXcluster environment, this line must be added to the SYSHUTDWN.COM file and executed on each node in the cluster.

In the following example, just the first line was added:

```
$ @SYS$MANAGER:DDAL$STOP_TR_MON.COM
$ @SYS$MANAGER:RMONSTOP.COM
$ @SYS$MANAGER:VIDA_DEINSTALL.COM
$ @SYS$MANAGER:VIDA2_DEINSTALL.COM
$ @SYS$MANAGER:VIDAO_DEINSTALL.COM
```

3.5 Starting Transfer Monitors in a VAXcluster

You can install Data Distributor from any node on the cluster. Once you have performed the installation, you must start the transfer monitor on every node in the cluster. To do this, execute the command procedure @SYS$STARTUP:DDAL$START_TR_MON from every node.

If you have added the SYS$STARTUP:DDAL$START_TR_MON command line to the SYSTARTUP_V5.COM file for each node, a transfer monitor is automatically started on that node as you reboot each node on the cluster. See Section 3.3 for more information.

3.6 Using Data Distributor and VIDA with IDMS/R Together

If you plan to use Data Distributor to access VIDA with IDMS/R databases, you must use the VMS Install utility (INSTALL) to install the following VIDA with IDMS/R images:

- SYS$SHARE:VIDASHR.EXE
- SYS$SHARE:SNA3270SH.EXE
- SYS$MESSAGE:SNA3270MG.EXE
- SYS$MESSAGE:VIDA_MESSAGE.EXE

The VMS operating system requires that all image files activated by a privileged image be installed using the Install utility. Data Distributor has a privileged image that must activate the VIDA with IDMS/R images in the SYS$SHARE directory as well as message file images that are subordinate to the images in SYS$SHARE. When the system shuts down and comes back up again, these images are no longer installed.

To ensure that the VIDA with IDMS/R images are always available to Data Distributor, create a command procedure and locate that procedure in a file such as SYS$MANAGER:VIDA_INSTALL.COM. Then, edit the SYSTARTUP_V5.COM file to add a line that automatically runs the procedure at system startup. Here are the contents of the command file:

```
$!
$! A command file to make the VIDA with IDMS/R images known to
$! Data Distributor
$!
$ INSTALL :== $INSTALL/COMMAND
$ INSTALL
ADD SYS$SHARE:VIDASHR.EXE
ADD SYS$SHARE:SNA3270SH.EXE
ADD SYS$MESSAGE:SNA3270MG.EXE
ADD SYS$MESSAGE:VIDA_MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSTARTUP_V5.COM file, just after the line that invokes the DDAL$START_TR_MON.COM procedure. For example:

```
$ @SYS$STARTUP:[SYSMGR]:DDAL$START_TR_MON.COM DISK1:[DBA.DDIS] DISK1:[DBA.DDIS]
$ @SYS$COMMON:[SYSMGR]:VIDA_INSTALL.COM
```

Also include the VIDA shutdown file as part of the system shutdown procedure. Here are the contents of the command file:

```
$ !
$ ! A command file to deinstall VIDA with IDMS/R images needed by
$ ! Data Distributor
$ !
$ INSTALL:==$INSTALL/COMMAND
$ INSTALL
REMOVE SYS$SHARE:VIDASHR.EXE
REMOVE SYS$SHARE:SNA3270SH.EXE
REMOVE SYS$MESSAGE:SNA3270MG.EXE
REMOVE SYS$MESSAGE:VIDA_MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSHUTDWN.COM file in SYS$MANAGER after the line that invokes the DDAL$STOP_TR_MON.COM procedure. For example:

```
$ @SYS$COMMON:[SYSMGR]DDAL$STOP_TR_MON.COM
$ @SYS$COMMON:[SYSMGR]VIDA_DEINSTALL.COM
```

3.7 Using Data Distributor and VIDA for DB2 Together

VIDA for DB2 consists of two products: VIDA Client for DB2 and VIDA Server for DB2. VIDA Client for DB2 is installed on a VAX system. VIDA Server for DB2 is installed on an IBM system. These two software components of VIDA for DB2 allow VMS users to retrieve data from IBM database 2 (DB2) data tables on an IBM system to create VIDA for DB2 databases that VMS users can access.

If you plan to use Data Distributor to access VIDA for DB2 databases, you must use the VMS Install utility (INSTALL) to install the following VIDA for DB2 images:

- SYS$SHARE:VIDA2SHR.EXE
- SYS$SHARE:SNALU62SH.EXE
- SYS$MESSAGE:VIDA2$MESSAGE.EXE

The VMS operating system requires that all image files activated by a privileged image be installed using the Install utility. Data Distributor has a privileged image that must activate the VIDA for DB2 images in the SYS$SHARE directory as well as message file images that are subordinate to the images in SYS$SHARE. When the system shuts down and comes back up again, these images are no longer installed.

To ensure that the VIDA for DB2 images are always available to Data Distributor, create a command procedure and locate it in a file such as SYS$MANAGER:VIDA2_INSTALL.COM. Then edit the SYSTARTUP_V5.COM file to add a line that automatically runs the procedure at system startup. Here are the contents of the command file:

```
$!
$! A command file to make the VIDA for DB2 images known to
$! Data Distributor
$!
$ INSTALL :== $INSTALL/COMMAND
$ INSTALL
ADD SYS$SHARE:VIDA2SHR.EXE
ADD SYS$SHARE:SNALU62SH.EXE
ADD SYS$MESSAGE:VIDA2$MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSTARTUP_V5.COM file just after the line that invokes the DDAL$START_TR_MON.COM procedure. For example:

```
$ @SYS$STARTUP:[SYSMGR]:DDAL$START_TR_MON.COM DISK1:[DBA.DDIS] DISK1:[DBA.DDIS]
$ @SYS$COMMON:[SYSMGR]:VIDA2_INSTALL.COM
```

Also include the VIDA shutdown file as part of the system shutdown procedure. Here are the contents of the command file:

```
$ !
$ ! A command file to deinstall VIDA for DB2 images needed by
$ ! Data Distributor
$ !
$ INSTALL:==$INSTALL/COMMAND
$ INSTALL
REMOVE SYS$SHARE:VIDA2SHR.EXE
REMOVE SYS$SHARE:SNALU62SH.EXE
REMOVE SYS$MESSAGE:VIDA2$MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSHUTDWN.COM file in SYS$MANAGER after the line that invokes the DDAL$STOP_TR_MON.COM procedure. For example:

```
$ @SYS$COMMON:[SYSMGR]DDAL$STOP_TR_MON.COM
$ @SYS$COMMON:[SYSMGR]VIDA2_DEINSTALL.COM
```

3.8 Using Data Distributor and RdbAccess for ORACLE Together

Data Distributor uses RdbAccess for ORACLE as an interface to ORACLE databases. This interface enables you to create transfers that copy some or all of an ORACLE source database to an Rdb/VMS target database.

If you plan to use Data Distributor to access ORACLE databases, you must use the VMS Install utility (INSTALL) to install the following RdbAccess for ORACLE images:

- SYS$SHARE:VIDAOSHR.EXE
- SYS$SHARE:VIDAOS.EXE
- SYS$MESSAGE:VIDAO$MESSAGE.EXE

The VMS operating system requires that all image files activated by a privileged image be installed using the Install utility. Data Distributor has a privileged image that must activate the RdbAccess for ORACLE images in the SYS$SHARE directory as well as message file images that are subordinate to the images in SYS$SHARE. When the system shuts down and comes back up again, these images are no longer installed.

To ensure that the RdbAccess for ORACLE images are always available to Data Distributor, create a command procedure and locate it in a file such as SYS$MANAGER:VIDAO_INSTALL.COM. Then edit the SYSTARTUP_V5.COM file to add a line that automatically runs the procedure at system startup. Here are the contents of the command file:

```
$!
$! A command file to make the RdbAccess for ORACLE images known to
$! Data Distributor
$!
$ INSTALL :== $INSTALL/COMMAND
$ INSTALL
ADD SYS$SHARE:VIDAOSHR.EXE
ADD SYS$SHARE:VIDAOS.EXE
ADD SYS$MESSAGE:VIDAO$MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSTARTUP_V5.COM file just after the line that invokes the DDAL$START_TR_MON.COM procedure. For example:

```
$ @SYS$STARTUP:[SYSMGR]:DDAL$START_TR_MON.COM DISK1:[DBA.DDIS] DISK1:[DBA.DDIS]
$ @SYS$COMMON:[SYSMGR]:VIDAO_INSTALL.COM
```

Also include a RdbAccess for ORACLE shutdown file as part of the system shutdown procedure. The following example shows the contents of the command file that you should create:

```
$ !
$ ! A command file to deinstall RdbAccess for ORACLE images needed by
$ ! Data Distributor
$ !
$ INSTALL:==$INSTALL/COMMAND
$ INSTALL
REMOVE SYS$SHARE:VIDAOSHR.EXE
REMOVE SYS$SHARE:VIDAOS.EXE
REMOVE SYS$MESSAGE:VIDAO$MESSAGE.EXE
EXIT
$ EXIT
```

Add the line that invokes this procedure to the SYSHUTDWN.COM file in SYS$MANAGER after the line that invokes the DDAL$STOP_TR_MON.COM procedure. For example:

```
$ @SYS$COMMON:[SYSMGR]DDAL$STOP_TR_MON.COM
$ @SYS$COMMON:[SYSMGR]VIDAO_DEINSTALL.COM
```

3.9 Enhancing Data Distributor Performance

The performance of Data Distributor's copy process is to some degree affected by the parameters established for a user in the system authorization file. This correlation occurs because the copy process runs under the account of the user who defines a transfer. For good copy process performance, transfer definer accounts should use the same user account parameters that are recommended by Rdb/VMS. See the *VAX Rdb/VMS Guide to Database Maintenance and Performance* for more information on user account parameters.

3.10 Rebooting the System

Reboot the system after you have installed Data Distributor; initialized or converted the transfer database; installed related products, such as, VIDA; and, edited the two command files SYSTARTUP_V5.COM and SYSHUTDWN.COM. A system reboot verifies that Data Distributor is available for use. If you suspended one or more data transfers before you shut down the system, you might want to restart them after you reboot the system.

3.11 VAX Data Distributor Command Procedures

This section provides information about the command procedures that start and stop the transfer monitor:

- SYS$STARTUP:DDAL$START_TR_MON.COM
- SYS$MANAGER:DDAL$STOP_TR_MON.COM

The following sections describe the changes you might have to make in these files.

3.11.1 DDAL$START_TR_MON.COM File

The DDAL$START_TR_MON command procedure starts a transfer monitor. This procedure runs every time the system boots if you have added the line that invokes it to the SYSTARTUP_V5.COM file. If you run the procedure interactively, you must run it from an account that has either VMS SETPRV or all these individual VMS privileges: CMKRNL, DETACH, SYSLCK, SYSNAM, TMPMBX, and WORLD.

The procedure installs SYS$SYSTEM:DDAL$COPY_PROCESS, a Data Distributor executable image, and the following Rdb/VMS images:

- SYS$SHARE:RDBSHR.EXE
- SYS$MESSAGE:RDMSMSG.EXE
- SYS$MESSAGE:RDBMSGS.EXE

Normally, the Rdb/VMS startup procedure, RMONSTART.COM, does not install these Rdb/VMS images. However, if you installed them as part of another layered product's startup procedure that is started prior to Data Distributor, you might want to modify the DDAL$START_TR_MON.COM file to avoid having them reinstalled. Consider also that DDAL$START_TR_MON.COM first removes and then reinstalls these images. Therefore, these files might not be installed with all the attributes required by other applications. In this situation, you might want to modify the way Data Distributor's command file installs these images.

3.11.2 DDAL$STOP_TR_MON.COM File

The DDAL$STOP_TR_MON command procedure stops a transfer monitor. This procedure runs every time the system shuts down if you have added the line that invokes it to the SYSHUTDWN.COM file. If you run the procedure interactively, you must run it from an account that has either VMS SETPRV or all these individual VMS privileges: CMKRNL, SYSNAM, SYSPRV, and WORLD. The procedure removes the SYS$SYSTEM:DDAL$COPY_PROCESS executable image. It does **not** remove the Rdb/VMS images discussed in the section on the DDAL$START_TR_MON.COM file. However, you might want to modify the DDAL$STOP_TR_MON.COM files to remove these images if you have no other applications that require these files to be installed.

3.12 Running the Installation Verification Procedure (IVP)

When you install Data Distributor, the VMSINSTAL program asks if you want to run the automatic IVP at the end of the installation. You should answer YES to this question. To ensure that the IVP will end successfully, make sure that Rdb/VMS is running and Data Distributor is shut down before you start the IVP.

The Data Distributor IVP checks that all critical files have been installed on your system in the correct locations. It also checks that all the Data Distributor components are functioning. No user interaction is required to run the IVP.

You can run the automatic IVP any time after installation to confirm that Data Distributor is running correctly. Running the IVP after installation requires you to run the IVP from a privileged account with a system UIC. The account must have either VMS SETPRV or all these individual VMS privileges: CMKRNL, DETACH, SYSLCK, SYSNAM, SYSPRV, TMPMBX, and WORLD.

Use the following commands to invoke the IVP:

```
$  SET DEFAULT SYS$TEST
$  @DDAL$IVP
```

When the IVP executes without any problems, you see a message indicating a successful completion. If the IVP fails, the procedure creates a log file that contains detailed information about the cause of the failure. The log file name is SYS$UPDATE:DDAL$IVP.LOG.

The Data Distributor IVP runs the DDAL$START_TR_MON.COM and DDAL$STOP_TR_MON.COM procedures to start up and shut down the transfer monitor, respectively. Therefore, the following three images are reinstalled by the IVP:

- SYS$SHARE:RDBSHR.EXE
- SYS$MESSAGE:RDMSMSG.EXE
- SYS$MESSAGE:RDBMSGS.EXE

Refer to Section 3.11 for more information about how these images are affected by running the command procedures, DDAL$START_TR_MON.COM and DDAL$STOP_TR_MON.COM. The information about the effect of running these procedures is especially relevant when the IVP is run immediately after the Data Distributor installation, that is, before you modify the DDAL$START_TR_MON.COM or DDAL$STOP_TR_MON.COM procedures.

3.13 Determining and Reporting Problems

If you encounter a problem while using Data Distributor, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

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

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

A

Sample Installation

This appendix contains a sample installation of Data Distributor Version 2.2 installed under VMS Version 5.3. This sample was run on a system that had no previous version of Data Distributor installed.

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

```
$ @SYS$UPDATE:VMSINSTAL DDAL022 $111$MUA1: OPTIONS N

 VAX/VMS Software Product Installation Procedure V5.3-2

It is 14-AUG-1990 at 19:26.
Enter a question mark (?) at any time for help.

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

Please mount the first volume of the set on  MTA0:.
* Are you ready? yes
%MOUNT-I-MOUNTED, DDAL mounted on _MTA0: (READ)
The following products will be processed:
  DDAL V2.2

 Beginning installation of DDAL V2.2 at 19:26

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

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

    Additional Release Notes Options:

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

* Select option [2]: 2
* Queue name [SYS$PRINT]: SYS$PRINT

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

```
        Product:      DATA-DISTRIBUTOR
        Producer:     DEC
        Version:      2.2
        Release Date: 1-JUL-1990

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

 Installation procedures for VAX Data Distributor V2.2-0

    Checking system requirements ...


    Checking user limits ...

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

    To complete the installation on a standalone VAX 11/780
    will take approximately:

        10 minutes to install
        10 minutes to run the IVP

    All required questions have been asked.
    You can terminate the installation procedure at this time.

* Do you want to continue the installation [YES]? YES
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%VMSINSTAL-I-RESTORE, Restoring product save set C ...

    ************************************************************

    SYSTEM MANAGER:

    The following command line MUST be added to the system startup
    command file SYS$MANAGER:SYSTARTUP_V5.COM for all nodes that will
    be running VAX Data Distributor:

     $ @SYS$STARTUP:DDAL$START_TR_MON tr-db-loc tm-log-loc

    The following command line should be added to the system
    shutdown command file SYS$MANAGER:SYSHUTDWN.COM for all nodes
    that will be running VAX Data Distributor:

     $ @SYS$MANAGER:DDAL$STOP_TR_MON

    The VAX Data Distributor Installation Verification Procedure
    (IVP) has been provided in SYS$COMMON:[SYSTEST]. It can
    be invoked at any later time by using the following commands:

        $ SET DEFAULT SYS$COMMON:[SYSTEST.DDAL]
        $ @SYS$COMMON:[SYSTEST]DDAL$IVP

    ************************************************************

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

                COPYRIGHT (c) 1987, 1988, 1989, 1990 BY
                DIGITIAL EQUIPMENT CORPORATION, MAYNARD, MA

    ************************************************************
```

```
       The VAX Data Distributor IVP verifies that all critical
       files are in place and all its components are functional.

    ************************************************************

Executing IVP for: VAX Data Distributor V2.2-0

    ************************************************************
        Creating the Transfer Database...
    ************************************************************

    ************************************************************
        Starting the Transfer Monitor...
    ************************************************************

    ************************************************************
        Running VAX Data Distributor...
    ************************************************************

    ************************************************************

        VAX Data Distributor IVP completed successfully

    ************************************************************

IVP completed for: VAX Data Distributor V2.2-0

 Installation of DDAL V2.2 completed at 19:41

 VMSINSTAL procedure done at 19:41

$ log

  SYSTEM       logged out at 14-AUG-1990 19:48:13.37
```

B

Files Installed on Your System

The Data Distributor installation procedure installs a number of files on your system. At the end of the Data Distributor installation, the procedure creates a list of the files and stores the list in the following location:

SYS$COMMON:[SYSMGR.VAXINFO$PRODUCTS]DDAL022_FILES.DAT

Each file specification in the files list has a flag attached to it. The flags are meant for future use by Digital. Digital does not support any use of these flags for this release.