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DEC RdbExpert for VMS

Installation Guide

October 1990

This manual describes how to install DEC RdbExpert for VMS Version 1.0.

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Software Version	DEC RdbExpert for VMS Version 1.0

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Preface

This manual describes how to install DEC RdbExpert for VMS Version 1.0, also referred to as RdbExpert Version 1.0. This installation guide and the *RdbExpert Release Notes* are the only manuals you need to install the RdbExpert software.

Intended Audience

Read this manual if you are responsible for:

- Planning the installation of RdbExpert and preparing your system (see Chapter 1)
- Installing RdbExpert (see Chapter 2)
- Changing your system by adjusting parameters, startup and shutdown files, and privileges required for running RdbExpert (see Chapter 3)

To install the software, you must:

- Be familiar with VMSINSTAL, the command procedure used to install software products in the VMS environment. To locate the description of VMSINSTAL, see the master index of the VMS documentation set.
- Have access to the SYSTEM account on your machine or to an account with the user privilege SETPRV.

Product Compatibility

For information on the compatibility of other software products with this version of RdbExpert, 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 RdbExpert.

Operating System Information

To run RdbExpert Version 1.0 software on a VAX system, that system must be running Version 3.1A or higher of VAX Rdb/VMS and Version 5.2 or higher of the VMS operating system.

Document Structure

This manual has three chapters and one appendix:

Chapter 1	Explains how to plan the installation and prepare your system.
Chapter 2	Explains how to install the RdbExpert software and run the Installation Verification Procedure (IVP).
Chapter 3	Explains procedures to follow after the installation of RdbExpert completes successfully.
Appendix A	Shows a sample installation session.

For More Information

The VMS documentation set contains detailed information and guidelines for installing software on your VMS system and for learning about related system management tasks.

The *RdbExpert Release Notes* might contain information needed to install RdbExpert. Read that document before starting the RdbExpert 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.

Often in examples the prompts are not shown. Generally, they are shown where it is important to depict an interactive sequence exactly; otherwise, they are omitted in order to focus full attention on the statements or commands themselves.

This section explains the conventions used in this manual:

. . .	A vertical ellipsis in an example means that information not directly related to the example has been omitted.
...	A horizontal ellipsis in statements or commands means that parts of the statement or command not directly related to the example have been omitted.

CTRL/x	This symbol tells you to press the CTRL (control) key and hold it down while pressing the specified letter key.
$	The dollar sign is used to indicate the DCL prompt. This prompt may be different on your system.
Bold text	Bold text indicates the definition of a significant new term.
Blue-green	Blue-green ink indicates information that you must enter from the keyboard or a screen object that you must choose or click on. For online versions, user input is shown in **bold**.

References to Products

The RdbExpert documentation to which this document belongs often refers to the following products by their abbreviated names:

- DEC RdbExpert for VMS software is referred to as RdbExpert.
- DECnet–VAX system is referred to as DECnet.
- DECtrace for VMS software is referred to as DECtrace.
- VAX ACMS software is referred to as ACMS.
- VAX CDD/Plus software is referred to as CDD/Plus.
- VAX Data Distributor software is referred to as Data Distributor.
- VAX DATATRIEVE software is referred to as DATATRIEVE.
- VAX RALLY software is referred to as RALLY.
- VAX Rdb/VMS software is referred to as Rdb/VMS.
- VAX TDMS software is referred to as TDMS.
- VAX TEAMDATA software is referred to as TEAMDATA.
- VIDA software is referred to as VIDA

1

Preparing to Install RdbExpert

This chapter discusses the preparations and requirements necessary for installing DEC RdbExpert for VMS, which is usually referred to simply as RdbExpert.

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.

RdbExpert 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

VMS arranges all files into classes and subclasses. This lets customers remove and add parts of VMS by function rather than by file. Each layered product requires certain VMS classes or subclasses in order to provide full capability.

RdbExpert requires a minimum of the following VMS classes:

- Files required for VMS to boot on all systems (BASE)
- Network Support (NET)
- Programming Support (PROG)
- Secure User's Environment (USER)
- Utilities (UTIL)

For a complete list of the required classes, see the Software Support Addendum (SSA), which 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 RdbExpert. The section also includes information about optional software that you can use together with RdbExpert. The System Software Addendum (SSA) contains a complete list of prerequisite and optional software and their required version numbers. The SSA is part of the Software Product Description (SPD).

Prerequisite software:

- VMS Version 5.2 or higher
- VAX Rdb/VMS Version 3.1A or higher

Note that the Rdb/VMS run-time license and software is sufficient for using RdbExpert, but the interactive or full-development license and software is required to actually implement the RdbExpert designs.

Optional software:

- DECtrace for VMS Version 1.0 or higher
- DECwindows Version 1.0 or higher

1.3 Prerequisite Hardware

You can install RdbExpert only when your system meets or exceeds the minimum hardware requirements as shown in the SPD. Table 1–1 in Section 1.5.3 lists the approximate system disk storage required for the installation and running of RdbExpert. The required system disk storage is not system dependent.

RdbExpert provides a DECwindows interface that works with all hardware configurations supported by DECwindows Version 1.0 and higher.

1.4 License Registration

You must register the RdbExpert 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 RdbExpert. The PAK is a paper certificate that contains information about the license you have to run a particular piece of software.

During the installation, the system asks whether you have registered the RdbExpert license and loaded the appropriate authorization key. You must register and load your license for RdbExpert *before* you start the installation in order to run the Installation Verification Procedure (IVP) and use the software.

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

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your Product Authorization Key (PAK).
- At the DCL prompt, issue the LICENSE REGISTER command with the appropriate qualifiers that correspond to PAK information.

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

1.5 Preparing Your System and the Installing Account

The following sections discuss various requirements for installing RdbExpert.

1.5.1 Time

The installation takes approximately 10 to 30 minutes, depending on your type of media and your system configuration.

Installing RdbExpert and running the IVP on a standalone VAX 11/780 system takes approximately 30 minutes.

1.5.2 Privileges

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

- CMKRNL
- WORLD
- SYSPRV

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

1.5.3 Disk Space

Installing RdbExpert requires a certain amount of free disk storage space during the installation. Once RdbExpert is installed, less storage space is required. Table 1–1 summarizes the storage requirements.

Table 1–1 Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
RdbExpert Version 1.0	17,000	10,600

Space requirements depend entirely on the target system device. If you plan to accept all the defaults for the installation questions, you can determine whether or not you have sufficient disk space by checking the number of free disk blocks on the current system disk, as follows:

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

1.5.4 System Parameters

Installing RdbExpert requires certain system parameter settings. Table 1–2 lists the minimum required system parameter values for the installation.

Table 1–2 Required Minimum System Parameter Values

System Parameter	Value
CLISYMTBL[1]	250 pages
GBLPAGES[2]	3852 available pages
GBLSECTIONS[3]	11 available sections
LOCKIDTBL_MAX[4]	2048 entries
PROCSECTCNT	32 sections
RESHASHTBL	512 entries
SRPCOUNT	1024 packets
SRPCOUNTV	2048 packets
VIRTUALPAGECNT	30,000 (a number larger than largest PGFLQUOTA used on the system)

[1]The CLISYMTBL dynamic system parameter must be set to a minimum value of 250 during the installation procedure. If the current CLISYMTBL setting is less than 250, you can lower the setting to its original value once the installation is finished.

[2]This is the value if you accept accept the default response Yes for installing shareable and executable images. If Yes only for shareable images: 2909; if Yes only for executable images: 943; if No for both: 0.

[3]This is the value if you accept accept the default response Yes for installing shareable and executable images. If Yes only for shareable images: 7; if Yes only for executable images: 4; if No for both: 0.

[4]This dynamic system parameter must be set permanently to a value equal to or greater than the value listed. Do not lower this value after the installation.

The following sections show you how to:

- Check system parameter values
- Calculate values for the GBLPAGES and GBLSECTIONS system parameters
- Change parameter values with the VMS AUTOGEN command procedure

1.5.4.1 Checking System Parameter Values

To check the values of your system parameters, enter the following command at the DCL prompt to invoke the System Generation Utility:

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

At the SYSGEN> prompt, enter the SHOW command to display the value of a system parameter. The values displayed should equal or exceed the value of each parameter listed in Table 1–2. The following command displays the value for the WSMAX system parameter:

```
SYSGEN>  SHOW WSMAX
```

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

1.5.4.2 Calculating the Values for GBLPAGES and GBLSECTIONS

To install and run RdbExpert, you must have sufficient free global pages and global sections. You must first find out how many free global pages and sections you have on your system. Then use AUTOGEN if you need to increase the GBLPAGES and GBLSECTIONS system parameters.

Use the WRITE command with the F$GETSYI lexical function to find the number of free global pages and global sections. The following example shows how to get this information at your terminal (the default for SYS$OUTPUT):

```
$  WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
15848
$  WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
24
```

If the values displayed by the system are greater than the values in Table 1–2, you do not need to increase the values for these parameters. If the value of free global pages or global sections is less than the value in Table 1–2, you must increase the system parameter setting.

Section 1.5.4.3 describes the procedures for increasing these values using AUTOGEN. Refer to the VMS System Management Subkit for information on using AUTOGEN.

1.5.4.3 Changing System Parameter Values with AUTOGEN

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

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

Use an editor to access the file. To change a parameter value that is already listed in this file, delete the current value associated with that parameter and enter the new value.

To add a new parameter, add a line to the file that includes both the name of the parameter and its value. For example:

```
WSMAX = 1024
```

To modify incremental parameters such as GBLPAGES and GBLSECTIONS, use ADD_. The following example increases the global page setting by 2000:

```
ADD_GBLPAGES = 2000
```

After you have made all your changes, exit from the editor and run the AUTOGEN procedure to recalculate your system parameters. Enter the following command at the DCL prompt:

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

When you specify REBOOT, AUTOGEN performs an automatic system shutdown and then reboots the system when it has finished. Any users logged on to the system are immediately disconnected during the shutdown. The automatic reboot puts the new parameter values into effect.

The AUTOGEN Utility automatically adjusts some of the SYSGEN parameters based on the consumption of resources since the last reboot. If you do not want to take advantage of this automatic adjustment, include the /NOFEEDBACK qualifier on the AUTOGEN command line.

For more information about using AUTOGEN, see the VMS System Management Subkit.

1.5.4.4 Setting Dynamic System Parameter Values

You can use SYSGEN to change the values for dynamic system parameters. The following example demonstrates this process for the CLISYMTBL system parameter. (After the installation is complete, you can reset CLISYMTBL to its previous setting or let it be reset automatically when you reboot your system.)

```
$  RUN SYS$SYSTEM:SYSGEN
SYSGEN>  USE ACTIVE
SYSGEN>  SET CLISYMTBL 250
SYSGEN>  WRITE ACTIVE
SYSGEN>  EXIT
```

Dynamic parameters changed with the SYSGEN WRITE ACTIVE command become active immediately without any need to reboot your system. In fact, rebooting returns dynamic system parameter values to their previous settings. Once you set values for dynamic parameters, you should complete the installation before rebooting the system.

The values for other dynamic parameters, such as LOCKIDTBL_MAX, must remain at the same level or higher than the values specified in Table 1–2.

1.5.5 Process Account Quotas

The account you use to install RdbExpert must have sufficient quotas to enable you to perform the installation. Table 1–3 summarizes the process quotas required for the installation account.

Table 1–3 Process Account Quotas for the Installing Account

Account Quota	Value
ASTLM	24
BIOLM	18
BYTLM	20,480
DIOLM	18
ENQLM	1800
FILLM	50
PGFLQUOTA	25,000

User account quotas are stored in the file SYSUAF.DAT. Use the VMS Authorize Utility to verify and change user account quotas. First set your default directory to SYS$SYSTEM and then run AUTHORIZE:

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

At the AUTHORIZE prompt (UAF>), use the SHOW command with an account name to check a particular account. For example, to check the SYSTEM account enter:

```
UAF>  SHOW SYSTEM
```

To change a quota, use the MODIFY command. MODIFY has the following format:

```
MODIFY account-name /quota-name=NNN
```

The following example changes the FILLM quota for the SYSTEM account and then exits from AUTHORIZE:

```
UAF>  MODIFY SYSTEM /FILLM=50
UAF>  EXIT
```

After you exit from the utility, the system displays messages indicating whether or not 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 VMS System Management Subkit.

1.5.6 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks the following:

- Whether you have set your default device and directory to SYS$UPDATE
- Whether you are logged in to the SYSTEM account
- Whether you have adequate quotas for installation
- Whether any users are logged in to the system

Note that the VMSINSTAL requires that the installation account have a minimum of the following quotas:

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

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 YES to continue. To stop the installation process and correct the situation, enter NO or press RETURN. Then correct the problem and restart the installation.

1.5.7 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.

Use the backup procedures that are 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.

2

Installing RdbExpert

This chapter describes how to install RdbExpert. 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
- Determining files and logical names added to your system
- Running the Installation Verification Procedure (IVP),
- Aborting the installation.

2.1.1 Accessing the Online Release Notes

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

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

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

```
SYS$HELP:RDBX010.RELEASE_NOTES
```

Online help also directs you to the release notes file. After the installation, you can enter the following command to find out where the release notes are located:

```
$  HELP RDBEXPERT RELEASE_NOTES
```

2.1.2 Determining the Files and Logical Names Added to the System

During the installation, RdbExpert creates the following files on your system, as shown in Table 2–1. The locations refer to logical names; those starting with RDBX$ are explained in Table 2–2.

Table 2–1 Files Installed by RdbExpert

File	Location	Comments
RDBX$CLI.EXE	RDBX$EXE	Character-cell interface image
RDBX$CLI_HELP.HLB	RDBX$HELP	Character-cell interface help
RDBX$ENV.EXE	RDBX$EXE	Environment window image
RDBX$DCL_HELP.HLP	RDBX$HELP	DCL-level help
RDBX$DECW_HELP.HLB	RDBX$HELP	DECwindows interface help
RDBX$DIR.EXE	RDBX$EXE	Directory window image
RDBX$LIBSHR.EXE	RDBX$SHARE	
RDBX$MSG.DOC	RDBX$HELP	Explanation of error messages
RDBX$MSGSHR.EXE	SYS$MESSAGE	
RDBX$SHUTDOWN.COM	SYS$STARTUP	See Section 3.1.
RDBX$TXTSHR.EXE	SYS$MESSAGE	
RDBX$VOL.EXE	RDBX$EXE	Volume window image
RDBX$WORK.EXE	RDBX$EXE	Workload window image
RDBX010.INSTALLATION_GUIDE	RDBX$HELP	
RDBX010.RELEASE_NOTES	RDBX$HELP	
RDB_PERSONNEL.RDB	RDBX$EXAMPLES	

(continued on next page)

Table 2–1 (Cont.) Files Installed by RdbExpert

File	Location	Comments
RDB_PERSONNEL.SNP	RDBX$EXAMPLES	
RDB_PERSONNEL_ENVIRONMENT.PDL	RDBX$EXAMPLES	
RDB_PERSONNEL_VOLUME.PDL	RDBX$EXAMPLES	
RDB_PERSONNEL_WORKLOAD.PDL	RDBX$EXAMPLES	

During the installation, RdbExpert creates logical names on your system, as shown in Table 2–2.

Table 2–2 Logical Names Used by RdbExpert

Logical Name	Explanation
RDBX$EXAMPLES	Directory for RdbExpert sample files; by default, equates to SYS$COMMON:[SYSHLP.EXAMPLES.RDBX]. The RDBX$EXAMPLES directory includes all necessary files to build a main design directory with the sample design.
RDBX$EXE	Directory for the RdbExpert executable images; by default, equates to SYS$SYSTEM.
RDBX$HELP	Directory for RdbExpert help files; by default, equates to SYS$HELP.
RDBX$IVP_WORK	Directory for certain IVP work files; by default, equates to a subdirectory under SYS$TEST.
RDBX$LIBRARY	Directory for certain files needed so that the RdbExpert images can run; by default, equates to SYS$COMMON:[RDBX].
RDBX$SHARE	Directory where RDBX$LIBSHR.EXE is placed; by default, equates to SYS$SHARE.
RDBX$TEST	Directory where RDBX$IVP.COM is placed; by default, equates to SYS$TEST.

2.1.3 Running the Installation Verification Procedure (IVP)

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

After RdbExpert is installed, you can run the IVP independently to verify that the software is available on your system. You might need to run the IVP after a system failure to make sure that users can access RdbExpert. To run the IVP independently of the installation procedure, enter the following command:

```
$ @SYS$TEST:RDBX$IVP
```

2.1.4 Aborting the Installation

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.

2.2 The Installation Procedure

The RdbExpert installation procedure consists of a series of questions and informational messages.

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. You use the following syntax to invoke VMSINSTAL:

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

saveset-name
The installation name for the component. For RdbExpert, use the following installation name:

```
RDBX010
```

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 include the OPTIONS N parameter, VMSINSTAL asks you about the release notes. You should review the release notes before proceeding with the installation in case they contain new information about the installation.

Note that 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 (OPTIONS A,N).

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

```
$  @SYS$UPDATE:VMSINSTAL RDBX010 MTA0: OPTIONS N

       VAX/VMS Software Product Installation Procedure VN.N


It is dd-mmm-yyyy at hh:mm.
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 line to access the release notes during the installation.

2.2.2 Installation Questions

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

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

1 Use of SYSTEM account

If you are not installing RdbExpert from the SYSTEM account, VMSINSTAL informs you of this and asks if you want to continue.

2 Active processes

If any user processes are active on the system, VMSINSTAL notifies you that ''the following processes are still active'', lists the process names, and asks if you want to continue:

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

3 System backup

VMSINSTAL asks if you are satisfied with your system backup. You should always back up your system disk before performing 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]?  YES
```

4 Mounting the media

If you are installing RdbExpert from non-disk media, the installation procedure asks you to mount the appropriate volume.

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

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing RdbExpert 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, RdbExpert MOUNTED ON _$$MTA0:  (NODE 1)
The following products will be processed:
  RdbExpert V1.0

    Beginning installation of RdbExpert V1.0 at 20:01

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

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

5 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 for the installation to proceed:

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

Enter "YES" when ready:  YES
```

6 Product authorization key

VMSINSTAL asks if the product authorization key (PAK) for RdbExpert has been registered and loaded:

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

If you have not registered and loaded your authorization key, you must answer No to this question. You have to register and load your product authorization key to successfully complete the installation. If you have not done so, you should stop the installation, register and load your product authorization key, and then restart the installation.

7 Shareable images

The installation procedure asks if you want to install the RdbExpert shareable images as shared:

```
* Install RdbExpert shareable images [YES]?  YES
```

If you answer Yes, the shareable images RDBX$LIBSHR.EXE, RDBX$MSGSHR.EXE, and RDBX$TXTSHR.EXE are installed as shared images. Installing them as shared images improves system performance when there are multiple simultaneous users of RdbExpert, but uses more memory than if they are not installed as shared. You may wish to answer No if you expect not to have multiple simultaneous users of RdbExpert and if your system does not have ample free memory.

See Section 3.4 for more information on the trade-offs in installing images as shared, and for instructions on how to install them as shared later if you answer No now.

8 Executable images

The installation procedure asks if you want to install the RdbExpert executable images as shared. The executable images are those associated with the DECwindows interface windows:

```
* Install RdbExpert executable images [YES]?
```

If you answer Yes, the executable images RDBX$DIR.EXE, RDBX$WORK.EXE, RDBX$VOL.EXE, and RDBX$ENV.EXE are installed as shared images. Installing them as shared images improves system performance when there are multiple simultaneous users of RdbExpert, but uses more memory than if they are not installed as shared. Answer No if you do not plan to use the DECwindows interface to RdbExpert (that is, if you will be using only the character-cell interface). You may also wish to answer No if you expect not to have multiple simultaneous users of RdbExpert and if your system does not have ample free memory.

See Section 3.4 for more information on the trade-offs in installing images as shared, and for instructions on how to install them as shared later if you answer No now.

9 Release Notes

If you specified OPTIONS N when you invoked VMSINSTAL, you are now asked to choose one of the four options for reviewing the release notes:

```
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
```

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

If you select option 2, VMSINSTAL prompts you for the name of the print queue that you want to use:

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

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

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

Select option 4 (VMS Version 5.2 or higher) if you have already reviewed the release notes and are restarting the installation.

10 Continuing the installation

The installation procedure now asks if you want to continue the installation. To continue, enter YES. Otherwise, press RETURN. In either case, 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:RDBX010.RELEASE_NOTES
```

Note *The name of the release notes file installed by VMSINSTAL consists of the current product name and version number.*

11 Choosing to run the Installation Verification Procedure (IVP)

The installation procedure now asks if you want to run the Installation Verification Procedure. The IVP for RdbExpert checks to be sure that the installation is successful. Digital recommends that you run the IVP:

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

12 Choosing to purge files

You have the option to purge files from previous field test versions of RdbExpert that are superseded by this installation. 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]?  YES
```

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.

VMSINSTAL checks the quotas of the installing account. If any quota values are insufficient, the installation procedure terminates with an error message.

If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. The following messages are displayed:

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

2.2.4 Running the Installation Verification Procedure

If you chose to run the IVP, VMSINSTAL runs it now. The IVP procedure requires that there be 8000 blocks available on the device associated with the logical name RDBX$IVP_WORK. When the IVP runs successfully, you see a display in the following form:

```
%RDBX-S-IVPPASSED, RdbExpert IVP successfully completed
        Installation of RDBX V1.0 completed at hh.mm

        VMSINSTAL procedure done at hh.mm
```

2.2.5 Completing the Installation Procedure

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

```
Installation of RDBEXPERT V1.0 completed at hh:mm

VMSINSTAL procedure done at hh:mm
```

You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at dd-mmm-yyyy hh:mm:ss.ss
```

Note that VMSINSTAL deletes or changes 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 should log out and log in again.

2.3 Error Recovery

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

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

If the IVP fails, you see these messages:

```
The RDBEXPERT V1.0 Installation Verification Procedure failed.

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

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

- The operating system version is incorrect.
- A 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, you should take the appropriate action as described in the message. (You might need to change a system parameter or increase an authorized quota value.) For information on installation requirements, see Chapter 1.

3

After Installing RdbExpert

After installing RdbExpert, you need to perform the following tasks:

- Edit the system startup and shutdown files.
- Set user account quotas.

This chapter also explains how to run the Installation Verification Procedure (IVP) independently after the software is installed.

3.1 Editing the System Files

You must edit the system startup and shutdown files to provide for automatic startup and shutdown of RdbExpert when your system is rebooted.

Add the command line that starts RdbExpert to the system startup file, SYS$MANAGER:SYSTARTUP_V5.COM. You should position this new command line *after* the line that invokes the Rdb/VMS monitor process. The following example shows the Rdb/VMS startup command line followed by the RdbExpert startup command line:

```
$ @SYS$STARTUP:RMONSTART.COM
    .
    .
    .
$ @SYS$STARTUP:RDBX$STARTUP.COM
```

Add the following command line to the system shutdown file, SYS$MANAGER:SYSHUTDWN.COM:

```
$ @SYS$STARTUP:RDBX$SHUTDOWN.COM
```

3.2 VAXcluster Considerations

If you are installing RdbExpert on a VAXcluster, you must activate your software license for each node on which you want to be able to use RdbExpert. Issue the following command on each node:

```
$  LICENSE LOAD RDBEXPERT
```

Then, run the RdbExpert startup procedure on each node using the following command:

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

You may need to use the VMS Install utility to replace the DCLTABLES.EXE image on each node:

```
$  INSTALL
INSTALL>  REPLACE SYS$SHARE:DCLTABLES.EXE/OPEN/HEADER/SHARE
```

Note that you must log out and back in again for the new DCL tables to take effect. If you do not, your process will not recognize the RDBEXPERT command.

3.3 User Account Requirements

To work with RdbExpert, user accounts on your system must have certain privileges and quotas. The next two sections contain information on these requirements.

3.3.1 Privileges

To use RdbExpert, each account must have at least the TMPMBX and NETMBX privileges. Use the VMS Authorize Utility to determine whether users have the privileges they require.

3.3.2 User Account Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use RdbExpert. Table 3–1 summarizes the required user account quotas.

Table 3–1 User Account Quotas for Using RdbExpert

Account Quota	Value
ASTLM	DIOLM + 2
BIOLM	-[1]
BYTLM	20,480
DIOLM	-[1]
ENQLM	600[2]
FILLM	50
PGFLQUOTA	25,000
PRCLM	1

[1]This value should be equal to or greater than the value for the defined number of database buffers. Use the RMU/DUMP command to display this value.

[2]This value should be raised to 2000 if CDD/Plus is used.

User account quotas are stored in the file SYSUAF.DAT. Use the VMS Authorize Utility to verify and change user account quotas. First set your directory to SYS$SYSTEM and then run AUTHORIZE:

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

At the UAF> prompt, use the SHOW command with an account name to check a particular account. For example:

```
UAF>  SHOW SMITH
```

To change a quota, use the MODIFY command at the UAF> prompt. MODIFY has the following format:

MODIFY account-name /quota-name=NNN

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

```
UAF>  MODIFY SMITH /FILLM=50
UAF>  EXIT
```

After you exit from the utility, the system displays messages indicating whether or not changes were made. Once you have made the changes, the users 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 VMS System Management Subkit.

3.4 Installing RdbExpert as a Shared Image

If you answered No to either or both of the installation procedure questions about installing the shareable images and the executable images as shared images, you can install them as shared images any time after the installation.

If you expect RdbExpert to be used extensively on your system, or if you expect multiple users to use RdbExpert simultaneously, you can gain some performance benefits by installing a shared image. If you install RdbExpert as a shared image, the trade-offs are as follows:

- Advantages: Windows are activated faster; less memory is used when multiple users run RdbExpert simultaneously.
- Disadvantages: More memory (global pages and sections) is used, except when there are multiple simultaneous RdbExpert sessions.

To install RdbExpert as a shared image on a system that is currently running, use the VMS Install Utility (INSTALL). Digital recommends that you install RdbExpert as shared on a system that has been rebooted recently because the available space in the global page table is less likely to be fragmented.

To install RdbExpert as a shared image, first, determine the number of available global pages and global sections on your system. See Section 1.5.4.2 for information on how to verify and modify the number of global pages and global sections. Table 1–2 contains the guidelines for setting these parameters.

Once you have reset the system parameter values, invoke the VMS Install Utility from a privileged account and then install RdbExpert as a shared image:

```
$  INSTALL
INSTALL>  ADD RDBX$SHARE:RDBX$LIBSHR.EXE /OPEN /SHARED
INSTALL>  ADD SYS$MESSAGE:RDBX$MSGSHR.EXE /OPEN /SHARED
INSTALL>  ADD SYS$MESSAGE:RDBX$TXTSHR.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$DIR.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$WORK.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$VOL.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$ENV.EXE /OPEN /SHARED
INSTALL>  EXIT
```

Now, add the necessary lines to the appropriate system startup command file so that RdbExpert is available as a shared image each time the system is started. The startup file for RdbExpert is SYS$STARTUP:RDBX$STARTUP.COM. (If your site has modularized its startup procedures, be sure you add the lines to the correct file. The default startup command file for V5.0 is SYS$MANAGER:SYSTARTUP_V5.COM.) To gain the maximum benefit from using RdbExpert as a shareable image, be sure that the startup file contains the following lines:

```
$  INSTALL
INSTALL>  ADD RDBX$SHARE:RDBX$LIBSHR.EXE /OPEN /SHARED
INSTALL>  ADD SYS$MESSAGE:MSGSHR.EXE /OPEN /SHARED
INSTALL>  ADD SYS$MESSAGE:TXTSHR.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$DIR.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$WORK.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$VOL.EXE /OPEN /SHARED
INSTALL>  ADD RDBX$EXE:RDBX$ENV.EXE /OPEN /SHARED
INSTALL>  EXIT
```

When you install RdbExpert as a shared image you need to increase the global pages and global sections parameters. Refer to Section 1.5.4 and Table 1–2 for information on changing these parameters.

3.5 Running the RdbExpert IVP as a Standalone Procedure

The RdbExpert Installation Verification Procedure (IVP) can be run at any time after the successful installation of RdbExpert. For example, if RdbExpert does not appear to be running properly, you may want to verify that the correct RdbExpert distribution kit files are present on your system.

The account you use to run the IVP must have the TMPMBX and SYSPRV privileges. If the data dictionary is installed on the system, the account must also have BYPASS privilege or the CDD EXTEND privilege at the CDD$TOP dictionary directory. Also, the quotas for the account you use must be sufficient to run RdbExpert.

Use the following command to run the RdbExpert IVP after the installation of RdbExpert:

```
$  @SYS$COMMON:[SYSTEST]RDBX$IVP
```

The standalone IVP procedure runs in the same manner as the VMSINSTAL IVP procedure. If the IVP fails, it creates a log file, SYS$UPDATE:RDBXIVP.LOG, of the failed portion of the test.

3.6 Determining and Reporting Problems

If you encounter a problem while using RdbExpert, 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 has to do with the RdbExpert documentation. There are Reader's Comments forms at the back of each 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 RdbExpert. This sample was run on a system that had no previous version of RdbExpert installed. Depending on which layered products you have on your system, you might see additional messages and questions when you perform your installation.

You can type a question mark (?) in response to any of the installation prompts to get help. (This sample includes the question mark and the information displayed for several questions.)

The Installation Verification Procedure (IVP) runs at the end of the installation.

```
$ @SYS$UPDATE:VMSINSTAL
        VAX/VMS Software Product Installation Procedure V5.3

It is 27-SEP-1990 at 16:39.

Enter a question mark (?) at any time for help.

%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
        _TWA5:
        DECW$SERVER_0
        SMITH
        DECW$WM_2
        DECW$TE_2
        Greg
        _TWA3:
        _TWA4:
* Do you want to continue anyway [NO]? YES
* Are you satisfied with the backup of your system disk [YES]? YES
* Where will the distribution volumes be mounted: PDD$KIT:

Enter the products to be processed from the first distribution volume set.
* Products: RDBX010
* Enter installation options you wish to use (none): Return
The following products will be processed:

  RDBX V1.0

        Beginning installation of RDBX V1.0 at 16:39
```

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


        Installation procedures for: "DEC RdbExpert for VMS V1.0"

Product:      RDBEXPERT
Producer:     DEC
Version:      1.0
Release Date: 27-SEP-1990
* Does this product have an authorization key registered and loaded? YES

    Be sure you have read the section entitled

        "Preparing Your System and the Installing Account"

    in the installation guide before continuing with the installation.

    Checking system requirements ...

* Install RdbExpert shareable images [YES]? NO
* Install RdbExpert executable images [YES]? NO

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

    There are no more questions.  The installation takes approximately
    30 minutes on a stand-alone VAX 11/780.

    Beginning installation ...

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


%VMSINSTAL-I-SYSDIR, This product creates system disk directory
                     VMI$ROOT:[RDBX]
%CREATE-I-EXISTS, VMI$ROOT:[RDBX] already exists

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
                     VMI$ROOT:[SYSHLP.EXAMPLES.RDBX]
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.RDBX] already exists

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
                     VMI$ROOT:[SYSTEST.RDBX].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.RDBX] already exists


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

      SYSTEM MANAGER:

      To install the RdbExpert DCL verb for the entire cluster,
      you must perform the following command for each node in the
      cluster.

        $ INSTALL
        INSTALL> REPLACE SYS$SHARE:DCLTABLES.EXE
        INSTALL> EXIT

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

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

      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 RdbExpert.

        $ @SYS$STARTUP:RDBX$STARTUP.COM

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

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

      The RdbExpert Installation Verification Procedure (IVP)
      has been provided in SYS$TEST:

      It is invoked using the command:

        $ @SYS$TEST:RDBX$IVP.COM

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

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

      The release notes for RdbExpert are available in the file
      SYS$HELP:RDBX010.RELEASE_NOTES

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

Executing IVP for DEC RdbExpert for VMS ...

Loading Rdb/VMS sample ...
Generating sample Rdb/VMS design ...

Directory for path: RDBX$MAIN

Database design: Personnel_Sample
Logical design: Logical
  Schema: Rdb_personnel
  Physical design: Physical
    Workload
    Environment
    Volume
    Output design
    Summary Report
    Analysis Report
    Audit Report


%RDBX-S-IVPPASSED, RdbExpert IVP successfully completed

        Installation of RDBX V1.0 completed at 16:46

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

        VMSINSTAL procedure done at 16:46
```