AA–PC1FA–TK

DEC VUIT

Installation Guide

December, 1990

This document contains instructions for installing DEC Visual User Interface Tool (DEC VUIT™) on both the VMS™ and ULTRIX™ operating systems. It also explains how to read the online release notes before or after installing the product. This document applies to DEC VUIT Version 1.0 and all maintenance updates throughout that version.

Revision/Update Information:	This is a new manual.
Operating System and Version:	VMS Version 5.3 or higher. ULTRIX Version 3.1 or higher. Future maintenance releases may require higher versions.
Software Version:	DEC VUIT Version 1.0

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Preface

Purpose of This Guide

This guide describes how to install DEC Visual User Interface Tool (DEC VUIT™) on the VMS™ and ULTRIX™ operating systems. This document applies to DEC VUIT Version 1.0 and all maintenance updates in that version. A major version number is represented by the digits to the left of the decimal point, and the maintenance update version number is indicated by the digits to the right of the decimal point.

Keep this document with your distribution kit. You will need it to install maintenance updates or to reinstall DEC VUIT for any other reason.

At the back of this document are two Reader's Comments forms. If you have any comments about this document, fill out one form and mail it; your comments will be considered for the next revision of the installation guide.

The installation procedure is described in a step-by-step manner. The system prompts you to answer questions and to change volumes, and waits for you to tell it to continue.

Who Should Use This Guide

This guide is intended for system managers of VMS or ULTRIX systems.

Structure of This Guide

This manual contains two chapters and four appendixes:

- Chapter 1, which describes how to install DEC VUIT on VMS
- Chapter 2, which describes how to install DEC VUIT on ULTRIX
- Appendix A, which shows a sample installation verification procedure (IVP) for DEC VUIT on VMS systems
- Appendix B, which lists and describes the files installed on VMS systems
- Appendix C, which shows a sample installation verification procedure (IVP) for DEC VUIT on ULTRIX systems
- Appendix D, which lists and describes the files installed on ULTRIX systems

For More Information

For more information, see the following documents:

- Cover letter for DEC VUIT titled, *Read Before Installing or Using DEC Visual User Interface Tool Version 1.0*
- *VMS System Management Subkit*
- *ULTRIX-32 Network Management Guide*

Conventions

Ctrl/X	In procedures, a sequence such as Ctrl/X indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
Return	In procedures, a key name is shown enclosed to indicate that you press a key on the keyboard.
blue-green ink	Blue-green ink indicates information that you must enter from the keyboard, or a screen object that you must choose or click on.
[ ]	Defaults appear in brackets throughout the installation procedure.
boldface text	In Chapter 2, boldface text indicates information that you must enter from the keyboard.

1

Installing the Product on VMS

This chapter describes how to install DEC Visual User Interface Tool (DEC VUIT™) on VMS™ systems.

1.1 Preparing to Install DEC VUIT

This section discusses the preparations and requirements necessary for installing DEC VUIT; it applies to Version 1.0 of DEC VUIT and all subsequent maintenance releases up to the next major product release.

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.

DEC VUIT 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 1.2.1.

1.1.1 Prerequisite Hardware

There is no prerequisite hardware for installing DEC VUIT; however, in order to run DEC VUIT, you must have a workstation. Only workstations have the graphics and windowing capabilities needed to use DEC VUIT.

1.1.2 Prerequisite and Optional Software

Table 1–1 provides information on the prerequisite and optional software that should be installed on your system before installing DEC VUIT. The System Software Addendum (SSA) contains a complete list of prerequisite and optional software and their required version numbers.

Table 1–1 Prerequisite and Optional Software for VMS Systems

Prerequisite Products	Purpose
VMS Version 5.3	Required for all OSF/Motif™ development
DECwindows™ Programming Environment	Required for all OSF/Motif development
DECwindows Developer Kit on VMS for OSF/Motif Version 1.1	Provides shareable libraries necessary for executing DEC VUIT

1.1.3 License Registration

Before you install and run DEC VUIT Version 1.0 on a newly-licensed node or cluster, you must first register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The License PAK may be shipped along with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order. If you are installing DEC VUIT as an update on a node or cluster already licensed for this software, you have already completed the License PAK registration requirements.

You must register and load your license for DEC VUIT 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 License PAK.
- At the DCL prompt, enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to License PAK information.

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

1.1.4 Installation Procedure Requirements

This section and those that follow discuss various requirements for installing DEC VUIT.

The installation takes approximately 5-10 minutes, depending on your type of media and your system configuration.

1.1.4.1 Privileges and Disk Space

To install DEC VUIT, 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 the BYPASS privilege at the start of the installation.

DEC VUIT's requirements for free disk storage space are different during installation and after installation. Table 1–2 summarizes the storage requirements.

Table 1–2 Disk Space Requirements on VMS Systems

Kit	Blocks During Installation	Blocks After Installation
DEC VUIT Version 1.0	4500	4500

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
```

1.1.4.2 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 a privileged account
- Whether you have adequate quotas for installation
- Whether DECnet is running
- 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.

1.1.4.3 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.

1.2 Installing DEC VUIT

This section explains how to install DEC VUIT. Section 1.2.1 contains a step-by-step description of the installation procedure.

Section 1.3 covers post-installation considerations.

1.2.1 The Installation Procedure

The DEC VUIT installation procedure consists of a series of questions and informational messages. See Section 1.5 for a sample 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.

1 Invoke VMSINSTAL.

The VMSINSTAL command has the following syntax:

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

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. The following list defines the elements of the VMSINSTAL command procedure:

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

```
VUIT
```

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, once the installation is complete you should replace any media you removed.

If you are using an online kit rather than tape or disk media, specify the path to the kit. For example,

```
node::diskname:[username]kit
```

OPTIONS N

An optional parameter that indicates you want to see the question on release notes. 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 proceeding with the installation in case they contain additional information about the installation. If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.

There are the following additional options you can select when you invoke VMSINSTAL:

- Auto_answer option (A): Initially creates a file that contains your answers to VMSINSTAL questions and prompts. You can then use the option (and the answer file) to save time during a reinstallation (typically after upgrading your system).
- Get save set option (G): Lets you store product save sets temporarily on a magnetic tape or in a disk directory.
- File log option (L): Logs all activity to the terminal during installation.
- Alternate root option (R): Lets you install the product to a system root other than that of the running system.

See the VMS documentation on software installation in the VMS System Management Subkit for detailed 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 DEC VUIT from the TK50 drive MUA0: and shows the system response. This example uses the OPTIONS N release note parameter:

```
$  @SYS$UPDATE:VMSINSTAL VUIT MUAO: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.3


It is 13-NOV-1990 at 16:08.

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

If you do not supply the product name, the device name, or the option, VMSINSTAL prompts you for this information later in the installation procedure.

2 Confirm system backup.

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

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.

3 Mount the media.

```
Please mount the first volume of the set on  MUA0:.
* Are you ready? [YES]
%MOUNT-I-MOUNTED,  VUIT mounted on _MUA0:
The following products will be processed:

  VUIT V1.0

   Beginning installation of VUIT V1.0 at 16:09

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

You should now mount the 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. DEC VUIT installation requires only one volume, so you will be prompted only once.

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

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.

If you are using an online kit, you will not be asked to mount the media. If you are using an online kit and you have specified the saveset name, device name, and option N, then VMSINSTAL will go directly from confirming a system backup to selecting a release notes option.

If you did not specify a volume in the VMSINSTAL command line, you are prompted for the volume name. Respond with the device name, as follows:

```
* Where will the distribution volumes be mounted: mua0:
```

If you did not specify a saveset in the VMSINSTAL command line, you are prompted for the saveset name. Respond with the name of the saveset as follows:

```
Enter the products to be processed from the first distribution volume set.
* Products:  vuit010
```

4 Select a release notes option.

```
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]:
```

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.

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]:
```

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 if you have already reviewed the release notes and are restarting the installation.

Next, VMSINSTAL displays the following question:

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

To continue the installation, enter YES. Otherwise, press RETURN. In either case, the release notes are copied to a file in the SYS$HELP directory:

```
SYS$HELP:VUIT010.RELEASE_NOTES
```

If you did not specify any options on the VMSINSTAL command line, you are prompted for options as follows:

```
* Enter installation options you wish to use (none):  N
```

If you specify the N option in response to this prompt, VMSINSTAL continues as shown at the beginning of step 4.

5 Respond to license registration queries.

```
    +----------------------------+
    |  Installing DEC VUIT V1.0  |
    +----------------------------+


Product:       VUIT
Producer:      DEC
Version:       1.0
Release Date:  05-NOV-1990

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

The installation procedure displays license information about your product and then asks if you have registered and loaded your Product Authorization Key (PAK).

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

If you have registered and loaded your PAK, VMSINSTAL lists the files to be loaded from the save sets you selected. Total block count for these files is approximately 4500 blocks. See Appendix B for a listing and description of these files.

6 Observe the Installation Verification Procedure (IVP) message.

After DEC VUIT 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 DEC VUIT. The DEC VUIT IVP requires a workstation.

The DEC VUIT installation procedure provides information on running the IVP after installation:

```
The DEC VUIT Installation Verification Procedure (IVP) is placed in
SYS$TEST and can be executed at any time after the installation
by issuing the command @SYS$TEST:VUIT$IVP.
```

```
The DEC VUIT Installation Verification Procedure requires:
       - A workstation specified to act as display device
         (X server) for the DEC VUIT interface.  Privileges
         must have been set up properly in order to allow
         the process running the installation verification
         procedure to display on the workstation (see the
         DEC VUIT Installation Guide).
       - The user running the IVP must follow the script
         specified in the DEC VUIT Installation Guide and
         visually compare the screen images with those
         specified in the DEC VUIT Installation Guide.  The user
         may alternatively select the Exit
         choice on the File pull-down menu as an
         abbreviated IVP which will ensure only that DEC VUIT
         can be successfully invoked.

        All questions regarding the installation of VUIT
        have been asked.  The time required to complete the installation
        depends upon the location of the kit, the speed of your disks,
        the amount of free blocks on your disks, and the speed of the
        processor.
```

7 Read 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 moves the new or modified files to their target directories. If you chose to have files purged, that work is done now. The following messages are displayed:

```
%VMSINSTAL-I-SYSDIR, This product creates system directory
                     [SYSHLP.EXAMPLES.VUIT].
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
```

8 End the installation procedure.

```
        Installation of VUIT V1.0 completed at 16:18

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

        VMSINSTAL procedure done at 16:18
```

The previous messages indicate that the entire installation procedure is complete.

9 Observe the IVP.

Because the DEC VUIT IVP displays only on a workstation and requires user input, it must be run separately from the installation procedure.

Section 1.3 explains how to run the IVP.

10 Log out of SYSTEM account.

You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 13-NOV-1990 16:18:15.02
```

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.

1.2.2 Error Recovery

If errors occur during the installation, VMSINSTAL displays failure messages. If the installation fails, you see the following message:

```
%VMSINSTAL-E-INSFAIL, The installation of DEC VUIT 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.
- Quotas necessary for successful installation are insufficient.

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. For information on installation requirements, see Section 1.1.

1.3 After Installing DEC VUIT

After installing DEC VUIT, you can run the installation verification procedure separately.

In order to run the IVP for DEC VUIT, you must use a workstation. To ensure the integrity of installed files should system problems occur, execute the following commands:

```
$  SET DISPLAY/CREATE/NODE[=workstation_nodename]
$  @SYS$TEST:VUIT$IVP
```

The DEC VUIT main window should appear. Follow the IVP script provided in Appendix A.

1.4 Determining and Reporting Problems

If you encounter a problem while using DEC VUIT, 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 DEC VUIT 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 previously or follow alternate instructions provided by Digital for reporting SPD nonconformance problems.

See the release notes for DEC VUIT for information on how to submit an SPR.

1.5 Sample Installation

This section contains a sample installation of DEC VUIT. This sample was run on a system that had no previous version of DEC VUIT installed. See Appendix B for a listing of the files installed by DEC VUIT on your system.

This sample installation assumes that no users are logged on to your system.

```
$ set def sys$update
$ @vmsinstal vuit sys$sysroot:[sysmgr.vuitkit] options n

        VAX/VMS Software Product Installation Procedure V5.3

It is 13-NOV-1990 at 13:44.

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

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

Please mount the first volume of the set on  MUA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED,  VUIT mounted on _MUA0:

The following products will be processed:

  VUIT V1.0

        Beginning installation of VUIT V1.0 at 13:44

%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]: 4
* Do you want to continue the installation [NO]? YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been successfully moved
 to SYS$HELP.

        +--------------------+
        |  Installing VUIT   |
        +--------------------+


        Product:      VUIT
        Producer:     DEC
        Version:      1.0
        Release Date: 05-NOV-1990

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

        The DEC VUIT files include:
            VUIT.EXE          - the VUIT executable image
            VUIT.UID          - the UID file defining VUIT's own interface
            VUIT.HLB          - the VUIT help library
            VUIT.DAT          - the VUIT X resource file
            VUIT$IVP.COM      - the VUIT Installation Verification Procedure
            VUIT_BURGER.COM   - the command file to build VUIT_BURGER demo
            VUIT_BURGER.C     - the C source file for VUIT_BURGER demo
            VUIT_BURGER.UIL   - the UIL source file for VUIT_BURGER demo
            VUIT_BURGER.EXE   - the executable for VUIT_BURGER demo
            VUIT_BURGER.UID   - the UID file for VUIT_BURGER demo
            FORM_BURGER.COM   - the command file to build FORM_BURGER demo
            FORM_BURGER.C     - the C source file for FORM_BURGER demo
            FORM_BURGER.UIL   - the UIL source file for FORM_BURGER demo
            FORM_BURGER.EXE   - the executable for FORM_BURGER demo
            FORM_BURGER.UID   - the UID file for FORM_BURGER demo
            VUIT_TEST.COM   - the command file to build VUIT_TEST demo
            VUIT_TEST.C     - the C source file for VUIT_TEST demo
            VUIT_TEST.EXE   - the executable for VUIT_TEST demo

        The total size of these files is approximately 4500 blocks.

        The DEC VUIT Installation Verification Procedure (IVP) is placed in
        SYS$TEST and can be executed at any time after the installation
        by issuing the command @SYS$TEST:VUIT$IVP.
```

```
        The DEC VUIT Installation Verification Procedure requires:
            - A workstation specified to act as display device
              (X server) for the VUIT interface.  Privleges
              must have been set up properly in order to allow
              the process running the installation verification
              procedure to display on the workstation (see the
              DEC VUIT Installation Guide).
            - The user running the IVP must follow the script
              specified in the DEC VUIT Installation Guide and
              visually compare the screen images with those
              specified in the DEC VUIT Installation Guide. The user
              may alternatively select the Exit
              choice on the File pull-down menu as an
              abbreviated IVP which will ensure only that DEC VUIT
              can be successfully invoked.

        All questions regarding the installation of VUIT
        have been asked.  The time required to complete the installation
        depends upon the location of the kit, the speed of your disks,
        the amount of free blocks on your disks, and the speed of the
        processor.

%VMSINSTAL-I-SYSDIR, This product creates system directory
        [SYSHLP.EXAMPLES.VUIT].
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

        Installation of VUIT V1.0 completed at 13:53

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

        VMSINSTAL procedure done at 13:53
```

2

Installing the Product on ULTRIX

This chapter describes how to install DEC Visual User Interface Tool DEC VUIT™ on ULTRIX™ systems.

2.1 Preparing for DEC VUIT Installation

Before starting the installation procedures in Section 2.2, you should complete the preparation requirements outlined in this section. This section provides the necessary information to make your installation run smoothly. You will need to know about and be aware of your installation options and information related to the installation procedure. This section will help you determine the following:

- Whether you need to read the Release Notes and the *Read Before Installing* letter
- Whether you are installing DEC VUIT from distribution media or using the ULTRIX Remote Installation Service (RIS)
- Whether you are installing DEC VUIT locally or into a Diskless Management Services (DMS) server area for diskless clients
- How to register your License Product Authorization Key (PAK)
- If installing DEC VUIT from media, whether your distribution kit includes all the components listed on the Bill of Materials (BOM)
- Whether you need superuser privileges for the system on which you will be installing DEC VUIT
- If the system on which you will install DEC VUIT meets the DEC VUIT hardware, software, and disk space requirements
- Which optional DEC VUIT subsets you should install
- How much disk space you will need

- Whether you have to back up your system disk

2.1.1 Release Notes

DEC VUIT provides online release notes. Digital strongly recommends that you read the release notes before using the product. The release notes may contain information about changes to the application.

After DEC VUIT is installed, you will find the release notes in a file named vuit100.release_notes in the /vuit directory under the root directory (/usr/lib). To print the release notes, type:

```
# lp /usr/lib/vuit/vuit100.release_notes
```

Your documentation may also include the *Read Before Installing* letter. This letter, if included in your kit, discusses information that is important for you to know before installing ULTRIX or DEC VUIT and that may not be included either in installation guides or primary release notes documents. If the *Read Before Installing* letter is listed on your BOM, please check to see if it contains information about DEC VUIT.

2.1.2 Using RIS for Client Installations

If you expect to use DEC VUIT subsets from a Remote Installation Services (RIS) server area of a remote system for installation on your local system, first check with your site system administrator to make sure that:

- A DEC VUIT kit is installed in the RIS server area and is available for use
- Your system is registered as a RIS client

If DEC VUIT subsets are available to you on a RIS server system, you will need the name of that system to start the installation procedure described in this guide.

2.1.3 Installing DEC VUIT into a RIS Server Area

If you manage a Remote Installation Services (RIS) server area and intend to install DEC VUIT into your server area, read the following sections of this guide:

- Section 2.1.6 for information about contents of the media kit
- Section 2.1.7 for hardware and software requirements, for the names and numbers of software subsets, and for disk space requirements
- Sections Section 2.2.1 and Section 2.2.2 for the displays and prompts specific to DEC VUIT installations

To start the installation procedure, do not use the `setld` command. Use the `ris` utility (see Section 2.2.2).

2.1.4 Installing DEC VUIT into a DMS Server Area

If you manage a DMS server area and want to install DEC VUIT into a DMS server area, read the following sections of this guide:

- Section 2.1.6 for information about contents of the media kit
- Section 2.1.7 for hardware and software requirements, the names and numbers of software subsets, and for disk space requirements
- Sections Section 2.2.1 and Section 2.2.2 explain the displays and prompts that are specific to DEC VUIT installations

To start the installation procedure, do not use the `setld` command. Use the `dms` utility (see Section 2.2.2).

In a local (node-specific) installation, the system on which you are installing DEC VUIT will use its own disks when DEC VUIT is run. A local (node-specific) installation procedure loads DEC VUIT files on the disks that belong to the system where you perform the installation. When DEC VUIT is run, its executable files are mapped into memory on the same system.

In a diskless client environment, the system on which you are installing DEC VUIT is a server for Diskless Management Services (DMS) and provides the disks for client systems running DEC VUIT software. This installation environment is referred to as "diskless" because the system uses DEC VUIT software accessed through the network by Network File System (NFS) software. When DEC VUIT is run by users logged into a client system, DEC VUIT executables are mapped into memory on the client system rather than the server system. From the perspective of the client node, DEC VUIT installation is handled entirely by the manager of the DMS server area.

Note *The diskless server area does not provide DEC VUIT software to users logged in to the server system itself. Installing DEC VUIT into the diskless environment provides DEC VUIT software only to client systems. Therefore, if users at your site need to use DEC VUIT when logged in to the local server system, you must perform a local (node-specific) installation of DEC VUIT in addition to the diskless installation.*

2.1.5 License Registration

DEC VUIT includes support for the ULTRIX License Management Facility (LMF). A License Product Authorization Key (License PAK) must be registered in the License Database (LDB) in order to use DEC VUIT on a newly-licensed node. The License PAK may be shipped along with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order.

To register a license under ULTRIX, first log in as superuser.

You then have a choice of two ways to perform the PAK registration in the License Database (LDB):

- Before installing DEC VUIT

  At the superuser prompt, edit an empty PAK template with the `lmf register` command and include all the information on your License PAK as follows:

  ```
  # lmf register
  ```

- After installing DEC VUIT

  At the superuser prompt, edit the partially completed PAK template in `/usr/var/adm/lmf/template` with the `lmf register` command to add your unique License PAK information as follows:

  ```
  # lmf register - </usr/var/adm/lmf/PRODUCT_NAME
  ```

  `PRODUCT_NAME` is the LMF product name on the License PAK.

After you register your license, use the following `lmf reset` command to copy the license details from the License Database (LDB) to the kernel cache:

```
# lmf reset
```

For complete information on using the ULTRIX License Management Facility, see the *ULTRIX Version 4.0 Guide to Software Licensing* or the `lmf(8)` reference page.

2.1.6 Checking the Media Software Distribution Kit

For installations from media, use the bill of materials (BOM) to check the contents of your software distribution kit.

The kit includes includes this installation guide and one of the following:

- The CDROM optical disk for systems with RRD40 optical disk drives
- The TK50 tape cartridge, labeled DEC VUIT V1.0, for systems with TK50 or TK70 tape cartridge drives
- The 9-track magnetic tape (MT9), labeled DEC VUIT V1.0, for systems with magnetic tape drives

Your distribution kit may also include a letter titled *Read Before Installing DEC Visual User Interface Tool Version 1.0.* This letter, if included in your kit, discusses information that is important for you to know before installing DEC VUIT and may not be included in this installation guide or release notes. If the *Read Before Installing* letter is listed on your BOM, please find it and read it now.

2.1.7 Installation Procedure Requirements

This section discusses various requirements for installing DEC VUIT.

A local, DMS server, or RIS server installation takes approximately 5 to 10 minutes, depending on your type of media and your system configuration. A RIS client installation may take longer because it is dependent on network activity at the time you do the installation. If the network is not active, you should expect an installation time roughly equal to a local installation.

Installing DEC VUIT and running the Installation Verification Procedure (IVP) on your target system takes 10 to 15 minutes.

2.1.7.1 Checking Login Privileges You must be able to log in as superuser on the system where you are installing DEC VUIT. Only when you are logged in as superuser do you have sufficient privileges to install the DEC VUIT software.

2.1.7.2 Hardware Requirements To perform the installation, you need the following hardware:

- Software distribution device (if installing from media)

  You need a distribution device that corresponds with the software distribution media. For example, if you have a TK50 software kit, you need a TK50 or TK70 tape drive. You must know how to load the media supplied with the software distribution kit on the appropriate drive. The documentation for the tape or disk drive that you are using explains how to load media.

- Terminal

  You can use either a hardcopy or video terminal to communicate with the operating system and respond to prompts from the installation procedure for DEC VUIT.

- Workstation (for IVP)

  There is no prerequisite hardware for installing DEC VUIT; however, in order to run DEC VUIT, you must have a workstation. Only workstations have the graphics and windowing capabilities needed to use DEC VUIT.

2.1.7.3 Software Requirements DEC VUIT Version 1.0 requires ULTRIX Version 3.1 or higher to be installed. In addition, DEC VUIT requires the following ULTRIX software subsets to be loaded on the system where you install DEC VUIT:

- UDTBASEnnn (for RISC) or ULTBASEnnn (for VAX), which is named "ULTRIX Base System"
- UDTINETnnn (for RISC) or ULTINETnnn (for VAX), which is named "TCP/IP Networking Utilities"

DEC VUIT contains the NET component, which works with the existing network setup on your system to allow access to remote databases. If you plan to use DECnet protocol with the DEC VUIT NET component, DECnet should be installed. If you install DECnet following DEC VUIT installation and initialization, you will need to use the `netu` utility to make DECnet protocol available to the DEC VUIT NET component.

- X11/DECwindows Servers
- DECnet-ULTRIX
- TCP/IP Network Services

To install the optional DEC VUIT reference page (manual page), the following ULTRIX software subsets must be installed on the system where you install DEC VUIT:

- UDTMANnnn (for RISC) or ULTMAN (for VAX) which is named "On Line Manual Pages"
- UDTDCMT (for RISC) or ULTDCMT (for VAX) which is named "Document Preparation Software"

If you are installing DEC VUIT in a local (node-specific) environment, perform the following steps to determine whether the preceding ULTRIX subsets are loaded:

1. Log in to the system where you plan to install DEC VUIT.
2. On a RISC system, enter the following commands:

```
#  /etc/setld -i | grep UDTBASE
#  /etc/setld -i | grep UDTINET
#  /etc/setld -i | grep UDTMAN
#  /etc/setld -i | grep UDTDCMT
#  /etc/setld -1 | grep UDWSER
#  /etc/setld -i | grep DNPBASE
```

On a VAX system, enter the following commands:

```
#  /etc/setld -i | grep ULTBASE
#  /etc/setld -i | grep ULTINET
#  /etc/setld -i | grep ULTMAN
#  /etc/setld -i | grep ULTCMT
#  /etc/setld -1 | grep UWSSER
#  /etc/setld -i | grep DNUBASE
```

Check the displayed rows for the relevant subset names and for any related patch names. The word `installed` appears in a row after the subset identifier code when a subset is loaded. If the word `installed` does not appear (the second column in a row is blank), the subset or patch is not loaded. In this case, you must load the missing ULTRIX software before installing DEC VUIT.

2.1.7.4 Determining Which Subsets to Load You must choose the DEC VUIT subsets you want to load. The DEC VUIT subsets have the following titles:

- `DEC VUIT`—This is the DEC VUIT base system and is a required subset. Its identifier is VIRVUIT100 for RISC systems or VIXVUIT100 for VAX systems.
- `DEC VUIT man page`—The online reference page subset for the `vuit` command is an optional subset. Its identifier is VIRMAN100 for RISC systems or VIXMAN100 for VAX systems.

  You can load the DEC VUIT reference page subset only if the ULTRIX reference page subset is already loaded on your system. If users on the system where DEC VUIT is being installed use reference pages that are mounted from another system, load the DEC VUIT reference page on the other system rather than the one where you are currently installing DEC VUIT.

  In this case, do not request the reference page subset during this installation of DEC VUIT. After the installation is complete, you can log in to the system where ULTRIX reference pages are installed and load only the DEC VUIT reference page subset on that system.

2.1.7.5 Determining Disk Space Requirements The disk space requirements discussed in this section apply to the disks where you load the DEC VUIT subsets.

Table 2–1 and Table 2–2 list the disk space requirements for loading DEC VUIT software subsets on ULTRIX RISC and ULTRIX VAX systems. These tables specify disk space requirements by file system for the convenience of those doing installations on systems where these file systems are mount points for different disk partitions.

Table 2–1 Worksheet for Subset Sizes (Kilobytes Required) on RISC Systems

Subset Title	Subset Name	/usr/kits	/usr/var/kits	Include?
DEC VUIT manual page	VIRMAN100	6	0	Yes/No
DEC VUIT base system	VIRVUIT100	3976	5064	Yes/No
		———	———	
Totals:		3982	5064	

Table 2–2 Worksheet for Subset Sizes (Kilobytes Required) on VAX Systems

Subset Title	Subset Name	/usr/kits	/usr/var/kits	Include?
DEC VUIT manual page	VIXMAN100	6	0	Yes/No
DEC VUIT base system	VIXVUIT100	3168	3768	Yes/No
		———	———	
Totals:		3174	3768	

Using the disk space requirements table for a VAX or a RISC system that applies to your system, total the values for the subsets that you plan to load in each file system.

Compare the space required for subsets with the free space currently on the disks where DEC VUIT files will reside.

To determine the current amount of free space for a directory path, log in to the system where you plan to install DEC VUIT.

You can check which file systems are mounted and where they are by displaying the file `/etc/fstab`. For example:

```
#   more /etc/fstab
/dev/rd0a:/:rw:1:1:ufs::
/dev/rd0g:/usr:rw:1:2:ufs::
/usr/staff/r1/leslie@bigsys:/usr/staff/r1/leslie:rw:0:0:nfs:bg:
/usr/man@bigsys:/usr/man:ro:0:0:nfs:bg:
```

The previous display indicates that `/usr` (mounted to `/dev/rd0g`) is the only mount point that affects where DEC VUIT files will reside; the system has only one local disk drive and the `/usr/kits` and `/usr/var/kits` file systems reside in the `g` partition of the disk on that drive.

Enter the `df` command to determine total space and free space for the one or two file systems where DEC VUIT files will reside. Based on the previous display of the `/etc/fstab` file, which shows that only `/usr` is a mount point, you would only need to inspect free space in the `/usr` file system:

```
#   df /usr
Filesystem   Total    kbytes   kbytes   %
node         kbytes   used     free     used  Mounted on
/dev/rd0g     122598   54447   55892    49%   /usr
```

The previous display indicates that there are 55892Kb free. This free space must accommodate subset requirements listed in Tables 2–1 and 2–2 for both the `/usr/kits` and `/usr/var/kits` file systems.

On systems where /usr/var/kits and /usr/kits are mounted to different devices from /usr, enter the following command:

```
# df /usr/kits /usr/var/kits
```

In this case, you compare space required for DEC VUIT files in /usr/kits to the free space displayed in the first line of the df output list, and you compare the space required for DEC VUIT files in /usr/var/kits to the free space displayed in the second line of that list.

Checking Disk Space for Installation into a Diskless Environment

For DEC VUIT installations into the diskless environment, the disks where DEC VUIT subsets reside are on a server system. Therefore, for installations into diskless environments, log in to the server system to check disk space requirements.

Inspect the free space in the following file systems; if you have only one diskless installation environment set up on your system, the file systems are rooted at the nodes /dlenv0 and /dlclient0 as follows:

- /dlenv0/root0.mips/usr (root area for ULTRIX RISC installations) or /dlenv0/root0.vax/usr (root area for ULTRIX VAX installations)
- /dlclient0/client.root (client area)

On the client system, the /usr/var file system points to the /var file system. Therefore, you need to check the free space in /dlclient0, /dlclient1, /dlclient2, and so on.

For installations into a diskless environment, the disk space requirements specified in Table 2–1 and Table 2–2 for the /usr/var/kits file system are requirements for both the root area and each client area, while the disk space requirements noted for the /usr/kits file system apply only to the root area. If multiple root areas serve the DEC VUIT software, each root area requires space for all the installed subsets.

Increasing Disk Space Available for DEC VUIT Installation

The DEC VUIT installation procedure creates the following directories and loads files into subordinate directories:

/usr/kits/vuit

/usr/var/kits/vuit

If the vuit directory node in the previous paths does not exist, the installation procedure creates it. If the vuit node in the previous paths does exist, the installation procedure uses it. If you find that there is insufficient disk space for the DEC VUIT subsets, and know that you have additional space on alternative disks or disk partitions for your system, you can take the following steps before installing DEC VUIT:

1. Log in as superuser.
2. Create the directory `/usr/kits/vuit`, `/usr/var/kits/vuit`, or both.
3. Specify in the `/etc/fstab` file that one or more of the newly created directories are mount points to new disk partitions where there is additional space.
4. Enter the `mount -a` command so that the new mount points take effect.

2.1.8 Backing Up Your System Disk

Digital recommends that you back up your system disk before installing any software. Use the backup procedures established at your site. For details on performing a system disk backup, see your ULTRIX documentation.

2.1.9 Stopping the Installation

You can stop the installation procedure at any time by using Ctrl/C. However, files created up to that point are not deleted. You must delete these files interactively. Appendix D lists the files and directories created during the installation procedure.

2.1.10 Error Recovery

If errors occur during the installation, the system displays failure messages. If the installation fails due to insufficient disk space, the installation procedure displays the following message:

```
There is not enough file system space for subset VIRVUIT100
DEC VUIT VIRVUIT100 will not be loaded.
```

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

- The operating system version is incorrect
- The prerequisite software version is incorrect
- The system parameter values for successful installation are insufficient

For descriptions of error messages generated by these conditions, see the ULTRIX documentation on system messages, recovery procedures, and ULTRIX software installation. If you are notified that any of these conditions exist, take the appropriate action described in the message. For information on system requirements, see Section 2.1.7.3.

If an error occurs while using DEC VUIT and you believe the error is caused by a problem with DEC VUIT, take one of the following actions:

- If you have a basic or DECsupport Software Agreement, call your Customer Support Center (CSC). The CSC provides telephone support for high-level advisory and remedial assistance.

- If you have a Self-Maintenance Software Agreement, you can submit a Software Performance Report (SPR).
- If you purchased DEC VUIT within the last 90 days and you think the problem is caused by a software error, you can submit an SPR.

If you find an error in the DEC VUIT documentation, fill out and submit one of the Reader's Comments forms at the back of the document containing the error. Please include the section and page number where the error occurred.

2.2 Installing DEC VUIT

This section describes the installation procedures for DEC VUIT. Before you start, read Section 2.1 which describes the general options and requirements that apply to installing DEC VUIT.

DEC VUIT can be installed in a number of ways:

- Locally from tape, disk, CDROM, or Remote Installation Services (RIS) media (for RIS clients). Section 2.2.1 explains how to do a local installation.
- Remotely into a Diskless Management Services (DMS) or RIS server area for future client use. These installation procedures assume that you have already created your server environment and are ready to add DEC VUIT to it. Section 2.2.2 explains how to do a DMS and RIS server installation.

2.2.1 Installing DEC VUIT Locally

This installation procedure loads DEC VUIT files on a disk that belongs to the system where you perform the installation. When DEC VUIT is run, its executable images are mapped into memory on this system.

This section explains how to start a local installation procedure and how to respond to installation procedure prompts.

2.2.1.1 Starting the Installation Procedure

If you are installing DEC VUIT from tape media, start with **Using TK50 or Magnetic Tape Distribution Media**.

If you are installing DEC VUIT from disk, start with **Using RA60 or CDROM Consolidated Distribution Media**.

If you are installing DEC VUIT on a client system using a RIS kit, start with **Installing DEC VUIT from a RIS Server**.

Using TK50 or Magnetic Tape Distribution Media

If you are installing DEC VUIT from tape media, start the installation procedure as follows:

1. Mount the media on the appropriate tape drive.
2. Log in as superuser (login name root) to the system where you are installing DEC VUIT.
3. Make sure that you are at the root (/) directory by entering the following command:

   ```
   # cd /
   ```

4. Enter a `setld` command that specifies the `-l` (load) function and the device special file name for the tape drive where the media is mounted. For example, if you load a magnetic tape on tape unit 0, enter the following command:

   ```
   # setld -l /dev/rmt0h
   ```

   The installation procedure displays the following information and prompt:

   ```
   Please make sure your installation tape is mounted and on-line.
   Are you ready (y/n)?
   ```

   After all tape rewind and wind operations are complete and the tape drive indicates online status, enter `y`.

See Section 2.2.1.2 to continue the installation.

Using RA60 or CDROM Consolidated Distribution Media

If you are installing DEC VUIT from disk, start the installation procedure as follows:

1. Mount the media on the appropriate disk drive.
2. Log in as superuser (login name root) to the system where you are installing DEC VUIT.
3. Make sure that you are at the root (/) directory by entering the following command:

   ```
   # cd /
   ```

4. Specify the `/mnt` directory to be the mount point for the distribution file system on the drive. If your drive is `ra1`, enter the following command:

   ```
   # mount /dev/ra1c /mnt
   ```

5. Enter a `setld` command that requests the load function and identifies the directory in the mounted file system where DEC VUIT subsets are located.

For an ULTRIX RISC system, the directory location for these subsets is `/mnt/RISC/VUIT`. For an ULTRIX VAX system, the directory location for these subsets is `/mnt/VAX/VUIT`. For example, if you load DEC VUIT subsets onto a RISC system, enter the following command:

```
# setld -l /mnt/RISC/VUIT
```

See Section 2.2.1.2 to continue the installation.

Installing DEC VUIT from a RIS Server

To install DEC VUIT from a Remote Installation Services (RIS) server to a RIS client you must first install DEC VUIT in your RIS server environment. See your RIS manager if DEC VUIT is not already installed in the RIS server.

To install DEC VUIT subsets that reside in a `/var/adm/ris` distribution area on a remote system, start the installation procedure as follows:

1. Log in as superuser (login name root) to the system where you are installing DEC VUIT.
2. Make sure that you are at the root (/) directory by entering the following command:

   ```
   # cd /
   ```

3. Enter a `setld` command that requests the load function and identifies the system where DEC VUIT subsets are located. For example, if you are loading DEC VUIT subsets from a RIS distribution area on node `bigsys`, enter the following command:

   ```
   # setld -l bigsys:
   ```

If you receive an error, verify that you correctly followed the preparation steps in Section 2.1.2.

See Section 2.2.1.2 to continue the installation.

2.2.1.2 Responding to Installation Procedure Prompts

This section explains the installation procedure prompts and displays.

Selecting Subsets

After you enter the `setld` command for local (node-specific) installations or after you start the `dms` or `ris` utility for server installations, the installation procedure displays the names of DEC VUIT subsets and asks you to specify the subsets that you want to load:

```
*** Enter Subset Selections ***
The subsets listed below are optional:
 1) DEC VUIT                              2) DEC VUIT man page

 3) All of the Above
 4) None of the Above
 5) Exit without installing subsets

Enter your choice(s):
```

When installing from a RIS server, note that the subset numbers may vary depending on what products are available in the RIS area.

If you specify more than one number at the prompt, separate each number with a space, not a comma.

Next, the script lets you verify your choice. For example, if you enter `3` in response to the previous prompt, you will see the following display:

```
You are installing the following subsets:
   DEC VUIT                                 DEC VUIT man page

Is this correct? (y/n):
```

If the displayed subsets are not the ones you intended to choose, enter `n`. In this case, the subset selection menu is again displayed, and you can correct your choice of optional subsets.

If the displayed subsets are the ones you want to load, enter `y`.

Monitoring Displays During the Subset Loading Process

The procedure displays a message that the installation is starting:

```
Copying DEC VUIT (VIRVUIT100) from disk
        Working....Tue Nov 13 15:25:23 EDT 1990
Verifying DEC VUIT (VIRVUIT100)
        Working....Tue Nov 13 15:27:08 EDT 1990

Copying DEC VUIT man page (VIRMAN100) from disk
Verifying DEC VUIT man page (VIRMAN100)

VIRVUIT100 installed successfully
The release notes for DEC VUIT are located in:
    /usr/lib/vuit/vuit100.release_notes


VIRMAN100 installed successfully
```

Section 2.3 discusses the post-installation requirements specified in final informational messages from the procedure.

If, during the course of the installation, you encounter errors from the `setld` utility, see the Diagnostics section of the `setld(8)` reference page for an explanation of the error and the appropriate action to take.

If the verification process fails, you can look in the file /usr/var/adm/fverify to find information that can help you diagnose the problem.

2.2.2 Installing DEC VUIT into a Server Environment

This section explains how to start the installation procedure and load software subsets when you are installing DEC VUIT into an environment controlled by Diskless Management Services (DMS) or Remote Installation Services (RIS).

If installing from media, mount the distribution kit as follows:

1. For TK50 and MT9 media kits, mount the media on the appropriate device of the server node. You will later be prompted to enter the name of the special file for that device.
2. For CDROM and RA60 media kits, mount the media on the appropriate device on the server node. Then use the mount command to identify the special file for the device where you mounted the consolidated media. For example, if you mount the disk on drive ra1, enter the following command:

```
# mount /dev/ra1c /mnt
```

Section 2.2.2.1 explains how to install DEC VUIT into a DMS server environment. Section 2.2.2.2 explains how to install DEC VUIT into a RIS server environment.

2.2.2.1 DMS Server Installations

The following procedure lets you install DEC VUIT with the ULTRIX Version 4.0 dms utility into the diskless server area. The examples in this section show how to install the subsets to /dlenv0/root0.mips.

1. Log in and become the superuser.
2. To invoke the dms utility, enter the following command:

```
# /etc/dms
```

3. Select the Install Software option from the following menu by typing i:

```
DISKLESS MANAGEMENT SERVICES (DMS) UTILITY MENU

        a -  Add Client Processor
        m -  Modify Client Parameters
        r -  Remove Client Processor
        l -  List Registered Clients
        s -  Show Products in Diskless Environments
        i -  Install Software
        c -  Create Diskless Area on Disk
        k -  Kernel Rebuild or Copy
        e -  Exit

Enter your choice:   i
```

4 Choose option 2 in the following menu:

```
The menu below offers you two software installation alternatives:

   1)  You can install an operating system to a new diskless area.

   2)  You can install additional software to an existing diskless
       area that already contains an operating system.

Diskless Area Software Installation Menu:

        1  Install Operating System to New Area
        2  Add Software to Existing Area
        3  Return to Previous Menu

Enter your choice:   2
```

5 The following message lists the available installation directories:

```
You have chosen to install additional software into an existing diskless
environment.  These are the available installation directories:
```

If there is more than one installed `rootn.mips` directory in the diskless server area, choose the appropriate directory from the menu that lists existing `rootn.mips` directories. For example:

```
     1.  /dlenv0/root0.mips
     2.  /dlenv0/root1.mips
     3.  /dlenv0/root0.vax

Enter your choice:   1
```

6 You are next prompted for an input device name:

```
Enter the device special name or mount point of the distribution
media, for example, /dev/rmt0h:   /dev/rmt0h
```

7 If you want all registered clients to automatically have access to DEC VUIT, enter `y` to the following question:

```
The product software will automatically be propogated to every
registered client. Is this alright? (y/n):    y
```

If you answer `n`, DMS returns you to the main menu.

8 If your distribution media is tape, a message appears asking you to confirm that the tape is ready and online. If it is, type `y`.

```
Please make sure your installation tape is mounted and on-line.
Are you ready (y/n)?    y
Positioning Tape
```

9 The next message lists the software subsets you select for automatic installation. See **Selecting Subsets** in Section 2.2.1.2 to specify the subsets you want to load. See **Monitoring Displays During the Subset Loading Process** in Section 2.2.1.2 to monitor the displays during the subset load process and to complete the installation procedure.

10 If diskless clients are registered to share this area, a prompt asks you if you want to update the `client_name.root` directories of those clients.

Enter `yes` to keep the diskless clients in a consistent state.

Repeat these installation procedures for each `rootn.mips` area you plan to set up.

The `dms` main menu appears for your next selection.

2.2.2.2 RIS Server Installations

The following sample session describes how to add the DEC VUIT product to the `ris0.mips` area:

1 Log in and become the superuser.

2 Invoke the `ris` utility by entering the following command:

```
# /etc/ris
```

3 Select the Install Software option from the Remote Installation Services (RIS) Menu by typing `i`:

```
REMOTE INSTALLATION SERVICES (RIS) MENU

        a -  Add Client
        r -  Remove Client
        s -  Show Products in Remote Installation Environments
        m -  Modify Client
        i -  Install Software
        e -  Exit

Enter your choice:  i
```

4 Choose option 2 from the RIS Software Installation Menu:

```
The menu below offers you two software installation alternatives:

        1) You can create a new area to serve either RISC or VAX clients
           by installing a software product.  The ris utility automatically
           creates the new area.

        2) You can install additional software to an existing area
           that serves either RISC or VAX clients.

RIS Software Installation Menu:

        1  Install Software to a New Area.
        2  Add Software to an Existing Area.
        3  Return to Previous Menu

           Enter your choice:  2
```

5 A list of available environments appears from which you might select `ris0.mips`:

```
You have chosen to add a new product into an existing environment.

Select the remote installation environment:

1  /var/adm/ris/ris0.mips
    ULTRIX V4.0/ULTRIX WS V4.0 MANDATORY SUPPORTED (RISC)

2  /var/adm/ris/ris0.vax
    ULTRIX V4.0/ULTRIX WS V4.0 SUPPORTED (VAX)

Enter your choice:   1
```

6 You are next prompted for an input device name:

```
Enter the device special file name or the path of the directory where the
software is located, for example, /dev/rmt0h:  /dev/rmt0h
```

7 If your distribution media is tape, a message appears asking you to confirm that the tape is ready and online. If it is, type `y`:

```
Please make sure your installation tape is mounted and on-line.
Are you ready (y/n)?    y
Positioning Tape
```

8 The next message lists the software subsets you select for automatic installation. See **Selecting Subsets** in Section 2.2.1.2 to specify the subsets you want to load. See **Monitoring Displays During the Subset Loading Process** in Section 2.2.1.2 to monitor the displays during the subset load process and to complete the installation procedure.

9 After the subsets are installed, the following message appears:

```
Media extraction complete.
```

10 Repeat steps a through f for each RIS client allowed to install DEC VUIT.

a The `ris` main menu appears for your next selection. Select the Modify Client option from the Remote Installation Services (RIS) Menu by typing `m`:

```
REMOTE INSTALLATION SERVICES (RIS) MENU

        a -  Add Client
        r -  Remove Client
        s -  Show Products in Remote Installation Environments
        m -  Modify Client
        i -  Install Software
        e -  Exit

Enter your choice:   m
```

b Enter the name of the client to be modified from the list of available clients:

```
The following clients are available to modify:

clienta clientb

Enter the client processor's hostname:   clienta
```

c Verify the client processor's hardware Ethernet address. Press Return to choose the address assigned ([default address]) when the client was added to the RIS environment.

```
Enter the client processor's hardware Ethernet address, for
example, 08-00-2b-02-67-e1 [08-00-2b-14-ac-d1]:   Return
```

d Choose the products you want this client to have access to. You are shown the client's currently selected RIS environment and the products the selected client already has access to. At the prompt, enter the products you would like this client to be able to install including `vuit`. Separate each choice with a space.

```
The existing environment is /usr/var/adm/ris/ris0.mips.

The client currently can install the following products
from /usr/var/adm/ris/ris0.mips:

    'ULTRIX V4.0/ULTRIX WS V4.0 MANDATORY SUPPORTED (RISC) '

Select one or more products for the client to install
from /usr/var/adm/ris/ris0.mips:

Product    Description
 1    'ULTRIX V4.0/ULTRIX WS V4.0 MANDATORY SUPPORTED (RISC) '
 2    'DEC VUIT (DEC Visual User Interface Tool) V1.0 '

Enter one or more choices, for example, 1 2:    1 2
```

e If the list of products available to this client is correct, type `y`. If the list is not correct, type `n` to return to step d and reenter the products.

```
You chose the following products:

 1    'ULTRIX V4.0/ULTRIX WS V4.0 MANDATORY SUPPORTED (RISC) '
 2    'DEC VUIT (DEC Visual User Interface Tool) V1.0 '

Is that correct (y/n)? [y]:   y
```

f After modifying the client's records with the new list of installable products available, the following confirmation message appears:

```
clienta has been modified.
```

2.3 Completing the Installation

This section explains what you need to do following the installation to make DEC VUIT ready for use.

2.3.1 Running the IVP

You should run the Installation Verification Procedure (IVP) to be sure that DEC VUIT is correctly installed. The DEC VUIT IVP requires a workstation.

After installing DEC VUIT, you can run the IVP independently to verify that the software is available on your system. You might also want to run the IVP after a system failure to be sure that users can access DEC VUIT.

To run the IVP after an installation, enter the following command:

```
#   setenv DISPLAY dispname
#   setld -v subsetname
```

The `dispname` specifies the display screen on which DEC VUIT displays its window, and has the format `hostname:number`. Use the format `hostname::number` to specify DECnet is to be used for transport.

For VAX systems the `subsetname` is VIXVUIT100. For RISC systems use VIRVUIT100 as the `subsetname`.

For a complete sample of the DEC VUIT Installation Verification Procedure on ULTRIX systems, see Appendix C.

A

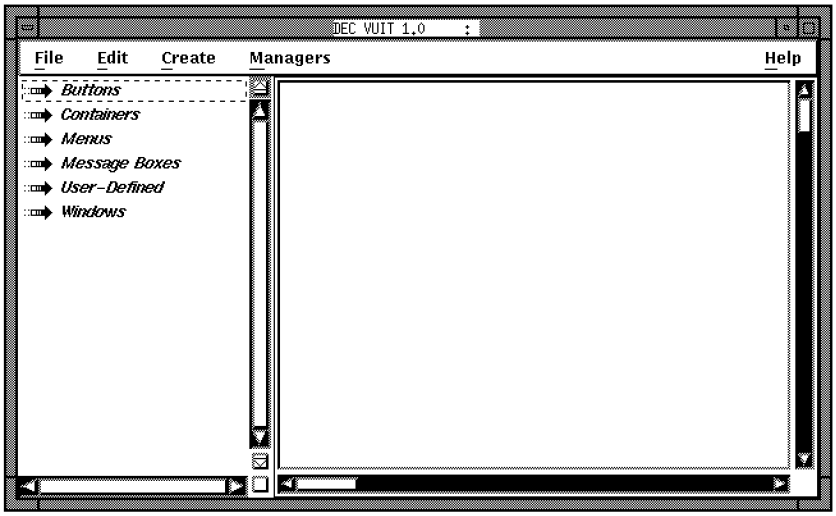
Sample Installation Verification Procedure (IVP) for VMS Systems

After installation, to start the Installation Verification Procedure, issue the following commands:

```
$  SET DISPLAY/CREATE/NODE[=workstation_nodename]
$  @SYS$TEST:VUIT$IVP

Executing IVP for: DEC VUIT V1.0

The user running the IVP must follow the script
specified in the DEC VUIT Installation Guide and
visually compare the screen images with those
specified in the DEC VUIT Installation Guide.  The user
may alternatively select the Exit
choice on the File pull-down menu as an
abbreviated IVP which will ensure only that DEC VUIT
can be successfully invoked.

    Starting DEC VUIT...
```

Once the DEC VUIT™ main window appears, check to make sure it looks like the one shown in Figure A–1.

Figure A–1 DEC VUIT Main Window in VMS IVP



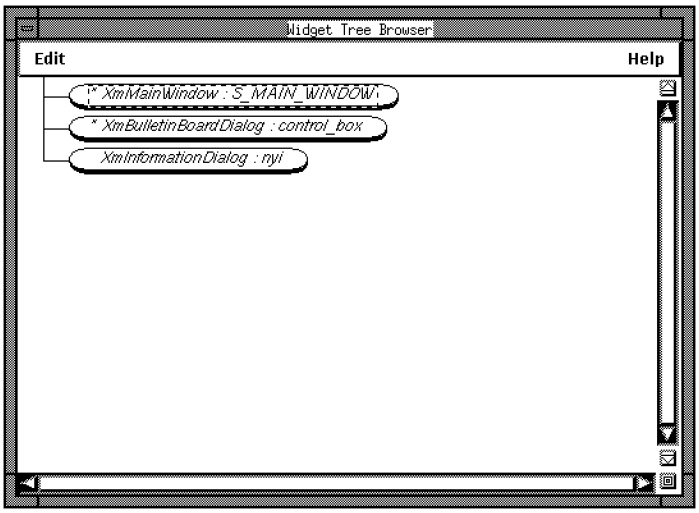
To make sure that DEC VUIT is installed successfully, read and write the UIL file for the VUIT_BURGER demo application (provided with the DEC VUIT kit).

1. Under File, choose Open....
2. In the Select File dialog box, type the following in the Filter field and press Return to apply the filter:

   ```
   SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]*.UIL
   ```

3. In the Files list box, double click on VUIT_BURGER.UIL (or click on VUIT_BURGER.UIL and click on OK).
4. You should receive a message that DEC VUIT is opening the file and loading its contents. When DEC VUIT completes the Open... operation, the Widget Tree Browser dialog is displayed, as shown in Figure A–2.

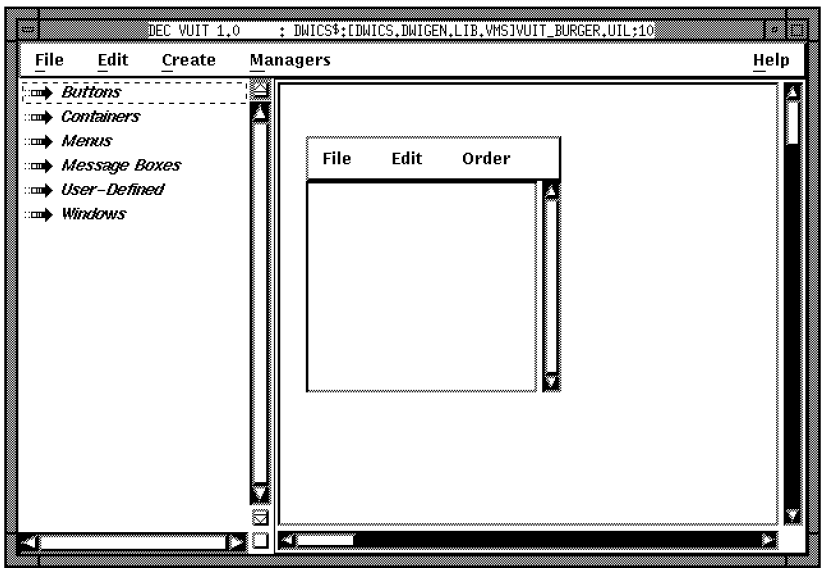
Figure A–2 Widget Tree Browser for VUIT_BURGER in VMS IVP



Move the Widget Tree Browser so that it does not obscure the DEC VUIT work area.

5 In the Widget Tree Browser, click on the first entry (`XmMainWindow: S_MAIN_WINDOW`) and, on the Browser's Edit menu, choose Reveal. DEC VUIT displays the main window for the VUIT_BURGER application in the work area, as shown in Figure A–3.

Figure A–3 VUIT_BURGER Main Window in VMS IVP



6 On the DEC VUIT main window, under File, choose Quit to end the session.

B

Files Installed on Your VMS System

This appendix lists and describes the files created on your VMS™ system when DEC VUIT™ is installed.

Note *The UIL files for the VUIT_BURGER and FORM_BURGER demo applications are required for users to follow tutorials in the* DEC VUIT User's Guide *as well as for the IVP. Other files created in SYS$COMMON:[SYSHELP.EXAMPLES.VUIT] are optional.*

- SYS$SYSTEM:VUIT.EXE

  DEC VUIT executable image

- SYS$LIBRARY:VUIT.UID

  User Interface Description file defining the DEC VUIT interface

- SYS$LIBRARY:VUIT.DAT

  DEC VUIT application resource file for customizing the Parts Box

- SYS$HELP:VUIT.HLB

  DEC VUIT Help library

- SYS$TEST:VUIT$IVP.COM

  DEC VUIT Installation Verification Procedure

- SYS$HELP:VUIT$010.RELEASE_NOTES

  DEC VUIT Version 1.0 release notes

- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_TEST.C

  Source program for VUIT_TEST interface simulation application

- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_TEST.EXE

  Executable image for VUIT_TEST interface simulation application

- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_TEST.COM
  Command procedure for building the VUIT_TEST interface simulation application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_BURGER.COM
  Command procedure for building the VUIT_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_BURGER.C
  Source program for VUIT_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_BURGER.UIL
  UIL source file for VUIT_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_BURGER.EXE
  Executable image for VUIT_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]VUIT_BURGER.UID
  User Interface Definition file for VUIT_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]FORM_BURGER.COM
  Command procedure for building the FORM_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]FORM_BURGER.C
  Source program for FORM_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]FORM_BURGER.UIL
  UIL source file for FORM_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]FORM_BURGER.EXE
  Executable image for FORM_BURGER demo application
- SYS$COMMON:[SYSHELP.EXAMPLES.VUIT]FORM_BURGER.UID
  User Interface Definition file for FORM_BURGER demo application

C

Sample Installation Verification Procedure (IVP) for ULTRIX Systems

To run the IVP after an installation, enter the following commands:

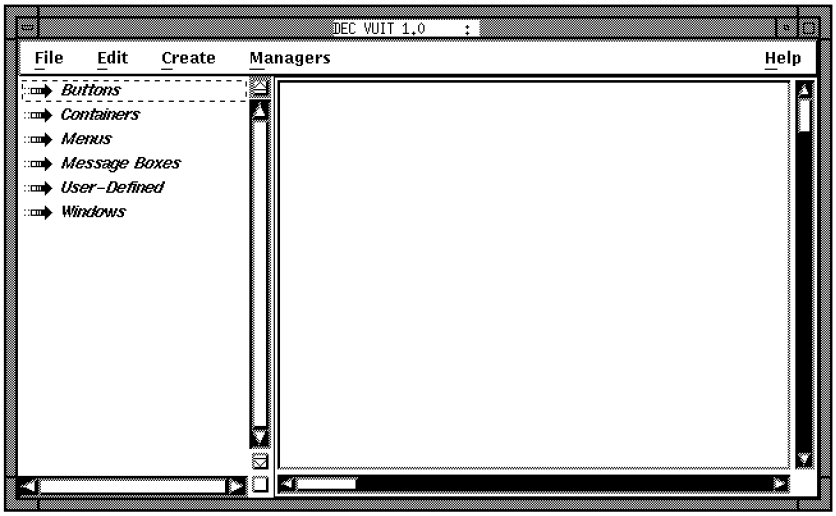
```
#   setenv DISPLAY dispname
#   setld -v subsetname
```

The `dispname` specifies the display screen on which DEC VUIT displays its window, and has the format `hostname:number`. Use the format `hostname::number` to specify DECnet is to be used for transport.

For VAX systems the `subsetname` is VIXVUIT100. For RISC systems use VIRVUIT100 as the `subsetname`.

The DEC VUIT IVP verifies the installation by displaying the DEC VUIT main window, as shown in Figure C–1.

Figure C–1 DEC VUIT Main Window in ULTRIX IVP



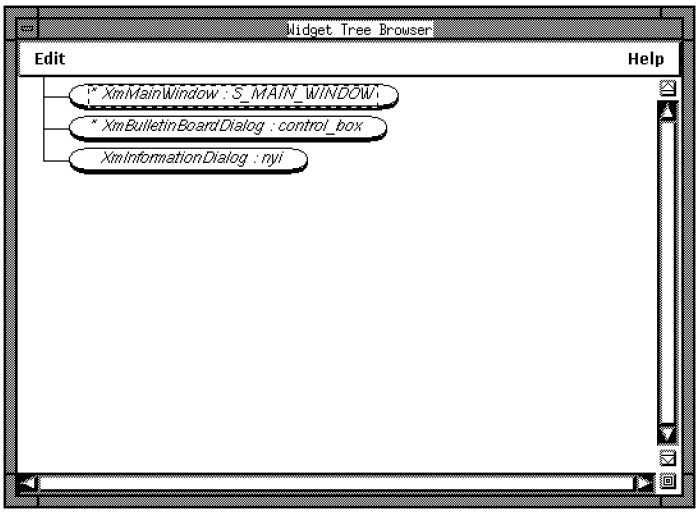
To make sure that DEC VUIT is installed successfully, read and write the UIL file for the vuit_burger demo application (provided with the DEC VUIT kit).

1. Under File, choose Open....
2. In the Select File dialog box, type the following in the Filter field and press Return to apply the filter:

   ```
   /usr/examples/vuit/vuit_burger/*
   ```

3. In the Files list box, double click on `vuit_burger.uil` (or click on `vuit_burger.uil` and click on OK).
4. You should receive a message that DEC VUIT is opening the file and loading its contents. When DEC VUIT completes the Open... operation, the Widget Tree Browser dialog is displayed, as shown in Figure C–2.

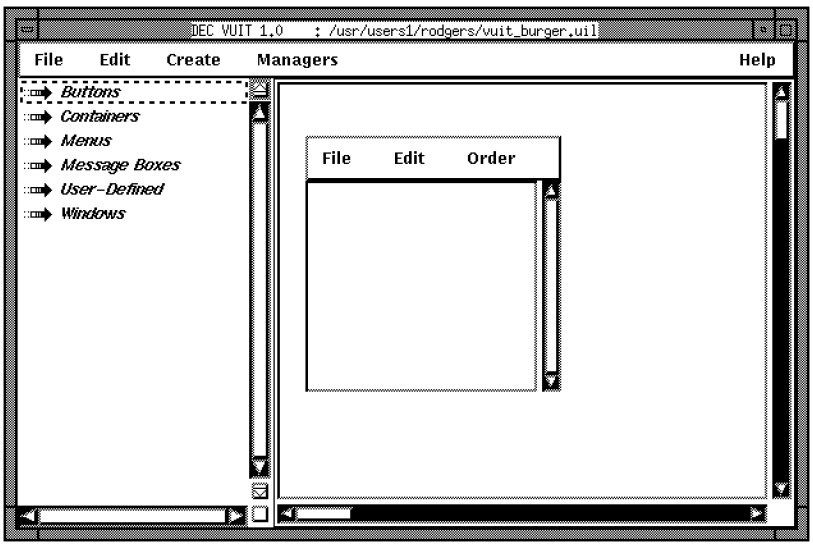
Figure C–2 Widget Tree Browser for vuit_burger in ULTRIX IVP



Move the Widget Tree Browser so that it does not obscure the DEC VUIT work area.

5 In the Widget Tree Browser, click on the first entry (`XmMainWindow: S_MAIN_WINDOW`) and, on the Browser's Edit menu, choose Reveal. DEC VUIT displays the main window for the vuit_burger application in the work area, as shown in Figure C–3.

Figure C–3 vuit_burger Main Window in ULTRIX IVP



6 On the DEC VUIT main window, under File, choose Quit to end the session.

D

Files Installed on Your ULTRIX System

This appendix lists and describes the contents of DEC VUIT™ directories on an ULTRIX™ system.

To allow the installer to manage disk space more flexibly, the physical location of all files is `/usr/kits/VIRVUIT100` or `/usr/var/kits/VIRVUIT100`.

To see a listing of the directory names in `/usr/kits` and the space consumed by these directories, enter the following commands:

```
# cd /usr/kits
# du VIR*
```

To see a listing of the directory names in `/usr/var/kits` and the space consumed by these directories, enter the following commands:

```
# cd /usr/var/kits
# du VIR*
```

Note *The UIL files for the VUIT_BURGER and FORM_BURGER demo applications are required for users to follow tutorials in the* DEC VUIT User's Guide *as well as for the IVP. Other files in* /usr/examples/vuit/vuit_burger/ *and* /usr/examples/vuit/form_burger/ *are optional.*

Directory	File	Description
/usr/bin/	vuit	Executable image for DEC VUIT application
/usr/lib/X11/app_defaults/	VUIT	Application resource file for customizing layout of Parts Box
/usr/lib/X11/uid/	vuit.uid	User Interface Definition file for DEC VUIT application

Directory	File	Description
/usr/lib/X11/help/vuit/	*	Help libraries for DEC VUIT application
/usr/lib/vuit/	vuitivp	Shell script to run DEC VUIT IVP
/usr/lib/vuit/	vuit010.release_notes	Release notes for DEC VUIT Version 1.0
/usr/examples/vuit/vuit_test/	vuit_test	Executable image for vuit_test interface simulation application
/usr/examples/vuit/vuit_test/	vuit_test.c	Source program for vuit_test interface simulation application
/usr/examples/vuit/vuit_test/	Makefile	Build procedure for vuit_test interface simulation application
/usr/examples/vuit/vuit_burger/	vuit_burger.c	Executable image for vuit_burger application
/usr/examples/vuit/vuit_burger/	vuit_burger.c	Source program for vuit_burger application
/usr/examples/vuit/vuit_burger/	vuit_burger.uil	UIL specification file for vuit_burger application interface
/usr/examples/vuit/vuit_burger/	vuit_burger.uid	User Interface Definition file for vuit_burger application interface
/usr/examples/vuit/vuit_burger/	Makefile	Build procedure for vuit_burger application
/usr/examples/vuit/form_burger/	form_burger.c	Executable image for form_burger application
/usr/examples/vuit/form_burger/	form_burger.c	Source program for form_burger application
/usr/examples/vuit/form_burger/	form_burger.uil	UIL specification file for form_burger application interface
/usr/examples/vuit/form_burger/	form_burger.uid	User Interface Definition file for form_burger application interface
/usr/examples/vuit/form_burger/	Makefile	Build procedure for form_burger application