

UniVerse

Installation Guide

IBM Corporation 555 Bailey Avenue San Jose, CA 95141

Licensed Materials - Property of IBM

© Copyright International Business Machines Corporation 2008, 2009. All rights reserved.

AIX, DB2, DB2 Universal Database, Distributed Relational Database Architecture, NUMA-Q, OS/2, OS/390, and OS/400, IBM Informix®, C-ISAM®, Foundation.2000 ™, IBM Informix® 4GL, IBM Informix® DataBlade® module, Client SDK™, Cloudscape™, Cloudsync™, IBM Informix® Connect, IBM Informix® Driver for JDBC, Dynamic Connect™, IBM Informix® Dynamic Scalable Architecture™ (DSA), IBM Informix® Dynamic Server™, IBM Informix® Enterprise Gateway Manager (Enterprise Gateway Manager), IBM Informix® Extended Parallel Server™, i:Financial Services™, J/Foundation™, MaxConnect™, Object Translator™, Red Brick® Decision Server™, IBM Informix® SE, IBM Informix® SQL, InformiXML™, RedBack®, SystemBuilder™, U2™, UniData®, UniVerse®, wIntegrate® are trademarks or registered trademarks of International Business Machines Corporation.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Windows, Windows NT, and Excel are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

UNIX is a registered trademark in the United States and other countries licensed exclusively through X/Open Company Limited.

Other company, product, and service names used in this publication may be trademarks or service marks of others.

This product includes cryptographic software written by Eric Young (eay@cryptosoft.com).

This product includes software written by Tim Hudson (tjh@cryptosoft.com).

Documentation Team: Claire Gustafson, Shelley Thompson, Anne Waite

US GOVERNMENT USERS RESTRICTED RIGHTS

Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Table of Contents

Chapter 1	Introduction
_	Determining the Installation Type
	Preinstallation Tasks on UniVerse for UNIX
	Login ID
	Installation Type
	Operating System Requirements
	Product Configuration
	Overview Of UniVerse Installation on UNIX
	The <i>uv.load</i> Script
Chapter 2	Quick Installation Procedure
•	Preinstallation Tasks
	Step-by-Step Instructions
Chapter 3	Installing UniVerse as root
•	Initial Installation of UniVerse
	Installing UniVerse
	Upgrading an Existing UniVerse System as root
	Pre-Installation Tasks
	Installing UniVerse
	UniVerse Telnet Servers on HP-UX Platforms
Chapter 4	Installing UniVerse as uvadm
	Initial Installation of UniVerse
	Upgrading an Existing UniVerse System as uvadm
	UniVerse Telnet Servers on HP-UX Platforms
	Examining the Load and Installation Scripts
	uv.load Options
	System Administration Menus

Chapter 5	Installing UniVerse on Windows Platforms
	Starting the UniVerse Master Setup
	Installing UniVerse
	Installing UniVerse for the First Time
	Upgrading to or Reinstalling UniVerse Release 10.3 5-5
	Starting a UniVerse Session Over Telnet
	Authorizing UniVerse
	Authorizing a New UniVerse License
	Obtain Configuration Code
	Obtain Authorization Code
Chapter 6	UniVerse Accounts
	Creating a New UniVerse Account
	Creating a New Account on a UNIX System 6-4
	Creating a New Account on a Windows System 6-5
	Viewing or Modifying Account Details 6-8
	Deleting an Account
	Deleting a UniVerse Account on UNIX 6-9
	Deleting a UniVerse Account on a Windows System 6-10
	Customizing UniVerse Accounts
	UniVerse Account Control Files 6-12
	Essential UniVerse Files
	Controlling Access to UniVerse on UNIX Systems 6-17
	Controlling Access to UniVerse on Windows Platforms 6-18
	Customizing a UniVerse Account 6-18
Chapter 7	Installing UniVerse Clients
	Installing UniAdmin
	Executing a Silent Installation for UniAdmin
	Installing the UniVerse ODBC Client
	Executing a Silent Installation for UniVerse ODBC
	Installing UniDK (Uni Development Kit)
	Executing a Silent Installation for UniDK
	Installing Eclipse Based Tools
	Installing Dynamic Connect
	Installing UniDebugger
	About Windows Halp

Chapter

1

Introduction

Determining the Installation Type		. 1-3
Preinstallation Tasks on UniVerse for UNIX		. 1-4
Login ID		. 1-4
Installation Type		. 1-4
Operating System Requirements		. 1-5
Product Configuration		. 1-5
Overview Of UniVerse Installation on UNIX		. 1-6
The <i>uv.load</i> Script		. 1-6

Introduction

This manual describes how to install UniVerse 10.3. These instructions consist of the following chapters:

- Chapter 1, "Introduction," describes preinstallation tasks, provides an overview of the installation process, lists operating system and disk space requirements for various platforms, and describes the *uv.load* script.
- Chapter 2, "Quick Installation Procedure," provides step-by-step instructions for a quick installation.
- Chapter 3, "Installing UniVerse as root," provides step-by-step instructions for initially installing or upgrading UniVerse as the *root* user.
- Chapter 4, "Installing UniVerse as uvadm," provides step-by-step instructions for initially installing or upgrading UniVerse as the *uvadm* user.
- Chapter 5, "System-Specific Information," provides information specific to various platforms.
- Chapter 6, "Installing UniVerse on Windows Platforms," provides step-by step instructions for installing UniVerse on Windows platforms.
- Chapter 7, "UniVerse Accounts," discusses UniVerse accounts, including creating a new account, creating and viewing account details, deleting an account, customizing an account, and essential UniVerse files.
- Chapter 8, "Installing UniVerse Clients," describes the installation procedure for UniAdmin, UniVerse ODBC Client, UniDK, UniOLEDB, Dynamic Connect, and UniDebugger.

Determining the Installation Type

The Quick Installation Procedure should only be used by users experienced with the procedure for configuring UNIX and installing UniVerse.

The Complete Installation Procedure describes how to install UniVerse for the first time, and how to complete an upgrade installation.

Preinstallation Tasks on UniVerse for UNIX

Before beginning a UniVerse installation, make sure you know the following information:

- How to log on as root or uvadmin
- The type of installation you are performing
- How to mount the distribution media
- The location of the UniVerse directories
- The type of shell with which you are working
- The operating system requirements for your platform

Login ID

To install UniVerse, you must log on to your system as either *root* or *uvadm*.

If you log on as root, all UniVerse home account files and directories are owned and administered by root.

If you log on as *uvadm*, all UniVerse home account files and directories are owned and administered by *uvadm*. If you log on as *uvadm* to install UniVerse, you must have write permissions on the root directory (/) and the directories where you install the UniVerse home directory and the UniVerse/UniData shared directory.

Installation Type

The following types of installation procedures are available with UniVerse 10.3:

- Initial Installation You are installing UniVerse for the first time on your system.
- Upgrade Installation You are installing UniVerse 10.3 over an earlier version of UniVerse. An upgrade installation preserves site-specific files in the UV account, such as the &DEVICE& file, and recatalogs only the cataloged routines delivered with UniVerse. User-cataloged routines are left intact in the system catalog.

Operating System Requirements

IBM ports UniVerse for UNIX products to many operating systems, such as AIX, HP, Solaris, LINUX, and Windows platforms.

For operating system information, please see the U2 Product Availability Matrix at:

https://www927.ibm.com/software/data/u2/support/u2techconnect/matrix.asp,

or contact U2askus@us.ibm.com.

UniVerse requires that certain kernel parameters have adequate settings in order for UniVerse to accommodate the full number of licensed users. The following table list some recommended kernel parameters

Kernel Parameter	Required Minimum on HPUX	Required Minimum on Solaris	Required Minimum on Dynix/ptx
SHMMAX	N/A	2097152	N/A
SHMSEG	15	15	N/A
SEMMSL	N/A	N/A	175

Minimum Kernel Parameters



Note: If requirements for your operating system are not listed in the above table, the default values after installation should be sufficient.

Product Configuration

A UniVerse Product Configuration sheet was shipped with your UniVerse product. This sheet lists customer information, hardware information, and the products and number of users you are authorized to install. Verify that the information on the Product Configuration sheet is correct. You will need this information when authorizing UniVerse.

Overview Of UniVerse Installation on UNIX

UniVerse is installed on an existing UNIX system in directories you specify during the installation process. These directories are:

- uv The UniVerse home directory
- unishared The UniVerse/UniData shared directory

The examples in this manual use the default directories of /usr/ibm/uv and /usr/ibm/unishared. During the installation process, you can substitute the paths you choose for these directories.



Warning: Do not use symbolic links when specifying your uvhome and unishared directories. If you use symbolic links, the UniVerse license authorization routines fail.

The uv.load Script

Execute the UniVerse installation while you are logged on as root or uvadm. Use the cpio or tar command to load a short installation script called uv.load. Then execute the *uv.load* script to load the files from the installation media.

To ensure a valid installation, the *uv.load* script performs the following actions:

- Stops any active UniVerse spooler
- Removes the shared memory segments used by UniVerse

The spooler must be stopped before you install UniVerse because the restoration cannot overwrite an active file. uv.load then loads the files from the installation media into the directories you specify. Depending on the type of installation you are performing, the script then performs the following actions:

- If you log on as *root* and are installing UniVerse for the first time, *uv.load* automatically executes the *uv.install* script.
- If you log on as *uvadm* and are upgrading an existing UniVerse system, uv.load automatically executes the uv.install script.
- If you log on as *uvadm* and are installing UniVerse for the first time, you exit the *uv.load* script, then manually execute the *uv.install* script.

UniVerse checks the files loaded from the installation media to make sure they have a checksum that matches the checksum on the installation media. If the checksums do not match, UniVerse indicates that the files were not loaded correctly from the installation media, and instructs you to reload the groups that were in error.



Note: If you have not been able to reload the groups that are in error, contact your maintenance vendor for assistance.

The uv.load script performs that following actions:

■ Creates the UniVerse directory structure and grants proper permissions. The following table describes the default UniVerse directory structure.

Path	Description
/usr/ibm/uv	The UniVerse home directory.
/usr/ibm/uv/bin	Contains the executables that make up the UniVerse product.
/usr/ibm/uv/sample	Contains various prototype files.
/usr/ibm/uv/NEWACC	Contains the templates for the supported flavors of the VOC file.
/usr/ibm/uv/terminfo	Contains the UniVerse terminal characteristics database.
/usr/ibm/uv/catdir	The system catalog.
/usr/ibm/unishared	Contains subdirectories and files shared by UniVerse and UniData systems.

UniVerse Directory Structure

In addition, the installation procedure loads several UniVerse type 1 files or multiple data files, which are implemented as UNIX directories in the UniVerse home directory (for example, BP, BP.O, APP.PROGS, and APP.PROGS.O.)

- Initializes the shared memory tables used by UniVerse, and modifies the UNIX initialization script to execute the uv.rc file, which performs UniVerse initialization.
- Installs the UniVerse spooler and executes the spooler daemon. See *Administering UniVerse* for a more information about the UniVerse spooler.

Compiles the UniVerse terminal definitions. You should always install the new definitions unless you have modified the supplied definitions and want to preserve your changes.

Installing the UniVerse terminal definitions updates only the UniVerse-specific characteristics kept in /usr/ibm/uv/terminfo. If you want to update the non-UniVerse-specific characteristics in /usr/lib/terminfo, you must manually invoke the *uvtic* command with the -a option.

Warning: If this is an initial installation, the UniVerse terminal definitions are always installed. You should make sure the UNIX terminal definitions exist. If the UNIX version does not exist, use the -a option with the uvtic command to create it.

- Creates the SQL catalog if it does not already exist.
- Initializes the UniVerse catalog space (for initial installation only) and catalogs a number of subroutines. For more information about catalog space, see Administering UniVerse.
- Copies the sample shell initialization file, *.profile*, from the UniVerse sample directory to the UniVerse home directory. The .profile file contains paths for system commands, default protection for created files, and characteristics of the login terminal.

You must activate the UniVerse license or upgrade by entering the authorization code supplied by your vendor. To activate the license, you must log on as root or uvadm, enter the UV account, then enter the authorization information in the License Activation screen

After you authorize UniVerse, you can then add other accounts to be used in a UniVerse or UNIX environment, or perform administration of peripherals, such as spooler devices. To perform these tasks, use the UniVerse Admin client application or the **System Administration** menus. For detailed information, refer to *Adminis*tering UniVerse.



Note: When you log on to the UV account, you are in the System Administration menu system. If you exit the menus, you can reenter them by using the LOGIN command. To exit the **System Administration** menus, press ESC.



Chapter

2

Quick Installation Procedure

Preinstallation Tasks									2-2
Step-by-Step Instructions									2-2

Quick Installation Procedure

The Quick Installation Procedure should be used only by users experienced with the procedure for configuring UNIX and installing UniVerse.

Note: Before you begin the installation, make sure you rebuild your kernel with adequate values for your environment. See Preinstallation Tasks on UniVerse for UNIX in Chapter 1, "Introduction," and Administering UniVerse for information about kernel parameter settings.

Preinstallation Tasks

Before you begin the installation process, prepare the UniVerse home directory with adequate disk space. For information about the disk space required for your platform, see Disk Space in Chapter 1, "Introduction."

The preferred home directory is /usr/ibm/uv. You cannot specify the home directory for UniVerse with a symbolic link. If you do, the license authorization routines fail.

Note: Some of the files on the release tape media are in a compressed format and have a .Z suffix. If you are installing over an existing release of UniVerse, more space (approximately 50%) than mentioned above is required to install the files before uncompressing them. If this causes disk space problems, remove the UniVerse files in the UniVerse home directory that will be replaced by the new release.

Step-by-Step Instructions

Complete the following steps to install UniVerse:

- 1. Log on as *root* or *uvadm*. Create the UNIX user name *uvadm* first, if it does not already exist.
- 2. If you log on as *root*, change directories to the root directory (/). If you log in as uvadm, change to a directory to which you have write permission, such as /tmp.
- Create the UNIX user name *uvsql* if it does not already exist. 3.
- 4. If this is an upgrade installation, make sure an option products (UV/Net, GCI, and so forth) already installed on your system are deinstalled before proceeding with the following steps.
- 5. Insert the release media in the appropriate device.

6. Load the uv.load script from the release tape by entering the appropriate command from the following table:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /dev/rmt01
Dynix/ptx	cpio -ivcBdum uv.load < /dev/rmt/tm0n
HP Series 9000	cpio -ivcBdum uv.load < /dev/rmt/0m
IBM RISC System/6000	cpio -ivcBdum uv.load < /dev/rmt0.4
Silicon Graphics IRIS	cpio -ivcBdum uv.load < /dev/rmt/tps0d6
Sun Sparc (Solaris 2)	tar xvf /dev/rmt/0 ./uv.load

uv.load commands

Note: For platforms that support multiple types of tape media, verify the previously mentioned device name corresponds to the tape device from which you are installing the UniVerse release tape. If it is different, substitute the correct device name in the cpio command. You must also make this substitution when prompted by the uv.load command that is executed in the next step.

7. Or load the uv.load script from CD-ROM by entering the appropriate command from the following table:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /mnt/STARTUP.\;1
HP Series 9000	cpio -ivcBdum uv.load < /mnt/STARTUP
IBM RISC System/6000	cpio -ivcBdum uv.load < /mnt/startup.
RedHat LINUX	cpio -ivcBdum uv.load < /mnt/startup
Sun Sparc (Solaris 2)	cpio -ivcBdum uv.load < /mnt/startup.

uv.load commands

Note: This command assumes that the CD-ROM device has been mounted at /mnt on your system. If your system differs, replace /mnt with the appropriate mount point on your system.





Load UniVerse by executing the *uv.load* command, as shown in the 8. following example. Make sure no one is using UniVerse during the installation procedure.

./uv.load

uv.load displays the current installation settings, as shown in the following example:

```
The current settings of the available options are:
   UniVerse installer : root
   UniVerse administrator : root uid=0 gid=0
1) UniVerse home directory: /usr/ibm/uv
                                            (currently: Not Installed.)
2) UniVerse-UniData shared directory: /usr/ibm/unishared
(currently: Not Installed.)

3) Compile terminfo definitions: true

4) Rewind tape name /dev/rmt/0m

5) No-rewind tape name /dev/rmt/0mn

6) Long File Names OFF
Enter a field number to change, q to abort installation, or
press <Return> to begin installation of UniVerse:
```

If the values are set correctly, press ENTER to start installing UniVerse.

The *uv.load* command loads the UniVerse release files and runs *uv.install*. which installs UniVerse. The installation procedure requires input several times. Normally, you respond to the prompts by pressing ENTER to select the default action.

9. If you are installing UniVerse over an earlier UniVerse release, you may see the following message:

Unable to get disk shared memory segment: Invalid argument If this happens, shut down and restart UniVerse, then proceed to the next step.

10. After all groups are installed, the Upgrade UniVerse License screen appears. Proceed to the next step.

If you are installing UniVerse for the first time as *uvadm*, the following message appears:

This initial installation of UniVerse must now be completed by logging in as 'root' and executing the script '/usr/ibm/uv/uv.install'.

UniVerse will remain in an inoperable state until this script has been executed.

Log on as root, change directories to the UniVerse home directory, and execute the uv.install script:

./uv.install

After the *uv.install* script completes successfully, the **Upgrade UniVerse License** screen appears.

- 11. Enter the license activation information as requested by the prompts. You must enter the following information:
 - Serial number
 - Maximum number of local users
 - Expiration date, or press ENTER for the default
 - Package list
 - Number of Device Licenses for which you are authorized

Press ENTER. The licensing process displays a configuration code.

12. Remember the Configuration Code the licensing process displays. The configuration code is of the following format:

CCTM5-ZZ3UZ-OFZ7Z-ZZZW6-Z3ZZ4-XBKLC-UZTI9

The licensing process prompts for **Local Authorization Code**.

13. To obtain your authorization code, go to:

http://www-927.ibm.com/software/data/u2/support/u2techconnect/authprod.asp

Click **Authorize Products**. Follow the instructions on the website to obtain your authorization code.

14. Once you have your authorization code, go back to the **Upgrade UniVerse**License window and enter the authorization code in the Local Authorization Code field.

15. When the authorization completes successfully, the following message appears:

> UniVerse licensing is complete. Please shut down and restart UniVerse. Use the UniVerse system administration menu to create additional UniVerse accounts.

Complete the following steps to shut down and restart UniVerse:

- Change to the UniVerse home directory:
 - # cd /usr/ibm/uv
- Enter the following command to shut down UniVerse:
 - # bin/uv -admin -stop
- Enter the following command to restart UniVerse:
 - # bin/uv -admin -start
- If you are using any UniVerse optional products, install them now using the 16. Install package menu in the UniVerse System Administration menu system.
- Use the menus to configure the spooler and to do any account 17. administration.

Installing UniVerse as root

Initial Installation of UniVerse				3-3
Installing UniVerse				3-3
Upgrading an Existing UniVerse System as root				3-12
Pre-Installation Tasks				3-12
Installing UniVerse				3-12
UniVerse Telnet Servers on HP-UX Platforms				3-22

Installing UniVerse as *root*

You can execute the UniVerse installation by logging on as root or as uvadm. This chapter describes the steps you must complete to install UniVerse as root, either as an initial installation or an upgrade installation.

Initial Installation of UniVerse



Complete the following steps to install UniVerse for the first time on your system.

Note: Some of the files on the release tape media are in a compressed format and have a .Z suffix. If you are installing over an existing release of UniVerse, approximately 50% more space is required to install the files before uncompressing them. If this causes disk space problems, remove UniVerse files in the UniVerse home directory that will be replaced by the new release.

Installing UniVerse

- Log on as root, and change directories to the root directory:
 # cd /
- Make sure there are no users logged on to the system before you begin the installation.

Insert the release media into the appropriate device. If you are unfamiliar with the loading procedure, refer to your hardware instruction manual.

■ If you are installing from tape, enter the appropriate command from the following table to load the *uv.load* script:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /dev/rmt01
Dynix/ptx	cpio -ivcBdum uv.load < /dev/rmt/tm0n
HP System 9000	cpio -ivcBdum uv.load < /dev/rmt/0m
IBM RISC System/6000	cpio -ivcBdum uv.load < /dev/rmt0.4
Silicon Graphics IRIS	cpio -ivcBdum uv.load /dev/rmt/tps0d6
Sun Sparc (Solaris 2)	tar xvf/dev/rmt/0 ./uv.load





Note: For platforms that support multiple types of tape media, verify that the device name corresponds to the tape device from which you are installing the UniVerse release tape.

If you are installing from CD-ROM, execute the appropriate command from 3. the following table:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /mnt/STARTUP.\;1
Dynix/ptx	cpio -ivcBdum uv.load < /mnt/startup
HP Series 9000	cpio -ivcBdum uv.load < /mnt/STARTUP
IBM RISC System/6000	cpio -ivcBdum uv.load < /mnt/startup.
Silicon Graphics IRIS	cpio -ivcBdum uv.load < /mnt/startup
Sun Sparc (Solaris 2)	cpio -ivcBdum uv.load < /mnt/startup.

uv.load commands

Note: This command assumes that the CD-ROM device has been mounted at /mnt on your system. If your system differs, replace /mnt with the appropriate mount point on your system.

Execute the uv.load script while the installation media is still in the device, 4. as shown in the following example:

#/uv.load

UniVerse Installation Procedure

The following screen appears:

The current installation is being done as 'root'. All uniVerse home account files and directories will be owned and administered by 'root'. UniVerse may also be installed, owned and administered by the non-root user 'uvadm'. Choose one of the following below:

- 1) Make 'root' the default owner and administrator of uniVerse. The current installation continues uninterrupted.
- 2) Make 'uvadm' the default owner and administrator of uniVerse. The current installation will be terminated, and the user 'uvadm' must be created. You must then login as 'uvadm' and restart this installation.
- 3) Stop the installation.

Your choice (Default action is 1):

5. Select 1 to install UniVerse and make *root* the owner and administrator of UniVerse. The *uv.load* script displays the current installation settings, as shown in the following example:

```
The current settings of the available options are:
   UniVerse installer
   UniVerse administrator : root uid=0 gid=0
1) UniVerse home directory:
                                   /usr/ibm/uv
                                    (currently: Not Installed.)
2) UniVerse-UniData shared directory: /usr/ibm/unishared
                                    (currently: Not Installed.)
3) Compile terminfo definitions:
                                   true
                                   /dev/rmt/0m
4) Rewind tape name
5) No-rewind tape name
                                   /dev/rmt/0mn
6) Long File Names
Enter a field number to change, q to abort installation, or
press <Return> to begin installation of UniVerse:
```

- **6.** Enter the number of value you want to change.
 - 1 The UniVerse home directory path.
 - 2 The shared directory path.
 - 3 Whether or not to compile terminfo definitions. You cannot change this value.
 - 4 The rewind tape device path.
 - 5 The no-rewind tape device path.
 - 6 The default file creation characteristics. You can toggle between LONG-NAMES OFF, LONGNAMES ON, and LONGNAMES ON NEWACC. The default is LONGNAMES OFF. For detailed information about LONG-NAMES, see *Administering UniVerse*.

When the display values are correct, press ENTER to begin in the installation process. Press \mathbf{q} to exit the installation process.

If an SQL catalog does not exist and the *uvsql* user name does not exist in 7. the /etc/passwd file, the following message will appear:

The user 'uvsql' does not exist. This user is the default owner of the SQL catalog. Would you like to:

- 1). Continue with the installation, making 'root' the default owner of the SQL catalog.
- 2). Suspend the installation so that you can create the 'uvsql' user.
- 3). Stop the installation.

Your choice (Default action is 1):

Select one of the following options:

- 1 Make root the owner of the SQL catalog.
- 2 Shell out of the installation process to create the uvsql user in the /etc/passwd file. When you finish creating the user, you return to the installation process.
- 3 Exit the installation process.

8. If you are installing UniVerse from media other than CD-ROM, the following screen appears:

The following UniVerse groups are available for installation:

MAIN OBJ DEVELOP DOC FILESIZE PORTING UCI IC UOJ UVODBC

Which groups do you wish to install (press <Return> for all groups)?

The following table describes the groups available for installation on your system:

Group	Description
MAIN	This group is the standard UniVerse environment. It contains the files and programs necessary for running UniVerse. The MAIN group must be installed on your system for UniVerse to run.
OBJ	The OBJ group contains object files and archive files that are used to install and link the UniVerse GCI product.
DEVELOP	The DEVELOP group contains tools for application development, including the BASIC compiler, catalog manipulation commands, and debugging tools. It is not necessary for this group to be loaded to run BASIC programs or cataloged programs.
DOC	This group contains the online help facility for UniVerse and BASIC. Also included is the demonstration account. This groups is not necessary for UniVerse to run.
FILESIZE	This group contains tools for verifying and adjusting the type, modulo, and separation of UniVerse files. This group is not necessary for UniVerse to run.
PORTING	This group contains tools for porting applications from Pick, Reality, and Prime INFORMATION systems to your UniVerse system. This group is not necessary for UniVerse to run.
UCI	This group contains the files and programs needed to run UCI. This group is not necessary for UniVerse to run.
IC	This group contains the files and programs needed to run InterCall. This group is not necessary for UniVerse to run.
UOJ	This group contains the files and programs needed to run UniObjects for Java. This group is not necessary for UniVerse to run.
UVODBC	This group contains the files and programs needed to run UniVerse ODBC. This group is not necessary for UniVerse to run.



If you want to install all the groups, press ENTER. If you do not want to install all the groups, enter the names of the groups you want to install, separated by spaces. You must enter the groups exactly as they appear at the prompt, and in the same order. When you have entered all the groups, press ENTER to begin the installation of the groups.

Note: If a group fails to load correctly, UniVerse displays a message indicating that the checksums did not verify for the listed groups. You should repeat the installation procedure for those groups that do not verify. When you repeat the installation procedure, you should verify that the UniVerse home directory is correct. You can repeat the installation procedure later to add groups that you do not install now.

- 9. After all groups are installed, the **Upgrade UniVerse License** screen appears. Enter the license activation information as requested by the prompts. The information you must enter is:
 - Serial number
 - Maximum number of local users
 - Expiration date, or press ENTER for the default
 - Package list
 - Number of Device Licenses for which you are authorized

Press ENTER. The licensing process displays a configuration code.

10. Remember the Configuration Code the licensing process displays. The configuration code is of the following format:

CCTM5-ZZ3UZ-QFZ7Z-ZZZW6-Z3ZZ4-XBKLC-UZTI9

The licensing process prompts for Local Authorization Code.

11. To obtain your authorization code, go to:

http://www-306.ibm.com/software/data/u2/universe/

Click **Authorize Products**. Follow the instructions on the website to obtain your authorization code.

12. Once you have your authorization code, go back to the **Upgrade UniVerse** License window and enter the authorization code in the Local Authorization Code field.

13. When the authorization completes successfully, the following message appears:

UniVerse licensing is complete. Please shut down and restart uniVerse. Use the uniVerse system administration menu to create additional uniVerse accounts.

Shut down and restart UniVerse:

■ Change to the UniVerse home directory:

```
# cd /usr/ibm/uv
```

■ Enter the following command to shut down UniVerse:

```
# bin/uv -admin -stop
```

■ Enter the following command to restart UniVerse:

```
# bin/uv -admin -start
```

14. Log on to the UV account. The **System Administration** menu appears. This menu system allows you to perform tasks such as adding users or setting up your spooler. See *Administering UniVerse* for complete instructions. To exit the menus, press **ESC** until you get to the UniVerse prompt:

>

To reenter the System Administration menu system, use the following command:

```
>T<sub>1</sub>OGTN
```

15. To exit the UniVerse environment, enter **Q** at the UniVerse prompt. A standard shell prompt appears, as shown in the following example.

```
>Q
#
```

Note: The UniVerse LOGTO command does not check the release level of the VOC file when used to enter a UniVerse account. The check is done only when directly invoking UniVerse in a user account. If your application uses LOGTO, you must verify that all user accounts are updated to the current release level before running the application.

16. If you installed UniVerse from CD-ROM, remove the CD-ROM from the drive by entering the following command:

```
#umount /mnt
```

Upgrading an Existing UniVerse System as root

Complete the following steps to upgrade an existing UniVerse system from the system console.

Pre-Installation Tasks

If you are currently running a release of UniVerse, you must complete the following tasks before beginning the upgrade installation.

- Make sure no users are using UniVerse.
- Save any of the following files in the UV account directory that you may have modified:
 - .profile
 - sample/uv.rc
 - sample/.profile
 - sample/terminfo.src
 - Any changes to programs in BP or APP.PROGS

Note: An installation upgrade preserves the existing uvconfig file. On Windows platforms, the original uvconfig file is copied to uvconfig.bak and a new uvconfig file overwrites the existing one. UniVerse copies the existing VOC file to VOC.OLD.

Deinstall any optional UniVerse products (for example, UV/Net, GCI, and so forth) that are installed on an earlier release of UniVerse.

Installing UniVerse

Make the entries shown in bold type, and press **ENTER** after each entry.

Note: Before you start the installation, make sure your kernel parameters are adequate to meet your UniVerse environment requirements.

Log in as root, and change directories to the root directory:

cd /





2. Make sure there are no users logged on to the system before you begin the installation.

Insert the release media into the appropriate device. If you are unfamiliar with the loading procedure, refer to your hardware instruction manual.

If you are installing from tape, enter the appropriate command from the following table to load the *uv.load* script:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /dev/rmt01
Dynix/ptx	cpio -ivcBdum uv.load < /dev/rmt/tm0n
HP Series 9000	cpio -ivcBdum uv.load < /dev/rmt0m
IBM RISC System/6000	cpio -ivcBdum uv.load < /dev/rmt0.4
Silicon Graphics IRIS	cpio -ivcBdum uv.load /dev/rmt/tps0d6
Sun Sparc (Solaris 2)	tar xvf/dev/rmt/0 ./uv.load

uv.load Commands

Note: For platforms that support multiple types of tape media, verify that the device name corresponds to the tape device from which you are installing the UniVerse release tape. If it is different, you must substitute the correct device name in the cpio command, and also make this substitution when prompted by the uv.load command.



If you are installing from CD-ROM, execute the appropriate command from 3. the following table:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /mnt/STARTUP.\;1
Dynix/ptx	cpio -ivcBdum uv.load < /mnt/startup
HP Series 9000	cpio -ivcBdum uv.load < /mnt/STARTUP
IBM RISC System/6000	cpio -ivcBdum uv.load < /mnt/startup.
Silicon Graphics IRIS	cpio -ivcBdum uv.load < /mnt/startup
Sun Sparc (Solaris 2)	cpio -ivcBdum uv.load < /mnt/startup.

uv.load commands

Note: This command assumes that the CD-ROM device has been mounted at /mnt on your system. If your system differs, replace /mnt with the appropriate mount point on your system.

Execute the *uv.load* script with the release media still in the device: 4.

/uv.load

A screen similar to the following appears:

```
UniVerse Upgrade Procedure
The current upgrade is being done as 'root'. The
existing installed uniVerse (at /usr/ibm/uv)
is being administered by the user 'root'.
Choose one of the following below:
```

- 1) Keep 'root' as the owner and administrator of uniVerse. The current installation continues uninterrupted.
- 2) Make 'uvadm' the new owner and administrator of uniVerse. The current installation continues uninterrupted.
- 3) Stop the installation.

Your choice (Default action is 1):

5. Choose 1 to install UniVerse and keep the *root* user as the owner and administrator of UniVerse. Proceed to step 6.

Choose 2 to install UniVerse and make the *uvadm* user the new owner and administrator of UniVerse. If the *uvadm* user does not yet exist, the following message appears:

The user 'uvadm' does not exist. Would you like to:

- 1). Suspend the installation so that you can create the 'uvadm' user.
- 2). Stop the installation.

Your choice (Default action is 1):

Choose 1 to shell out of the upgrade procedure and create a new user *uvadm* in the /*etc/passwd* file. When you exit from doing this, you return to the upgrade procedure.

6. *uv.load* displays the current installation settings:

press <Return> to begin installation of UniVerse:

```
The current settings of the available options are:

UniVerse installer : root
UniVerse administrator : root uid=0 gid=0

1) UniVerse home directory: /usr/ibm/uv
2) UniVerse-UniData shared directory: /usr/ibm/unishared
3) Compile terminfo definitions: true
4) Rewind tape name /dev/rmt/0m
5) No-rewind tape name /dev/rmt/0mn
6) Long File Names OFF

Enter a field number to change, q to abort installation, or
```

Enter the number of the value you want to change. If you choose 1, you are prompted for the UniVerse home directory. If you choose 2, you are prompted for the shared directory name. If you choose 4 or 5, you are prompted for a new device pathname. You cannot change 6.

Note: You can manually change the LONGNAMES setting later by issuing the command LONGNAMES ON NEWACC in the UV account.

You can also enter \mathbf{q} at this point to quit the installation procedure.

If the values displayed are acceptable, press **ENTER** to start installing UniVerse

If you choose 3, a list similar to the following is displayed:

Compiling the uniVerse terminfo definitions will overlay the descriptions for terminals listed below:

```
4410 at386 pt200 viewpoint
AT386 att3b1 qt102 viewpoint60
M= att4410 regent20 vp
```



Mu	av	regent25	vp60
a210	dialup	regent40	vp60:regent40
a210:adm5	dumb	regent60	vt100
a210:hz1410	fenix	s4	vt100-am
a210:hz1500	gt	sun	vwpt
a210:qt102	hft	sun-cmd	vwpt60
a210:regent25	hz1410	sun-w	wy200
a210:tvi910	hz1500	tvi910	wy200-w
a210:tvi910+	ibm5151	tvi910+	wy50
a210:tvi920	ic16404	tvi920	wy50:hz1500
a210:tvi925	network	tvi925	wy50:tvi910
a210:vp	pc7300	tvi955	wy50:tvi920
adm5	performer	unixpc	wy50:tvi925
at	pt	unknown	wy50:vp

Enter YES to compile and install terminfo.src:

Enter Y to compile and install *terminfo.src*. Enter N to change option 3 from true to false.

7. If you do not already have an SQL catalog and there is no user name uvsql in the /etc/passwd file, you see the following message:

The user 'uvsql' does not exist. This user is the default owner of the SQL catalog. Would you like to:

- 1). Continue with the installation, making 'root' the default owner of the SQL catalog.
- 2). Suspend the installation so that you can create the 'uvsql' user.
- 3). Stop the installation.

Your choice (Default action is 1):

Choose 1 to make root the owner of the SQL catalog. Choose 2 to shell out of the installation procedure and create the *uvsql* user in the /etc/passwd file. When you exit from doing this, you return to the installation procedure.

8. If you are installing UniVerse from any media other than CD-ROM, the following prompt appears:

The following uniVerse groups are available for installation:

MAIN OBJ DEVELOP DOC FILESIZE PORTING UCI IC UOJ UVODBC

Which groups do you wish to install (press <Return> for all groups) ?

Choose which groups you want to install on your system. The following groups are available for installation on your system:

Group	Description
MAIN	This group is the standard UniVerse environment. It contains the files and programs necessary for running UniVerse. The MAIN group must be installed on your system for UniVerse to run.
OBJ	This group contains object files and archive files that are used to install and link the UniVerse optional product GCI.
DEVELOP	This group contains tools for application development including the BASIC compiler, catalog manipulation commands, and debugging tools. It is not necessary for this group to be loaded to run BASIC programs or cataloged programs.
DOC	This group contains the online help facility for UniVerse and BASIC. Also included is the demonstration account. This group is not necessary for UniVerse to run.
FILESIZE	This group contains tools for verifying and adjusting the type, modulo, and separation of UniVerse files. This group is not necessary for UniVerse to run.
PORTING	This group contains tools for porting applications from Pick, Reality, and Prime INFORMATION systems to your UniVerse system. This group is not necessary for UniVerse to run.
UCI	This group contains the files and programs needed to run UCI. This group is not necessary for UniVerse to run.

UniVerse Groups

Group	Description
IC	This group contains the files and programs needed to run InterCall. This group is not necessary for UniVerse to run.
UOJ	This group contains the files and programs needed to run UniObjects for Java. This group is not necessary for UniVerse to run.
UVODBC	This group contains the files and programs needed to run UniVerse ODBC. This group is not necessary for UniVerse to run.

UniVerse Groups (Continued)

If you want to install all the groups, press **ENTER** at the prompt, otherwise enter the names of the groups you want to install, separated by spaces. You must enter the groups exactly as they appear at the prompt, and in the same order. When you have entered all the groups, press ENTER to begin the installation of the groups.

Note: If a group fails to load correctly, a message is displayed indicating that the checksums do not verify for the listed groups. You should repeat the installation procedure for those groups that do not verify. When you repeat the installation procedure, you should verify that the UniVerse home directory is correct when you are prompted for it. You can repeat the installation procedure later to add groups that you do not install now.

9. You may see the following message:

> Unable to get disk shared memory segment: Invalid argument If this happens, shut down and restart UniVerse (see step 10). Then proceed to step 9.

- After the installation process installs all groups, the **Upgrade UniVerse** 10. **License** screen appears. Enter the license activation information as requested by the prompts. The information you must enter is:
 - Serial number
 - Maximum number of local users
 - Expiration date, or press ENTER for the default
 - Package list
 - Number of Device Licenses for which you are authorized

Press ENTER. The licensing process displays a configuration code.

11. Remember the Configuration Code the licensing process displays. The configuration code is of the following format:

CCTM5-ZZ3UZ-QFZ7Z-ZZZW6-Z3ZZ4-XBKLC-UZTI9

The licensing process prompts for Local Authorization Code.

12. To obtain your authorization code, go to:

http://www-306.ibm.com/software/data/u2/universe/

Click **Authorize Products**. Follow the instructions on the website to obtain your authorization code.

- 13. Once you have your authorization code, go back to the **Upgrade UniVerse**License window and enter the authorization code in the Local Authorization Code field.
- **14.** When the authorization completes successfully, the following message appears:

```
UniVerse licensing is complete. Please shut down and restart uniVerse.
```

Use the uniVerse system administration menu to create additional uniVerse accounts.

Shut down and restart UniVerse using the following steps:

Change to the UniVerse home directory, as shown in the following example:

```
# cd /usr/ibm/uv
```

Enter the following command to shut down UniVerse:

```
# bin/uv -admin -stop
```

Enter the following command to restart UniVerse:

```
# bin/uv -admin -start
```

15. Log in to the UV account. The UniVerse System Administration menu appears. This menu system lets you perform tasks such as adding users or setting up your spooler. See *Administering UniVerse* for complete instructions. To exit the menus, press ESC until you get to the UniVerse prompt:

```
\,>\, To reenter the System Administration menu system, use the command:
```

>LOGIN

16. To exit the UniVerse environment, enter Q at the UniVerse prompt. A standard shell prompt appears, as shown in the following example.

```
>Q
ц
```

Each user account VOC file must be updated to the current UniVerse release 17. level. Do this by invoking UniVerse in each user account. When you do this, the following prompt appears:

```
Your VOC is out of date. Update to current release (Y/N)?
Entering Y at the prompt updates the VOC to the current release level.
```

Note: The UniVerse LOGTO command does not check the release level of the VOC file when used to enter a UniVerse account. The check is done only when directly invoking UniVerse in a user account. If your application uses LOGTO, you must verify that all user accounts are updated to the current release level before running the application.

If you installed UniVerse from CD-ROM, remove the CD-ROM from the 18. drive by entering the following command:

umount /mnt



UniVerse Telnet Servers on HP-UX Platforms

The HP-UX 11.00 and HP-UX 11.23 operating systems requiredifferent UniVerse telnet servers. UniVerse ships two uvtelnetd executables, uvtelnetd and uvtelnetd.HP1164.

If you are running HP-UX 11.0 PA2 32-bit, use the uvtelnetd executable, which is installed by default during the installation process.

If you are running HP-UX 11.0 PA2 64-bit, use the uvtelnetd.HP1164 executable by executing the following commands from the UniVerse/bin directory:

mv uvtelnetd uvtelnetd.HP1132

cp uvtelnetd.HP1164 uvtelnetd

uvtelnetd kill -HUP inetd pid

If you receive the following message, you must use the alternate telnet server:

(No utmp entry. You must exec "login" from the lowest level "sh".)

If you receive the following message, you must use the original telnet server:

/usr/lib/dld.sl: Unresolved symbol: setutsent (code) from uvtelnetd

Installing UniVerse as uvadm

Initial Installation of UniVerse					4-3
Upgrading an Existing UniVerse System as uvadm					4-10
UniVerse Telnet Servers on HP-UX Platforms .					4-19
Examining the Load and Installation Scripts					4-20
uv.load Options					4-20
System Administration Menus					4-21

Installing UniVerse as uvadm

You can execute the UniVerse installation by logging in as root or as uvadm. This chapter describes the steps you must complete to install UniVerse as uvadm, either as an initial installation or an upgrade installation.

Initial Installation of UniVerse





Note: Before you start the installation, make sure your kernel parameters are adequate to meet your UniVerse environment requirements. Also make sure you have write permissions on the root directory (/) and on the directories where you plan to install the UniVerse home directory and the UniVerse/UniData shared directory.

1. Log in as *uvadm*, and change directories to any directory to which you have write permissions, as shown in the following example:

cd /tmp

Make sure there are no users logged in to the system before you begin the installation.

Insert the release media into the appropriate device. If you are unfamiliar with the loading procedure, refer to your hardware instruction manual.

If you are installing from tape, enter appropriate command from the following table to load the *uv.load* script:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /dev/rmt01
Dynix/ptx	cpio -ivcBdum uv.load < /dev/rmt/tm0n
HP Series 9000	cpio -ivcBdum uv.load < /dev/rmt/0m
IBM RISC System/6000	cpio -ivcBdum uv.load <dev rmt0.4<="" td=""></dev>
Silicon Graphics IRIS	cpio -ivcBdum uv.load /dev/rmt/tps0d6
Sun Sparc (Solaris 2)	tar xvf /dev/rmt/0 ./uv.load



uv.load Commands

Note: For platforms that support multiple types of tape media, verify that the device name corresponds to the tape device from which you are installing the UniVerse release tape.

If you are installing from CD-ROM, execute the appropriate command from 3. the following table:

Platform	Command
Compaq AlphaServer	cpio -ivcBdum uv.load < /mnt/STARTUP.\;1
Dynix/ptx	cpio -ivcBdum uv.load < /mnt/startup
HP Series 9000	cpio -ivcBdum uv.load < /mnt/STARTUP
IBM RISC System/6000	cpio -ivcBdum uv.load < /mnt/startup.
Silicon Graphics IRIS	cpio -ivcBdum uv.load < /mnt/startup
Sun Sparc (Solaris 2)	cpio -ivcBdum uv.load < /mnt/startup.

uv.load commands

Note: This command assumes that the CD-ROM device has been mounted at /mnt on your system. If your system differs, replace /mnt with the appropriate mount point on your system.

Execute the uv.load script while the installation media is still in the device, 4. as shown in the following example:

/uv.load

to begin installation of UniVerse:

uv.load displays the current installation settings, as shown in the following example:

```
The current settings of the available options are:
    UniVerse installer : uvadm
    UniVerse administrator : uvadm uid=214 gid=200
1) UniVerse home directory: /usr/ibm/uv (currently: Not Installed.)
2) UniVerse-UniData shared directory: /usr/ibm/unishared
(currently: Not Installed.)

3) Compile terminfo definitions: true

4) Rewind tape name /dev/rmt/0m

5) No-rewind tape name /dev/rmt/0mn

6) Long File Names OFF
Enter a field number to change, q to abort installation, or press <Return>
```



5. Enter the number of the value you want to change. If you choose 1, you are prompted for the UniVerse home directory. If you choose 2, you are prompted for the shared directory name. You cannot change option 3. If you choose 4 or 5, you are prompted for a new device pathname. If you choose 6, its value is toggled.

Option 6 sets the default file creation characteristics (see LONGNAMES in *Administering UniVerse*). You can toggle option 6 between LONGNAMES OFF, LONGNAMES ON, and LONGNAMES ON NEWACC. The default is LONGNAMES OFF, meaning LONGNAMES is not active.

You can also enter q at this point to quit the installation procedure.

If the values displayed are acceptable, press ENTER to start installing UniVerse.

6. If an SQL catalog does not exist and the *uvsql* user name does not exist in the */etc/passwd* file, the following message will appear:

The user 'uvsql' does not exist. This user is the default owner of the SQL catalog. Would you like to:

- 1). Continue with the installation, making 'root' the default owner of the $\ensuremath{\mathtt{SQL}}$ catalog.
- 2). Suspend the installation so that you can create the 'uvsql' user.
- 3). Stop the installation.

Your choice (Default action is 1):

Choose 1 to make root the owner of the SQL catalog. Choose 2 to shell out of the installation procedure and create the *uvsql* user in the */etc/passwd* file. When you exit from doing this, you return to the installation procedure.

If you are installing UniVerse from media other than CD-ROM, the 7. following screen appears:

The following UniVerse groups are available for installation:

MAIN OBJ DEVELOP DOC FILESIZE PORTING UCI IC UOJ UVODBC

Which groups do you wish to install (press <Return> for all groups)?

The following table describes the groups available for installation on your system:

Group	Description
MAIN	This group is the standard UniVerse environment. It contains the files and programs necessary for running UniVerse. The MAIN group must be installed on your system for UniVerse to run.
OBJ	The OBJ group contains object files and archive files that are used to install and link the UniVerse GCI product.
DEVELOP	The DEVELOP group contains tools for application development, including the BASIC compiler, catalog manipulation commands, and debugging tools. It is not necessary for this group to be loaded to run BASIC programs or cataloged programs.
DOC	This group contains the online help facility for UniVerse and BASIC. Also included is the demonstration account. This group is not necessary for UniVerse to run.
FILESIZE	This group contains tools for verifying and adjusting the type, modulo, and separation of UniVerse files. This group is not necessary for UniVerse to run.
PORTING	This group contains tools for porting applications from Pick, Reality, and Prime INFORMATION systems to your UniVerse system. This group is not necessary for UniVerse to run.
UCI	This group contains the files and programs needed to run UCI. This group is not necessary for UniVerse to run.
IC	This group contains the files and programs needed to run InterCall. This group is not necessary for UniVerse to run.
UOJ	This group contains the files and programs needed to run UniObjects for Java. This group is not necessary for UniVerse to run.
UVODBC	This group contains the files and programs needed to run UniVerse ODBC. This group is not necessary for UniVerse to run.

If you want to install all the groups, press ENTER. If you do not want to install all the groups, enter the names of the groups you want to install, separated by spaces. You must enter the groups exactly as they appear at the prompt, and in the same order. When you have entered all the groups, press ENTER to begin the installation of the groups.

Note: If a group fails to load correctly, UniVerse displays a message indicating that the checksums to not verify for the listed groups. You should repeat the installation procedure for those groups that do not verify. When you repeat the installation procedure, you should verify that the UniVerse home directory is correct. You can repeat the installation procedure late to add groups that you do not install now.

8. After the installation process install of the all selected groups, the following message appears:

This initial installation of UniVerse must now be completedby logging in as 'root' and executing the script '/usr/ibm/uv/uv.install'.

UniVerse will remain in an inoperable state until this script has been executed.

Perform the following steps:

- Log in as root:
 - \$ su
 - \$ password:
- Change directory to the UniVerse home directory:
 - # cd /usr/ibm/uv
- Execute the *uv.install* script:
 - # ./uv.install
- 9. After the *uv.install* completes successfully, the **Upgrade UniVerse License** screen appears. Enter the license activation information as requested by the prompts. The information you must enter is:
 - Serial number
 - Maximum number of local users
 - Expiration date, or press ENTER for the default
 - Package list
 - Number of Device Licenses for which you are authorized

Press ENTER. The licensing process displays a configuration code.

10. Remember the Configuration Code the licensing process displays. The configuration code is of the following format:

CCTM5-ZZ3UZ-QFZ7Z-ZZZW6-Z3ZZ4-XBKLC-UZTI9

The licensing process prompts for Local Authorization Code.

11. To obtain your authorization code, go to:

http://www-306.ibm.com/software/data/u2/universe/

Click **Authorize Products**. Follow the instructions on the website to obtain your authorization code.

- 12. Once you have your authorization code, go back to the **Upgrade UniVerse** License window and enter the authorization code in the Local Authorization Code field.
- 13. When the authorization completes successfully, the following message appears:

```
UniVerse licensing is complete. Please shut down and
restart uniVerse.
Use the uniVerse system administration menu
```

to create additional uniVerse accounts.

Shut down and restart UniVerse:

■ Enter the following command to shut down UniVerse:

```
# bin/uv -admin -stop
```

■ Enter the following command to restart UniVerse:

```
# bin/uv -admin -start
```

14. Log in to the UV account. The **System Administration** menu appears. This menu system allows you to perform tasks such as adding users or setting up your spooler. See Administering UniVerse for complete instructions. To exit the menus, press **ESC** until you get to the UniVerse prompt:

To reenter the **System Administration** menu system, use the command:

>LOGIN

15. To exit the UniVerse environment, enter **Q** at the UniVerse prompt. A standard shell prompt appears, as shown in the following example.

```
>Q
```

16. If you installed UniVerse from CD-ROM, remove the CD-ROM from the device by entering the following command:

```
# umount /mnt
```

Upgrading an Existing UniVerse System as uvadm

Complete the following steps to upgrade an existing UniVerse system from the system console. Make the entries shown in bold type, and press **ENTER** after each entry.



Note: Before you start the installation, make sure your kernel parameters are adequate to meet your UniVerse environment requirements. Also make sure you have write permissions on the root directory (/) and on the directories where you plan to install the UniVerse home directory and the UniVerse/UniData shared directory.

1. If the existing UniVerse system is owned by *root*, enter the following command at the login prompt:

```
# login: root
root's password:
```

If the existing UniVerse system is owned by uvadm, enter the following command at the login prompt:

```
# login: uvadm
uvadm's password:
```

2. Change directories to any directory to which you have write permissions, as shown in the following example:

```
$ cd /tmp
```

- 3. Make sure there are no users logged in to the system before you begin the installation.
 - Insert the release media into the appropriate device. If you are unfamiliar with the loading procedure, refer to your hardware instruction manual.
 - If you are installing from tape, enter the appropriate command from the following table to load the *uv.load* script:

Command
tar xvf/dev/rmt/0 ./uv.load
cpio -ivcBdum uv.load < /dev/rmt/tm0n
cpio -ivcBdum uv.load /dev/rmt/tps0d6
cpio -ivcBdum uv.load < /dev/rmt0.4
cpio -ivcBdum uv.load < /dev/rmt/0m
cpio -ivcBdum uv.load < /dev/rmt01

uv.load Commands

Note: For platforms that support multiple types of tape media, verify that the device name corresponds to the tape device from which you are installing the UniVerse release tape. If it is different, you must substitute the correct device name in the cpio command, and also make this substitution when prompted by the uv.load command.



4. If you are installing from CD-ROM, execute the appropriate command from the following table:

Platform	Command
Sun Sparc (Solaris 2)	cpio -ivcBdum uv.load < /mnt/startup.
Dynix/ptx	cpio -ivcBdum uv.load < /mnt/startup
Silicon Graphics IRIS	cpio -ivcBdum uv.load < /mnt/startup
IBM RISC System/6000	cpio -ivcBdum uv.load < /mnt/startup.
HP Series 9000	cpio -ivcBdum uv.load < /mnt/STARTUP
Compaq AlphaServer	cpio -ivcBdum uv.load < /mnt/STARTUP.\;1

uv.load commands

Note: This command assumes that the CD-ROM device has been mounted at /mnt on your system. If your system differs, replace /mnt with the appropriate mount point on your system.

5. Execute the *uv.load* script with the release media still in the device:

/uv.load

6. If the existing UniVerse system is owned by *uvadm*, proceed to step 6. If the existing UniVerse system is owned by *root*, the following screen appears:

A screen similar to the following appears:

UniVerse Upgrade Procedure

The current upgrade is being done as 'root'. The existing installed uniVerse (at /usr/ibm/uv) is being administered by the user 'root'. Choose one of the following below:

- Keep 'root' as the owner and administrator of uniVerse.
 The current installation continues uninterrupted.
- Make 'uvadm' the new owner and administrator of uniVerse. The current installation continues uninterrupted.
- 3) Stop the installation.

Your choice (Default action is 1):

Choose 2 to install UniVerse and make *uvadm* the owner and administrator of UniVerse.

uv.load displays the current installation settings: 7.

The current settings of the available options are:

```
UniVerse installer : uvadm
UniVerse administrator : uvadm uid=214 gid=200
```

- /usr/ibm/uv 1) UniVerse home directory:
- 2) UniVerse-UniData shared directory: /usr/ibm/unishared
- 3) Compile terminfo definitions: true
 4) Rewind tape name /dev/rmt/0m
 5) No-rewind tape name /dev/rmt/0mn 4) Rewind tape name
 5) No-rewind tape name
 6) Long File Names
- OFF 6) Long File Names

Enter a field number to change, q to abort installation, or press <Return> to begin installation of UniVerse:

The UniVerse installer will appear either as root or uvadm, depending on how you logged in at step 1.

Enter the number of the value you want to change. If you choose 1, you are prompted for the UniVerse home directory. If you choose 2, you are prompted for the shared directory name. If you choose 4 or 5, you are prompted for a new device path. You cannot change 6.

You can also enter **q** at this point to quit the installation procedure.

If the values displayed are acceptable, press **ENTER** to start installing UniVerse.

If you choose 3, a list similar to the following is displayed:

Compiling the uniVerse terminfo definitions will overlay the descriptions for terminals listed below:

4410 AT386	at386 att3b1	pt200 gt102	viewpoint viewpoint60
M=	att4410	regent20	vp
Mu	av	regent25	vp60
a210	dialup	regent40	vp60:regent40
a210:adm5	dumb	regent60	vt100
a210:hz1410	fenix	s4	vt100-am
a210:hz1500	gt	sun	vwpt
a210:qt102	hft	sun-cmd	vwpt60
a210:regent25	hz1410	sun-w	wy200
a210:tvi910	hz1500	tvi910	wy200-w
a210:tvi910+	ibm5151	tvi910+	wy50
a210:tvi920	ic16404	tvi920	wy50:hz1500
a210:tvi925	network	tvi925	wy50:tvi910
a210:vp	pc7300	tvi955	wy50:tvi920
adm5	performer	unixpc	wy50:tvi925
at	pt	unknown	wy50:vp

Enter YES to compile and install terminfo.src:

Enter Y to compile and install *terminfo.src*. Enter N to change option 3 from true to false.

8. If you do not already have an SQL catalog and there is no user name *uvsql* in the /*etc/passwd* file, you see the following message:

The user 'uvsql' does not exist. This user is the default owner of the SQL catalog. Would you like to:

- 1). Continue with the installation, making 'root' the default owner of the $\ensuremath{\mathtt{SQL}}$ catalog.
- 2). Suspend the installation so that you can create the 'uvsql' user.
- 3). Stop the installation.

Your choice (Default action is 1):

Choose 1 to make root the owner of the SQL catalog. Choose 2 to shell out of the installation procedure and create the *uvsql* user in the */etc/passwd* file. When you exit from doing this, you return to the installation procedure.

4-13

If you are installing UniVerse from any media other than CD-ROM, the 9. following prompt appears:

The following uniVerse groups are available for installation:

MAIN OBJ DEVELOP DOC FILESIZE PORTING UCI IC UOJ UVODBC

Which groups do you wish to install (press <Return> for all groups) ?

Choose which groups you want to install on your system. The following groups are available for installation on your system:

Group	Description
MAIN	This group is the standard UniVerse environment. It contains the files and programs necessary for running UniVerse. The MAIN group must be installed on your system for UniVerse to run.
OBJ	This group contains object files and archive files that are used to install and link the UniVerse optional product GCI.
DEVELOP	This group contains tools for application development including the BASIC compiler, catalog manipulation commands, and debugging tools. It is not necessary for this group to be loaded to run BASIC programs or cataloged programs.
DOC	This group contains the online help facility for UniVerse and BASIC. Also included is the demonstration account. This group is not necessary for UniVerse to run.
FILESIZE	This group contains tools for verifying and adjusting the type, modulo, and separation of UniVerse files. This group is not necessary for UniVerse to run.
PORTING	This group contains tools for porting applications from Pick, Reality, and Prime INFORMATION systems to your UniVerse system. This group is not necessary for UniVerse to run.
UCI	This group contains the files and programs needed to run UCI. This group is not necessary for UniVerse to run.

UniVerse Groups

Group	Description
IC	This group contains the files and programs needed to run InterCall. This group is not necessary for UniVerse to run.
UOJ	This group contains the files and programs needed to run UniObjects for Java. This group is not necessary for UniVerse to run.
UVODBC	This group contains the files and programs needed to run UniVerse ODBC. This group is not necessary for UniVerse to run.

UniVerse Groups (Continued)

If you want to install all the groups, press ENTER at the prompt, otherwise enter the names of the groups you want to install, separated by spaces. You must enter the groups exactly as they appear at the prompt and in the same order. When you have entered all the groups, press Return to begin the installation of the groups.

Note: If a group fails to load correctly, a message is displayed indicating that the checksums do not verify for the listed groups. You should repeat the installation procedure for those groups that do not verify. When you repeat the installation procedure, you should verify that the UniVerse home directory is correct. You can repeat the installation procedure later to add groups that you do not install now.

10. You may see the following message:

Unable to get disk shared memory segment: Invalid argument If this happens, shut down and restart UniVerse (see step 11). Then proceed to step 10.

- 11. After the installation process installs all of the groups, the **Upgrade UniVerse License** screen appears. Enter the license activation information as requested by the prompts. The information you must enter is:
 - Serial number
 - Maximum number of local users
 - Expiration date, or press ENTER for the default
 - Package list
 - Number of Device Licenses for which you are authorized

Press ENTER. The licensing process displays a configuration code.

Remember the Configuration Code the licensing process displays. The 12. configuration code is of the following format:

CCTM5-ZZ3UZ-QFZ7Z-ZZZW6-Z3ZZ4-XBKLC-UZTI9

The licensing process prompts for Local Authorization Code.

13. To obtain your authorization code, go to:

http://www-306.ibm.com/software/data/u2/universe/

Click **Authorize Products**. Follow the instructions on the website to obtain your authorization code.

- 14. Once you have your authorization code, go back to the **Upgrade UniVerse** License window and enter the authorization code in the Local Authorization Code field.
- 15. When the authorization completes successfully, the following message appears:

```
UniVerse licensing is complete. Please shut down and
restart uniVerse.
```

Use the uniVerse system administration menu to create additional uniVerse accounts.

Shut down and restart UniVerse using the following steps:

Change to the UniVerse home directory, as shown in the following example:

```
# cd /usr/ibm/uv
```

Enter the following command to shut down UniVerse:

```
# bin/uv -admin -stop
```

Enter the following command to restart UniVerse:

```
# bin/uv -admin -start
```

16. Log in to the UV account. The UniVerse System Administration menu appears. This menu system lets you perform tasks such as adding users or setting up your spooler. See Administering UniVerse for complete instructions. To exit the menus, press ESC until you get to the UniVerse prompt:

To reenter the **System Administration** menu system, use the command:

>LOGIN

17. To exit the UniVerse environment, enter Q at the UniVerse prompt. A standard shell prompt appears, as shown in the following example.

```
>Q
#
```

18. Each user account VOC file must be updated to the current UniVerse release level. Do this by invoking UniVerse in each user account. When you do this, the following prompt appears:

Your VOC is out of date. Update to current release (Y/N)? Entering Y at the prompt updates the VOC to the current release level.

Note: The UniVerse LOGTO command does not check the release level of the VOC file when used to enter a UniVerse account. The check is done only when directly invoking UniVerse in a user account. If your application uses LOGTO, you must verify that all user accounts are updated to the current release level before running the application.

19. If you installed UniVerse from CD-ROM, remove the CD-ROM from the drive by entering the following command:

umount /mnt



UniVerse Telnet Servers on HP-UX Platforms

The HP-UX 11.00 and HP-UX 11.23 operating systems requiredifferent UniVerse telnet servers. UniVerse ships two uvtelnetd executables, uvtelnetd and uvtelnetd.HP1164.

If you are running HP-UX 11.0 PA2 32-bit, use the uvtelnetd executable, which is installed by default during the installation process.

If you are running HP-UX 11.0 PA2 64-bit, use the uvtelnetd.HP1164 executable by executing the following commands from the UniVerse/bin directory:

```
# mv uvtelnetd uvtelnetd.HP1132
# cp uvtelnetd.HP1164 uvtelnetd
# uvtelnetd kill -HUP inetd pid
```

If you receive the following message, you must use the alternate telnet server:

(No utmp entry. You must exec "login" from the lowest level "sh".)

If you receive the following message, you must use the original telnet server:

/usr/lib/dld.sl: Unresolved symbol: setutsent (code) from uvtelnetd

Examining the Load and Installation Scripts

You can examine the UniVerse load or installation script using the *vi* editor. These scripts are in the UniVerse home directory, by default /*usr/ibm/uv*, under the names *uv.load* and *uv.install*. You must have root privileges to view these files.

uv.load Options

You can use the options to the *uv.load* command to change the installation process. The syntax of the *uv.load* command is:

$$\begin{array}{l} \textbf{uv.load} \ \left\{ -\textbf{defaults} \right\} \ \left\{ -\textbf{longnames} \right\} \ \left\{ -\textbf{nochecksum} \right\} \ \left\{ -\textbf{nocpio} \right\} \\ \left\{ uvhome \right\} \end{array}$$

The following table describes each parameter of the syntax:

Option	Description
-defaults	Specifies that all defaults are to be used—no prompting by the script. This allows for automatic installation.
-longnames	Forces LONGNAMES to ON NEWACC.
-nochecksum	Specifies to skip the checksum step. This should be done only after consulting with Informix support. If files are really damaged, the installed UniVerse will not execute correctly, with possible damage to files.
-nocpio	Specifies to skip the physical read of the installation media. This option can be used to restart the installation after files have been loaded.
uvhome	Specifies the UniVerse home directory if it is different from either the installed UniVerse or /usr/ibm/uv.

uv.load Options

System Administration Menus

The System Administration menus and data entry screens look and work the same way as Motif menus. For a complete description of these menus, see Appendix A of Administering UniVerse.

Installing UniVerse on Windows Platforms

Starting the UniVerse Master Setup	5-3
Installing UniVerse	5-4
Installing UniVerse for the First Time	5-4
Upgrading to or Reinstalling UniVerse Release 10.2	5-5
Starting a UniVerse Session Over Telnet	5-6
Authorizing UniVerse	5-7
Authorizing a New UniVerse License	5-8
Obtain Configuration Code	5-9
Obtain Authorization Code	5-9

Installing UniVerse on Windows Platforms

The *UniVerse Release 10.3 for Windows Platforms* CD-ROM contains a program that manages the installation. You start this installation program, then choose the software you want to install from the **UniVerse Master Setup** screen.

Starting the UniVerse Master Setup

All programs are installed from the UniVerse Master Setup screen. To reach that screen, perform the following steps:

- Log on as Administrator. 1.
- 2. Insert the UniVerse CD-ROM in the drive. The UniVerse Master Setup screen should appear automatically. If Auto run is switched off and the screen does not appear, choose the CD-ROM driver from Explorer, the choose Install.exe.

Installing UniVerse

This section describes how to install UniVerse Release 10.3 on an NTFS partition on a server running Windows. The installation procedure varies according to whether you are installing, reinstalling, or upgrading.

- If you are installing Release 10.3 for the first time, see "Installing UniVerse for the First Time"
- If you are reinstalling Release 10.3 or upgrading from an earlier release, skip to "Upgrading to or Reinstalling UniVerse Release 10.3."

Installing UniVerse for the First Time

Beginning at UniVerse 10.3, you do not need to authorize UniVerse during the installation process. You have 60 days after installation to authorize UniVerse.

Complete the following steps to install UniVerse 10.3:

- 1. From the UniVerse Master Setup screen, choose UniVerse RDBMS to start the UniVerse installation. The Welcome screen appears.
- 2. Follow the instructions on the screen until the installation is complete.
- 3. Start all UniVerse services as follows:
 - Choose **Start**, then **Programs**, then **IBM U2**, then **UniVerse**, and then **UniVerse Control** to display the UniVerse Control Panel.
 - If UniVerse is not started, click **Start All Services**.

Note: The UniRPC service allows connections to servers from applications written using UniDK, or from UniVerse Admin. The UniVerse Telnet service allows users to make a telnet connection to UniVerse.

- **4.** Start a UniVerse session on the server. Execute one of the following tasks:
 - Choose Start, then programs, then IBM U2, then UniVerse, and then UniVerse Shell.
 - Start a telnet session from a client (see "Starting a UniVerse Session Over Telnet" on page 6).

Note: If your application uses UniVerse menus or screen formatting, run your application in a telnet window, because the UniVerse Shell window does not support terminal handling.





- Review your file security. The UniVerse installation directory inherits its 5. security permissions from the parent directory and from the attributes of the installer. Adjust the permissions to meet your needs. UniVerse administrators need full access to the UV account directory. Other users require full access to the *catdir* directory and its contents, and read-only access to all other files in the UV account directory. All users must have full access to the UniVerse temporary directory.
- Use Notepad to edit the uvconfig file in the UV account directory to specify 6. a value for the UVTEMP configurable parameter. This value defines the directory where UniVerse writes temporary files. (Windows platforms do not have a fixed location for temporary files.)
 - If you do not specify a value for UVTEMP, UniVerse first checks for temporary files in the directory specified in the TEMP environment variable, and then it searches the local directory.
- 7. Define the default UniVerse printer as follows. Choose **Start**, then **Settings**, then **Printers**, and then **Add Printer**. Specify the printer name as UVDEFAULT and define a suitable printer as the UniVerse default. The printer must be available to all UniVerse users on the system. It need not be a physical printer; it can be a file or a print queue.

Upgrading to or Reinstalling UniVerse Release 10.3

Complete the following steps to upgrade or reinstall UniVerse Release 10.3.

- 1. Log on to Windows as Administrator.
- 2. Make sure that no users are connected to the UniVerse server. Use the UniVerse command LISTU to list all users connected to the UniVerse server
- 3. Stop all UniVerse services. Choose Start, then Programs, then IBM U2, then **UniVerse**, and then **UniVerse Control** to display the UniVerse Control Panel. Click Stop All Services.
- Proceed with the installation as described in "Installing UniVerse for the 4. First Time" on page 4.

Note: The installation process does not preserve any settings, including the LONGNAMES setting. If you run UniVerse with LONGNAMES ON, the new installation sets it back to the default LONGNAMES OFF.



Starting a UniVerse Session Over Telnet

Complete the following steps to start a UniVerse session over telnet:

- 1. From the server, make sure the UniVerse Telnet services is running on the server.
- 2. From the client, run the telnet application, for example, UV/Term.
- **3.** From the client, enter the appropriate telnet command, such as *open* or *connect*, and specify your UniVerse server's network name as it appears in the *hosts* or *lmhosts* file. The following example illustrates connecting to the server univ.

open univ

- **4.** Once connected, enter a valid user ID and password for your server.
- 5. If you are prompted, enter the location of the UniVerse account that you want to access, as shown in the following example:

D:\IBM\UV

Authorizing UniVerse

Complete the following steps to authorize UniVerse through UniAdmin:

Select one of the following methods to access the UniVerse License dialog box:

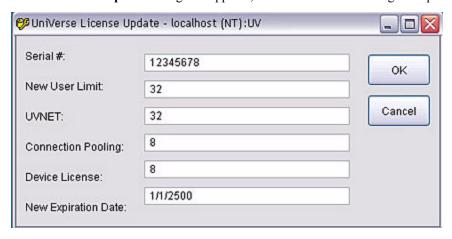
- From the **UniAdmin** window, double-click **License**.
- From the UniAdmin menu, click Admin, then click License.

The **UniVerse License** dialog box appears, as shown in the following example:



Authorizing a New UniVerse License

Verify that the number of users and expiration date displayed in the **UniVerse Licensing** dialog box matches the configuration on the Product Configuration sheet shipped with UniVerse. If you need to update any information, click **Update**. The **UniVerse License Update** dialog box appears, as shown in the following example:



- 1. Enter your UniVerse serial number in the **Serial** # box.
- 2. Enter the number of users for which you are licensed in the **New User Limit** box.
- 3. Enter the number of UVNet users for which you are licensed in the UVNET box. If you are not licensed for any UVNet users, enter 0.
- **4.** Enter the number of Connection Pooling licenses in the **Connection Pooling** box. If you are not licensed for any connection pools, enter 0.
- Enter the number of device licenses for which you are authorized in the Device License box.
- 6. If the expiration date of you license is incorrect, enter the correct date in the **New Expiration Date** box.

When the license information is correct, click **OK**.



Note: If you are using UV/NET, you must authorize both the UniVerse database and UV/NET.

Obtain Configuration Code

Click **ConfigCode** to obtain the configuration code you will need to authorize UniVerse. A window similar to the following example appears with the configuration code:



Obtain Authorization Code

To obtain your authorization code, go to:

http://www-306.ibm.com/software/data/u2/universe/

Click Authorize Products. Follow the instructions on the website to obtain you authorization code.

Once you have your authorization code, click Authorize from the UniVerse License dialog box. The License Authorization dialog box appears, as shown in the following example:



Enter your authorization code, then click **OK**.

UniVerse Accounts

Creating a New UniVerse Account			6 -3
Creating a New Account on a UNIX System			6 -4
Creating a New Account on a Windows System			6 -5
Viewing or Modifying Account Details			6 -8
Deleting an Account.			6 -9
Deleting a UniVerse Account on UNIX			6 -9
Deleting a UniVerse Account on a Windows System .			6 -10
Customizing UniVerse Accounts			6 -12
UniVerse Account Control Files			6 -12
Essential UniVerse Files			6 -15
Controlling Access to UniVerse on UNIX Systems			6 -17
Controlling Access to UniVerse on Windows Platforms			6 -18
Customizing a UniVerse Account			6 -18

UniVerse Accounts

You always enter UniVerse through a UniVerse account. A UniVerse account includes a directory containing the files required to run UniVerse in that directory. An established UniVerse account can also contain database files and program files.

The VOC file in each UniVerse account defines the account environment, including all the files and commands that are available to users who are logged in to the account.

For example, a UniVerse account might be defined for a department rather than for an individual. Each user of the SALES account might be given his or her own login name at the operating system level, but be assigned the same home directory and share the same UniVerse account.

On UNIX systems, you can assign or change the user ownership and group ownership of files in an account, and you can set or change the file access permissions. These ownerships and permissions apply to all of the files and subdirectories contained in a UniVerse account directory.

UniVerse file permissions are managed by UNIX or Windows file permissions. For information about setting file permissions, refer to the documentation that comes with your operating system.

Creating a New UniVerse Account

Choose the **Accounts** option from **UniAdmin** to create a new UniVerse account. The **Account Admin** window appears with a list of all UniVerse accounts currently defined in the UV.ACCOUNT file (see "The UV.ACCOUNT File" on page 13 for information about this file). The tasks you can perform from this window include:

- Creating a new account
- Viewing or modifying account details
- Deleting an account



How you create an account depends on whether you are administering a UNIX server or a Windows server.



Note: You can also create UniVerse accounts by entering **uv** at an operating system prompt. If an account is created this way, the UV.ACCOUNT file is not updated and the account cannot be administered using the **Accounts** option.

When you add a new account, UniVerse performs the following tasks:

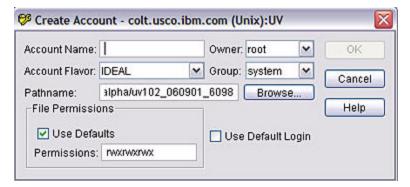
Assigns an account compatibility flavor

- Updates The UV.ACCOUNT File
- On UNIX systems, edits the .profile file in the account directory
- Edits the LOGIN entry in the UniVerse account

Creating a New Account on a UNIX System

Complete the following steps to create a new UniVerse account:

1. From the Account Admin window, click New. The Create Account dialog box appears, as shown in the following example:



- 2. Enter the name of the account in the **Account Name** field.
- 3. Select one of the following flavors from the **Account Flavor** list:
 - **IDEAL**. Choose this flavor if you are new to UniVerse. It contains the best features of all the flavors.
 - **INFORMATION**. Choose this flavor for compatibility with Prime INFORMATION.
 - **PIOPEN**. Choose this flavor for compatibility with PI/open.
 - PICK. Choose this flavor for compatibility with Pick or Advanced Pick.
 - **REALITY**. Choose this flavor for compatibility with Microdata REALITY.
 - **IN2**. Choose this flavor for compatibility with IN2.

4. Enter a destination for the new account in the **Pathname** field. You can enter the full path of the directory, or use the **Browse** button to search the system for an appropriate directory. If you enter the name of a directory that does not exist, it is created when you click **OK**. For example:

/usr/users/newuser

The parent directory (/usr/users) must exist.

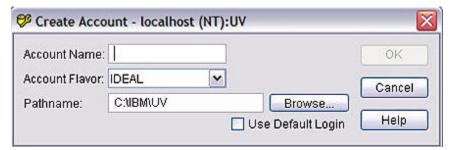
Note: You can choose a directory path of an existing UniVerse account. In this case, the new account is added to the UV.ACCOUNT file, but no changes are made to the existing account files.

- 5. Select the owner of the account from the **Owner** list.
- **6.** Select a group to assign the new account to from the **Group** list.
- 7. Clear the **Use Default LOGIN** check box if you do not want to use the default LOGIN entry for the new account.
- **8.** Set the file permissions by doing one of the following:
 - Select the Use Defaults check box to accept the default permissions rwx-rwxrwx.
 - Enter suitable settings in the **Permissions** field. This field is only active when the **Use Defaults** check box is cleared.
- Click OK. UniVerse creates the account in the chosen directory, and updates the UV.ACCOUNT file and the Account Admin window.

Creating a New Account on a Windows System

Complete the following steps to create a new UniVerse account:

1. From the **Account Admin** window, click **New**. The **UniVerse Account Details** dialog box appears, as shown in the following example:





- Enter the name of the account in the **Account Name** field. 2.
- 3. Select one of the following flavors from the **Account Flavor** list:
 - **IDEAL**. Choose this flavor if you are a new user. It contains the best features of all the flavors.
 - INFORMATION. Choose this flavor for compatibility with Prime INFORMATION.
 - **PIOPEN**. Choose this flavor for compatibility with PI/open.
 - PICK. Choose this flavor for compatibility with Pick or Advanced Pick.
 - **REALITY**. Choose this flavor for compatibility with Microdata REALITY.
 - **IN2**. Choose this flavor for compatibility with IN2.
- 4. Enter a destination for the new account in the **Pathname** field. You can use the **Browse** button to search the system for the appropriate directory, or enter the full path of a directory. If you enter the name of a directory that does not exist, it is created when you click **OK**. For example:

D:\uv\accounts\newuser

The parent directory (D:|uv|accounts) must exist.

- 5. Clear the Use Default LOGIN check box if you do not want to use the default LOGIN entry for the new account.
- Click **OK**. UniVerse creates the account is created in the chosen directory, 6. with the ownership and security of the parent directory, and updates the UV ACCOUNT file and the Account Admin window

Note: You can choose a directory path of an existing UniVerse account. In this case, UniVerse adds the new account to the UV.ACCOUNT file, but no changes are made to the existing account files in the directory.



Viewing or Modifying Account Details

To view the details of an account, perform one of the following tasks:

- Double-click the account in the UniVerse Accounts list.
- Choose an account, then click **Detail**.

The UniVerse Account Details dialog box appear. You can modify the account settings, except for the Account Flavor setting and account path. Changes are saved when you click OK.

Deleting an Account

Choose the **Accounts** option from **UniAdmin** to delete a UniVerse account. How you delete the account depends on whether you are connected to a UNIX or a Windows server.

Deleting a UniVerse Account on UNIX

To delete a UniVerse account:

- 1. Select the account you want to delete from the UniVerse Accounts list in the Account Admin window.
- Click **Delete**. The **Delete Account** dialog box appears with the name and 2. location of the chosen account, as shown in the following example:



- 3. Choose how to delete the account by selecting one of the following options:
 - **Retain Directory**. UniVerse removes the account from the UV.ACCOUNT file.
 - **Delete Directory**. UniVerse removes the account from the UV.ACCOUNT file and deletes the directory, along with all of its contents. If other accounts in the UV.ACCOUNT file use the files in this directory, you will also be prompted whether you want to delete these accounts.
 - Transfer Ownership. UniVerse removes the account from the UV.ACCOUNT file and transfers the account directory ownership to a user you specify. Select a user from the Transfer to list.

Note: Options available in the dialog box change dynamically according to your choice to retain or delete a directory.

- 4. Click **OK**. A message box appears.
- 5. Click **Yes** to remove the account as specified. The **Account Admin** window is updated.

Deleting a UniVerse Account on a Windows System

Complete the following steps to delete a UniVerse account:

- Select the account you want to delete from the UniVerse Accounts list in the Account Admin window.
- 2. Click **Delete**. The **Delete Account** dialog box appears with the name and location of the chosen account, as shown in the following example:





- 3. Choose how you want to delete the account by selecting one of the following options:
 - Retain Directory. UniVerse removes the account from the UV.ACCOUNT file.
 - **Delete Directory**. UniVerse removes the account from the UV.ACCOUNT file and the directory, along with all of its contents. If other accounts in the UV.ACCOUNT file share this directory, you are asked whether you want to delete these accounts.
- 4. Click **OK**. A message box appears.
- 5. Click **Yes** to remove the account as specified. UniVerse updates the Account Admin window.

Customizing UniVerse Accounts

You can customize UniVerse accounts. For example, you can prevent certain users from creating or modifying accounts from their own UniVerse accounts.

You can also set up alternative account flavors and their associated VOC files. To customize your system in this way, you must modify the NEWACC Files and The UV.FLAVOR File.

Using **UniAdmin**, you can specify the account flavor to use, which in turn affects the VOC file and the user's access to UniVerse. There are six standard flavors: IDEAL, INFORMATION, PICK, REALITY, PIOPEN, and IN2. These are listed when you create accounts using the **Accounts** option from **UniAdmin**.

On Windows platforms, you can specify the account directory or UniVerse account to which each user initially logs in from a telnet session. Use the Network Services option from **UniAdmin** to do this. For more information about the Network Services option, see Maintaining the hosts File in *Administering UniVerse*.

UniVerse Account Control Files

UniAdmin uses the account control files to check the validity of responses to some of the data entry screens. UniVerse only updates these files when you create or modify an account using **UniAdmin**, so it is important to create accounts using **UniAdmin**

Although the account control files are used primarily by **UniAdmin**, you can use LIST and SORT to create reports. You can update them with ReVise or the UniVerse Editor.

The UV.ACCOUNT File

The UV.ACCOUNT file is in the UV account. It contains a list of UniVerse accounts and their paths. UniVerse automatically updates this file when you create or delete an account using UniAdmin. Each UniVerse account has a record in the UV.ACCOUNT file. The record ID is the account name. Each record also contains the following fields, but only the PATH field is updated by UniVerse.

Field Name	Description
@ID	Account name
PASSWORD	Account's password (/etc/passwd)
MAX	
MIN	
AGE	
UID	User ID number (/etc/passwd)
GID	Group ID number (/etc/passwd)
NAME	Account owner's name (/etc/passwd)
OFFICE	
EXT	
PHONE	
PATH	Account directory's path (/etc/passwd)
SHELL	UNIX shell (/etc/passwd)
PERMISSIONS	

UV.ACCOUNT Record Fields

The UV.FLAVOR File

The UV.FLAVOR file is in the UV account. The UV.FLAVOR file dictionary contains X-descriptors that define each flavor. The UV.FLAVOR data file contains records that specify restrictions on creating or updating accounts. This file lets you choose the account flavor for an individual or for a group of users.

Each record in UV.FLAVOR can have one of the following types of record IDs:

Record ID	Description	Example
USER.name	name is the login name of a user.	USER.alice
GROUP.name	name is the name of a user group.	GROUP.users
OTHER	A specially defined account.	OTHER

UV.FLAVOR Record IDs

Each record has two fields. The second field specifies one of the six different flavors: IDEAL (UniVerse), INFORMATION, PICK, REALITY, PIOPEN, or IN2. The first field specifies one of the following codes:

Code	Description
С	UniVerse prompts you to choose an account flavor when creating or updating an account.
F	UniVerse automatically assigns the account flavor designated in field 2.
N	The user cannot create or update an account.

UV.FLAVOR: Field One

The following example is of a sample UV.FLAVOR file:

UV.FLAVOR	Access Code	Flavor
GROUP.users	F C	PICK
GROUP.demo	F	NEWACC

To prevent users creating or modifying an account, create an entry for them in the UV.FLAVOR file and set the access code to N.

To use a custom flavor, create an entry in the UV.FLAVOR file for users who will use the flavor, and set the access code to F. Enter the custom flavor name in field 2 of the UV.FLAVOR file.

The UV.LOGINS File on Windows Platform

The UV.LOGINS file is in the UV account only on Windows Platforms. It contains a list of users and the UniVerse accounts they log on to when they first connect to UniVerse through a telnet session. Use the Network Services option of the UniVerse **Admin Control Panel** to maintain this file. For information about the Network Services file, see Maintaining the hosts File in Chapter 19 of *Administering UniVerse*.



Note: There is no UV.LOGINS file on UNIX systems.

Essential UniVerse Files

For users to work in the UniVerse environment, their current working directories must contain a number of UniVerse files, including the VOC file and its associated file dictionary. In addition, each UniVerse account is set up in a specified flavor of compatibility, such as IDEAL (UniVerse), PICK, or INFORMATION.

The system administrator does not set up the VOC file and its associated file dictionary. They are created when the user logs on to the new UniVerse account for the first time.

If the directory has not been set up as a UniVerse account, the system notifies the user that the account has not yet been set up. The user must answer the system prompts to create or update the VOC file.

The VOC File

The VOC file is created according to the restrictions specified in the UV.FLAVOR file. The master files used as templates for creating VOC files are in the file NEWACC.

If your VOC is being updated rather than created, replaced records are moved to the file &TEMP& to prevent them from being destroyed. The names of any records that are moved to &TEMP& are listed on your screen.



Note: The VOC file defines the UniVerse account. The contents of the VOC file limits access to commands and files in a UniVerse account. Users cannot access any files or commands not defined in the VOC file of the account in which they are working.

The UV.LOGIN and LOGIN Entries

If the UniVerse command processor is specified as the account's command interpreter, UniVerse executes the UV.LOGIN entry in the VOC file of the UV account when the user logs on to the systerm. The UV.LOGIN entry can be a paragraph, a proc, a BASIC program, or a menu. It is typically a paragraph containing commands that establish systemwide defaults. After executing UV.LOGIN, UniVerse executes the LOGIN entry in the VOC file of the user's account.

The standard VOC file on UNIX systems contains a LOGIN entry that is analogous to the UNIX *.profile* file. The default LOGIN entry in the *sample* directory of the UV account is a paragraph similar to the following example:

```
LOGIN

001 PA

002 PTERM ERASE ON KILL ON WERASE ON RPRNT ON FLUSH ON LNEXT ON SUSP ON_

003 INTR ON QUIT ON STOP ON START ON EOF ON BRK OFF_

004 ECHO ON ECHO CTRL ON TABS ON CRMODE ON TYPE FAST LFDELAY 0 FFDELAY 2

005 UMASK 077
```

This LOGIN entry uses PTERM to set terminal characteristics, and it uses the UniVerse UMASK command to set the default file permission mask. These commands have the same function as the UNIX commands *stty* and *umask*.

Many of the functions performed by the LOGIN entry are identical to those performed in the UNIX *.profile* file. For example, the *stty* command in *.profile* determines which keys perform erase, kill, interrupt and quit operation on your terminal:

```
stty erase '^H' kill '^U' intr '^?' quit '^ ' -tabs ff0 cr0 nl0
```

On Windows platforms, the default LOGIN entry in the *sample* directory is a paragraph similar to the following example:

```
LOGIN
001 PA
002 PTERM ERASE ON KILL ON WERASE ON RPRNT ON INTR ON_
003 ECHO ON ECHO CTRL
004 CLR
```

Controlling Access to UniVerse on UNIX Systems

You can make UniVerse your default working environment by entering /usr/ibm/uv/bin/uv as your default shell in the /etc/passwd file. When you log in and out, you log directly in to and out of UniVerse.

If, on the other hand, the /etc/passwd file specifies a UNIX shell (for example, /bin/sh), you log in to a UNIX shell. You can then invoke the UniVerse environment with the uv command. Even if the /etc/passwd file specifies a UNIX shell, your .profile or .login file can log you directly in to the UniVerse environment. To do that, add the following line to your .profile:

exec uv

The exec command replaces the current shell with the shell you specify, in this case uv. On exiting UniVerse, you also exit the system.

Login Shell Specified in /etc/passwd	Initialization Files	You log in	You log out
/usr/ibm/uv/bin/uv	LOGIN	Directly to UniVerse.	To a UNIX login shell.
/bin/sh	.profile	To a UNIX Bourne shell.	To a UNIX login shell.
/bin/sh	.profile containing exec uv	To UniVerse. The UNIX login is transparent to the user.	To a UNIX login shell.
/bin/csh	.cshrc .login	To a UNIX C shell.	To a UNIX login shell.
/bin/csh	.cshrc .login containing uv command	To UniVerse. The UNIX login is transparent to the user.	To a UNIX C shell.

Login Shell and Environment on Exiting UniVerse



Note: If you interrupt execution of the .profile or .login file (for example, by pressing the **Break** key) before the uv command is executed, you are left in a UNIX shell.

Controlling Access to UniVerse on Windows Platforms

The UV.LOGINS file is used on Windows platforms to define how users connect to UniVerse via telnet sessions. Use the Network Services option of **UniAdmin** to specify how users should connect to UniVerse. For more information about the Network Services option, see Maintaining the hosts File in Chapter 19 of *Administering UniVerse*.

Customizing a UniVerse Account

A valid UniVerse account always includes a VOC file and its associated file dictionary. The VOC file defines all the commands and keywords that can be used, and all the files that can be accessed from that account. UniVerse uses master files in the UV account directory to create the VOC files in all new accounts.

Choosing a UniVerse Flavor

Any UniVerse account can be one of several standard flavors: IDEAL (UniVerse), IN2, INFORMATION, PICK, PIOPEN, or REALITY.

- The PIOPEN flavor is used for compatibility with PI/open.
- The INFORMATION flavor is used to maintain an environment compatible with Prime INFORMATION products.
- The IN2, PICK, and REALITY flavors are used for compatibility with the different versions of the Pick system. These flavors can be chosen by users who are more comfortable with a Pick system and want UniVerse to behave in the same way.
- The IDEAL flavor contains the best of both the Pick and Prime worlds.

New users are encouraged to choose the IDEAL UniVerse flavor.

NEWACC Files

The NEWACC file in the UV account contains the different VOC file templates for each flavor of UniVerse. UniVerse stores these templates as multiple data files of the NEWACC file. Each data file is a fully configured VOC template whose name corresponds to the flavor. To list the contents of the data file containing the template for IDEAL flavor VOC files, enter either of the following commands from the UV account:

```
>LIST NEWACC
>LIST NEWACC, NEWACC
```

To list the contents of the NEWACC template for INFORMATION flavor VOC files, enter:

```
>LIST NEWACC, INFORMATION
```

The VOC file can reference a particular VOC template as a single data file by using its full path in field 2 of the File Definition record. See the File Definition record for NEWACC in the VOC file in any UniVerse account other than the UV account. For example, this VOC entry points to the NEWACC template for PICK flavor VOC files:

```
NEWACC
001 F File
002 /usr/ibm/uv/NEWACC/PICK
003 /usr/ibm/uv/D NEWACC
```

Customizing NEWACC Files

You can modify the standard NEWACC files to ensure that the VOC files of new accounts contain only the records you want. For example, you can remove records for commands that you do not want users to access, or you can add records for files that are needed for an application.

You can also create up to 27 additional customized NEWACC files (see *UniVerse* System Description for information about adding data files to a UniVerse file). Each NEWACC file is a template for a new flavor of UniVerse. For each new flavor, you must add an X-descriptor to the dictionary of the UV.FLAVOR file. The record ID of the X-descriptor is the name of the new NEWACC file, and field 2 contains the description of the new flavor. This description appears in the list of UniVerse flavors when you create new accounts. The following steps describe the easiest way to create a customized flavor:

1. Change to the UV account directory and invoke UniVerse:

```
# cd /usr/ibm/uv
# bin/uv
```

2. Make a copy of one of the standard NEWACC files. Do this by creating a new data file in NEWACC and copying the contents of the standard NEWACC file to the new data file:

```
>CREATE.FILE DATA NEWACC,MY.FLAVOR 3 23 4
Creating file "/usr/ibm/uv/NEWACC/MY.FLAVOR" as Type 3,
Modulo 23, Separation 4.
>COPY FROM NEWACC,INFORMATION TO NEWACC,MY.FLAVOR ALL
355 records copied.
```

- **3.** Use the UniVerse Editor or ReVise to add, delete, or change standard VOC entries in your new flavor.
- 4. Use the UniVerse Editor to add an X-descriptor to the DICT of UV.FLAVOR:

```
>ED DICT UV.FLAVOR
Record name = MY.FLAVOR
New record.
----: I
0001=X
0002=My own custom UniVerse flavor
0003=
Bottom at line 2
----: FI
"MY.FLAVOR" filed in File "DICT UV.FLAVOR"
```

Installing UniVerse Clients

Installing UniAdmin	7-3
Executing a Silent Installation for UniAdmin	7-3
Installing the UniVerse ODBC Client	7-5
Executing a Silent Installation for UniVerse ODBC	7-5
Installing UniDK (Uni Development Kit)	7-7
Executing a Silent Installation for UniDK	7-7
Installing Eclipse Based Tools	7-9
Installing Dynamic Connect	7-10
Installing UniDebugger	7-11
About Windows Help	7-12

Installing UniVerse Clients

The UniVerse Clients CD-ROM contains the following client software for use with Windows servers.

- UniAdmin
- UniDeveloper's Kit
- UniVerse ODBC Client
- Eclipse Based Tools
- Dynamic Connect
- UniDebugger

The UniVerse Clients Setup screen should appear automatically. If Auto Run is switched off, and the screen does not appear, choose the CD-ROM drive from Explorer, then choose Install.exe.

Installing UniAdmin

Complete the following steps to install UniAdmin:

- 1. Check to see if any applications are running. IBM recommends that no applications be running during installation.
- 2. Start the installation by selecting **UniAdmin** from the **UniVerse Master Setup** screen. The **Welcome** screen appears.
- 3. Follow the instructions on the screen until the installation is complete.

To use **UniAdmin**, you must ensure that the UniRPC daemon is running on a UNIX server, or that the UniRPC service is running on a Windows server.

Executing a Silent Installation for UniAdmin

A UniAdmin silent installation allows automated electronic software distribution. When using the silent installation, there is no need to monitor the installation setup or provide input to the installation process.

A silent installation does not prompt you for input, but gets input from the setup.iss file. You can either execute the installation and record the input to create a custom setup.iss file, or use the default setup.iss file shipped with the UniVerse client.

Using the setup.iss file

To create the setup iss file, copy the contents of the UniAdmin directory from the client CD to a location of your choice on your hard drive.

Using the Default setup.iss File

To execute a silent installation using the default setup.iss file, enter the following command from the UniAdmin directory:

C:\IBM\UniAdmin\setup.exe -s

Using a Custom setup.iss File

To create a custom setup iss file, execute the following command from the location where you copied the UniAdmin directory:

C:\setup.exe -f1\Directory pathname\setup.iss -r

where the *Directory pathname* is the location where you want to create the setup.iss file, as shown in the following example:

C:\Test\UniAdmin>setup.exe -f1c:\Test\UniAdmin\setup.iss -r

The UniAdmin Welcome screen appears. Follow the installation prompts until the installation is complete.

To install UniAdmin using the custom setup.iss file, execute the following command from your UniAdmin directory:

C:\Directory pathname>setup.exe -s

Installing the UniVerse ODBC Client

Complete the following steps to install the UniVerse ODBC Client:

- 1. Check to see if any applications are running. IBM recommends that no Windows applications be running during the installation.
- 2. Start the installation by selecting **UniVerse ODBC Client** from the **UniVerse Master Setup** screen. The Welcome screen appears. Follow the instructions on the screen until the installation is complete.

Executing a Silent Installation for UniVerse ODBC

A UniVerse ODBC silent installation allows automated electronic software distribution. When using the silent installation, there is no need to monitor the installation setup or provide input to the installation process.

A silent installation does not prompt you for input, but gets input from the setup.iss file. You can either execute the installation and record the input to create a custom setup.iss file, or use the default setup.iss file shipped with the UniVerse client.

Using the setup.iss file

To create the setup iss file, copy the contents of the UniVerse ODBC directory from the client CD to a location of your choice on your hard drive.

Using the Default setup.iss File

To execute a silent installation using the default setup.iss file, enter the following command from the UniVerse ODBC directory:

C:\IBM\UniVerseODBC\setup.exe -s

Using a Custom setup.iss File

To create a custom setup iss file, execute the following command from the location where you copied the UniVerse ODBC directory:

C:\setup.exe -f1\Directory pathname\setup.iss -r

where the *Directory pathname* is the location where you want to create the setup.iss file, as shown in the following example:

```
C:\Test\UniDK>setup.exe -f1c:\Test\UniVerseODBC\setup.iss -r
```

The UniVerse ODBC Welcome screen appears. Follow the installation prompts until the installation is complete.

To install UniVerse ODBC using the custom setup iss file, execute the following command from your UniVerse ODBC directory:

C:\Directory pathname>setup.exe -s

Installing UniDK (Uni Development Kit)

Complete the following steps to install UniDK:

- 1. Check to see if any applications are running. IBM recommends that no applications be running during installation.
- 2. Start the installation by selecting **UniDK** from the **UniVerse Master Setup** screen. The **Welcome** screen appears.
- **3.** Follow the instructions on the screen until the installation is complete.

To run applications developed with UniDK, you must ensure that the UniRPC daemon is running on a UNIX server, or the UniRPC service is running on a Windows server.

Executing a Silent Installation for UniDK

A UniDK silent installation allows automated electronic software distribution. When using the silent installation, there is no need to monitor the installation setup or provide input to the installation process.

A silent installation does not prompt you for input, but gets input from the setup.iss file. You can either execute the installation and record the input to create a custom setup.iss file, or use the default setup.iss file shipped with the UniVerse client.

Using the setup.iss file

To create the setup iss file, copy the contents of the UniDK directory from the client CD to a location of your choice on your hard drive.

Using the Default setup.iss File

To execute a silent installation using the default setup.iss file, enter the following command from the UniDK directory:

C:\IBM\UniDK\setup.exe -s

Using a Custom setup.iss File

To create a custom setup iss file, execute the following command from the location where you copied the UniDK directory:

C:\setup.exe -f1\Directory pathname\setup.iss -r

where the *Directory pathname* is the location where you want to create the setup.iss file, as shown in the following example:

```
C:\Test\UniDK>setup.exe -f1c:\Test\UniDK\setup.iss -r
```

The UniDK Welcome screen appears. Follow the installation prompts until the installation is complete.

To install UniDK using the custom setup.iss file, execute the following command from your UniDK directory:

C:\Directory pathname>setup.exe -s

Installing Eclipse Based Tools

Complete the following steps to install Eclipse-based tools:

- 1. Check to see if any applications are running. IBM recommends that no applications be running during installation.
- 2. Start the installation by selecting Eclipse Based Tools from the UniVerse Master Setup, then clicking the tool you want to install. The Eclipse-based tools include:
 - The XML/DB Tool
 - The SSL Config Tool
 - The Basic Developer Toolkit
 - The Web Services Developer Tool
- **3.** The **Welcome** screen appears.
- **4.** Follow the instructions on the screen until the installation is complete.

Installing Dynamic Connect

Complete the following steps to install Dynamic Connect:

- Check to see if any applications are running. IBM recommends that no 1. applications be running during installation.
- Start the installation by selecting **Dynamic Connect** from the **UniVerse** 2. Master Setup screen. The Welcome screen appears.
- Follow the instructions on the screen until the installation is complete. 3.

Installing UniDebugger

Complete the following steps to install UniDebugger:

- 1. Check to see if any applications are running. IBM recommends that no applications be running during installation.
- 2. Start the installation by selecting **UniDebugger** from the **UniVerse Master Setup** screen. The **Welcome** screen appears.
- 3. Follow the instructions on the screen until the installation is complete.

About Windows Help

Windows Help is available on the UniVerse for Windows Platforms CD-ROM. The files are installed automatically with the software. Windows Help is provided for the following applications are APIs:

- UniAdmin
- InterCall
- UCI (Uni Call Interface)
- UniVerse ODBC Client
- UniObjects

When you use Windows Help for any of these applications, you get the standard Windows Help features, such as the menu bar and buttons.

Index

Index

LOGIN 16 NEWACC 15, 18

UV.FLAVOR 14 UV.LOGIN 16 UV.LOGINS 18

UniVerse account control 12 UV.ACCOUNT 13

Symbols I /bin/sh 17 IDEAL flavor 4, 6 /usr/ardent/uv/NEWACC 15, 19 IN2 flavor 4, 6 &TEMP& file 15 INFORMATION flavor 4, 6 initialization files LOGIN 16 Α UV.LOGIN 16 Account Admin window 3 accounts L see also UniVerse accounts flavors 4, 14, 18 LOGIN entry 16 IDEAL 18 default 16 IN2 18 **INFORMATION 18** N PICK 18 PIOPEN 18 NEWACC files 12, 15, 18 customizing 19 C P customizing NEWACC files 19 PICK flavor 4, 6 VOC files 18 PIOPEN flavor 4, 6, 18 F R files REALITY flavor 4, 6 &TEMP& 15

S

sh shell 17

T

telnet sessions controlling access to UniVerse 18

U

UMASK command 16 UniVerse controlling access to 17, 18 UniVerse account control files 12 UniVerse accounts 3 creating on UNIX servers 3 creating on Windows NT servers 5 deleting on UNIX servers 9 deleting on Windows NT servers 10 description 2 flavors 4 modifying account details 8 setting permissions for 5 viewing account details 8 UniVerse commands UMASK 16 UNIX commands upgrading existing UniVerse system as root 12, 10 uv command 3 UV.ACCOUNT file 13 UV.FLAVOR file 14 UV.LOGINS file 15, 18

V

VOC file creation 15 customizing 18