

ULTRIX Worksystem Software

digital

Guide to the User Account Manager

Part Number: AA-PGL4A-TE

ULTRIX Worksystem Software

Guide to the User Account Manager

Order Number: AA-PGL4A-TE

May 1991

Product Version: ULTRIX Worksystem Software Version 4.2

Operating System and Version: ULTRIX Version 4.2

This manual describes how to use the User Account Manager (UAM) software.

digital equipment corporation
maynard, massachusetts

Restricted Rights: Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

© Digital Equipment Corporation 1991
All rights reserved.

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital or its affiliated companies.

The following are trademarks of Digital Equipment Corporation:

ALL-IN-1, CDA, DDIF, DDIS, DEC, DECnet, DECstation, DECsystem, DECUS, DECwindows, DTIF, MASSBUS, MicroVAX, Q-bus, ULTRIX, ULTRIX Mail Connection, ULTRIX Worksystem Software, UNIBUS, VAX, VAXstation, VMS, VT, XUI, and the DIGITAL logo.

UNIX is a registered trademark of UNIX System Laboratories, Inc.

Contents

About This Manual

Audience	vii
Organization	vii
Related Documents	viii
Conventions	viii

1 Installing and Setting Up UAM

Installing the UAM Software Subset	1-1
Customizing the UAM Environment	1-2
Setting Up the Login Shell List	1-4
Setting Up the Home Directory Parent List	1-5
Specifying New Account Actions	1-6
Specifying Account Removal Actions	1-9
Enabling the Unsaved Changes Warning	1-10
Working With Templates	1-10
Displaying Templates	1-12
Creating Templates	1-12
Removing Templates	1-15
Modifying Templates	1-16
Specifying a Lookup Service	1-17
Enabling Automatic Updates	1-18
Using Profile Files	1-20

2 Getting Started With UAM

Invoking UAM	2-1
Using the UAM Window	2-1
Username Field	2-3
Personal Information Fields	2-3
User ID Field	2-3
Login Shell Field	2-4
Login Group Field	2-4
Secondary Groups... Button	2-5
Parent Field	2-6
Name Field	2-7
Disk Quotas... Button	2-7
Password... Button	2-8
Changing Lookup Services	2-10
Using Log Files	2-10

3 Managing Accounts

Listing Login Names	3-1
Displaying Account Information	3-2
Creating Accounts	3-3
Removing Accounts	3-5
Modifying Accounts	3-5
Renaming Accounts	3-6
Applying Templates	3-7

Index

Figures

1-1: UAM Window	1-3
1-2: Login Shell List Dialog Box	1-5
1-3: Home Directory Parent List Dialog Box	1-6
1-4: New Account Actions Dialog Box	1-7
1-5: Account Removal Actions Dialog Box	1-9
1-6: Unsaved Changes Warning	1-10
1-7: Example of staff Template	1-11
1-8: Template Example	1-14
1-9: Template List Dialog Box	1-15
1-10: Password and Group Source Dialog Box	1-17
1-11: Password and Group Source Details Dialog Box	1-19
2-1: UAM Window	2-2
2-2: Login Shell List Box	2-4
2-3: Login Group List Box	2-5
2-4: Secondary Groups List Box	2-6
2-5: Parent Directory List Box	2-7
2-6: Disk Quotas Dialog Box	2-8
2-7: Password Dialog Box	2-9
2-8: Encrypted Password Dialog Box	2-9
3-1: Username List Box	3-2
3-2: Defined Remove Actions Dialog Box	3-5

About This Manual

This manual provides you with information on how to use the User Account Manager (UAM) to display, create, modify, and remove accounts. UAM provides a DECwindows interface that allows you to divide your screen into windows and select objects with a mouse to simplify account management.

Audience

The *Guide to the User Account Manager* is written for the experienced system administrator responsible for installing UAM and customizing the UAM environment, and for the less-experienced system administrator responsible for managing accounts.

Organization

This manual contains the following chapters:

Chapter 1 Installing and Setting Up UAM

This chapter explains how to install the UAM subset and how to customize the UAM window by setting up lists, specifying default actions, and enabling a warning message. It also describes how to establish templates, specify a lookup service, enable automatic password file and group file updates, and use profile files. This chapter is for an experienced system administrator who is familiar with the operating system environment.

Chapter 2 Getting Started With UAM

This chapter describes how to invoke UAM and how to use the UAM main window. It also explains how to change lookup services and how to use log files. This chapter is for the less-experienced system administrator.

Chapter 3 Managing Accounts

This chapter explains how to list login names and how to display, create, remove, modify, and rename accounts. It also describes how to apply templates. This chapter is for the less-experienced system administrator.

Related Documents

The *DECwindow User's Guide* describes how to use DECwindows. The *Guide to System Environment Setup* and the *Guide to System and Network Setup* contain information about some of the account management concepts that are discussed in this manual.

Conventions

The following conventions are used in this manual:

- | | |
|--|---|
| # | A number sign is the default superuser prompt. |
| user input | This bold typeface is used in interactive examples to indicate typed user input. |
| system output | This typeface is used in interactive examples to indicate system output and also in code examples and other screen displays. In text, this typeface is used to indicate the exact name of a command, option, partition, pathname, directory, or file. |
| <i>filename</i> | In examples, syntax descriptions, and function definitions, italics are used to indicate variable values. In text, italics are used to give references to other documents. |
| [] | In syntax descriptions and function definitions, brackets indicate items that are optional. |
| cat(1) | Cross-references to the <i>ULTRIX Reference Pages</i> include the appropriate section number in parentheses. For example, a reference to cat(1) indicates that you can find the material on the cat command in Section 1 of the reference pages. |
| Return | This symbol is used in examples to indicate that you must press the named key on the keyboard. |

Installing and Setting Up UAM 1

This chapter explains:

- How to install the UAM software subset
- How to customize the UAM environment
- How to use profile files

Installing the UAM Software Subset

You can install the UAM software subset when you install the ULTRIX operating system or, if you are already running ULTRIX, by using the `setld` command.

To install the UAM software subset when installing the ULTRIX operating system, you must perform an advanced installation. During the installation, you are prompted to select the optional software subsets that you want to install. The following is a description of the UAM software subset:

System Management Tools

For more information about the advanced installation, see the *Installation Guide for ULTRIX*.

If you are already running ULTRIX, you can use the `setld` command to install the UAM software subset:

1. Log in as superuser.
2. Display the status of all the subsets known to the system by using the `setld` command. For example:

```
# /etc/setld -i 
```

A table is displayed, listing the name, status, and description of each software subset. The following is a description of the UAM software subset:

System Management Tools

Note the UAM software subset name, which is a string of seven or more characters used to uniquely identify the subset.

3. Load the UAM software subset by using the `setld` command in the following format:

`/etc/setld -l location uam_subset_name`

The *location* variable specifies the location of the software distribution, which can be a directory, a device special file name, or a remote installation server. The *uam_subset_name* variable specifies the UAM software subset name that you obtained from the `setld -i` command.

For more information about adding software subsets, see the *Guide to the System Environment Setup*. For more information about the `setld` command, see `setld(8)` in the *ULTRIX Reference Pages*.

Customizing the UAM Environment

Before you manage accounts with UAM, you can add information to the list boxes that are displayed when you click on objects in the UAM window. You can also define actions that UAM performs when you create and remove accounts, enable a warning message that appears when you have unsaved account changes, establish templates that contain common information that you can apply to accounts, specify a lookup service, and enable automatic password file and group file updates.

To start UAM and open the UAM main window, use the `dxuam` command. The syntax of the `dxuam` command is shown next.

`dxuam` [`-p filename`]

If you specify the `-p filename` option, UAM uses the specified file name as the profile file. The default profile file is `$HOME/.uam_profile`. For more information on profile files, see the section *Using Profile Files*.

To obtain online help about the UAM application, use the Help menu in the UAM window.

To exit UAM, choose the Exit item from the File menu in the UAM window.

Note

UAM supports only the BSD default security level.

The UAM window is shown in Figure 1-1.

Figure 1-1: UAM Window

The screenshot shows a window titled "UAM: kaos / LOCAL" with a menu bar containing "File", "Options", "Templates", "Customize", and "Help". The main area is divided into several sections:

- Username:** A text input field with a cursor, and three buttons: "Change/Define", "Rename", and "Remove".
- Personal Information:** Fields for "Name", "Office", "Office Phone", and "Home Phone", each with a text input field.
- System Information:** Fields for "User ID" (text input), "Login Shell" (button "Other Shells..."), "Login Group" (button "Other Groups..."), and "Secondary Groups..." (button).
- Home Directory:** Fields for "Parent" (button "Other Directories...") and "Name" (text input), with a "Disk Quotas..." button below.
- Account Management:** A "Password..." button.
- Bottom Buttons:** "Create Defined Account" and "Save Changes".

ZK-0314U-R

To customize the UAM window, you can do the following:

- Set up the login shell list box.
- Set up the parent directory list box.
- Define actions that UAM performs when you create an account.
- Define actions that UAM performs when you remove an account.
- Enable a message that warns you when you have not saved changes.
- Set up templates.
- Specify a lookup service.
- Enable automatic password file and group file updates.

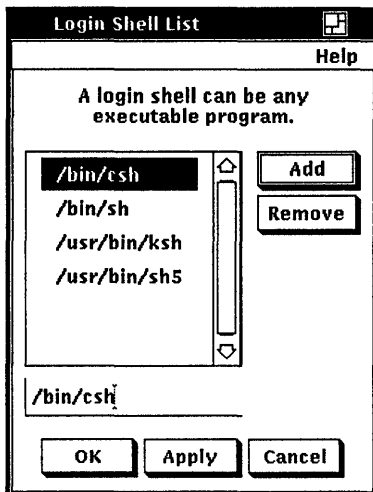
The following sections describe how to customize the UAM environment.

Setting Up the Login Shell List

The login shell is the absolute pathname to the command executed immediately upon completion of the login process. For example, after the `/bin/csh` login shell executes, it reads commands from the `.cshrc` file and then reads commands from the `.login` file in the account's home directory. The `/bin/csh` login shell reads commands from the account's `.logout` file when you log out of the account.

You must specify a login shell for each account. To set up the login shell list box, which appears when you click on the Other Shells... button in the UAM window, choose the Login Shell List... item from the Customize menu. UAM displays the Login Shell List dialog box, an example of which is shown in Figure 1-2.

Figure 1-2: Login Shell List Dialog Box



ZK-0310U-R

UAM provides you with four default login shells: `/bin/csh`, `/bin/sh`, `/usr/bin/ksh`, and `/usr/bin/sh5`. You can add and remove login shells to suit your needs.

To add a login shell to the list box, click on the text entry field and type the shell name. Then, click on the Add button or press the Return key.

To remove a login shell from the list box, click on the shell name and then click on the Remove button.

Click on the OK button or the Apply button to apply the changes.

Click on the Cancel button if you want to cancel the changes.

Setting Up the Home Directory Parent List

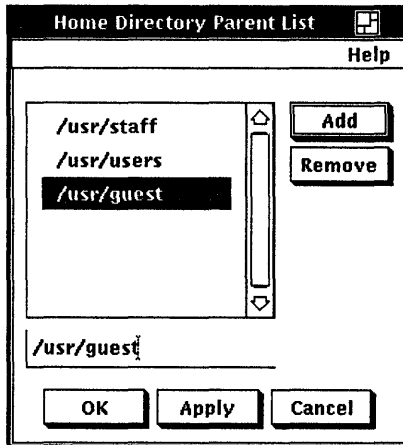
The account's login directory has two parts: the parent directory and the account name. The parent directory, also described as the home directory parent, contains the account's home directory. The account name is usually the same as the login name that you specify in the Username field in the UAM window.

For example, when you log in to your account, you are in the following login directory:

`parent_directory/name`

You must specify a parent directory for each account. To set up the parent directory list box, which appears when you click on the Other Directories... button in the UAM window, choose the Home Directory Parent List... item from the Customize menu. UAM displays the Home Directory Parent List dialog box, an example of which is shown in Figure 1-3.

Figure 1-3: Home Directory Parent List Dialog Box



ZK-0311U-R

UAM provides you with three default parent directories: `/usr/staff`, `/usr/users`, and `/usr/guest`. You can add and remove parent directories to suit your needs.

When you add a parent directory, the directory does not have to exist on your system. UAM creates the directory the first time that you specify a login directory containing the parent directory.

To add a parent directory to the list box, click on the text entry field and type the parent directory name. Then, click on the Add button or press the Return key.

To remove a directory from the list box, click on the parent directory name and then click on the Remove button.

Click on the OK button or the Apply button to apply the changes.

Click on the Cancel button if you want to cancel the changes.

Specifying New Account Actions

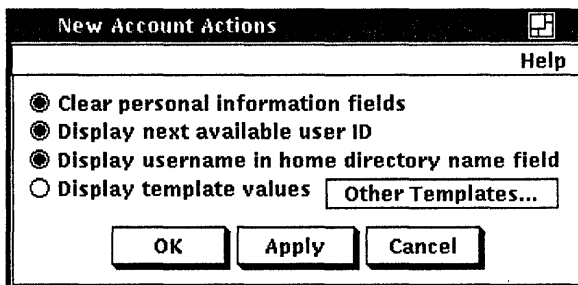
UAM allows you to specify the actions that it performs when you enter a new login name in the Username field in the UAM window. UAM will then enter values in some of the text entry fields; you can then edit the values as needed.

You can specify that UAM perform one or more of the following actions:

- Clear any information in the personal information fields
- Enter the next available user ID in the User ID field
- Enter the login name in the home directory Name field
- Apply the values in a specified template to the account

To specify the actions UAM performs when you create an account, choose the New Account Actions... item from the Customize menu. UAM displays the New Account Actions dialog box, as shown in Figure 1-4.

Figure 1-4: New Account Actions Dialog Box



ZK-0312U-R

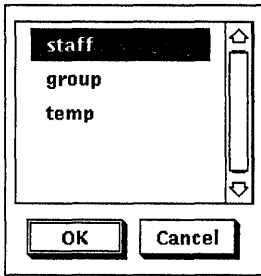
When you start UAM for the first time, all the actions are enabled, and the staff template is specified in the dialog box.

If the Clear personal information fields button is enabled, UAM clears any information that is in the personal information fields.

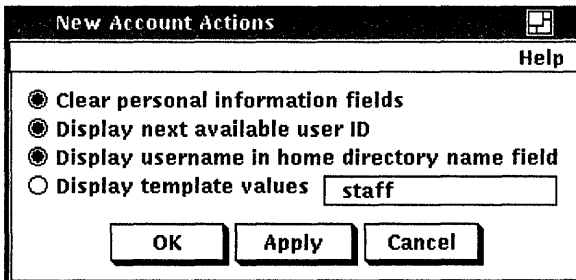
If the Display next available user ID button is enabled, UAM enters a UAM-generated user ID in the User ID field.

If the Display username in home directory name field button is enabled, UAM enters the login name you specified in the Username field in the Name field.

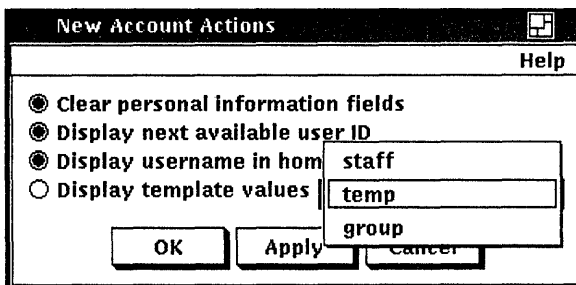
If the Display template values button is enabled, UAM applies the specified template to the account. To display the available templates, click on the Other Templates... button; a list box, similar to the following, containing the available templates, is displayed:



To select a template, click on the template name and then click on the OK button, or double click on the template name. The list box is dismissed, and the template name is displayed in the New Account Actions dialog box. The following is an example of the New Account Actions dialog box with a template selected:



If you want to change the selected template or view the list of available templates, click on the template name in the dialog box. An option menu, similar to the following, containing the available templates, is displayed:



After you specify the new account actions, click on the OK button or the Apply button to apply the changes.

Click on the Cancel button if you want to cancel the changes.

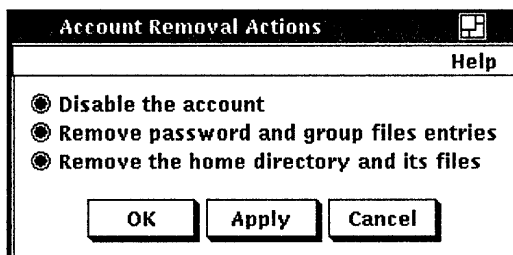
Specifying Account Removal Actions

UAM allows you to specify actions that it performs when an account is removed. You can specify that UAM perform one or more of the following actions:

- Disable the account
- Remove the account's entries in the password and group files
- Remove the account's home directory and its files

To specify the actions that UAM performs when it removes an account, choose the Account Removal Actions... item from the Customize menu. UAM displays the Account Removal Actions dialog box. The Account Removal Actions dialog box is shown in Figure 1-5.

Figure 1-5: Account Removal Actions Dialog Box



ZK-0313U-R

When you start UAM for the first time, only the Disable the account action is enabled.

If you enable the Disable the account button, the second field of an account's entry in the password file is replaced by `NO_LOGIN`.

If you enable the Remove password and group files entries button, an account's entries in the password and group source files are removed. For more information about password and group source files, see the section Enabling Automatic Updates.

If you enable the Remove the home directory and its files button, the account's home directory and any files it contains are removed.

After you specify the account removal actions, click on the OK button or the Apply button to apply the changes.

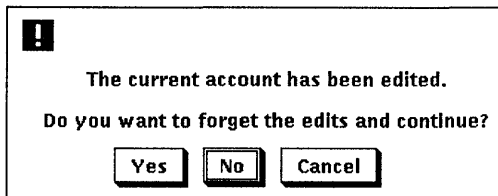
Click on the Cancel button if you want to cancel the changes.

Enabling the Unsaved Changes Warning

When you manage accounts with UAM, you must be sure to save the changes that you make to an account. If you do not click on either the Create Defined Account button or the Save Changes button in the UAM window before you manage another account, the changes you made are lost.

UAM allows you to specify an option that displays the warning message shown in Figure 1-6 when you try to manage an account without saving changes made to a previous account.

Figure 1-6: Unsaved Changes Warning



To enable the warning message, choose the Display Unsaved Edits Warnings item from the Customize menu. A shaded button appears next to the menu item when the option is enabled.

Working With Templates

With UAM you can establish templates to specify account information in the UAM window fields. Templates allow you to quickly create accounts with common information because the common information is part of the template. For example, you can create a template that contains information common to a general purpose account, such as a particular login shell, login group, secondary group, and parent directory.

Initially, UAM provides you with three templates: staff, users, and guest. These templates contain the following account information:

- The `/bin/csh` login shell
- Either the `staff`, `users`, or `guest` login group
- Either the `/usr/staff`, `/usr/users`, or `/usr/guest` parent directory

The staff template is shown in Figure 1-7.

Figure 1-7: Example of staff Template

The screenshot shows a window titled "UAM: Kaos / LOCAL" with a menu bar containing "File", "Options", "Templates", "Customize", and "Help". The main area is divided into several sections:

- Username:** A text input field with buttons for "Change/Define", "Rename", and "Remove".
- Personal Information:** Fields for "Name", "Office", "Office Phone", and "Home Phone", each with a text input field.
- User Information:** Fields for "User ID", "Login Shell" (set to "/bin/csh"), and "Login Group" (set to "staff"). A "Secondary Groups..." button is located below the Login Group field.
- Home Directory:** Fields for "Parent" (set to "/usr/staff") and "Name". A "Disk Quotas..." button is located below the Name field.
- Password:** A "Password..." button.
- Bottom Buttons:** "Create Defined Account" and "Save Changes".

You can modify or remove the templates to suit your needs. You can create as many templates as you want.

You apply a template to an account by entering a login name in the Username field and choosing the template name from the Templates menu in the UAM window. The template information is displayed in the UAM window fields. The template information may override information that is already specified in a field.

You can apply a template to all new accounts by specifying the template name in the New Account Actions dialog box. For more information, see the section Specifying New Account Actions.

Displaying Templates

You can display the information contained in a template before you apply it to an account. To display a template, perform the following steps:

1. If information is specified in the UAM window fields, delete any information in the Username field and press the Return key.
UAM displays a message box; dismiss the message box to clear the fields.
2. Choose the name of the template you want to display from the Templates menu.

The template information is displayed in the fields in the UAM window.

Creating Templates

To create a template, perform the following steps:

1. If information is specified in the UAM window fields, delete any information in the Username field and press the Return key.
UAM displays a message box; dismiss the message box to clear the fields.
2. Enter the information for the template in the UAM window fields. For information about the UAM window fields, see Chapter 2.

You can enter values for all of the fields except the Username, User ID, and Name fields because these values must be unique for every account. You can specify information about secondary groups, disk quotas, and passwords by clicking on the appropriate buttons and entering information in dialog boxes.

When you create a template, leave a field empty or select <BLANK selection> from a list box if you do not want to overwrite any information that is already specified in the field when you apply the template.

3. Choose the Template List... item from the Customize menu.
UAM displays the Template List dialog box.
4. Click on the text entry field in the Template List dialog box and type a name for the template; then click on the Add button or press the Return key.
The template name is added to the list box.
5. Click on the OK or the Apply button to apply the changes.
The name of the template you created appears as an item in the Templates menu and in the list box you access from the New Account Actions dialog box.

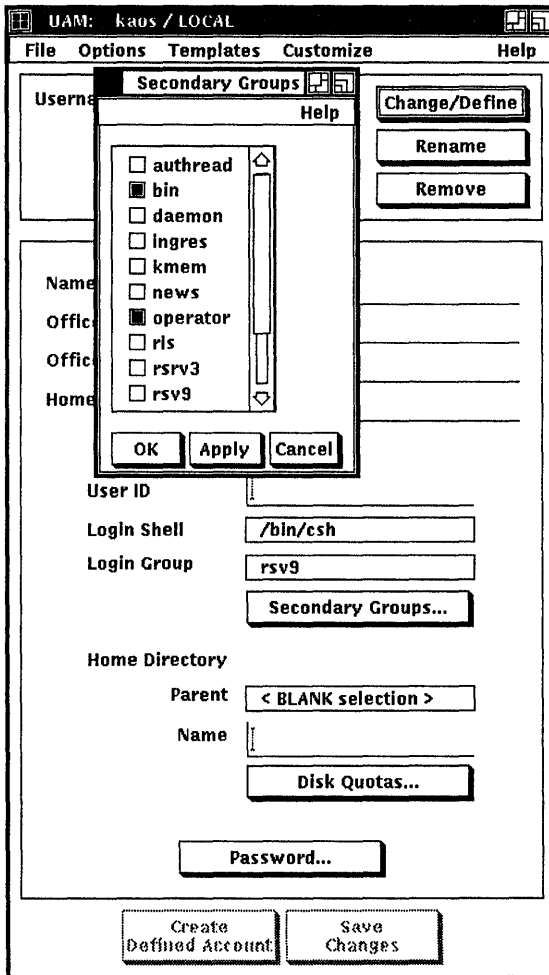
Caution

Because of a bug in the UAM software, the Template List dialog box does not work correctly. When you click on the OK or the Apply button, UAM does not update the `$HOME/.uam_profile` file to reflect the template changes. Therefore, you must use another UAM customization feature to update the file. The easiest way to do this is to toggle the Display Unsaved Edits Warning item in the Customization window.

Click on the Cancel button if you want to cancel the changes.

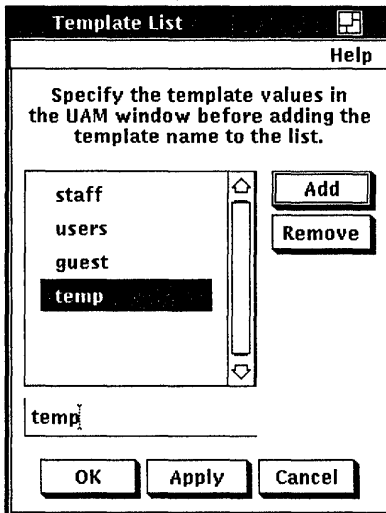
An example of a UAM window and a Secondary Groups dialog box with template information entered is shown in Figure 1-8.

Figure 1-8: Template Example



An example of a Template List dialog box is shown in Figure 1-9.

Figure 1-9: Template List Dialog Box



ZK-0309U-R

Removing Templates

To remove a template, perform the following steps:

1. Choose the Template List... item from the Customize menu.
UAM displays the Template List dialog box.
2. Click on the name of the template you want to remove; then click on the Remove button.

The template name is removed from the list box.

3. Click on the OK or the Apply button to apply the changes.

The name of the template you removed is deleted from the Templates menu and from the list box you access from the New Account Actions dialog box.

Caution

Because of a bug in the UAM software, the Template List dialog box does not work correctly. When you click on the OK or the Apply button, UAM does not update the `$HOME/.uam_profile` file to reflect the template changes. Therefore, you must use another UAM customization feature to update the file. The easiest way to

do this is to toggle the Display Unsaved Edits Warning item in the Customization window.

Click on the Cancel button if you want to cancel the changes.

Modifying Templates

To change the information contained in a template, perform the following steps:

1. Display the template that you want to modify. For more information, see the section Displaying Templates.
2. Edit the fields in the UAM window as needed. For information about the UAM window fields, see Chapter 2.
3. Once the template information is correct, choose the Template List... item from the Customize menu.

UAM displays the Template List dialog box.

4. Click on the name of the template you want to modify.
5. Click on the Remove button to remove the template name from the list box.
6. Click on the text entry field and type the name of the modified template. The template name can be the same as the one you deleted in the previous step, or it can be a different name.
7. Click on the Add button or press the Return key.
8. Click on the OK or the Apply button to apply the changes.

Caution

Because of a bug in the UAM software, the Template List dialog box does not work correctly. When you click on the OK or the Apply button, UAM does not update the `$HOME/.uam_profile` file to reflect the template changes. Therefore, you must use another UAM customization feature to update the file. The easiest way to do this is to toggle the Display Unsaved Edits Warning item in the Customization window.

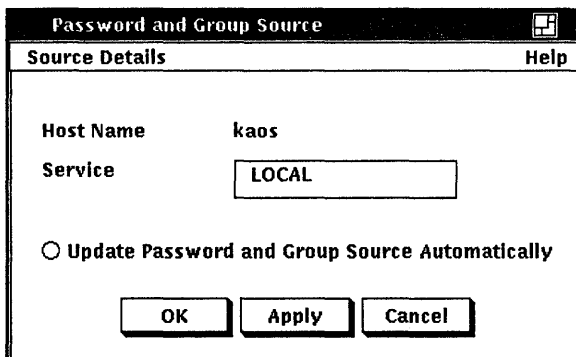
Click on the Cancel button if you want to cancel the changes.

Specifying a Lookup Service

UAM manages the local accounts on your system. In addition, if your system serves Yellow Pages (YP) or BIND/Hesiod (BIND) accounts, UAM can manage accounts by using those lookup services. The service you are using is shown at the top of the UAM window. When you use UAM for the first time, the default local service is used.

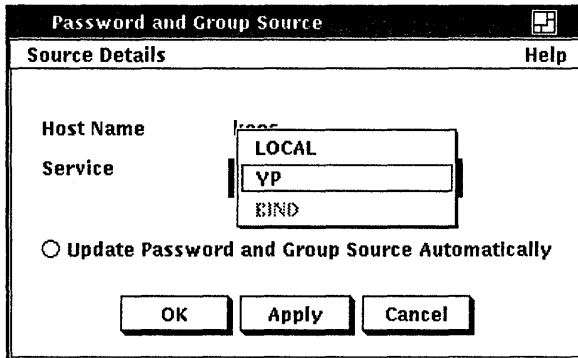
You can specify that UAM use another service by choosing the Password and Group Source... item from the Customize menu. UAM displays the Password and Group Source dialog box, an example of which is shown in Figure 1-10.

Figure 1-10: Password and Group Source Dialog Box



ZK-0308U-R

To display the services available on your system, click on the entry in the Service field. A menu appears, allowing you to select the service you want. Services that are unavailable are dimmed. The following is an example of a service menu with local and YP services available:



The service you select is reflected in the default profile file, so when you use the `dxuam` command without the `-p` option, UAM uses the selected service to manage accounts. You can specify a different service in an optional profile file to use that service to manage accounts. For more information, see the section Using Profile Files.

Enabling Automatic Updates

When you manage accounts with UAM, you must update the system password and group files to convert the files into a database that the service (local, YP, or BIND) can use. You must update the files before you end a UAM management session or the changes will be lost. However, you do not have to update the files each time you apply changes.

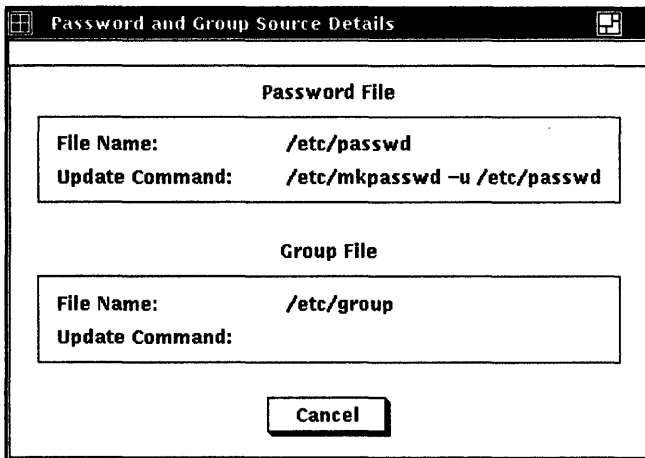
Note

It is recommended that, instead of updating the files automatically, you choose the Update Password and Group Source item from the Options menu after you finish managing accounts. This is because of the time it takes to convert the files into a database.

If you enable the Update Password and Group Source Automatically button in the Password and Group Source dialog box, shown in Figure 1-10, UAM updates the password and group files each time you click on the Create Defined Account button, the Save Changes button, the Remove button, or the Rename button.

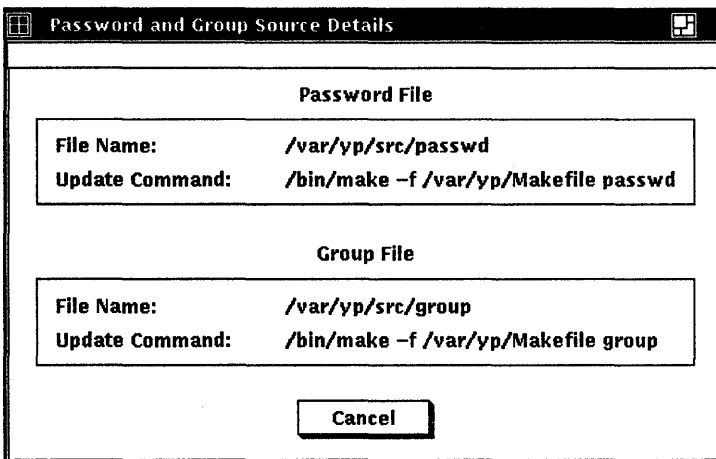
To show the password and group file names and the update commands, choose the Show... item from the Source Details menu in the Password and Group Source dialog box. UAM displays the Password and Group Source Details dialog box. Each service uses different commands to update its database. An example of a Password and Group Source Details dialog box for local service is shown in Figure 1-11.

Figure 1-11: Password and Group Source Details Dialog Box



ZK-0307U-R

Note that there is no update command for the local service's group file. The following is an example of a Password and Group Source Details dialog box for YP service:



Click on the Cancel button to dismiss the dialog box.

Using Profile Files

UAM uses a profile file to determine the UAM environment. When you customize the UAM environment, the default profile file `$HOME/.uam_profile` reflects the customization. Each time you modify the customization, the default profile file is updated with the changes. UAM uses the default profile file if you specify the `dxuam` command without the `-p` option.

You can create profile files if you want to use different UAM environments to manage accounts. To do this, copy the file `$HOME/.uam_profile` to another file and edit the new file as needed. When you invoke UAM, specify the new file name by using the `dxuam` command with the `-p` option. For more information on the format of the `dxuam` command, see the section [Customizing the UAM Environment](#).

You can override the default profile file directory and file name by redefining the environmental variable `UAM_PROFILE`.

The following is an example of a profile file:

```
flag.execute_update_cmds_auto: 0          ❶
flag.display_unsaved_edits_warnings: 0    ❷
uam_database_valid: TRUE
new_user_default_value.get_next_available_userID: 1
new_user_default_value.homedir_name_is_username: 1  ❸
new_user_default_value.clear_persinfo_fields: 1
new_user_default_value.use_template: 0      ❹
new_user_default_value.template_name:
template_names: staff                       ❺
homedir_hosts: localhost
homedir_pardirs.localhost: /usr/staff,/usr/users ❻
login_shells: /bin/csh,/bin/sh              ❼
template.staff.pardir: /usr/staff
template.staff.logingr: users
template.staff.loginsh: /bin/csh
template.staff.username:
template.staff.userid:
template.staff.homedir:
template.staff.secondary_groups: operator,system ❽
template.staff.diskquo_blocks_soft_limit: 5000
template.staff.diskquo_blocks_abs_limit: 6000
template.staff.diskquo_files_soft_limit: 250
template.staff.diskquo_files_abs_limit: 300
pwd_gr_source.host_name: kaos
pwd_gr_source.domain_name: Local           ❾
rem_acts_value.disable_acct_only: 1
rem_acts_value.remove_pwd_gr_ents: 1      ❿
rem_acts_value.remove_home_and_files: 1
```

In this example, the UAM environment has the following characteristics:

- 1 The Update Password and Group Source Automatically button in the Password and Group Source dialog box is disabled.
- 2 The Display Unsaved Edits Warnings option is disabled.
- 3 The following default actions for new accounts are enabled:
 - Display next available user ID
 - Display username in home directory name field
 - Clear personal information fields
- 4 The following default action for new accounts is disabled:
 - Display template valuesNote that no default template name is shown.
- 5 The name of the available template is "staff."
- 6 The names of the available parent directories are `/usr/staff` and `/usr/users`.
- 7 The names of the available login shells are `/bin/csh` and `/bin/sh`.
- 8 For the staff template, the home directory parent, the login group, the login shell, and the secondary groups are `/usr/staff`, `users`, `/bin/csh`, and `operator` and `system`, respectively. The soft block limit, absolute block limit, soft file limit, and absolute file limit disk quotas are 5000, 6000, 250, and 300, respectively.
- 9 For host `kaos`, the default service is `local`.
- 10 The following default actions for removing accounts are enabled:
 - Disable the account
 - Remove the password and group files entries
 - Remove the home directory and its files

Getting Started With UAM **2**

This chapter explains how to invoke the UAM application and how to exit from UAM. It also explains how to enter information in the UAM window fields, how to change services, and how to use log files.

Invoking UAM

To invoke UAM, use the `dxuam` command. The syntax of the `dxuam` command is shown next.

```
dxuam [ -p filename ]
```

The `-p filename` option specifies that *filename* be used as the profile file. The profile file determines the UAM environment. If you do not specify the `-p` option, the default profile file `$HOME/.uam_profile` is used. For more information on customization and profile files, see Chapter 1.

To obtain online help on the UAM application, use the Help menu in the UAM window.

To exit UAM, choose the Exit item from the File menu.

Using the UAM Window

The UAM window, shown in Figure 2-1, provides a simple format in which you enter account information. The following sections describe the fields in the UAM window and how to enter information in the fields.

Figure 2-1: UAM Window

The image shows a window titled "UAM: kaos / LOCAL" with a menu bar containing "File", "Options", "Templates", "Customize", and "Help". The main content area is divided into several sections:

- Username:** A text input field with a "Change/Define" button to its right. Below this are "Rename" and "Remove" buttons.
- Name, Office, Office Phone, Home Phone:** Four vertically stacked text input fields, each with a small vertical icon to its left.
- User ID:** A text input field.
- Login Shell:** A button labeled "Other Shells...".
- Login Group:** A button labeled "Other Groups...". Below it is a button labeled "Secondary Groups...".
- Home Directory:** A section containing:
 - Parent:** A button labeled "Other Directories...".
 - Name:** A text input field.
 - Disk Quotas:** A button labeled "Disk Quotas...".
- Password:** A button labeled "Password...".

At the bottom of the window are two buttons: "Create Defined Account" and "Save Changes".

ZK-0314U-R

Jsername Field

The Username field is where you specify a unique login name for each account.

To specify a login name, click on the Username text entry field, type the login name, and press the Return key.

Personal Information Fields

The personal information fields are where you, optionally, enter the following personal information about the owner of the account:

- Name
- Office location
- Office telephone number
- Home telephone number

To specify personal information, click on the appropriate text entry field, type the information, and press the Return key.

If you want to clear any information in the personal information fields, choose the Clear Personal Information Fields item from the Options menu in the UAM window.

User ID Field

The User ID field is where you specify the user ID for the account. The user ID determines a user's identity, identifies the user's processes, and determines the owner's access permission to files. This number must be unique for each user and should be less than 32000.

To specify a user ID, click on the User ID text entry field in the UAM window, type the number, and press the Return key.

Note

You should not specify 0 for a user ID because the account will have root privileges.

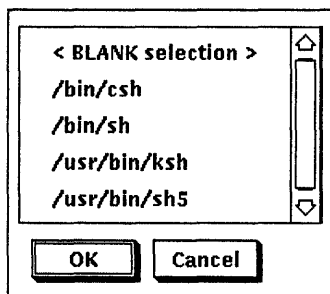
You can specify the next available user ID on the system by choosing the Display Next Available User ID item from the Options menu in the UAM window.

Login Shell Field

The login shell is the absolute pathname to the command executed immediately upon completion of the login process. For example, after the `/bin/csh` login shell executes, it reads commands from the `.cshrc` file and then from the `.login` file in the account's home directory. The `/bin/csh` login shell reads commands from the account's `.logout` file when you log out of the account.

To display the list of available login shells, click on the Other Shells... button in the UAM window. If a value is already specified in the field, click on the field. UAM displays the login shell choices in a list box, an example of which is shown in Figure 2-2.

Figure 2-2: Login Shell List Box



To specify a login shell, select the shell name in the list box and click on the OK button, or double click on a shell name.

Note

You cannot specify <BLANK selection> for an account's login shell because it is used only by templates.

Click on the Cancel button if you want to cancel the changes.

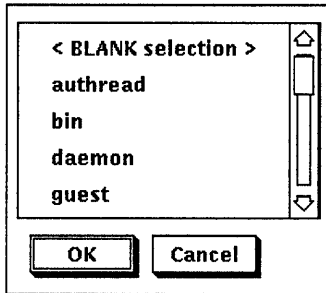
For information on setting up the login shell list box, see Chapter 1.

Login Group Field

The login group is the account's primary group. When you log in to an account, the process is marked with the login group and secondary groups that you belong to. Because your home directory is marked with the login group, all files you create in your home directory belong to that group. UAM obtains the login groups from the system group file.

To display the list of available login groups, click on the Other Groups... button in the UAM window. If a value is already specified in the field, click on the field. UAM displays the login group choices in a list box, an example of which is shown in Figure 2-3.

Figure 2-3: Login Group List Box



To specify a login group, select the group name in the list box and click on the OK button, or double click on a login group name.

Note

You cannot specify <BLANK selection> for an account's login group because it is used only by templates.

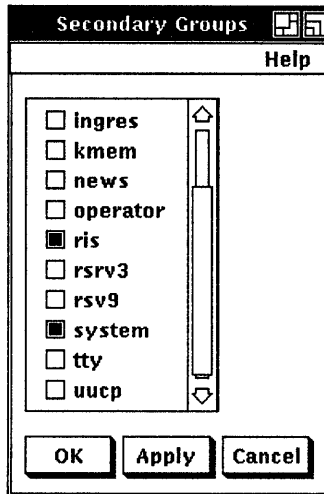
Click on the Cancel button if you want to cancel the changes.

Secondary Groups... Button

Secondary groups can be used to restrict access to a project work area. Like login groups, secondary groups are obtained from the system group file. Secondary groups for an account are optional.

To display the list of available secondary groups, click on the Secondary Groups... button in the UAM window. UAM displays the secondary group choices in the Secondary Groups list box, and example of which is shown in Figure 2-4.

Figure 2-4: Secondary Groups List Box



ZK-0306U-R

To specify a secondary group or groups, click on the group or groups in the list box and click on the OK button or the Apply button.

Click on the Cancel button if you want to cancel the changes.

Parent Field

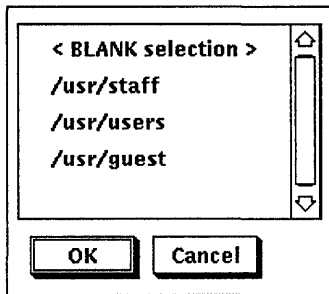
An account's login directory has two parts: the parent directory and the account name. The parent directory, also described as the home directory parent, contains the account's home directory. The account name is usually the same as the login name you specify in the Username field.

For example, when you log in to your account, you are in the following login directory:

parent_directory/name

To display the list of available parent directories, click on the Other Directories... button in the UAM window. If a value is already specified in the field, click on the field. UAM displays the parent directory choices in a list box, an example of which is shown in Figure 2-5.

Figure 2-5: Parent Directory List Box



To specify a parent directory, select the parent directory name in the list box and click on the OK button, or double click on a parent directory name.

Note

You cannot specify <BLANK selection> for an account's parent directory because it is used only by templates.

Click on the Cancel button if you want to cancel the changes.

For information on setting up the parent directory list box, see Chapter 1.

Name Field

The account name completes the account's login directory path, for example:

parent_directory/name

The name of the account's home directory is usually the same as the login name you specify in the Username field. The name must be unique for each account.

To specify a name, click on the Name text entry field, type the name, and press the Return key. Note that if the Display username in home directory name field option is enabled in the New Account Actions dialog box, the login name specified in the Username field will be entered in the Name field each time you create an account. For information on the New Account Actions dialog box, see Chapter 1.

Disk Quotas... Button

Disk quotas enable you to manage disk space by setting limits on the number of files and disk blocks an account can use. UAM allows you, optionally, to specify disk quotas for the file system that contains the account's home directory.

Note

If you want to establish disk quotas for an account with UAM, you must edit the `/etc/fstab` file so that the entry for the file system that contains the account's home directory is changed to `rq` mount type (read-write with quotas). For more information about establishing disk quotas on file systems, see the *Guide to System and Network Environment*.

To establish disk quotas, click on the Disk Quotas... button in the UAM window. UAM displays the Disk Quotas dialog box, as shown in Figure 2-6.

Figure 2-6: Disk Quotas Dialog Box

	Files	Blocks
Current Usage	0	0
Soft Limit		
Absolute Limit		
Remaining Login Warnings		

OK Apply Cancel

ZK-0305U-R

For an existing account, the Disk Quotas dialog box displays information about the account's disk use in the Current Usage fields.

To specify disk quotas, click on the appropriate text entry fields and type the soft and absolute limits for files and for blocks. To specify the number of times you can log in to an account once the soft limit is reached, click on the Remaining Login Warnings text entry fields and type the numbers.

Click on the OK button or the Apply button to apply the changes.

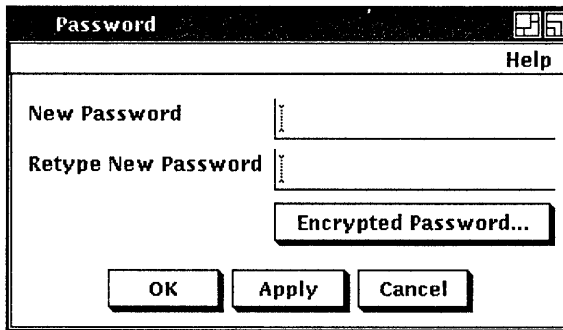
Click on the Cancel button if you want to cancel the changes.

Password... Button

The Password... button is used to specify the password for the account.

Click on the Password... button in the UAM window to display the Password dialog box, as shown in Figure 2-7.

Figure 2-7: Password Dialog Box



ZK-0304U-R

To specify a password, click on the New Password text entry field, type the password, and press the Return key. Then, type the same password in the Retype New Password field and press the Return key.

Note

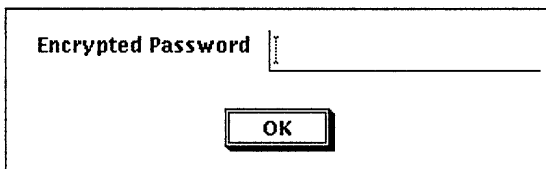
For security reasons, the password itself is never displayed on your terminal.

Click on the OK button or the Apply button to apply the changes.

Click on the Cancel button if you want to cancel the changes.

UAM gives you the option of specifying an encrypted password for an account. An encrypted password can be used to disable an account. If you want to specify an encrypted password, click on the Encrypted Password... button. UAM displays a dialog box, as shown in Figure 2-8.

Figure 2-8: Encrypted Password Dialog Box



Click on the text entry field and type the password. Then, either click on the OK button or press the Return key.

Changing Lookup Services

UAM manages the local accounts on your system. In addition, if your system serves Yellow Pages (YP) or BIND/Hesiod (BIND) accounts, UAM can manage accounts by using those lookup services. The service you are using is shown at the top of the UAM window.

You can specify that UAM use another service by choosing the Password and Group Source... item from the Customize menu. For information on specifying a lookup service, see Chapter 1.

Using Log Files

During a UAM session, a log file is created that records the UAM account changes that have succeeded and those that have failed. You can use the log file to determine the state of your session if a failure occurs; the log file shows what operations were aborted because of the failure.

The location and filename for the default log file is `$HOME/.uam_log`.

The log file only applies to the current management session; if you start another session, the log file from the first session is moved to `$HOME/.uam_log.bak`.

You can override the default log directory `$HOME` by redefining the environmental variable `UAM_LOG_DIR`.

The following is a sample log file:

```
***UAM run at Mon Nov 12 12:02:32 EST 1990 on kaos by root
passwd file connect - SUCCEEDED
    node          = kaos
    file name     = /etc/passwd
    update cmd    = /etc/mkpasswd -u /etc/passwd
group file connect - SUCCEEDED
    node          = kaos
    file name     = /etc/group
    update cmd    =
Add "tai"
Add: Start
Add: Adding entry to passwd file - SUCCEEDED
Add: Creating home directory /usr/r1/tai gid = 31 uid = 104 - SUC
Add: Adding user to groups () - SUCCEEDED
Add: End (SUCCEEDED)

Perform update command on passwd file - SUCCEEDED
```

Managing Accounts **3**

This chapter explains how to use UAM to display a list of account login names and how to display, create, remove, modify, and rename accounts.

Note

To apply account changes to the system, you must update the system password and group files. For more information on updating the files, see Chapter 1.

Listing Login Names

The login name for an account is specified in the Username field in the UAM window. To list the login names for all the accounts on your system, choose the List Accounts... item from the Customize menu. UAM displays the Username List list box, an example of which is shown in Figure 3-1.

Figure 3-1: Username List Box



ZK-0303U-R

Displaying Account Information

You can display the information associated with an account by clicking on the Username field in the UAM window, typing the login name, and pressing the Return key. The account information is displayed in the UAM window.

You can also display account information by selecting the account's login name in the Username List list box.

The following is an example of the UAM window with account information displayed:

UAM: kaos / LOCAL

File Options Templates Customize Help

Username

Name

Office

Office Phone

Home Phone

User ID

Login Shell

Login Group

Home Directory

Parent

Name

Creating Accounts

To create a new account, perform the following steps:

1. Type the login name for the account you want to create in the Username field.

Note

You should not specify the login names `root` and `daemon`.

2. Click on the Change/Define button or press the Return key.

UAM may then enter some values in the UAM window fields, depending on what new account actions were specified. For more information on the new account actions, see Chapter 1.

3. Edit the fields as necessary.

You must specify information in the Username, User ID, Login Shell, Login Group, Parent, Name, and Password fields for each account. For information about the UAM window fields, see Chapter 2.

You also can do the following:

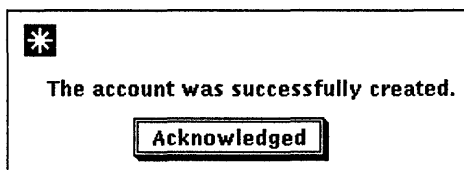
- Enter the next available user ID in the User ID field by choosing the Display Next Available User ID item from the Options menu.
- Apply the values contained in a template by choosing a template name from the Templates menu. For more information, see the section Applying Templates.

Note

To reset the UAM window fields to their original values, click on the Change/Define button.

4. When the information in the UAM window is correct, click on the Create Defined Account button.

The following message is displayed when the account is successfully created:



5. If the Update Password and Group Source Automatically button in the Password and Group Source dialog box is not enabled, you must update the password and group files. To update the files, choose the Update Password and Group Source item from the Options menu after you finish your account management session. For more information about password and group files, see Chapter 1.

Removing Accounts

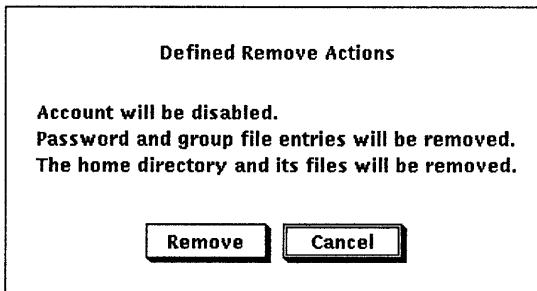
To remove an account, perform the following steps:

1. Type the login name for the account you want to remove in the Username field. You can also choose the List Accounts... item from the Options menu and then select the login name in the Username List list box.
2. Click on the Remove button.

UAM displays the Defined Remove Actions dialog box, which shows the actions UAM will perform if you decide to remove the account.

An example of a Defined Remove Actions dialog box is shown in Figure 3-2.

Figure 3-2: Defined Remove Actions Dialog Box



3. Click on the Remove button in the Defined Remove Actions dialog box.
4. If the Update Password and Group Source Automatically button in the Password and Group Source dialog box is not enabled, you must update the password and group files. To update the files, choose the Update Password and Group Source item from the Options menu after you finish your account management session. For more information about password and group files, see Chapter 1.

Modifying Accounts

To modify an account, perform the following steps:

1. Display the account you want to modify in the UAM window. For information about displaying accounts, see the section Displaying Account Information.
2. Edit the UAM window fields as needed. For information about entering information in the fields, see Chapter 2.

You also can apply a template to the account. For information about using templates, see the section Applying Templates.

Note

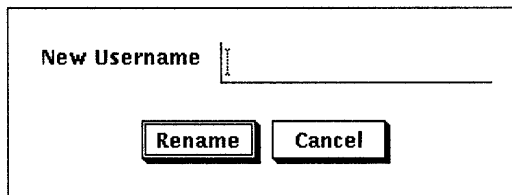
To reset the UAM window fields to their original values, click on the Change/Define button.

3. When the information in the UAM window is correct, click on the Save Changes button to save the modifications you made to the account.
4. If the Update Password and Group Source Automatically button in the Password and Group Source dialog box is not enabled, you must update the password and group files. To update the files choose the Update Password and Group Source item from the Options menu after you finish your account management session. For more information about password and group files, see Chapter 1.

Renaming Accounts

To change the login name for an account, perform the following steps:

1. Type the login name for the account you want to rename in the Username field in the UAM window. You also can choose the List Accounts... item from the Options menu and then select the login name in the Username List list box.
2. Click on the Rename button.
3. UAM displays the following dialog box:



The image shows a dialog box with a title bar. Inside the dialog box, the text "New Username" is positioned to the left of a text entry field. Below the text entry field, there are two buttons: "Rename" and "Cancel".

Type the new login name in the New Username text entry field and either click on the Rename button or press the Return key.

4. If the Update Password and Group Source Automatically button in the Password and Group Source dialog box is not enabled, you must update the password and group files. To update the files, choose the Update Password and Group Source item from the Options menu after you finish your account management session. For more information about password and group files, see Chapter 1.

Applying Templates

You can apply template information to an account to make account management easier. When you apply a template, values are specified in some of the UAM window fields. For information on working with templates, see Chapter 1.

To apply template information to an account, perform the following steps:

1. Type the login name for the account in the Username field in the UAM window and press the Return key. If the account already exists, you can also choose the List Accounts... item from the Options menu and then select the login name in the Username List list box.
2. Choose the template name from the Templates menu.

The template information is entered in some of the UAM window fields. Note that information you previously specified in a field may be overwritten by a template value.

3. Edit the fields as needed. For more information on the UAM window fields, see Chapter 2.

Note

To reset the UAM window fields to their original values, click on the Change/Define button.

4. Once the account information in the UAM window is correct, click on the Create Defined Account button if you are creating an account or click on the Save Changes button if you are modifying an account.
5. If the Update Password and Group Source Automatically button in the Password and Group Source dialog box is not enabled, you must update the password and group files. To update the files, choose the Update Password and Group Source item from the Options menu after you finish your account management session. For more information about password and group files, see Chapter 1.

A

Account removal actions

specifying, 1–9

Accounts

applying templates to, 3–7

creating, 3–3

displaying, 3–2

listing login names, 3–1

modifying, 3–5

removing, 3–5

renaming, 3–6

B

BIND service

specifying, 1–17

C

Creating accounts, 3–3

using next available user ID, 3–4

Creating templates, 1–12

Customizing UAM environment, 1–2

enabling unsaved changes warning, 1–10

setting up directory list, 1–5

setting up login shell list, 1–4

specifying account removal actions, 1–9

specifying new account actions, 1–7

D

Disk Quotas... button, 2–8

Displaying accounts, 3–2

Displaying templates, 1–16

dxuam command, 1–2

using profile files, 1–2, 1–20

E

Encrypted password

specifying, 2–9

Exiting UAM, 1–2, 2–1

G

Getting online help, 1–2, 2–1

Group file

displaying update command, 1–18

updating, 1–18

H

Help

getting online, 1–2, 2–1

Home Directory Parent list box

setting up, 1–5

I

- Installing UAM software subset**
 - using advanced installation, 1-1
 - using setld command, 1-1
- Invoking UAM**
 - using dxuam command, 1-2

L

- Listing login names, 3-1**
- Local service**
 - specifying, 1-17
- Log files**
 - using, 2-10
- Login directory, 2-6, 2-7**
- Login Group field, 2-4**
- Login names**
 - listing, 3-1
- Login Shell field, 2-4**
- Login Shell list box**
 - setting up, 1-4
- Lookup service**
 - changing, 2-10
 - displaying, 1-17
 - selecting, 1-17

M

- Managing templates, 1-10**
- Modifying accounts, 3-5**
- Modifying templates, 1-16**

N

- Name field, 2-7**
- New account actions**
 - specifying, 1-7

P

- Parent directory, 2-6**
- Password... button, 2-8**
- Password file**
 - displaying update command, 1-18
 - updating, 1-18
- Personal information fields, 2-3**
- Profile files, 1-2**
 - using, 1-20

R

- Removing accounts, 3-5**
- Removing templates, 1-15**
- Renaming accounts, 3-6**

S

- Secondary groups, 2-5**
- Starting UAM, 2-1**
 - using dxuam command, 1-2

T

- Templates**
 - applying, 3-7
 - creating, 1-12
 - displaying, 1-16
 - managing, 1-10
 - modifying, 1-16
 - removing, 1-15

U

- UAM window**
 - changing the lookup service, 2-10
 - displaying available services, 1-17
 - opening, 1-2

UAM window (cont.)

- specifying a service, 1–17
 - specifying disk quotas, 2–8
 - specifying encrypted password, 2–9
 - specifying information in fields, 2–1
 - specifying login directory name, 2–7
 - specifying login group, 2–4
 - specifying login name, 2–3
 - specifying login shell, 2–4
 - specifying parent directory, 2–6
 - specifying password, 2–8
 - specifying personal information, 2–3
 - specifying secondary groups, 2–5
 - specifying user ID, 2–3
 - updating password and group files, 1–18
 - using, 2–1
- .uam_log file**, 2–10
- .uam_profile file**, 1–20
- Unsaved changes warning**
enabling, 1–10
- User ID field**, 2–3
- Username field**, 2–3
- Using log files**, 2–10
- Using UAM profile files**, 1–20

Y

YP service

- specifying, 1–17

How to Order Additional Documentation

Technical Support

If you need help deciding which documentation best meets your needs, call 800-343-4040 before placing your electronic, telephone, or direct mail order.

Electronic Orders

To place an order at the Electronic Store, dial 800-234-1998 using a 1200- or 2400-baud modem from anywhere in the USA, Canada, or Puerto Rico. If you need assistance using the Electronic Store, call 800-DIGITAL (800-344-4825).

Telephone and Direct Mail Orders

Your Location	Call	Contact
Continental USA, Alaska, or Hawaii	800-DIGITAL	Digital Equipment Corporation P.O. Box CS2008 Nashua, New Hampshire 03061
Puerto Rico	809-754-7575	Local Digital Subsidiary
Canada	800-267-6215	Digital Equipment of Canada Attn: DECdirect Operations KAO2/2 P.O. Box 13000 100 Herzberg Road Kanata, Ontario, Canada K2K 2A6
International	_____	Local Digital subsidiary or approved distributor
Internal*	_____	SSB Order Processing - WMO/E15 <i>or</i> Software Supply Business Digital Equipment Corporation Westminster, Massachusetts 01473

* For internal orders, you must submit an Internal Software Order Form (EN-01740-07).

Reader's Comments

ULTRIX Worksystem Software
Guide to the User Account Manager
AA-PGL4A-TE

Please use this postage-paid form to comment on this manual. If you require a written reply to a software problem and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form.

Thank you for your assistance.

Please rate this manual:

	Excellent	Good	Fair	Poor
Accuracy (software works as manual says)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completeness (enough information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity (easy to understand)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organization (structure of subject matter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Figures (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examples (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Index (ability to find topic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page layout (easy to find information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What would you like to see more/less of? _____

What do you like best about this manual? _____

What do you like least about this manual? _____

Please list errors you have found in this manual:

Page	Description
_____	_____
_____	_____
_____	_____
_____	_____

Additional comments or suggestions to improve this manual:

What version of the software described by this manual are you using? _____

Name/Title _____ Dept. _____

Company _____ Date _____

Mailing Address _____

_____ Email _____ Phone _____

----- Do Not Tear - Fold Here and Tape -----

digital™

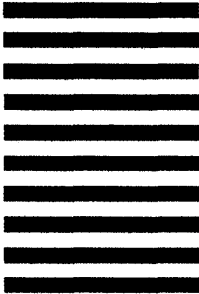


No Postage
Necessary
if Mailed in the
United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO.33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION
OPEN SOFTWARE PUBLICATIONS MANAGER
ZKO3-3/Y32
110 SPIT BROOK ROAD
NASHUA NH 03062-2698



----- Do Not Tear - Fold Here -----

**Cut
Along
Dotted
Line**

Reader's Comments

ULTRIX Worksystem Software
Guide to the User Account Manager
AA-PGL4A-TE

Please use this postage-paid form to comment on this manual. If you require a written reply to a software problem and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form.

Thank you for your assistance.

Please rate this manual:

	Excellent	Good	Fair	Poor
Accuracy (software works as manual says)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completeness (enough information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity (easy to understand)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organization (structure of subject matter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Figures (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examples (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Index (ability to find topic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page layout (easy to find information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What would you like to see more/less of? _____

What do you like best about this manual? _____

What do you like least about this manual? _____

Please list errors you have found in this manual:

Page	Description
_____	_____
_____	_____
_____	_____
_____	_____

Additional comments or suggestions to improve this manual:

What version of the software described by this manual are you using? _____

Name/Title _____ Dept. _____

Company _____ Date _____

Mailing Address _____

_____ Email _____ Phone _____

--- Do Not Tear - Fold Here and Tape ---

digital™

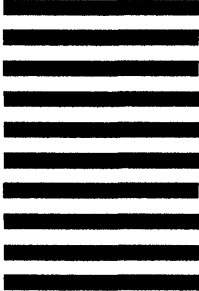


No Postage
Necessary
if Mailed in the
United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO.33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION
OPEN SOFTWARE PUBLICATIONS MANAGER
ZKO3-3/Y32
110 SPIT BROOK ROAD
NASHUA NH 03062-2698



--- Do Not Tear - Fold Here ---

**Cut
Along
Dotted
Line**