Digital UNIX

CDE Companion

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This guide introduces the Common Desktop Environment (CDE) and provides information on migrating from DECwindows Motif to CDE.

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About This Manual

The *CDE Companion Guide* is divided into two parts. Part 1 provides an introduction to the Common Desktop Environment (CDE) for those users who are not familiar with desktop interfaces. Part 2 provides information on migrating from DECwindows Motif to CDE.

Note

In this manual all references to DECwindows refer to the DECwindows Motif software.

Audience

This manual is divided into two parts and has distinct and separate audiences as follows:

- The user who is unfamiliar with desktop environments
- The user who wants to migrate from DECwindows Motif to the CDE environment

For the user who is new to desktop environments, this book provides quick start information on logging into the system, navigating in the new environment, and managing the desktop and applications. Also included in this manual is information on using Digital applications.

For the person migrating from DECwindows Motif to CDE, this book serves as an introduction to the new environment. It provides information on how to use CDE to complete tasks previously done by using DECwindows Motif.

Organization

This book is organized in two parts that consists of 10 chapters. Part 1 is a primer that introduces CDE to those users who are not

familiar with a desktop environment. Part 2 provides information on migrating from DECwindows Motif to CDE.

Part l	Introduces the Common Desktop Environment (CDE) and provides information on getting started in this environment.
Chapter 1	Describes the main components of CDE and describes how to access the documentation set, online help, and reference pages.
Chapter 2	Provides information on navigating in the CDE desktop using the mouse and keyboard, and describes how to start and end a desktop session.
Chapter 3	Provides a tour of the Front Panel and explains how to access applications, use subpanels, and use workspaces.
Chapter 4	Describes how to use the desktop to manipulate files, access applications, and customize the environment.
Chapter 5	Provides an overview of the Digital UNIX desktop and system management utilities which have been integrated into CDE.
Part 2	Discusses migrating from the DECwindows Motif environment to CDE.
Chapter 6	Provides an overview of the common components and differences between DECwindows Motif and CDE.
Chapter 7	Describes differences between DECwindows Motif and CDE when starting and ending a session and accessing applications.
Chapter 8	Describes the CDE methods used to customize your desktop environment instead of using DECwindows Motif.
Chapter 9	Discusses internationalization migration issues in CDE for those who used these features in DECwindows Motif.
Chapter 10	Describes how to convert DECwindows mail folders and calendar databases to a format that is understood by the CDE mail and calendar applications.
Appendix A	Describes differences between MH/DXmail and the CDE mail application.

Related Documents

The printed version of the Digital UNIX documentation set is color coded to help specific audiences quickly find the books that meet their needs. (You can order the printed documentation from Digital.) This color coding is reinforced with the use of an icon on the spines of books. The following list describes this convention:

Audience	Icon	Color Code
General users	G	Blue
System and network administrators	S	Red
Programmers	P	Purple
Device driver writers	D	Orange
Reference page users	R	Green

Some books in the documentation set help meet the needs of several audiences. For example, the information in some system books is also used by programmers. Keep this in mind when searching for information on specific topics.

The *Documentation Overview, Glossary, and Master Index* provides information on all of the books in the Digital UNIX documentation set.

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- The full title of the book and the order number. (The order number is printed on the title page of this book and on its back cover.)
- The section numbers and page numbers of the information on which you are commenting.
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- If known, the type of processor that is running the Digital UNIX software.

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Conventions

The following conventions are used in this manual:

`%` `$`	A percent sign represents the C shell system prompt. A dollar sign represents the system prompt for the Bourne and Korn shells.
`#`	A number sign represents the superuser prompt.
`% cat`	Boldface type in interactive examples indicates typed user input.
`file`	Italic (slanted) type indicates variable values, placeholders, and function argument names.

[|] **{ | }**	In syntax definitions, brackets indicate items that are optional and braces indicate items that are required. Vertical bars separating items inside brackets or braces indicate that you choose one item from among those listed.
`cat`(1)	A cross-reference to a reference page includes the appropriate section number in parentheses. For example, `cat`(1) indicates that you can find information on the `cat` command in Section 1 of the reference pages.
Ctrl/*x*	This symbol indicates that you hold down the first named key while pressing the key or mouse button that follows the slash. In examples, this key combination is enclosed in a box (for example, Ctrl/C).

Part 1 Introducing the Common Desktop Environment

Introducing the Common Desktop Environment 1

The Common Desktop Environment (CDE) provides an easy method of interacting with the Digital UNIX® operating system. It is a jointly developed graphical user interface based on industry standards which include the X Consortium's X Window System and the Open Software Foundation's Motif user interface. By using the CDE interface, you can use the mouse or keyboard to navigate and interact with applications.

CDE presents a visual desktop that you can customize. From the desktop, it is easy to access and manage applications. The desktop itself offers a Front Panel, a graphical display at the bottom of the screen area that provides access to applications, printers, and frequently used objects including online help. It also offers you the option of working in different workspaces. A workspace is the screen itself, which includes the Front Panel. By using a control on the Front Panel, you can switch between different workspaces.

This chapter provides a quick overview of the following:

- Logging in and accessing applications
- Managing the desktop and applications
- Accessing online help
- Locating other sources of information

1.1 Logging in and Accessing Applications

The login screen, displayed by the Login Manager, provides you access to the desktop. Not only can you enter your login name and password, it also provides an Options menu where you can select the type of session you want to begin, and the language to use in your session.

You have the option of starting one of the following sessions:

- The regular desktop starts the CDE Session Manager after the Login Manager has verified your login and password. This is the default desktop for Digital UNIX. Upon exiting a session, the Session Manager remembers the state of your last session and restores it when you log in next.

- A dxsession session starts the DECwindows Session Manager. This was the default Session Manager on previous Digital UNIX systems. For information on using a DECwindows session, see the *DECwindows User's Guide.*
- A failsafe session starts a single terminal window and the Window Manager. This is useful when you need access to a single terminal window if there are problems preventing a successful login to a session.
- A command-line session suspends the desktop and provides a way for you to work in the base operating system environment, an environment without windows. Because the Login Manager is not active and the X server is not running, a login screen is not displayed.

The default language is set by your system administrator; however, you can also access other languages that are installed on your system. Choosing a language from the Options menu sets the environment variable LANG for the duration of your session. The default language is restored when you end your session. See Chapter 9 for information on using internationalization features.

1.1.1 Front Panel

The Front Panel window is located at the bottom of the desktop. It provides controls (represented by icons) that start applications, and subpanels that you can use in your daily work. The Front Panel also provides a workspace switch, which you can use to move between different work areas. Chapter 3 describes the default applications available from the Front Panel and discusses how to use subpanels and workspaces.

You can customize the Front Panel by adding and removing controls from the Front Panel and subpanels, adding and removing workspaces, and renaming workspaces. If you are familiar with using desktops, you can also create a Front Panel customized configuration file. See the *Common Desktop Environment: User's Guide* for details on customizing the Front Panel. For information on creating configuration files, see the *Common Desktop Environment: Advanced User's and System Administrator's Guide*.

1.1.2 Workspaces

A workspace is the screen display area. Using CDE, you can move between different workspaces by using the workspace

switch, which is numbered one through four on the Front Panel. By switching from one workspace to the next, you can set up multiple work areas. For example, one workspace can be used for managing mail, another for project management, and so on. The Front Panel is available in each workspace.

By default, there are four workspaces, but you can add, delete, or rename workspaces. See Chapter 3 for more information.

1.2 Managing the Desktop and Applications

The desktop has a File Manager, Style Manager, and Application Manager. Each of these provides you with a specific control in the desktop environment. The following list introduces these controls:

- File Manager

  The File Manager provides a view of desktop objects, which includes files, directories, and applications. All objects are represented by an icon. Using the drag and drop features of the File Manager, you can easily manipulate files and directories, and interact with other applications.

- Style Manager

  You can use the Style Manager to customize the appearance of your desktop. Using the Style Manager, you can control the workspace colors and palettes, fonts, backdrop patterns, keyboard click and character repeat, mouse button settings, audio, screen blank and screen lock, window focus, icon placement, and how your session begins and ends.

- Application Manager

  The Application Manager is a special directory (folder) for applications and other tools available on your system. Most of the tools available are installed by the System Administrator or built into the desktop, but you can also customize the Application Manager by adding other applications.

See Chapter 4 for additional information on these controls.

1.3 Obtaining More Information

The CDE documentation set is available on line and in hardcopy. You can also obtain information about CDE from the CDE Video Tour, online help volumes, and reference pages.

1.3.1 CDE Video Tour

The CDE Video Tour provides an introduction to the CDE interface and its components. Before using the CDE Video Tour on your system, you must install the subsets for Multi Media Services. The *Installation Guide* provides instructions on installing subsets.

To start the CDE Video Tour, use the following steps:

1. Start the Application Manager.
2. Double click on Information.
3. Double click on CDE Video Tour.

For more information, see the online help volume for the CDE Video Tour.

1.3.2 CDE Documentation Set

The CDE documentation set has three audiences: general user, programmer, and ToolTalk programmer. Table 1-1 through Table 1-3 groups these manuals by audience and describes each set.

Table 1-1: CDE User Documentation

Manual	Description
Common Desktop Environment: Advanced User's and System Administrator's Guide	Describes how to perform advanced customizations of the CDE environment.
Common Desktop Environment: Desktop KornShell User's Guide	Provides the information you need to create Motif applications with KornShell (kshell) scripts.
Common Desktop Environment: Product Glossary	Provides a comprehensive list of terms used in CDE, and serves as a source and reference base for all users of the desktop.
Common Desktop Environment: User's Guide	Outlines basic features of CDE and explains how to use the desktop and desktop applications such as the File Manager and Application Manager.

Table 1-2: CDE Programmer's Documentation

Manual	Description
Common Desktop Environment: Application Builder User's Guide	Describes the Application Builder, which is an interactive tool for developing CDE applications.
Common Desktop Environment: Help System Author's and Programmer's Guide	Describes how to develop online help for application software and integrate help into an application.
Common Desktop Environment: Internationalization Programmer's Guide	Discusses how to internationalize an application so that it can be localized to support various languages and cultural conventions in a consistent user interface.
Common Desktop Environment: Programmer's Guide	Discusses the elements of CDE and describes how to use them.
Common Desktop Environment: Programmer's Overview	Provides overview information on building new CDE applications, integrating applications into the desktop, and design issues.
Common Desktop Environment: Style Guide and Certification Checklist	Provides application design style guidelines and lists the requirements for CDE-level certification.

Table 1-3: CDE ToolTalk Documentation

Manual	Description
Common Desktop Environment: ToolTalk Messaging Overview	Describes the ToolTalk components, commands, and error messages.
Common Desktop Environment: ToolTalk Reference Manual	Describes the Application Interface (API) components, commands, and error messages of the ToolTalk service.
Common Desktop Environment: ToolTalk User's Guide	Describes the ToolTalk service and how to modify your application to send and receive ToolTalk messages.

1.3.2.1 Using the Netscape Viewer

To view the CDE documentation on line, use the Netscape Viewer as follows:

1. Mount the Digital UNIX documentation CD-ROM under `/usr/share/doclib/online.`

   You must have root privileges to mount the documentation CD-ROM.

2. Start the Netscape Navigator by using one of the following methods:

   From the CDE desktop:

   a. Click on the Application Manager.

   b. Double click on Desktop_Apps.

   c. Double click on the Netscape icon.

   From a terminal emulator window, enter:

   ```
   $ /usr/bin/X11/netscape &
   ```

3. Load the Digital UNIX home page from the Navigator window by entering:

   ```
   file:/usr/doc/netscape/Digital_UNIX.html
   ```

4. Select the Digital UNIX Documentation bookshelf from the list of options.

5. Click on the Bookmarks menu, then click on the Add Bookmark option to save this bookshelf for future use.

1.3.2.2 Obtaining Hardcopy Documentation

To obtain the CDE documentation set in hardcopy, use the ordering instructions at the back of this manual. You have the option of ordering manuals electronically.

1.3.3 Online Help

Online help provides detailed information on the CDE interface and applications. From the Front Panel, click on the Help Manager to access a collection of help volumes. To access the help from within an application, click on the Help menu.

1.3.3.1 Using the Help Manager

The Help Manager is located on the Front Panel. It is a special help volume that lists all the online help registered on your system. To browse through registered online help, click on the Help Manager icon. To navigate within the Help Manager online help volume, click on any underlined topic and use the help menus and buttons.

The Help Manager icon has an arrow above it, which indicates that a subpanel is available. To view specific help topics about the desktop and Front Panel, click on the arrow. The subpanel also includes On Item help for the Front Panel. On Item help is interactive. Clicking on this option turns the pointer into a question mark (?). By positioning the pointer over an item in the Front Panel, then releasing, you receive help on that item.

1.3.3.2 Using an Application's Help Menu

To access help from within a help volume, click on the Help menu. A typical online help volume is divided into several sections. Table 1-4 describes the contents of an online help volume.

Table 1-4: Contents of an Online Help Volume

Menu Item	Description
Overview	Introduces the use of the application.
Tasks	Provides instructions on how to complete operations you can perform using the application.
Reference	Displays summaries of an applications' components such as windows, dialog boxes, menus, and application resources.
On Item	Provides reference information on the specific item you selected.
Using Help	Describes how to use the help windows.
About Application	Displays the version and copyright information for the application.

1.3.4 Reference Pages

Reference pages, often referred to as manpages, provide a synopsis and description of each command or application on the system. If the reference page subset is installed on your system, you can access reference pages using the Man Page Viewer or you can type the `man` command in a terminal emulator window.

1.3.4.1 Using the Man Page Viewer

To use the Man Page Viewer to view reference pages:

1. Click on the Application Manager.
2. Double click on Desktop_Apps.
3. View a reference page using one of the following methods:
   - Double click on the Man Page Viewer icon and enter the name of the reference page you want to view.
   - Drag and drop an icon or object from the desktop onto the Man Page Viewer.

See Section 1.3.4.3 for information on obtaining command and applications names by using a keyword.

1.3.4.2 Using the man Command

To view a reference page in a terminal emulator window, enter the `man` command followed by the name of the command or application you want to view. For example, to view the reference page for the CDE Session Manager, enter the following:

```
$ man dtsession
```

See Section 1.3.4.3 for information on obtaining command and applications names using a keyword.

1.3.4.3 Locating Command and Application Names

If you are unsure of a command or application name, use the `apropos` command with a keyword to locate the reference page you are seeking. For example, to find the `dtsession` reference page, enter the following:

```
$ apropos session
```

Any reference page that contains the word session in the name line or title of the reference page is displayed on your system including the `dtsession` reference page.

Getting Started with CDE 2

The Common Desktop Environment (CDE) presents a visual desktop that you can use to interact with the Digital UNIX operating system. This chapter introduces the basic skills you need to perform tasks in the desktop environment. It then describes how to start, pause, and exit from a desktop session.

2.1 Navigating in the CDE Desktop

To navigate within the CDE desktop, you can use the mouse or keyboard. Both provide you with a method of accessing and interacting with the desktop and applications. The following sections describe the mouse and keyboard controls.

2.1.1 Using the Mouse

The mouse is a three button control connected to your workstation. Moving the mouse on a smooth surface directs the movement of the pointer that appears on your desktop. The pointer is shaped like an arrow by default, but it changes shape depending on the action that is being performed. When you perform tasks using the mouse pointer, you specify what to act on by positioning the pointer over that object.

The three mouse buttons determine the type of action that is performed. By default, mouse button 1 is the left button, mouse button 2 is the center button, and mouse button 3 is the right button. By pressing and releasing the mouse buttons, actions occur.

Mouse button 1 is used typically to do the following:

- Start applications
- Select and manage objects in the desktop or in applications
- Cut and paste text
- Move objects on the desktop
- Change the size of objects on the desktop

Mouse button 2 is often used in copy and paste operations or to move objects. Mouse button 3 is used to display and manipulate pop-up menus (see Section 2.2.2.2 for information on menus).

When you use the mouse to interact with the desktop and applications, you are often instructed to perform click, double-click, or drag and drop operations.

- To perform a click operation, point to the object, then press and release the specified mouse button.
- To perform a double-click operation, point to the object, and click the specified mouse button twice in quick succession.
- To perform a drag and drop operation, position the pointer on the object, then press and hold the specified mouse button while moving the pointer (and object) to a new position. Release the mouse button to drop the object in the new location.

See the *Common Desktop Environment: User's Guide* for detailed information on using the mouse.

2.1.2 Using the Keyboard

You can use the keyboard instead of the mouse to interact with the desktop. To use the keyboard as a navigator, you combine keys to complete actions. The following list highlights actions you can perform with the keyboard:

- Start applications
- Select objects on the desktop
- Size objects on the desktop
- Move objects on the desktop
- Manipulate the scroll bars in applications
- Display and select objects

Most of the tasks documented in this chapter can be performed using the mouse or keyboard, however only examples of using the mouse are provided. For instructions on using the keyboard to complete tasks, see the *Common Desktop Environment: User's Guide*.

2.2 Using Windows

When you start most applications, the application is displayed on your desktop in a framed rectangular window. An application may have more than one window.

The window itself is your work area or a place to interact with the application. The window frame has controls that you can use to manage the window. Window controls consist of a title bar, resize borders, buttons, and scroll bars. Some windows also have a Menu Bar.

A Menu Bar offers a choice of menus and menu items that you can use to further manipulate a window or application. Some of the menu items open dialog boxes. A dialog box is similar to a window and provides you with a means of interacting with the system or an application.

The following sections discuss window controls and provide information on managing windows, menus, and dialog boxes. To complete the actions, you must be familiar with mouse or keyboard techniques. The remaining sections in this chapter highlight the use of the mouse only.

2.2.1 Managing Window Controls

Usually, a window frame consists of a title bar, resize borders, buttons, and scroll bars. Table 2-1 highlights these features.

Table 2-1: Window Controls

Window Control	Description
Title bar	Displays the name of the application and contains a Window menu button, Minimize button, and Maximize button. Click the Window menu button to display the window menu, then click on menu items to change the characteristics of the window. Double clicking on the Window menu button closes (or exits) the application. Click the Minimize button to turn a window into an icon. An icon is a graphical representation of an object. To restore an icon, double-click on the icon. Click the Maximize button to display the window in its largest size. To restore the window to its original size, click on the Maximize button again.
Resize border and corners	Makes a window larger or smaller. Drag either the border or corner to size the window.

Table 2-1: (continued)

Window Control	Description
Scroll bars	Enable you to view information such as text or graphics that is not displayed in the current work area. You optionally can have horizontal or vertical scroll bars, or both. Slide the scroll bars by positioning the pointer over the scroll arrows or bar and moving the mouse.

2.2.2 Managing Multiple Windows, Menus, and Dialog Boxes

When you run an application, a window is opened. Most often, you run several applications concurrently, thus you have more than one window opened on your desktop at the same time. Likewise, most application windows have menu bars, and certain applications open two windows or provide dialog boxes.

The following sections provide an overview of managing windows, menus, and dialog boxes.

2.2.2.1 Handling Multiple Windows

Using the window controls is one of the available methods for managing windows. You can also manage multiple windows using the mouse and keyboard. The following lists some actions you can perform using the mouse:

- Make a window active by pointing to any part of a window, then click mouse button 1 or 2. The title bar of the window changes to indicate that this window is ready for input.
- Move a window or window icon by pointing to the window's title bar or icon, then drag the window or icon to a new location.
- Move a partially hidden window or window icon to the foreground of your desktop by clicking on any portion of the window or icon.
- Copy text from a window and paste it in another window as follows:
  1. Move the pointer to the start of the text you want to copy.
  2. Drag the pointer to the end of the text and release the mouse button which highlights the text you want to move.

3. Point to the location where you want to insert text.
4. Click mouse button 2 or 3 to paste the text.

   If you decide you do not want to paste the selected text, keep the pointer in the window that has the selected text, point to an empty space, then release the mouse button.

See the *Common Desktop Environment: User's Guide* for more information.

2.2.2.2 Handling Menus

Menus present you with a list of items that you can use to interact with windows, applications, and the desktop. Often, a menu item specifies an action that is to be performed on an object you select. Sometimes a menu item is dimmed. This indicates that the item is currently unavailable, and is available only under certain conditions.

Table 2-2 lists the three types of menus.

Table 2-2: Menu Types

Menu Type	Description
Pulldown	Located on an application's menu bar, just below the title bar. A menu bar may contain one or more pulldown menus. To pull down a menu, click on the menu's name. To select a menu item, click on the menu's name, then click on the menu item.
Pop-up	Present in some applications, desktop objects, and on the workspace itself. In applications, these menus often duplicate the items in the pulldown menu. Providing them in a pop-up menu offers further flexibility when you are working in applications. To pop up a menu, click mouse button 3 in an application window, on a desktop object, or on the desktop.

Table 2-2: (continued)

Menu Type	Description
Option	Appear in dialog boxes. Option menus appear as buttons, and while they can contain more than one item, only the active option is displayed. To view all menu items, click on the Option menu (button). To select a menu item from the Option menu, click on the Option menu (button), then click on the item.

A menu item followed by an arrow opens a submenu when selected. Select items in submenus by clicking on the menu item. A menu item that is followed by three dots (...) opens a dialog box when selected.

See the *Common Desktop Environment: User's Guide* for more information.

2.2.2.3 Handling Dialog Boxes

Some applications have dialog boxes. Dialog boxes typically require that you input additional information before an action is performed. There are several types of controls that appear in dialog boxes. While some dialog boxes may use several controls, others may use only one.

Table 2-3 list possible controls for dialog boxes.

Table 2-3: Dialog Box Controls

Control	Purpose
Text entry box	Provides fields for entering requested information. An insertion cursor shows where to enter text. If the cursor is blinking in a field, the text entry box is ready for input. If it is not blinking, click on the text entry box to activate the box. You can delete characters in these fields by using the Delete Key.
Radio button	Provides a list of available options. Click on a Radio button to view options.

Table 2-3: (continued)

Control	Purpose
Check button	Controls on and off settings. Click on a Check button to turn settings on or off.
Sliders and scales	Selects numeric values. Drag the slider or scale to select a value.
List box	Provides a menu of options. If a list box has numerous options, a scroll bar appears. You can select an option by clicking on it.
Push button	Used to respond to queries, to indicate how an application is to handle information you have input, or to offer a set of options. To perform a push button operation, click on a push button.

For more information on dialog boxes, refer to the *Common Desktop Environment: User's Guide*.

2.3 Starting a Session

The Login Manager displays a login screen. The login screen has fields where you must enter your user name and password. Push buttons at the bottom of the screen are used to manage your login session:

Button	Description
Ok	Indicates that the information you entered is correct.
Start Over	Resets the login screen if you enter incorrect information or lose your place.
Options	Displays the Options menu. The Options menu is used to select the type of session you want to start and to specify a language.
Help	Provides details on using the login screen.

To start a session:

1. Type your user name and press the Return key or click OK.
2. Select the options you want, if any, from the Options menu.
3. Type your password and press the Return key or click OK.

2.3.1 Selecting a Language

The default language for your system is set by your system administrator; however, you can access other languages that are installed on your system by using the Options menu as follows:

1. Click on the Options menu.
2. Click on the Language menu item and select a language group.
3. Select a language.

Choosing a language from the Options menu sets the environment variable LANG. The default language is restored at the end of the session.

2.3.2 Selecting a Session

Selecting a session determines how your work environment is set up during your login session. You have the option of starting a Regular Desktop Session, dxsession Session, Failsafe Session, or Command Line Session.

Select a session from the Options menu as follows:

1. Click on the Options menu.
2. Click on the Session menu item.
3. Select the type of session you want to start.

A Regular Desktop Session starts the CDE Session Manager. When you start a CDE desktop session, a console window and a Front Panel are displayed. The console displays all system messages received during a session. The Front Panel provides you access to applications and workspaces. See Chapter 3 for information on the Front Panel.

A dxsession Session starts the DECwindows Motif Session Manager, (`dxsession`). Formerly, this was the default graphical user environment available on the Digital UNIX system. When you start a DECwindows Motif session, a console window and the Session Manager menu bar are displayed. The console displays all system messages received during a session. The Session Manager displays menus that you can use to start applications and

customize your environment. Chapter 6 describes the differences between a DECwindows Motif session and a CDE desktop session. For information on working in the DECwindows Motif environment, see the *DECwindows User's Guide.*

A Failsafe Session opens a terminal window and starts the Window Manager. Logging into a Failsafe Session is useful when you want to execute commands before starting a desktop session. For example, you may have a problem that you want to fix before beginning a session.

The Command-line Login Session suspends the desktop and provides a way for you to work in the base operating system environment, an environment without windows. Because the Login Manager is not active and the X server is not running, a login screen is not displayed.

2.3.3 Resetting the Login Screen Option

If you decide that the options you selected are not the ones you want, you can reset the login screen. Resetting the login screen returns all options selected back to their default values.

2.4 Pausing a Session

If you plan to be away from your current session for a time, you can pause your session indefinitely. Pausing your session locks your workstation, but applications that were started continue to run. Each environment that you work in offers a different method of pausing a session:

- To pause a Regular Desktop Session, click on the Lock control on the Front Panel.
- To pause a Failsafe Session, type the `dxpause` command at the command line prompt.
- To pause a dxsession Session, click on the Session menu, then click on Pause.

When you pause your session, a blank screen is placed over the workstation screen and a dialog box is displayed stating that the display is locked. You have the option of displaying other screen savers by using the Style Manager. Enter your password in the text-entry box to resume your session.

2.5 Ending a Session

Each environment that you work in offers a different method of ending a session:

- To end a Regular Desktop Session, click on the Exit button on the Front Panel. A dialog box appears that asks you to confirm the end of session. You can choose to continue with the log out process, cancel the logout process, or select help.

  All settings from this session are saved and restored during your next session, including all applications that support save and restore. That is, all applications that are opened when you exit a session, which support save and restore, are opened when you log in again. For some applications, all the work is restored, while for others, only the main screen of the application is restored.

  If you changed your startup options using the Style Manager Startup control specifying other options, the state of your next session depends on your selection.
- To end a Failsafe Session, type the `exit` command in a terminal emulator window.
- To end a dxsession Session, click on the Session menu, then click on Exit. A dialog box appears that asks you to confirm the end of session and save any settings that changed.
- To end a Command Line Login Session, type Exit at the command line prompt.

Using the Front Panel 3

The Front Panel is the horizontal display located at the bottom of your workspace. It displays the controls (or tools) that you use to start applications, manage tasks in a desktop session, or change workspaces. Each control is represented by an icon that indicates its purpose.

This chapter provides descriptions of the controls available by default on the Front Panel and discusses how to use subpanels and workspaces.

3.1 Touring the Front Panel

By default, the Front Panel provides several controls that you can use to manage your desktop sessions. Some controls, such as the Clock, are indicators only. Indicators do not perform actions. Others, such as the Mail control, perform actions. That is, you can use mail to send and receive messages.

The controls available on the Front Panel are described in Table 3-1. For detailed information on the use of each tool, see the *Common Desktop Environment: User's Guide*.

Table 3-1: Front Panel Controls

Application	Use of Application
Clock	Displays the time of day in analog format. Clicking on this control does not perform an action.
Calendar	Displays the current month and day. Use this application to schedule appointments and To Do Items, set reminders, browse other calendars, and schedule group appointments. Dropping an appointment file on the Calendar control adds the appointment to your calendar database.

Table 3-1: (continued)

Application	Use of Application
File Manager	Provides a view of directories (folders) and files. Dropping a directory on the File Manager control opens a view of that directory.
Text Editor	Opens a Text Editor window where you can create letters or notes. Dropping a file on the Text Editor icon opens that file in a Text Editor window.
Mailer	Starts the Mailer application. Use this application to send, receive, save, and forward mail messages. Dropping a file on this control displays the contents of the file in a New Message window.
Lock	Pauses a session indefinitely. Pausing a session locks the workstation display, but applications continue to run. To resume a session, enter your password.
Workspace Switches	Changes workspaces. Use this switch to move to different work areas. There are four workspaces by default.
Busy Light	Indicates that an action is being performed. For example, when you start an application, the light blinks. Once the call to the application is complete, the busy light stops blinking. Clicking on this icon does not produce an action.
Printer	Displays the status of the default printer. Dropping a file on the Printer icon, prints that file on the default printer.
Exit	Starts the logout process for a session.
Style Manager	Opens the Style Manager application. Use this application to change the characteristics of your environment.
Application Manager	Starts the Application Manager, which is a container for applications and other tools available on your system.
Help Manager	Displays the top level of available online help information. Dropping a master help volume file (`*.sdl`) onto the Help Manager opens a help viewer window and displays the contents of that volume.

Table 3-1: (continued)

Application	Use of Application
Trash Can	Opens the Trash Can application. Use this application to delete files. Dropping a file on the Trash Can control moves the file to a discard directory.

3.2 Using Front Panel Menus and Workspaces

A view of the Front Panel shows that some controls by default have arrows above them. Arrows indicate that a subpanel is available. A subpanel is a menu that provides access to other controls which you can use to manage your desktop session. For more information on subpanels, see Section 3.2.1.

All controls on the Front Panel have a pop-up menu. Usually, pop-up menus contain a control that you can use to add or remove a subpanel, and a control to view an online help volume. Controls, that perform actions, such as the Text Editor, also provide a control on the pop-up menu that you can use to start that action from the menu. See Table 2-2 for general information on using menus.

To manage workspaces, you can use the Workspace Menu. The workspace menu is a pop-up menu, which you can use to manage windows, the Front Panel, and more. See Section 3.2.2 and Section 3.2.3 for more information.

3.2.1 Using Subpanel Menus

Subpanel menus provide you further access to other tools and controls for the Front Panel. Each subpanel on the Front Panel also provides an Install Icon, which you can use to add other tools to the subpanel.

By default, there are three subpanels available from the Front Panel. They are the Personal Applications, Personal Printer, and Help Manager subpanels. To open a subpanel, point to a control icon that has an arrow above it, then click on mouse button 1.

The following sections discuss the default subpanels. For more information on using and customizing the subpanels, see the *Common Desktop Environment: User's Guide*.

3.2.1.1 Personal Applications Subpanel

The Personal Applications subpanel contains applications that you use frequently. It is located above the Text Editor control on the Front Panel. The menu items available on this subpanel include:

- Install icon

  Use this control to add items to the Personal Applications subpanel. To add an item, drag an icon from the File Manager or Application Manager onto the Install Icon, then release. The item is then added to the subpanel.

- Text Editor

  Use this control to create text files such as notes and messages. This control is a duplicate of the Text Editor control available on the Front Panel.

- Terminal

  Use this control to start the terminal emulator, `dtterm`, which emulates that portion of a VT220 terminal that is consistent with ANSI and ISO standards. By using the terminal emulator, you can enter operating system commands, UNIX commands, copy and paste text, or communicate with remote systems.

  Note

  In certain locales, the DECwindows Motif terminal emulator `dxterm` is available on this subpanel instead of `dtterm`. See Chapter 9 for more information.

- Icon Editor

  Use this control to create or modify either bitmap or pixmap image files. Icons can be dropped onto the Icon Editor and used as a base for creating a new image.

3.2.1.2 Personal Printers Subpanel

The Personal Printers subpanel lists default printers. It is located above the Printer control on the Front Panel. The menu items include:

- Install icon

  Use this control to add items such as other printers to the Personal Printers subpanel. To add an item, drag an icon

from the File Manager or Application Manager onto the Install Icon, then release. The item is then added to the subpanel.

- Default Printer

  Use this control to display the status of print jobs on the default printer. If you drag and drop a file on this menu item, the job is printed on the default printer or a printer of your choice.

- Print Manager

  Use this control to obtain a view of available printers on the system. This control is the same as the Print Manager control on the Front Panel.

3.2.1.3 Help Subpanel

The Help Manager subpanel lists other available help volumes. It is located above the Help Manager control on the Front Panel. The menu items include:

- Install icon

  Use this control to add items to the Help Manager subpanel. To add an item, drag an icon from the File Manager or Application Manager onto the Install Icon, then release. The item is then added to the subpanel.

- Help Manager

  Use this control to display the top level of help information. This control is the same as the Help Manager control on the Front Panel.

- Desktop Introduction

  Use this control to display the introductory help volume for the desktop.

- Front Panel Help

  Use this control to display help for the Front Panel.

- On Item Help

  Use this control to obtain on-item help for controls in the Front Panel. To obtain on-item help, click on the On Item Help control. The pointer turns into a question mark (?). Position this question mark over an object on the Front Panel, then release. Help is then displayed for that object.

3.2.2 Using Workspaces

Workspaces offer you a method of organizing your work into categories. To move between workspaces, you use the workspace switch available on the Front Panel. By default, the workspace switch has four buttons, labeled one through four. To move between workspaces, click on one of the workspace buttons.

Each workspace offers you a view of the Front Panel. Thus, you can easily locate applications and tailor each workspace to suit your needs. Often it is useful to rename a workspace. To rename a workspace:

1. Click on the workspace button that you want to change. The workspace selected is displayed.
2. Click on the workspace button again. This changes the button to an input text field.
3. Enter the new name in the text field and then press the Return key.

You can also use the workspace button pop-up menu to rename, add, or remove workspaces. To use the workspace button pop-up menu:

1. Point to the workspace button that you want to change and press mouse button 3.
2. Choose the option you want from the pop-up menu.

If you add a workspace, it is labeled New. You can rename the workspace using either of the previous methods.

If you remove a workspace that contains windows, the windows are moved to the next workspace. If it is the last workspace and it has windows, removing the workspace causes all windows to be moved to the first workspace (labeled one by default).

3.2.3 Using the Workspace Menu

CDE provides a Workspace menu. The Workspace menu is a pop-up menu that contains items for managing each of your workspaces. To open the Workspace menu, point to any blank area on your screen, then click on mouse button 3. Use the Workspace menu to:

- Manipulate the location of windows
- Refresh the display
- Minimize or restore the Front Panel

- Restart the Window Manager (if you customized configuration files)
- Move objects between workspaces
- Log out of the session

You can customize the Workspace menu by adding or removing items as you choose. See the *Common Desktop Environment: User's Guide* for more information.

Managing the Desktop and Applications 4

The CDE desktop provides a File Manager, Style Manager, and Application Manager. Each provides you with a method of managing and customizing your desktop environment.

The icon-based File Manager is used to manage directories (folders) and files on your system. That is, you can create new directories and files, locate directories and files, and remove directories and files. Because it is integrated with the desktop, you can drag objects from the File Manager to use in other applications.

The Application Manager is used to access other tools that are available on your system. From the Application Manager, you can start applications, or even move applications from the Application Manager to the Front Panel.

The Style Manager is used to customize the appearance of your desktop. You can change colors, background patterns, window attributes, mouse and keyboard attributes, and select how your session begins and ends.

The following sections discuss in more detail how to use the File Manager, Application Manager, and Style Manager.

4.1 Managing Files and Folders

The File Manager is an application that you can use to manage directories (folders) and files on your system. A directory can contain subdirectories, files, and applications, and each is represented by an icon in the File Manager. The structure of directories under the File Manager is the same as the structure in a nongraphical environment. In fact, you can display files by name only.

When the File Manager is started, a window is opened that displays the current directory path, menus, a viewing area, and the directory contents, represented by icons in the viewing area. A status line specifies the number of objects in the directory you are viewing.

By using the File Manager menus, you can change, move and rename directories and files. You can also perform actions on certain files or specify how they are viewed. The following sections discuss the options available in the File Manager menus. For more information on other methods of managing files, see the *Common Desktop Environment: User's Guide*.

4.1.1 Using the File Manager File Menu

Use the File menu to rename directories or files and to move directories and files within the File Manager.

Table 4-1: File Manager File Menu

Menu Item	Purpose
New Folder...	Opens a dialog box that you can use to create new directories. If you do not specify a pathname, the directory is created in the current directory.
New File...	Opens a dialog box that you can use to create new files. If you do not specify a path, the file is created in the current directory.
Go Home	Changes to your home directory. The viewing area displays all files and directories in your home directory.
Go Up	Changes to the Parent Folder. That is, the view changes to the directory above your current display.
Go To...	Opens a dialog box where you can specify the directory you want to view.
Find...	Opens a dialog box where you can specify a directory or file that you want to locate. Wildcards are permitted in directory and file specifications. If you do not know the name of the file, you can specify a search by file content. Files that are located are listed by name. You have the option of placing the file on the workspace or viewing the contents of the file in the File Manager.

Table 4-1: (continued)

Menu Item	Purpose
Open Trash	Starts the Trash application. You can use this application to delete directories or files from the File Manager.
Open Terminal	Opens a terminal emulator window. You can use this window to create new files or perform other tasks related to file management.
Close	Exits from the File Manager.

4.1.2 Using the File Manager Selected Menu

Use the Selected menu to perform actions on specified directories or files. You must first select a directory or file before initiating an action. To select a directory or file, click on your selection in the File Manager window.

Table 4-2: File Manager Selected Menu

Menu Item	Purpose
Move To...	Opens a dialog box that you can use to move a directory or file to a new destination.
Copy To...	Opens a dialog box that you can use to copy a directory or file to a new destination.
Copy as Link...	Opens a dialog box that you can use to copy a directory or file to a new destination, which is to be used as a link.
Put in Workspace	Places the selected directory or file in the workspace.
Put in Trash	Marks the selected directory or file for delete.
Rename...	Opens a dialog box that you can use to specify a new name for the directory or file.
Change Permissions...	Opens a dialog box that you can use to change the permissions on the selected directory or file.

Table 4-2: (continued)

Menu Item	Purpose
Select All	Marks all directories and files in the current directory for an action that you specify.
Deselect All	Causes all directories and files marked for an action to be unmarked.
Open in Place	Displays the contents of the directory or file in the current File Manager window.
Open New View	Displays the contents of the directory or file in a new File Manager window.
Print	Submits to the print queue the selected directory or file.

4.1.3 Using the File Manager View Menu

Use the View menu to manipulate how directories and files are displayed.

Table 4-3: File Manager View Menu

Menu Item	Purpose
Open New View	Opens a new File Manager window.
Set View Options...	Opens a dialog box that you can use to specify the format of headers, placement of files, and how they are viewed.
Save as Default Options...	Opens a dialog box that you can use to save the current settings for the File Manager.
Show Hidden Objects	Displays all hidden directories and files in the current directory.
Set Filter Options...	Displays the Set Filters Options dialog box, which you use to specify files you want hidden based on data type or name.
Clean Up	Sorts and arranges objects in the current directory into columns and rows.
Update	Refreshes the File Manager display adding any new directories or files that have been created since the application was started.

4.2 Managing Applications

The Application Manager is a container for applications and other tools on your system. Applications are placed under the Application Manager when your system is installed, the system administrator adds them, or you can add them to this area.

4.2.1 Accessing Built-in Application Groups

When you start the Application Manager, a set of application groups is displayed in the main window. Each application group is a directory that can contain one or more controls or subdirectories.

The default application groups are as follows:

- Desktop_Apps

  Contains the desktop applications such as the File Manager, Style Manager, and Calendar applications.

- Desktop_Tools

  Contains the commonly used tools for desktop administration such as the `vi` text editor, Check Spelling, and Reload Application.

- Information

  Contains icons that represent frequently used help volumes.

- System_Admin

  Contains the tools used by a system administrator to manage the system.

4.2.2 Using the Application Manager Menus

The Application Manager is actually a File Manager view of a special directory on the system. Unlike the File Manager, the directories and controls in this view group applications in related groups, and all files contained in these groups are data files, read me files, templates, and actions. The menus for both the Application Manager and File Manager are closely related. For information on using the Application Manager menus, see the descriptions of the File Manager menus in Section 4.1.

4.2.3 Running an Application from the Application Manager

To run an application from the Application Manager, double click on the application group's icon to display the contents, then double click on the application that you want to start.

4.3 Customizing Your Environment

The Style Manager is an application that you can use to customize your environment. When the Style Manager is started, a window is opened that displays several controls. Each control is represented by an icon, and collectively these are used to customize screen appearance, system characteristics, and startup and logout behavior. Each control opens a dialog box that offers a variety of options.

The *Common Desktop Environment: User's Guide* provides detailed instructions on using the Style Manager. The following sections discuss these options.

4.3.1 Changing Screen Appearance

The Style Manager provides three controls that you can use to change the appearance of your workspace. These include the Color, Font, and Backdrop controls.

Use the Color control to set the colors displayed by windows and applications. A default list of color palettes is provided, and each can be previewed before being applied to the desktop. By using the color control, you can do the following:

- Select a palette
- Modify an existing palette
- Choose a color from the workspace
- Create a custom palette
- Delete a palette
- Change the number of colors used on the desktop

Use the Font control to change the size of fonts used by your applications and windows. The fonts available to you are determined by your display type. By using this control, you can preview all selected fonts before applying them to the desktop.

Use the Backdrop control to change the background pattern of your workspace. This control provides a list of several patterns that you can choose from and each can be previewed in a viewing area before you apply them to the desktop. If you prefer to view the root window, select the No Backdrop option.

4.3.2 Setting System Characteristics

The Style Manager provides five controls that you can use to set system characteristics. These include the Keyboard, Mouse, Beep, Screen, and Window controls.

Note

Not all keyboards support changing the keyclick volume or beep.

Use the Keyboard control to set the key click volume and character repeat capability. The key click volume determines how loud key clicks are as you type. If you prefer not to hear key clicks, the volume can be turned off. The character repeat capability determines whether or not a key repeats its action for as long as it is pressed.

The Mouse control is used to select the following:

- Order of button settings

  Sets the behavior of mouse buttons 1 and 3. By default, the mouse is set up for persons who use their right hand. The actions of mouse buttons 1 and 3 can be reversed for persons who are left handed.

- Double click speed

  Sets the maximum interval that can pass between the first and second click of the mouse to signal a double click action.

- Pointer acceleration

  Sets the speed with which the pointer moves across the display.

- Pointer threshold

  Sets the distance in pixels that the pointer moves at a slow speed before accelerating.

The Beep control is used to set how audible a beep is, the pitch of the beep, and the duration. The volume can be turned off, which cancels the beep.

The Screen control specifies whether or not a screen saver is placed on the screen after a certain time interval. You can choose to have a blank screen or you can select from the list of screen savers available. By using the Screen control, you can also specify whether the screen is locked in these time intervals.

The Window control alters characteristics such as how the window acquires focus, if a window raises when it receives focus, and whether or not to use icon boxes.

4.3.3 Specifying Startup and Logout Behavior

The Style Manager provides a Startup control that you can use to:

- Specify whether you want to resume your current session or start a home session
- Specify whether or not a logout confirmation is displayed

The session you are working in is referred to as your current session. By default, the desktop saves your current session when you log out. This session is resumed when you log into your next session. By using the Startup control, you have a choice of returning to the current session or starting a home session. A home session displays the same settings each time you log into the system. That is, a home session remains the same regardless of what you do in the current session.

A logout confirmation queries you before ending a session. You can optionally specify whether or not you want a confirmation message to appear. If you set the logout confirmation to Off, you are not given the option of canceling the logout process. By default, you are prompted to end a session.

Using Digital Applications 5

There are several Digital desktop applications and a suite of Digital system management applications, referred to as SysMan, that have been integrated into the Common Desktop Environment (CDE). These applications are available from the Application Manager.

This chapter describes how to start applications and how to run applications across the network. It also introduces the Digital desktop applications and system management applications that are available.

5.1 Starting Applications

The desktop applications and the suite of system management applications are located in `/usr/bin/X11`. You can start these applications from the Application Manager or you can start them in a terminal emulator window by using the command name.

To start the desktop applications from the Application Manager:

1. Click on the Application Manager control on the Front Panel.
2. Double click on the application group you want to access.

   To access the Digital desktop applications, double click on the desktop_app control.

   To access the suite of Digital System Management application, double click on System_Admin, then double click on the System_Management_Utilities.
3. Double click on the application that you want to start.

To start an application from a terminal emulator window, you must include the full pathname of the command, unless you add

`/usr/bin/X11` to the path in your `.dtlogin` or `.dtprofile` file. For example, to start Image Viewer from the command line, type the following:

```
$ /usr/bin/X11/dximage &
```

The ampersand (&) at the end of the command line causes the application to run in the background, freeing you to perform other tasks from the same terminal window.

5.2 Running Applications Across the Network

In your daily work, you might want to run an application that is not installed on your workstation. If you have network access, and an account on the system where the application is installed, you can run the remote application and display it on your workstation. Although the application is remote to your system, it appears to be running from your workstation.

Before you run a remote application, you must authorize access to your workstation and enable the display as described in the following sections. You can also use the Host Manager to display remotely run applications. See the Host Manager online help volume for more information.

5.2.1 Authorizing Access to your Workstation

To display remotely run applications on your local system, you must provide the remote host access to your display. You can use the `xhost` program to authorize access. For example, if the hostname of the remote machine is `galaxy,` enter the following from your system:

```
$ xhost +galaxy
```

The hostname, `galaxy,` is then added to the list of hosts that have access to your machine.

5.2.2 Enabling the Display

Once you have authorized the remote system access to your workstation, log into the remote system, and specify where you want to display the remotely run application.

The command line you enter to enable the display varies depending on the operating system you are using, and the shell you are using if the remote host is an ULTRIX or Digital UNIX system. Use one of the following methods to enable the display:

- If the remote host is an ULTRIX or Digital UNIX system and you use the C shell, enter the following at the system prompt:

  setenv DISPLAY *workstation*:**0**

- If the remote host is an ULTRIX or Digital UNIX system and you use the Bourne or Korn shell, enter the following at the system prompt:

  DISPLAY=*workstation*:**0**
  export DISPLAY

- If the remote host is an OpenVMS system, enter the following at the system prompt:

  set display/create/node=*workstation*

  In the previous example, the OpenVMS network host is presumed to be DECnet. If the OpenVMS network host is running Transmission Control Protocol/Internet (TCP/IP), you can use the TCP/IP network transport as follows:

  set display/create/transport=tcpip/node=*workstation*

  If the name of your workstation appears in lowercase in the OpenVMS TCP/IP database file, you must enclose the name of your workstation in double quotes (""). If it does not, do not use quotes. Use the `hostname` command to see how your workstation name is entered into the database file.

In the previous examples, *workstation* is the hostname of the machine where you want the remote application to display.

Once you have authorized access to your system and enabled the display, you can run the application from the remote machine by using the command name as described in Section 5.1. The application then displays on the system you specified.

5.3 Using Digital Desktop Applications

Several Digital desktop applications have been integrated into CDE to provide greater flexibility in using Digital UNIX. Table 5-1 highlights these applications.

Table 5-1: Digital Desktop Applications

Application	Use of Application
Differences	Provides a graphical display of differences between two files.
Image Viewer	Displays the contents of documents that are in specific formats such as GIF, JPEG, and TIFF.
Input Method	Changes how keystrokes are interpreted by the operating system.
Keyboard Options	Offers a choice of options that you can use to customize your keyboard.
Keycaps	Shows a graphical display of a keyboard with keycaps drawn according to the current server keymap and can be used to start the Keymaps application.
Print Screen	Captures a portion of your screen or your entire screen. The screen capture can be directed to a file, printer, or both.

Note

The Input Method (`dtimsstart`) application is located in `/usr/dt/bin` and is not included in the Application Manager under desktop_apps. To start this application, see Section 5.3.3.

Some of the applications described here are advanced tools that address special needs. Such applications are not intended for everyday use.

5.3.1 Using Differences

Differences is a graphical interface to the `diff` command. By using Differences, you can compare two ASCII text files line by line, and then browse through a graphical display of these differences.

Starting the Differences application opens a window that has two empty text regions. The text regions will later contain the contents of the files you are comparing. The title bar specifies the application name and the window number. If it is the first Differences window opened, the window is numbered zero (0). Subsequent Differences windows that you open are numbered sequentially to prevent confusion between the windows.

Use the Differences menus to select files to compare, display the differences, and change the attributes of the display. The following sections describe the Differences menus and discuss how to move between the differences in files.

5.3.1.1 Using the Differences File Menu

The following table describes the options available in the Differences File Menu:

Menu Item	Description
Open...	Opens two dialog boxes titled Right File and Left File. Use these dialog boxes to specify the files you want to compare.
Exit	Closes the Differences application. You are prompted to save settings.

When you select the Open... menu item, each dialog box lists the files in your current directory (folder). You can select a file from that directory, or change to another directory. Changing directories in one dialog box does not affect the contents of the other dialog box. You must select a file from each dialog box for the left and right text regions of the Differences window.

Text does not appear in the text regions until you specify how it is to be displayed using the Differences menu.

5.3.1.2 Displaying Differences

The Differences application window has a left and right text region window. Once you select two files to compare, you can specify where the files are displayed. Use one of the following options from the Differences menu to display text for comparison:

Menu Item	Description
Do Differences	Displays files in the text regions of the main window.
Do Differences in New	Opens a new window and displays selected files in the text regions of the new window.

If you display files in the Differences main window, then later choose to compare a different set of files in the main window, the contents of the text regions are overwritten by your latest selection. If you display files in a new window, the number following the title is incremented by one. Files displayed in the main window are unaffected.

If there are no differences between the selected files, the files are not in ASCII format, or you specified a directory instead of a file, a message dialog box is displayed.

5.3.1.3 Changing Display Characteristics

Use the Differences Options menu to specify attributes that change the display of differences.

Menu Item	Description
Linked Vertical Scrolling Off Linked Vertical Scrolling On	Turns vertical scrolling on or off. By default, linked vertical scrolling is enabled. That is, scrolling through one text region affects the other text region in the same manner.

Menu Item	Description
Linked Horizontal Scrolling Off Linked Horizontal Scrolling On	Turns horizontal scrolling on or off. By default, linked horizontal scrolling is enabled. That is, scrolling through one text region affects the other text region in the same manner.
Render Differences as Lines Render Differences as Polygons	Emphasizes the differences between files as polygons or lines. By default, differences are displayed as polygons. Polygons appear as filled regions.
No Diff Line Numbers Display Diff Line Numbers	Enables or disables the display of line numbers. By default, line numbers are enabled. Line numbers specify the location in each file where differences occur.

5.3.1.4 Moving Between Differences

Differences in files are highlighted and line numbers specify the location of the difference in each file by default. Common text between the file is not highlighted. To move between differences in the displayed files, use the scroll bars or use the Next Diff and Prev Diff push buttons located at the bottom of the window.

Each text region has a set of vertical and horizontal scroll bars. By default, moving the scroll bars affects both text regions. The Next Diff push button does a forward search through the file to the next difference. The Prev Diff push buttons performs a backward search through the file to the previous difference.

To change the display characteristics when comparing files, see Section 5.3.1.3.

5.3.2 Using Image Viewer

The Image Viewer application can be used to view a variety of image files including: GIF, JPEG, TIFF, XPM, XBM, PPM, BMP, and PCX. When Image Viewer is started, a window is opened that contains an optional toolbar, menu bar, and optional

scroll bars that provide horizontal scrolling, vertical scrolling, or both. In the Image Viewer window, you can display images in various formats and manipulate the image views using either the toolbar icons or menus.

For detailed information on using Image Viewer, see the online help volume. To access the online help volume, start Image Viewer, then click on the Help menu.

5.3.3 Using Input Methods

The Input Methods application is a tool for advanced users. You can use this application to specify an input method and to change how keystroke characters are interpreted by the system. For example, Asian (multibyte) characters such as Japanese Kanji or Chinese Hanzi characters can be entered from the keyboard by using this application. To start this application, follow these steps:

1. Open a terminal emulator window.
2. Enter the following:

```
% /usr/dt/bin/dtimsstart
```

When the Input Methods application starts, a dialog box lists options for Style Preference and Input Methods. The following sections describe these options.

5.3.3.1 Selecting Style Preference Options

Style Preferences specifies the keyboard behavior to use when entering multiple keystrokes. Entering multiple keystrokes to compose a single character is called preediting. The following table defines the preediting modes.

Option	Description
Over the Spot	Displays data in an input box that is positioned over the text insertion point.
Off the Spot	Displays data in an input box. The input box window is not located over the insertion point, but it is often located at the bottom of the application window.
Root Window	Displays data in a preedit window that is outside the application window.

Option	Description
On the Spot	Displays data in the application window. Text is moved in the application window to enable the insertion of the preedit data at the text insertion point.

To select a preediting style, click on the preferred style then press the Apply button. Depending on the Input Method you use, not all preediting modes are available.

5.3.3.2 Selecting an Input Method

The operating system has a default Input Method server. If you want to specify an Input Method server other than the default, select the Other option listed under Input Methods, then click on the text entry box and enter the name of your server.

The name of an input method is governed by the input method server. The name should be the same as the setting of the `XMODIFIERS` environment variable.

5.3.4 Using Keyboard Options

The Keyboard Options application is a tool for advanced users. Use this tool to customize keyboard settings. This tool is used usually after the initial setup of your system only to set options that cannot be specified during the installation.

When the Keyboard Options application is started, a dialog box appears with several options. The following sections describe these options and then describe how to save and load settings.

5.3.4.1 Specifying Keyboard Attributes

The Keyboard Options dialog box lists several options that you can use to set attributes for your keyboard. The following table lists these options.

Option	Description
Keyboard Type	Displays a list of available keyboard types. Keyboard types are located in the `/usr/lib/X11/keymaps` file. To highlight the default keyboard type, click on the System Default button.
Language Type	Displays a list of available language types if you have the X Keyboard Extension (X11R6 XKB) installed on your system. To highlight the default language type, click on the System Default button.
Lock Key	Specifies how keys are interpreted when you use the Caps Lock key. You have the option of selecting a Caps Locked or a Shift Lock state. The default lock state is Caps Lock. A Caps Locked state has the following behavior: • Typed letters appear in uppercase. • Typed numbers appear as numerics. • Symbols above numbers appear when you press and hold the shift key while pressing the corresponding symbol. A Shift Lock state has the following behavior: • Typed letters appear in uppercase. • Typed numerics display the symbol above the numeric.
Keyboard Style	Specifies whether the keyboard exhibits the behavior of a typewriter or data processor. This option is available only if the Keyboard type supports these modes.
Keycaps...	Starts the Keycaps Application, which is used to modify keyboard mappings.

5.3.4.2 Saving and Loading Settings

Customized keyboard settings created with this application are in effect once you press the OK or Apply button. When you end a

session, settings are saved in the file `$HOME/DXkeyboard.` To use these settings during your next session, edit your `.profile`, `.cshrc`, or `.login` file and add the following line:

```
/usr/dt/bin/dxkeyboard -load
```

5.3.5 Using Keycaps

The Keycaps application is a tool for advanced users. Use this application to display and edit keyboard mappings. The following sections discuss the keyboard display, simulating key events, modifying settings, and by using the Commands menu.

5.3.5.1 Displaying the Keyboard

When you start this application, a window is opened that contains a status list in the top left corner and a drawing of a keyboard at the bottom of the window. The title bar of the window specifies the type of keyboard displayed.

The status list provides information on keycodes (KeyCode), key symbols (KeySym), modifiers, and the auto repeat (AutoRepeat) functions of each key.

Table 5-2: Keycaps Status List

Status Item	Use of Option
KeyCode	Displays the text printed on each key and the keycode generated by that key.
KeySym	Displays symbols generated by this key in its current state.
Modifiers	Displays bits that modify the behavior of this key. For example, modifiers include keys such as the Shift or Control key.
AutoRepeat	Specifies whether or not the key, when typed, repeats its action until depressed.

The keyboard drawing shows all available keys on the keyboard, and printed on each is the character and hexadecimal keycode generated by that key. Information in the status list changes as you move the mouse pointer over each key in the keyboard drawing.

5.3.5.2 Simulating Key Events

You can press and release a key on the keyboard drawing by using the mouse, keyboard attached to your workstation, or both. When you press a key using the mouse or keyboard, that key is highlighted. When you release the key, highlighting of the key stops. This enables you to generate key-chords such as CTRL/C.

To use the mouse to perform key events, follow these steps:

1. Position the mouse pointer over any key.
2. Click on mouse button 1. This highlights the pressed key and simulates a KeyPress event.
3. Click on mouse button 1 again to release the key. This simulates a KeyRelease event and the key is no longer highlighted.

To use the keyboard attached to your workstation to perform key events, enter any character from your keyboard. As you type keys, the keyboard display highlights each key typed.

To use both the mouse and keyboard to perform key events, position the mouse pointer over a character modifier such as CTRL, then type a character from the keyboard that can be modified.

5.3.5.3 Modifying Key Settings

To modify key settings, use the pop-up menu provided with the Keycaps application. The pop-up menu can be used to exchange keys, duplicate keys, edit key mappings, or restore settings. The following table describes each menu item.

Menu Item	Description
Exchange Keys	Interchanges the behavior of one key for another.
Duplicate Keys	Makes a copy of a key. In duplicating a key, you are producing two keys that use the same set of symbols and modifiers. The first key selected becomes a copy of the second key.
Edit KeySyms	Opens a dialog box that you can use to change key symbols and modifiers. A list of modifier bits, and two lists of optional key symbols are displayed that you can use to modify current settings.

Menu Item	Description
Reset to Default	Restores the keyboard to its default state. If you execute this command while displaying a keyboard other than the default, the keymaps are scrambled.

5.3.5.4 Using the Keycaps Commands Menu

Use the Commands menu to list alternate keyboard types, reset the keyboard, save settings, and to exit from the application. The following table describes the menu items available in the Commands menu.

Menu Item	Use of Menu Item
Keyboard	Lists alternate keyboard types that you can display. By default, the keyboard type attached to your workstation is displayed. Click on any item in this list to change the keyboard display.
Reset to Default	Restores the keyboard to its default state. If you execute this command while displaying a keyboard other than the default, the keymaps are scrambled.
Save	Saves all keycaps bindings selected in the file `$HOME/ .dxkeycaps`. Changes remain in effect for your next session.
Exit	Closes the Keycaps application. You must save any changes you want available during your next session.

5.3.6 Using Print Screen

By using the Print Screen application, you can capture a screen portion or the entire screen. The screen capture can then be output to a file, printer, or both.

When the Print Screen application is started, a dialog box is displayed that offers several options. Once you select the options you want, use the Print Screen menus to capture the screen and specify attributes of the screen capture. The following sections describe the Print Screen options and menus.

5.3.6.1 Using the Print Screen Options

The Print Screen application offers several options that you can use to specify how the screen capture is handled. Table 5-3 describes these options.

Table 5-3: Print Screen Options

Option Button	Option	Description
Capture	Portion of the Screen	Takes a picture of part of the screen. The pointer turns to a plus sign (+). Drag the mouse to enclose the area you want captured. This is the default.
	Entire Screen	Takes a picture of the whole screen.
Time Delay	0 to 100 seconds	Pauses the specified seconds before capturing a screen. Use the mouse to move the slider from zero (0) to 100. Zero (0) is the default.
Send To	File	Saves a screen capture to a file. You can use a default filename or specify a new filename by using the Output File Name option. This is the default.
	Print	Prints a screen capture on the default printer (unless otherwise specified). To actually print the screen capture, you must select the Print or Print... option from the File menu.
	Both	Saves a screen capture to a file and prints it on the printer.
Output File Name		Enables you to specify an output filename for a screen capture. Click on the text entry box to enter a filename. The default filename is `printscreen.ps`.
Ribbon Saver	Positive Image	Captures a screen that looks like a photograph. This is the default.

Table 5-3: (continued)

Option Button	Option	Description
	Negative Image	Captures a screen looks like a photograph negative. A negative image reverses black and white areas. If you use this option, you must also use the Output Color option to specify either the Black and White or Grayscale option.
Print Orientation	Best Fit	Prints a screen capture in portrait mode, if screen capture is longer than it is wide. Otherwise, prints the screen capture in landscape mode.
	Portrait	Prints a screen capture vertically across the paper. That is, the capture is longer than it is wide. This is the default.
	Landscape	Prints a screen capture horizontally across the paper. That is, the screen capture is wider than it is long.
Output Color	Black and White	Captures a screen in black and white. This is the default.
	Color	Captures a screen in color. For use with color monitors only.
	Gray Scale	Captures a screen in gray scale. For use with gray scale or color monitors only.
Fit-to-Paper	Scale to Fit	Sizes the screen capture to fit as much of the paper as possible.
	Reduce Only	Minimizes the size of the screen capture if the capture exceeds the paper size.
	Crop Excess	Prints as much of the screen capture as possible on the paper and crops parts that do not fit. This is the default.
	Increase 2:1	Doubles the size of the screen capture.
	Decrease 2:1	Reduces the size of the screen capture by 50 percent.

5.3.6.2 Using the File Menu

Use the File menu to specify print options and exit from the Print Screen application. The following table describes the menu items available.

Menu Item	Description
Print	Sends the screen capture to the default printer if you selected Print from the Send To option. If you selected Both from the Send To option, the screen capture is printed to the default printer and saved in the file specified by the Output File Name option.
Print...	Opens a dialog box that you can use to specify how the screen capture is printed if you selected either Print or Both from the Send To option. By using this menu item, you can select the number of copies to print, print orientation, print format, printer to use, time to print, and whether or not to delete the file after it is printed. The Options... button in this dialog box offers other print attributes you can set including the name of job.
Exit	Closes the Print Screen application after prompting you to save options.

5.3.6.3 Using the Options Menu

Use the Options menu to specify Sixel options or to save options set during this Print Screen session. The following table describes the menu items available.

Menu Item	Description
Sixel	Opens a dialog box that lists available sixel output devices.
Save	Saves the current settings of the Print Screen window for your next session. If you do not set this option during the session, you are queried about saving options when exiting from the application.

5.4 Using the Digital System Management Applications

Digital UNIX offers a suite of system management applications called SysMan, which provide a graphical front-end to administrative commands. These tools have been developed for the person who administers your system.

Section 5.1 describes how to access and start the SysMan applications. To use most of these applications, you must have root privileges. For information on using each application, see the application's online help volume. You can access the help volume by opening an application and clicking on the Help menu.

The suite of SysMan applications are divided into four categories:

- Installation Setup
- Configuration
- Daily Administration
- Monitoring and Tuning

5.4.1 Using Installation Setup

The Installation Setup application is used to set up and perform either a default or custom installation for your system. For more information, see the online help volume.

5.4.2 Using the Configuration Applications

There are seven configuration applications available for use. Table 5-4 provides descriptions of each of these applications.

Table 5-4: Configuration Applications

Application	Description
BIND Configuration	Configures Berkeley Internet Name Domain (BIND) services for a single system.
Disk Configuration	Manages the configuration of disks on the system.
Mail Configuration	Sets up the routing and delivery of mail for the system.
Network Configuration	Configures and manages the Transmission Control Protocol/Internet Protocol (TCP/IP) on your system.

Table 5-4: (continued)

Application	Description
NFS Configuration	Manages Network File System (NFS) configuration issues.
Printer Configuration	Adds, deletes, and modifies printer configurations for the system's local and remote hosts.

5.4.3 Using the Daily Administrative Applications

There are nine daily administrative applications available for use. Table 5-5 provides descriptions of each of these applications.

Table 5-5: Daily Administration Applications

Application	Description
Account Manager	Manages user accounts on the system for both base security systems and Enhanced Security level systems.
Archiver	Copies and stores multiple files to a single, named archive file or output device such as a tape or floppy disk.
Display Window	Provides a graphical user interface for running commands.
File Sharing	Accesses and exports NFS file systems.
Host Manager	Displays icons for all hosts known to the local system and for those hosts that you specify. Use the Host Manager to set up displays and run applications from a remote system.
License Manager	Adds, lists, and deletes software product licenses.
Power Manager	Controls the amount of power consumed by the system when it is not active. Power Manager is to be used only with Energy Star-compatible systems.
Shutdown Manager	Performs automated system shutdown.

Table 5-5: (continued)

Application	Description
System Information	Displays and monitors operating system version, amount of Random Access Memory (RAM), CPU activity, free memory, used swap space, file system use, and disk and tape device names.

5.4.4 Using the Monitoring and Tuning Applications

There are two monitoring and tuning applications available for use. Table 5-4 provides descriptions of each of these applications.

Table 5-6: Monitoring and Tuning Applications

Application	Description
Kernel Tuner	Manages the attributes of loadable kernel subsystems, handling only the kernel subsystems that conform to Digital's Configuration Management Framework (CMF).
Process Tuner	Displays processes. Using this application, you can send signals to and change the priorities of processes.

Part 2 Migrating from DECwindows to CDE

Migrating to CDE 6

The Common Desktop Environment (CDE), based upon Motif and X11, was developed by major UNIX vendors (Hewlett-Packard, Sun, IBM, and Novell) to consolidate all the UNIX desktop interfaces and define a consistent user and development environment. These vendors formed the Common Operating System Environment (COSE) consortium, of which Digital is a member.

CDE is built on existing technologies from the COSE founders and from the Open Software Foundation (OSF). CDE is not a replacement for Motif; it is another layer on top of Motif combining expanded programming utilities and a consistent user interface.

Under this version of Digital UNIX, CDE is offered as a successor to the DECwindows Motif interface. This chapter discusses:

- Common components between CDE and DECwindows Motif
- Differences between CDE and DECwindows Motif

This chapter also describes where to go to find more information on using CDE.

6.1 Common Features Between CDE and DECwindows Motif

Both CDE and DECwindows Motif operate under the same premise. Each is comprised of four components that create your workspace environment. These include the X server, Window Manager, Session Manager, and client applications. The following sections highlight these components.

6.1.1 X Servers and Clients

Both CDE and DECwindows Motif use the client/server method of computing. A component called the X server provides display services. The X server acts as an intermediary between applications and the workstation's display hardware. That is, it

handles output from the clients to the display and forwards input (from the keyboard or mouse) to the appropriate client for processing. X clients are applications that make use of the services provided by the X Window System.

X clients can run on your workstation or on another system. Because there is built-in networking capability, applications can run on one system and be displayed on another workstation that supports the X Window System protocol.

6.1.2 Session Manager

In both the CDE and DECwindows Motif interfaces, logging in to the system starts the Session Manager. The Session Manager is the top level interface to the Digital UNIX system. The Session Manager handles the following:

- Sources appropriate files such as startup scripts
- Sets up search paths
- Gathers available applications and starts the session applications
- Starts the Window Manager

The CDE Session Manager that starts upon logging into the system is `/usr/dt/bin/Xsession`, but the control is handed to `/usr/dt/bin/dtsession` after the session has started.

In the DECwindows Motif environment, the Session Manager started is `/usr/bin/X11/dxsession.`

6.1.3 Window Manager

For both CDE and DECwindows Motif, the Window Manager controls the appearance of window frame components, behavior of windows including the stacking order and focus behavior, key and button bindings, appearance of minimized windows, and behavior of menus.

The CDE Window Manager is often referred to as the Workspace Manager and is based on the OSF/Motif Window Manager. The default Window Manager for CDE is `/usr/dt/bin/dtwm.`

The DECwindows Motif Window Manager is `/usr/bin/X11/dxsession.`

6.1.4 X Client Applications

The Digital UNIX operating system includes many sample X client applications supplied by the X Consortium. Under the Digital UNIX operating system, DECwindows Motif provides a set of desktop applications. Likewise, CDE brings to Digital UNIX a set of applications that provides several features not available in the DECwindows Motif interface.

Section 7.2 provides more information on using applications in the CDE interface.

6.2 Differences Between CDE and DECwindows Motif

Although CDE and DECwindows Motif consist of similar components, CDE offers many features not available in DECwindows Motif. The remaining chapters in this manual discuss how to manage your session using CDE as opposed to the using the DECwindows Motif Session Manager menu. The following list highlights what is discussed in these chapters:

- Chapter 7 discusses differences in starting and ending a session and describes how to access applications using CDE.
- Chapter 8 discusses differences in customizing your environment by highlighting how to complete these actions using CDE as opposed to DECwindows Motif.
- Chapter 9 discusses internationalization issues such as selecting a language type, specifying keyboard types, and differences in the terminal emulator.
- Chapter 10 discusses how to migrate mail folders and calendar databases to a format that is understood by the CDE Mailer and CDE Calendar applications respectively.
- Appendix A discusses differences between the CDE Mail and DECwindows Mail applications.

6.3 Obtaining More Information

The CDE documentation set is available on line and in hardcopy. To view the CDE documentation set on line, you must use the Netscape Viewer. You can also obtain information about CDE by accessing the online help volumes and reference pages.

Section 1.3 describes how to view the CDE documentation set on line and provides information on accessing online help and reference pages.

Using a New Session Manager 7

Differences exist between managing a Common Desktop Environment (CDE) session and managing a DECwindows Motif session. This chapter introduces methods you can use to manage your environment and access applications, and addresses differences between CDE and DECwindows Motif.

By using CDE, you benefit from an environment that offers the same features found in DECwindows Motif and more. The following sections describe the major features of starting and ending a CDE session, and provides information on managing your environment as you did using the DECwindows Moitf Session Manager.

7.1 Starting and Exiting a Session

The CDE Login Screen provides a set of options that were not available through the DECwindows Motif Login Screen. From the CDE Login Screen, you can select a session type and a language type.

There are four types of sessions that you can select:

- A Regular Desktop starts the CDE Session Manager. This is the default session available.
- A dxsession Session starts the DECwindows Motif Session Manager.
- A Failsafe Session starts a single terminal window and the Window Manager.
- A Command-line Session suspends the desktop and provides a way for you to work in the base operating system environment.

The default language is set by your system administrator; however, by using the Options menu from the login screen you can also access other languages that are installed on your system. The default language is restored when you end your session.

Note

The remaining chapters in this manual discuss a Regular Desktop session only. See the *Common Desktop Environment: User's Guide* for detailed information on starting a Failsafe or Command-line session. See the *DECwindows User's Guide* for information on using DECwindows Motif.

Using DECwindows Motif Session Manager menu, you can request that certain applications automatically start during each session. By default, CDE provides automatic save and restore of your session. All applications that are opened when you exit a session, which support save and restore, are opened when you log in again. For some applications, all the work from the previous session is restored, while for others only the main screen of the application is restored.

For information on customizing the start and end of a session as you were able to do using the DECwindows Motif Session Manager, see Section 8.1.

7.2 Accessing Applications

From the DECwindows Motif Session Manager Application menu, you can start several applications. Most of these applications have equivalents in CDE (see Table 7-2) and can be started from the Front Panel, Application Manager, File Manager, and of course, a terminal emulator window.

The Front Panel is the narrow window at the bottom of your screen. It contains a set of applications and controls, which can be compared to the DECwindows Motif Session Manager menu as it provides a similar set of services. That is, you can start an application by clicking on its icon, pause a session by clicking on the Lock icon, or exit a session by clicking on the Exit icon. Table 3-1 describes all of the applications and controls located on the Front Panel.

The icon-based File Manager, available from the Front Panel, provides a view and easy navigation of a directory hierarchy. When used with drag and drop actions, you can manipulate directories and files and interact with other applications. You can also launch applications using the File Manager.

The Application Manager, available from the Front Panel, is a special directory for applications and other tools on your system. Using the Application Manager, you can launch applications, add other applications to the Application Manager, or place an application on the backdrop or on the Front Panel for easier access.

7.2.1 Managing Applications from the Front Panel

In addition to the Application Manager and the File Manager, the Front Panel employs some other concepts that are not available in the DECwindows Motif environment. This includes the use of subpanels and workspaces.

Any Front Panel icon that has an arrow above it indicates that a subpanel is available. A subpanel contains a menu of applications and controls that you can further use to manage your desktop session. Click on any arrow to display a subpanel menu.

A workspace is the screen display area, which includes the Front Panel. Using the Workspace Switch (buttons numbered one through four) on the Front Panel, you can set up and move between multiple work areas in the same session. Each workspace includes the Front Panel. You can have up to 64 workspaces. Click on any workspace button to change workspaces.

To start an application from the Front Panel, click on the application icon. To start an application from a subpanel:

- Click on the subpanel arrow to display a list of options
- Click on the application icon

7.2.1.1 Adding an Application to a Subpanel

Any application icon that resides in the File Manager or Application Manager can be added to a subpanel. To add an application to a subpanel:

1. Open the File Manager or Application Manager and display the application icon you want to add.
2. Open the subpanel where the application icon is to be added.
3. Drag the icon from the File Manager or Application Manager and drop it on subpanel's Install Icon.

Any application icon that is added to a subpanel displays the same behavior as when it resided in the File Manager or Application Manager.

7.2.1.2 Adding a Subpanel Control to the Front Panel

You can add a copy of a subpanel control to the Front Panel for easier access. To copy a subpanel control to the Front Panel:

1. Open the subpanel that contains the application icon you want to copy.
2. Point to the application icon you want to add and click on mouse button 3 to display its pop-up menu.
3. Choose Copy to Main Panel from the pop-up menu.

7.2.1.3 Replacing a Control in the Front Panel

To replace a control in the Front Panel easily, exchange it with a subpanel control.

1. Open the subpanel of the control you want to replace. If the control does not have a subpanel control, you can create it:
   a. Point to the control in the Front Panel and click on mouse button 3
   b. Select Add Subpanel from the pop-up menu
   c. Display the new subpanel
   d. Add the control you want to place on the Front Panel to the subpanel as described in Section 7.2.1.2
2. Point to the control in the subpanel and click on mouse button 3 to display the pop-up menu.
3. Choose Copy to Main Panel from the pop-up menu.

If you had to create a subpanel and you do not want retain it, point to the Front Panel control icon and click on mouse button 3. You can then select the Remove Subpanel option.

If you are an advanced user, you can also create or edit a Front Panel configuration file that changes the characteristics of the Front Panel. See the *Common Desktop Environment: Advanced User's and System Administrator's Guide* for more information.

7.2.1.4 Removing Front Panel Customizations

You can remove Front Panel customizations made by using the Install Icon control or using the Front Panel pop-up menus:

1. Open the Application Manager.
2. Double click on the Desktop_Tools application group.

3. Double click on Restore Front Panel.

This procedure does not affect customizations made using Front Panel configuration files.

7.2.2 Starting Applications from the Application Manager

The Application Manager contains a set of built-in application groups. Each application group is a directory that contains one or more icons that you can use to open applications. An icon group can also contain other application files such as data files, templates, and read me files.

Table 7-1: Built-In Application Groups

Group	Description
Desktop_Apps	Contains the desktop applications such as the File Manager, Application Manager, and Calendar applications.
Desktop_Tools	Contains commonly used tools for the desktop administration such as the `vi` Text Editor, Check Spelling, and Reload Application.
System_Admin	Contains the tools used by the system administrator to manage the system.
Information	Contains frequently used help volumes.

You can have additional application groups. The previous table lists those known groups available by default.

To start an application from the Application Manager:

1. Double click on the application group where the application is located.
2. Double click on the application.

You can also create personal application groups as described in the *Common Desktop Environment: User's Guide*.

7.2.3 Running Applications with the File Manager

The File Manager is predominately used to create, find, and manage desktop objects such as files, folders, and applications. If

an application uses data files, you can also start an application from the File Manager using the application's data file.

Use one of the following methods to start an application using its data file:

- Double click on the application's data file

  For example, double clicking on a bitmap file (`.bm`) starts the Icon Editor application

- Point to an application's data file, click on mouse button 3 and then choose Open from the pop-up menu.

You can also use the drag and drop features with the File Manager to interact with applications. For example, drag a file from the File Manager and drop it on the Print Manager to print a file or drag a help volume with a `.sdl` extension and drop it onto the Help Manager to open a help volume.

7.2.4 Using DECwindows Motif Applications

Most of the applications available with the previous version of DECwindows Motif have equivalents available in CDE. Those that do not have equivalents in CDE, have been integrated into the desktop and are available through the Application Manager.

Table 7-2 lists the DECwindows Motif applications, followed by the recommended application to use, its executable name, and its location. If for some reason, you want to use a DECwindows Motif application, which has not been integrated into the environment, these applications are still available in `/usr/bin/X11.`

Table 7-2: Recommended Applications to Use in CDE

DECwindows Application Name	Recommended Application Name	Executable	Location
Bookreader	Netscape Browser[a]	`netscape`	Application Manager
	CDE HelpViewer[a]	`dthelpview`	Front Panel (Help Manager)
Calculator	CDE Calculator	`dtcalc`	Front Panel
Calendar	CDE Calendar[b]	`dtcm`	Front Panel
Cardfiler	xclipboard	`xclipboard`	Application Manager

Table 7-2: (continued)

DECwindows Application Name	Recommended Application Name	Executable	Location
CDA Viewer	Image Viewer[c]	`dximage`	
Clock	CDE Clock[d]		Front Panel
DECterm	CDE Terminal	`dtterm`	Front Panel[e]
Differences	Differences[f]	`dxdiff`	Application Manager
Mail	CDE Mailer[b]	`dtmail`	Front Panel
Notepad	CDE Text Editor	`dtpad`	Front Panel
Paint	CDE Icon Editor	`dticon`	Front Panel (Text Editor subpanel)
Print Screen	Print Screen[f]	`dxprint`	Application Manager

a. See Section 1.3 for information on the CDE documentation set and online help.

b. Migration tools are available that you can use to convert your DECwindows Motif mail folders and calendar database to a format that can be understood by the CDE mail and calendar applications. See Chapter 10 for information on using these converters.

c. Digital recommends using Image Viewer (`dximage`), a Digital desktop application, which has been integrated into CDE. It is available from the Application Manager. See Section 5.3.2 for more information.

d. CDE Clock is an indicator only; it does not perform actions. To set an alarm, use the CDE Calendar application.

e. Starting the CDE Terminal from the Front Panel consumes considerable system resources. If you are opening several terminal emulator windows, start a new terminal emulator from an existing terminal emulator window. To do this, select the Window menu, then choose the New option.

f. Both Print Screen and Differences are Digital desktop applications that have been integrated into CDE. See Section 5.3.1 and Section 5.3.6 respectively for more information.

Customizing your Environment 8

You cannot migrate to a new user interface without expecting changes. The Common Desktop Environment (CDE) offers you tools and methods to customize your environment that differ from those used in the DECwindows Motif environment. This chapter briefly describes how to customize your session.

8.1 Customizing your Startup Environment

In the DECwindows Motif environment, the Session Manager offers an Application menu and Customize menu. The Application menu lists default applications available to you. By using the Customize menu, you can add or remove applications from the Applications menu. You can also specify that certain applications start automatically at each login session by selecting the Autostart menu item from the Customize menu.

Using CDE, you can add frequently used applications to the Front Panel and subpanels. See Section 7.2.1 for information on adding applications to the Front Panel and subpanels. The applications that are started automatically at startup are determined by the options you set when using the Style Manager Startup control.

When you click on the Style Manager Startup control, a dialog box appears. You have the option of returning to your current session, home session, or a display-specific session when you log in next:

- Resuming the current session restores your session to the state present at logout.
- Resuming a home session returns to the same state each time. That is, any settings you specified during your current session are ignored.
- Starting a display-specific session is accomplished by copying the file `$HOME/.dt/sessions` to the file `$HOME/.dt/`*`display`* where *`display`* is a real unqualified hostname such as `host:0`. Using `host.site.com:0` is not valid.

See the *Common Desktop Environment: User's Guide* for information on adding applications and setting a login session. See the *Common Desktop Environment: Advanced User's and System Administrator's Guide* for information on setting a display-specific session.

8.2 Changing Session Manager Settings

From the DECwindows Motif Session Manager Customize menu, you can use the Options menu to do the following:

- Start the Session Manager as a window or icon
- Turn on or off logout confirmation
- Change the message displayed in the Pause (Lock) screen

When using CDE, the Front Panel is always displayed unless you start a Failsafe session, Command-Line Login session, or DECwindows Motif session. To turn the Front Panel into an icon after logging into the system, use the window or menu controls.

To turn Logout Confirmation on or off, use the Style Manager Startup control.

You cannot change the the Lock (Pause) screen message as was possible when using DECwindows Motif.

8.3 Customizing Window Patterns and Colors

From the DECwindows Motif Session Manager Customize menu, you can use the Windows... menu item to do the following:

- Choose a different window manager
- Specify a screen saver
- Change background patterns
- Select solid foreground and background
- Choose window foreground, background, highlight and border colors

Changing these options when using CDE differs. The following sections discuss how to change the window manager, specify a screen saver and lock background, select a background pattern, and how to change colors.

8.3.1 Changing the Window Manager

When you start a CDE session, the default window manager, `/usr/dt/bin/dtwm` is started. Unlike the DECwindows Motif environment, specifying an alternate window manager is an advanced feature. You edit resource files to change the Window Manager in CDE. See the *Common Desktop Environment: Advanced User's and System Administrator's Guide* for further information.

8.3.2 Specifying a Screen Saver and Lock Screen Background

A screen saver extends the life of your monitor by blanking the screen after a specified amount of time. By default, the monitor blanks the display after 10 minutes. Moving the mouse causes the display to resume. A screen lock background is displayed when you pause a session from the CDE Front Panel.

You can customize what is displayed by using the Style Manager Screen control.

8.3.3 Selecting a Background Pattern

In CDE, you can specify a background pattern for each of your workspaces using the Style Manager Backdrop control. The Backdrop control opens a dialog box, which offers a scrollable lists of background selections. You can also display the root window by selecting No Backdrop from the list of options.

8.3.4 Changing Screen and Window Colors

When using the CDE Style Manager, colors are set by using the Style Manager Color control. The Color control sets screen, window, workspace, and Front Panel colors according to your display type. Depending on your display type, you may have 2, 4, or 8 color buttons that you can use to control the color of windows, window borders, workspaces, text and list areas, and Front Panel background. See the *Common Desktop Environment: User's Guide* for information on color controls and selecting color palettes.

8.4 Changing Your Security Settings

To change your security settings, use the Host Manager application or the `xhost` command. The Host Manager displays icons for all hosts known to the local system and for those hosts

that you specify. By using the Host Manager, you can set the DISPLAY environment variable and run applications from a remote system.

To start the Host Manager from the Application Manager:

1. Double click on System_Admin.
2. Double click on System_Management_Utilities.
3. Double click on the Host Manager application.

See the Host Manager online help for more information. To view the online help, click on the Help menu from within the application.

To use the `xhost` command, see the `xhost` reference page.

8.5 Customizing the Keyboard Settings

When using CDE, keyboard settings can be changed by using the Style Manager controls and the Keyboard Options application. The following sections discuss these methods.

8.5.1 Using Style Manager to Adjust Keyboard Settings

By using the Style Manager controls, the following keyboard settings can be adjusted:

- Beep (Bell) Volume

  Sets the volume, tone and duration of the warning beep (bell) or turns the beep off. The warning beep notifies you of system messages, or warns you when you type incorrect key combinations in applications such as the `vi` text editor.

- Keyclick Volume and Auto Repeat

  Sets the click volume of keys as you type or turns off the click volume. You can also set whether or not a key repeats for as long as it is pressed.

  To adjust the click volumes of keys and to turn auto repeat on or off, use the Style Manager Keyboard control. A dialog box appears that you can use to change the keyclick volume and auto repeat of keys.

8.5.2 Using Keyboard Options to Adjust Keyboard Settings

The Keyboards Options application has been migrated and integrated into the CDE interface. It offers further options that you can use to control keyboard settings. Use this application to set the following:

- Keyboard Type
- Language Type
- Lock Key State

By using the Keyboard Options application, you can also start the Keycaps application and save and load settings for future sessions. For more information on the Keyboard Options and Keycaps applications, see Chapter 5.

8.5.3 Changing PC-Style Keyboards

Several Digital workstations come with Personal Computer (PC) style keyboards. Currently, these keyboards have one of the following model numbers, although more models may be produced in the future:

- PCXAL
- LK443
- LK444

Other Digital workstations come with keyboards such as the LK201 or LK401.

The two styles of keyboards differ both in the functions assigned to certain keys and in the number of function keys. For example, the PC-style keyboards have only 12 function keys (F1 through F12); the LK201/LK401 keyboards have 20 function keys (F1 through F14, Help, Do, and F17 through F20).

Digital UNIX provides a script that automatically performs mappings to allow you to switch keyboard styles. This script, `/usr/examples/pc_to_lk_keys.sh`, uses the `xmodmap` utility to edit the keyboard modifier map and `keysym` table. (For details about the utility, see the `xmodmap` reference page.)

If you have a PC-style keyboard, you can run the script to map most of the keys on the two keypads to the right of the main keyboard, as well as a few keys in the top function key row, to the corresponding keys on the LK201/LK401 keyboards. For example, by running the script, you change the function of the keypad Insert key on the PC-style keyboard to perform the keypad Find function

from the LK201/LK401 keyboards.

Similarly, if you have an LK201/LK401 style keyboard, you can run the same script, this time with the `-u` flag, to map the keypad keys to the corresponding PC-style keys.

A copy of the script is located in the following file on your Digital UNIX system:

`/usr/examples/pc_to_lk_keys.sh`

To run the script, at the system prompt enter the name of the file as if you were entering a command. The first command line in the following example changes PC-style keys to LK201/LK401 keys. The second command line changes LK201/LK401 keys to PC-style keys.

```
% /usr/examples/pc_to_lk_keys.sh
% /usr/examples/pc_to_lk_keys.sh -u
```

To have the script run automatically each time you log on to your workstation, use an editor to create or modify the `.xsession` file in your home directory to read as follows :

```
#!/bin/sh
/usr/examples/pc_to_lk_keys.sh
dxsession
```

This change PC-style keys to LK201/LK401 keys. The same `.xsession` file, but with `-u` flag added to the end of the second line, changes LK201/LK401 keys to PC-style keys.

Now, whenever you log in, your keyboard is set automatically to the different keyboard style.

Table 8-1 shows the keys on the LK201/LK401 keyboard and their corresponding equivalents on the Digital PC-style keyboard.

Table 8-1: LK201/LK401 Key Functions and Their PC-Style Equivalents

Key on the LK201/LK401 Keyboards	Equivalent Key or Function on a PC-Style Keyboard
Help	Print Screen
Do/Menu	Scroll Lock
Insert	Home

Table 8-1: (continued)

Key on the LK201/LK401 Keyboards	Equivalent Key or Function on a PC-Style Keyboard
Find	Insert
Remove	Page Up
Next	Page Down
Select	Delete
Prev	End
Keypad 0	Ins, Keypad 0
Keypad 1	End, Keypad 1
Keypad 2	down arrow, Keypad 2
Keypad 3	PgDn, Keypad 3
Keypad 4	left arrow, Keypad 4
Keypad 5	Keypad 5
Keypad 6	right arrow, Keypad 6
Keypad 7	home, Keypad 7
Keypad 8	up arrow, Keypad 8
Keypad 9	PgUp, Keypad 9
Keypad . (period)	Keypad Del
Keypad -	Keypad + (addition)
Keypad ,	no equivalent PC-style keypad key
Keypad Enter	Keypad Enter
PF1	Num Lock
PF2	Keypad / (division)
PF3	Keypad * (multiplication)
PF4	Keypad - (subtraction)

Note

The Digital PC-style keyboard has a key labeled ← in the position where the key marked ⟨× is located on the LK201/LK401 keyboard. On both styles of keyboard, this key deletes the character to the left of the cursor when pressed. On the PC-style keyboard, you can use the Delete key on the near keypad to delete the character that the block cursor is on or the

character to the left of the line cursor.

In keyboard mappings, the ← and <× keys perform the backspace function. The Delete key on the PC-style keyboards performs the delete function.

8.6 Specifying a Session Language

By using CDE, you can specify a language type each time you log into the system. You cannot change the language during the session.

To set the session language from the login screen, click on the Options menu, then click on the Language menu item and select a language group. You can select from a list of languages that have been installed on your system.

8.7 Customizing Mouse and Pointer Behavior

When using CDE, mouse and pointer behavior is adjusted by using the Style Manager Mouse control. CDE offers some adjustments not available in the DECwindows Motif environment; however when using CDE, you cannot adjust the color or shape of the pointer.

Use the Mouse control to adjust the following:

- Handedness (Button Arrangement)

  Specifies how mouse buttons are to be interpreted. By default, mouse buttons are arranged for use by righthanded person. That is, mouse button 1 is on the left and mouse button 3 is on the right. You can specify that mouse button 1 be the leftmost button and mouse button 3 be the rightmost button for a lefthanded person.

- Button 2

  Specifies the behavior of mouse button 2. Mouse button 2 can be set to Transfer or Adjust mode. When using the Transfer setting, mouse button 2 is used to drag and drop list or text items (if supported by the application).

  When using the Adjust setting, mouse button 2 extends lists selections in a multiple-select list or extends text selection fields; list items are dragged and dropped by using mouse button 1.

- Pointer Acceleration

  Provides a slider that you can use to vary how fast the pointer moves across the screen. For example, a setting of 2 causes the pointer to move twice as fast as the mouse moves.

- Mouse Double Click Timeout

  Specifies how the system interprets two successive clicks of the mouse. That is, it sets the time in which you must click a mouse twice to signal a double click action. For example, double clicking on certain icons starts an application.

- Mouse and Pointer Threshold

  Specifies the minimum number of pixels you must move the mouse before the pointer moves at the specified accelerated speed.

8.8 Saving and Restoring Settings

Any changes that you make during a session can be saved. When you change options or settings using the Style Manager, each control provides a dialog box that you can use to OK or Apply changes. Using the CDE Style Manager Startup control gives you the opportunity to specify whether these are the settings you return to in your next session.

The CDE Style Manager Startup control specifies whether you return to your current session, home session, or a display-specific session.

8.9 Modifying Resource Files

The *Common Desktop Environment: Advanced User's and System Administrator's Guide* describes the resource files you can modify to change your environment. This section briefly highlights those files you edited previously under DECwindows Motif and explains whether or not they remain applicable:

- The `.xsession` file is still valid in the new environment.
- The `.Xdefaults` file can still be used; however, automatic startup of applications is not valid.
- The `.mwmrc` file has been replaced by the `$HOME/.dt/dtwmrc` file.
- The `.X11start` file has been replaced by the `$HOME/.dt/session/sessionetc` file.

Under DECwindows Motif, the system administrator often edited files in `/usr/lib/X11/xdm`. Equivalents in CDE can be found in `/usr/dt/config`. These files include `Xaccess`, `Xservers`, `Xsession` and `Xsetup/Xsetup -0`.

Using Internationalization Features 9

Migrating to the Common Desktop Environment (CDE) affects those who used internationalization features in the DECwindows Motif environment. Differences exist in the following:

- Selecting language types
- Specifying a keyboard type, loading keymaps, and selecting input methods
- Using the terminal emulator
- Using mail

The following sections explain these differences and provide information on how to accomplish the same tasks using CDE.

9.1 Selecting a Language Type

In the DECwindows Motif environment, you change the language type at any time using the Option menu. When using the CDE interface, you can select a language at the start of a session or set resources in CDE's `Xconfig` file. The language that you select cannot be modified during the session.

Information on setting a language from the login screen is documented in Section 2.3.1.

To set the default session by editing the `Xconfig` resource file:

1. Create the directory `/etc/dt/config` if it does not exist. You must have root privileges to create this directory.
2. Copy the file `/usr/dt/config/Xconfig` to the directory you created in step 1.

3. Edit the file `/etc/dt/config/Xconfig` and add the language you want to use as your default. For example, if you want to use Japanese, add the following line:

```
defaultLanguage: ja_JP.eucJP
```

If you do not want to use this language during each session, you can override it by selecting another from the CDE Login Screen Options menu.

No matter which method you use to select a language, each application you start after logging into the system is displayed in the language selected.

9.2 Specifying a Keyboard Type, Keyboard Attributes and Input Methods

In the DECwindows Motif environment, you can select a keyboard type, keyboard characteristics, and an input method from the Session Manager. Your choices set parameters in the `.Xdefaults` file. When using CDE, you must use the Keycaps, Keyboard Options, and Input Methods applications to change these characteristics.

The Keyboard Options application is used to select a localized keymap and to set the lock key state. From this application, you can also start the Keycaps application, which is used to change keycaps mappings. See Section 5.3.4 for information on using this application.

The Keycaps application is used to select a keyboard type, simulate key events, and to display and edit keyboard mappings. To use the Keycaps application, see Section 5.3.5.

The Input Methods application is used to change how keystroke characters are interpreted by the system. For example, Asian (multibyte) characters such as Japanese Kanji or Chinese Hanzi characters can be entered from the keyboard using this application. See Section 5.3.3 for more information on this application.

Note

For Asian Languages, the CDE Session Manager automatically starts the appropriate input method server when you log into the system. To disable this feature, edit your `.dtprofile` file and set `DTSTARTIMS` to `False`.

9.3 Using the Terminal Emulator

The default terminal emulator in the CDE interface is `dtterm`. The `dtterm` terminal emulator does not have the following features:

- Bidirectional support (needed for Hebrew language support)
- Zero-width character support (needed for Thai language support)
- Ruled-line support (needed for Japanese language support).

Because these features are not supported, using the DECwindows Motif terminal emulator, `dxterm`, is recommended where such support is needed. You can access `dxterm` from the Application Manager. In certain locales, `dxterm` is available from the Text Editor Personal Applications subpanel. You can also start the `dxterm` terminal emulator from a `dtterm` terminal emulator window or add it to the Front Panel or a subpanel as described in Section 7.2.1.

See the *Common Desktop Environment: User's Guide* for instructions on using the `dxterm` terminal emulator.

9.4 Using Mail

When using the DECwindows Motif mail application, `dxmail`, codeset conversion support is turned on by specifying a mail interchange codeset in the `/usr/lib/mh-codesets` file. When using the CDE mail application, `dtmail`, you do not have to turn on codeset conversion support. It is turned on automatically through the `/usr/dt/config/svc/OSF1.lcx` configuration file, which contains the needed information.

Migrating Mail and Calendar 10

Many people have mail folders and calendar databases that they want to continue to use in their new environment. Changing to a new application often means losing this information. To ease the complexity of migrating, you can use the tools described in this chapter to convert your existing `dxmail` and `dxcalendar` folders and databases into a format that is understood by the CDE mail and calendar applications.

The *Common Desktop Environment: User's Guide* provides details on using the CDE Mail and Calendar applications. See Appendix A for information on the differences between the `MH/dxmail` and `dtmail` mail handlers.

10.1 Converting Mail Formats

The CDE mail application is completely integrated with the environment and thus offers more flexibility than continuing to use the `dxmail` application. For example, files can be dragged from other CDE applications and dropped onto the mail application for further action.

The CDE mail application also supports Multimedia Internet Messages Extension (MIME). Support for MIME lets you send and receive mail messages in formats other than ASCII text. For example, you can send and receive messages that are in video format.

Before you convert your mail formats to a format that can be read by the CDE mail application, you should understand how mail is stored by both applications. You can then convert your mail from the `dxmail` format to the `dtmail` format by using the `mailcv` utility or the CDE File Manager.

10.1.1 Understanding How Mail Is Stored

The `dxmail` and `dtmail` applications store information differently. For this reason, you must convert your `dxmail` folders to a format that can be read by the `dtmail` application.

10.1.1.1 Storing Mail Using MH/DXMail

To store mail, the `MH/dxmail` application creates a mail hierarchy with a top level directory. The location of this directory is defined in your `$HOME/.mh-profile.` This profile not only specifies the location of your top level directory, it also includes other information about the setup of your mail. Usually, the path for the top level directory is set to `$HOME/Mail.` If you changed this path, you can verify its location by using the `mhpath` command with the `+` flag. You need to know the location of your top level directory to convert mail folders.

Note

To use the `mhpath` command, the MH subsets must be installed on your system.

Under your top level directory `Mail,` you may have several other directories (folders) or files. Messages are stored in folders numerically and in sequential order. Each message corresponds to an individual file as follows:

Mail					
/inbox	/drafts	/meetings		/personal	
1,2,3	1,2	/group	/unit	1,2,3	/gardening
		1,2,3	1,2,3		1,2,3

In the previous example, there are four folders directly under the top level directory `Mail.` Individual messages are stored numerically. For example, under the folder `Inbox,` there are three files that contain individual mail messages. They are numbered `1, 2,` and `3.` Some directories have subdirectories such as `meetings,` which includes subdirectories for `group` and `unit.` Mail messages are further grouped under these directories numerically.

10.1.1.2 Storing Mail Using the CDE Mail

By using the CDE Mail application, there is no set structure to how messages are stored. That is, you can create mail folders in

any directory that you have access to, and you can store more than one message in a mail folder. The `dtmail` application uses the UNIX From format to store messages. Thus, mail messages stored in the same mail folder are concatenated and each message is separated by a UNIX From header. Mail utilities such as `mailx` use this format and can also read these messages. Following is a sample mail hierarchy that can be created by using the `dtmail` application. In this example, messages are stored into mail folders that have an `.mbe` extension.

```
MailBox
inbox.mbe   drafts.mbe   /meetings              /status
                         /group     /unit       jan.mbe feb.mbe
                         wkly.mbe   mthly.mbe
```

In the previous example, the top level directory, `MailBox`, is displayed. Under this top level, there are both directories and mail folders. The mail folders can contain one or more mail messages. A mail directory can contain both mail folders and other subdirectories. Messages are concatenated in the order they are saved.

10.1.2 Converting Mail Using the Mail Conversion Utility

The `mailcv` utility is a command line interface that you can use to convert an entire directory or an individual folder. There are several flags available that you can use to control how mail is converted. In addition, the `mailcv` utility can be used to detect errors that may have occurred when you stored messages.

By default, all messages created by the `dxmail` application are converted, including any corrupt messages. See Section 10.1.2.4 for information on corrupt messages.

10.1.2.1 Converting an Entire Mail Directory

To convert an entire mail directory (folder) by using the `mailcv` utility:

1. Change to your top level mail directory. By default, this is `$HOME/Mail`.

2. Type the `mailcv` command with the `-A` flag to specify that you want to convert the entire directory and subdirectories. You must specify the current directory name and the name of the new directory that is to be created as follows:

   ```
   % mailcv -A $HOME/Mail $HOME/NewMail
   ```

   This example creates a new top level directory called `NewMail.` It then creates the subdirectories that correspond to the `dxmail` folder structure and all mail messages are converted.

10.1.2.2 Converting an Individual Folder

To convert an individual folder using the `mailcv` utility:

1. Change to the directory that contains the MH folder and message files you want to convert.
2. Type the `mailcv` command with the `-f` flag to specify that you want to convert a folder to the UNIX From format. You must specify the current name of the folder followed by a new name for the folder as follows:

   ```
   % mailcv -f inbox Inbox
   ```

   This example creates a new folder called `Inbox.` If a new folder name is not specified, a new folder is created using the name of the current folder followed by the extension `.mbe.`

   If the folder you are converting contains subfolders, the subfolders are not converted. Use the steps described to convert each folder or subfolder.

10.1.2.3 Using Flags to Control Mail Conversion

The `mailcv` command offers several command flags that you can use when converting mail folders and directories. The flags are described in detail in the `mailcv` reference page.

Using the `mailcv` command, you can specify flags to:

- Stops the conversion of a folder if a corrupted message is found. A message is corrupted if it is missing one of the primary RFC 822 headers that include: From, Date, and Reply-To. An error message is displayed indicating the number and folder name of the corrupted message and no further messages are copied into the folder.

- Delete `MH/dxmail` folders and messages after they have been converted. However, if the folder contains other messages not in MH format, the folder is not deleted.
- Skip over any corrupt messages and continue with the conversion of messages that have the correct mail headers.
- Write to standard output the folder and message number that is being converted.

10.1.2.4 Converting Corrupt Mail Messages

If you do not use the `mailcv` utility with the flags that handle corrupted messages, the messages headers are converted as follows:

- From field is set to `USER@UNKNOWN`
- Date field is set to `Mon, 01 Jan 1976 09:00:00 -000`

10.1.3 Converting Mail Using the File Manager

The CDE File Manager provides a graphical display of directories and files. Using the CDE File Manager, you can convert the whole mail hierarchy or you can choose to convert a single folder.

Although the CDE File Manager calls the `mailcv` utility to complete the conversion, it does not provide you the option of specifying flags to detect mail header errors. To detect errors before converting your mail directories, use the `mailcv` utility's command line interface. If you do not address corrupt files, the corrupt files are converted as described in Section 10.1.2.4

10.1.3.1 Converting the Entire Mail Hierarchy

To convert the entire mail hierarchy from the CDE File Manager:

1. Start the CDE File Manager.
2. Change to the directory that contains the MH folders to be converted.
3. Point to the MH mail folder icon, then click on mouse button 3 to display the Action menu.
4. Select the Mail Convert menu item from the Action menu.

   A dialog box appears. You must enter a new pathname for the new directory hierarchy. Click OK after entering the new directory name.

After you select a new location for the directory hierarchy, the `mailcv` utility begins the conversion. Depending on the size of the mail hierarchy, the conversion may take some time. When it is complete, your mail is accessible from the CDE mail application.

10.1.3.2 Converting an Individual Folder

To convert a single folder from the CDE File Manager:

1. Start the CDE File Manager.
2. Set your path to the MH pathname where the top level mail directory is located. Use the `mhpath` command with the `+` flag if you are unsure of the location.

   Note

   To use the `mhpath` command, the MH subsets must be installed on your system.

   After setting your path, the CDE File Manager displays the Mail directories (folders). Each is represented by an icon.
3. Change to the folder that you want to convert.
4. Select the Mail Convert menu item from the Action menu.

   A dialog box appears. You must enter a new folder name for the new folder. Click OK after entering the new name.

After you select a new location for the folder, the `mailcv` utility begins the conversion. Subfolders in the folder you are converting are not converted. Depending on the size of the folder, the conversion may take some time. When it is complete, your mail is accessible from the CDE mail application.

10.2 Converting Calendar Databases

The `dxcaltodtcm` application converts a calendar database file that has been created with the `dxcalendar` application to a format that can be used by the CDE calendar application, `dtcm`.

To convert a dxcalendar database:

1. Invoke the dxcalendar command with the -migrate option.

   ```
   $ dxcalendar -migrate
   ```

   A text file called $HOME/dwc_db_migration.data is created. This file contains your calendar entries.

2. Run the CDE Calendar application, dtcm, and set the hour display to 12.

3. Invoke the dxcaltodtcm application to read the created text file and add the entries to the CDE calendar database.

The dxcalendar command is in /usr/bin/X11 and the dxcaltodtcm command is in /usr/dt/bin.

Note

Because some features of the DECwindows Calendar are not available in the CDE Calendar, some loss of information is possible in converting a calendar database. See the dxcaltodtcm reference page for a list of restrictions.

Differences in Mail Handlers A

There are differences in how the CDE mail application and the DECwindows Motif mail manage mail operations. This appendix discusses:

- Features present in the CDE mail application, but not present in the DECwindows Motif mail application
- Absence of MH features in the CDE mail application
- Differences between MH/DXmail and the CDE mail applcation

A.1 Features Available in the CDE Mail Application

This section highlights some of the features available in the CDE mail applcation that are not available in the MH/DXmail application:

- Provides minimal compliance for the Multipurpose Internet Messages Extension (MIME) standard.

  See the RFC 1521 for a description of MIME.
- Turns vacation notification on or off from within the `dtmail` application.
- Provides a Spell Checker to check spelling when composing messages.
- Supports search and substition of text when composing a message.
- Supports use of templates (composed text) that you can include in mail messages.
- Offers a Comprehensive Options dialog box that you can use to do the following:
  - Set aliases
  - Specify predefined headers during compose
  - Specify the removal of headers during read operations
  - Set message numbers

- Indent an included message during a reply operation
- Set an auto log of send messages
- Specify a top level directory for mailfolders, and others files

A.2 Features not Available in the CDE Mail Applications

The following list highlights some differences between the DECwindows Motif mail and CDE mail applications:

- User's view of folders

  The `dxmail` application provides a window that lists all available mailboxes (folders) for each user. The `dtmail` application does not provide this feature. To view mail folders under CDE, you must use the File Manager. Thus, if you maintain your mail in one directory, you can use the features of the File Manager with `dtmail` to open folders and so forth, or manage your mail directories. See the *CDE User's Guide* for information on the File Manager and using datatypes.

- Post Office Protocol (POP)

  POP consists of two components: daemon and the client. The daemon is supported by CDE Mail if the subset is installed, but the client is not.

- Personal Editors

  The `dtmail` application does not support the ability to specify an editor of your choice when composing mail.

- Modifying read messages

  The `dtmail` application does not provide the ability to modify a message when in read mode. To modify a message, forward the message to yourself. Then, in the Compose window, edit, then send the message.

- Signatures

  The `dtmail` application does not provide the ability to specify a Signature. The GECOS field specified in the `/etc/passwd` file is used instead.

A.3 Differences Between MH and the CDE Mail Applications

Unlike the `dtmail` application, the `dxmail` application uses the Rand Corporation Mail Handler (MH) to process mail. The following table lists the availability of MH attributes in the CDE mail application.

Table A-1: Differences in Mail Handlers

MH Command	Use of Command	Available in CDE Mail
alex	Extracts addresses from message headers	No
ali	Lists mail aliases	Yes
anno	Annotates messages	No
ap	Parses addresses RFC 822-style	Yes
burst	Explodes and digests into messages	No
comp	Composes a new message	Yes
conflict	Searches for alias/password conflicts	No
dist	Redistributes a message to additional addresses	Yes
dp	Parses dates RFC 822-style	Yes
folder	Sets or lists current folder/message	Yes
forw	Forwards message	Yes
inc	Incorporates new mail	Yes (reads new mail)
install-mh	Initializes the MH environment	No
mark	Marks messages	No
mhl	Produces formated listings of MH messages	No
mhmail	Sends or reads mail	Yes
mhpath	Prints full pathnames of MH messages and folders	No

Table A-1: (continued)

MH Command	Use of Command	Available in CDE Mail
msgchk	Checks for messages	Yes
msh	Starts MH shell	Not applicable
next	Shows the next message	Yes
packf	Compresses a folder into a single file	Not applicable
pick	Selects messages by content	Partially available
post	Delivers a message	Yes
prev	Shows the previous message	Yes
prompter	Prompting editor front end	No
rcvstore	Incorporates new mail asynchronously	Not applicable
refile	Files messages in different folder	Yes
repl	Replies to a message	Yes
rmf	Removes a folder	No
rmm	Removes messages	Yes
scan	Produces a scan listing that has one line per message	Yes
send	Sends a message	Yes
slocal[a]	Receives mail hooks	Yes
show	Shows (lists) messages	Yes
sortm	Sorts messages	Yes
whatnow	Prompting front-end for send	No
whom	Reports who receives a message when sent	No

a. Available only if the MH subset is installed.

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