

PARTICIPANT GUIDE

Introduction to the Common Desktop Environment



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Global Community Development
Open Gateways Program
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CHAPTER **1**

Introduction to the Solaris 8 Desktop

Objectives

The purpose of this module is to provide the learner with an understanding of their account and available window environments, and to become familiar with the CDE desktop.

Upon completion of this module, the student will be able to:

- Log in and out of an account.
- Change system password.
- Change window environments.
- Use the mouse.
- Access the CDE Front Panel, subpanels and applications.
- Activate window focus.
- Move and resize windows.
- Minimize, restore and maximize windows and icons.
- Use the Window menu.
- Use the CDE Lock control.

Getting Started

Your Account

The combination of a *user name* and *home directory* (login directory) constitutes an account.

- Your user name (login ID) identifies you to the system.
- You can choose your user name, but it must be added to the system by your system administrator.
- A home directory is created at the same time by the system administrator
- Your home directory is an area in the file system reserved for your use and control.

Your Password

Your password allows you to secure your account from unauthorized access. You are the only one who should know your password. See the section on changing your password in this module.

Your Host Name

The host name, also called machine name, system name, or workstation name, is the name given to your workstation. It usually appears before your login prompt.

Example:

traffic12 login: **traff12**

In the example, "traffic12" is the host name, and "traff12" is the user name.

Changing Your Password

Using the passwd Command

The `passwd` command changes or installs a password associated with your user ID.

When changing a password, `passwd` prompts you for the old password and then for the new one. You must supply both and the new password must be typed twice to prevent mistakes.

Effective passwords keep the computers and network secure. The most common way of breaking into a UNIX-based network like Sun's is by guessing passwords. Your proper choice and use of passwords discourage break-in attempts and make guessing much more difficult.

Select a good password

- Use at least six characters - preferably eight
- Combine letters (upper and lower case) with numbers / symbols so your password is easy to remember, yet difficult to crack. Some examples are: Hope2Day, Crazy4U, We_Relax8.
- Avoid anything that someone might guess you would use: common words, your name or nickname, birth date, social security number, pet's name, login name, any of the previous spelled backward, "popular" names such as "garfield" and "simpsons", and even common profanity.
- Never reveal your password to anyone and never write it down where others can see it.
- Change your password periodically (about every six months).

Example:

```
prompt% passwd <Return>  
passwd: Changing password for traffic12  
Old password: invisible old password <Return>  
New password: invisible new password <Return>  
Retype new password: invisible new password <Return>  
prompt%
```

Window Environments

The Common Desktop Environment (CDE) is the current window environment running on Sun workstations.

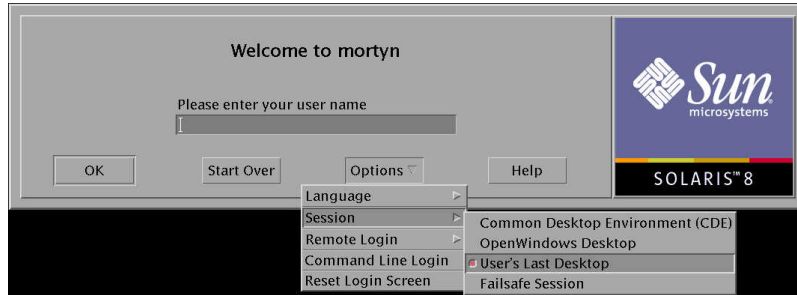


Figure 1-1 CDE Login Screen

The Login Screen indicates which desktops you can select: the CDE desktop or OpenWindows. The OpenWindows environment is being phased out. Refer to the section on logging in within this module.

The CDE Front Panel, shown below, provides controls for starting applications, indicators, and subpanels (menus). Using the Front Panel is covered in this module.

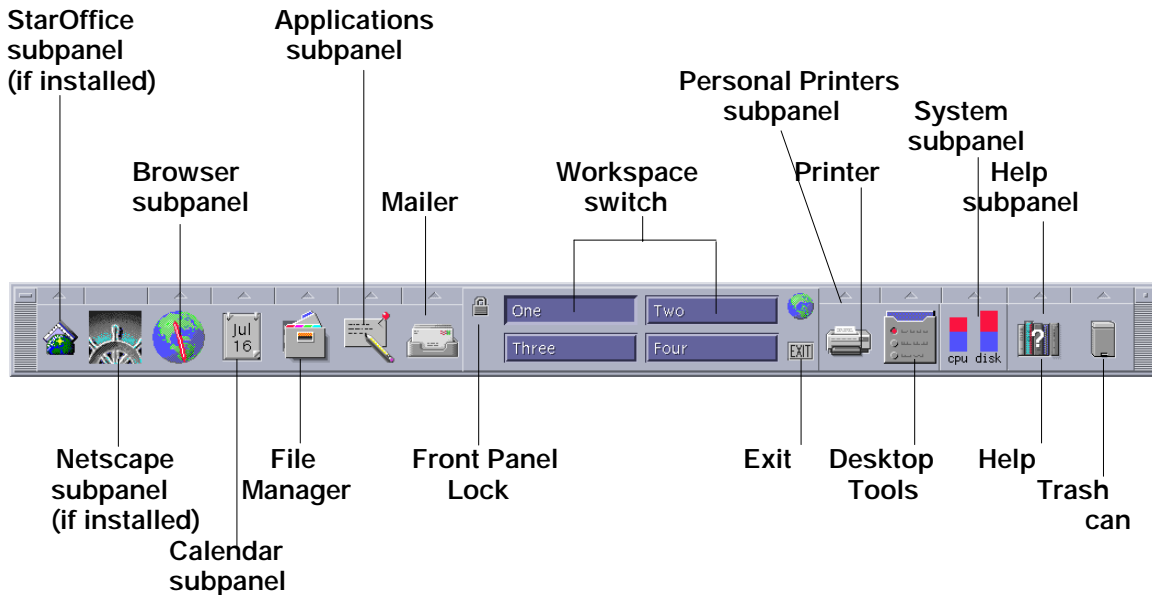


Figure 1-2 CDE Front Panel

Logging In and Out

Logging In

Logging in identifies you as a valid user and gives you access to your account on the system. The default CDE login screen welcomes you to start a standard CDE session or to choose from a menu of login options.

● *Starting a Standard CDE Session*

1. In the CDE login screen, enter your login in the user name text box, and click OK.
2. Enter your password in the subsequent window then click OK. If you make a mistake. Click the Start Over button to refresh the screen and remove any typed entry.
3. If the following window appears, choose the CDE environment and then click OK. (Note: Your system administrator may have already done this for you.)



Figure 1-3 Preliminary dialog box

Note: As the default, you will see File Manager and Help Viewer start on your screen. If you quit these tools and exit your current session, these tools will not start up again the next time you log in to a CDE session.

Logging Out and Lockscreen

Most users do not need to log out of their system each time they are finished with their work session.

Logging out is *not* required if:

- You are the only user on the workstations
- You have a standalone workstation and are not on the network.

If you are sharing a system and other people log in to your computer under their own accounts, users should log out after each work session.

Logging out *is* required if:

- Multiple users share a workstations
- Service will take place and you have received a notice to log out.
- *Logging out*

The Exit button on the Front Panel is used to log out from the CDE session.

Exit control



1. Be sure to save all work in open application windows in each workspace.
2. Click the Exit control on the Front Panel, or choose Log out from the Workspace menu.

By default, you will be asked to confirm that you want to log out.

3. Click OK or press Return to confirm log out.

Note: The current CDE session will be saved so that you can return to the same workspace windows when you next log in to a CDE session. You must however, remember to save all data in the open applications, as it will be lost when exiting from your CDE session.

Refer to Help Manager and Style Manager in the *CDE User's Guide* or on-line Help for more information on changing the default activities of the Exit button so that no confirmation is required.

Lock control



● *Locking the Display*

As exiting (logging out) from the desktop is not always required, the easiest way to prevent unauthorized use of your system when you are away from it is to lock the display (turn on lockscreen)

1. To lock your display, click the Lock control in the Front Panel.
2. To unlock your screen, type your password.

Using the Mouse

Mouse buttons are used to control objects on the workspace and in windows by moving the pointer and pressing and releasing the different mouse buttons. Each button serves a different purpose.

Mouse Buttons Identified

Mouse button 1. This button is used to select text, open icons, push buttons in panels and dialog boxes, etc.

Mouse button 2. This button extends or adjusts selections and is customizable.

Mouse button 3. This button pops up various menus depending upon where the mouse pointer is when the button is pressed.

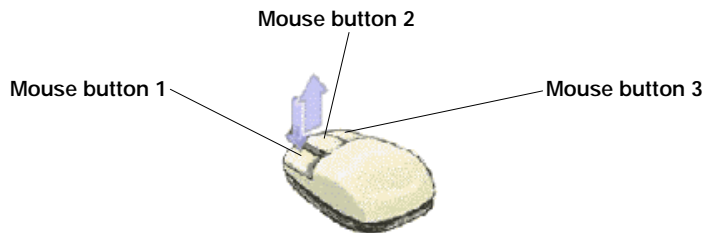


Figure 1-4 Mouse buttons identified

Mouse Button Terminology

The terminology used to describe actions performed with the mouse are as follows.

Press or Hold. Hold down the mouse button.

Release. After depressing a mouse button, release it to initiate the mouse button.

Double-click. Click twice quickly on the same mouse button without moving the mouse.

Move. Move the pointer to another area on the screen without using any mouse buttons.

Drag. Point to an object, press mouse button 1, hold it down as you move the object to its destination with the pointer, and release the button.

Working in the CDE Environment

Introduction to CDE

The Solaris Common Desktop Environment (CDE) is an interface that provides a consistent look and feel across UNIX environments. SunSoft Inc., Hewlett-Packard, IBM Corporation, and Novell Inc. each contributed to establish a new standard for user and application interfaces based on the X Window System and Motif.

The CDE environment consists of:

- **Login Manager** - A window for logging into the desktop. Available automatically after your workstation is booted.
- **Session Manager** - A service for launching your applications on the desktop at login, and "remembers" their state when you log out.
- **Window Manager** - A service that controls CDE application windows, and provides the Front Panel for launching CDE applications.

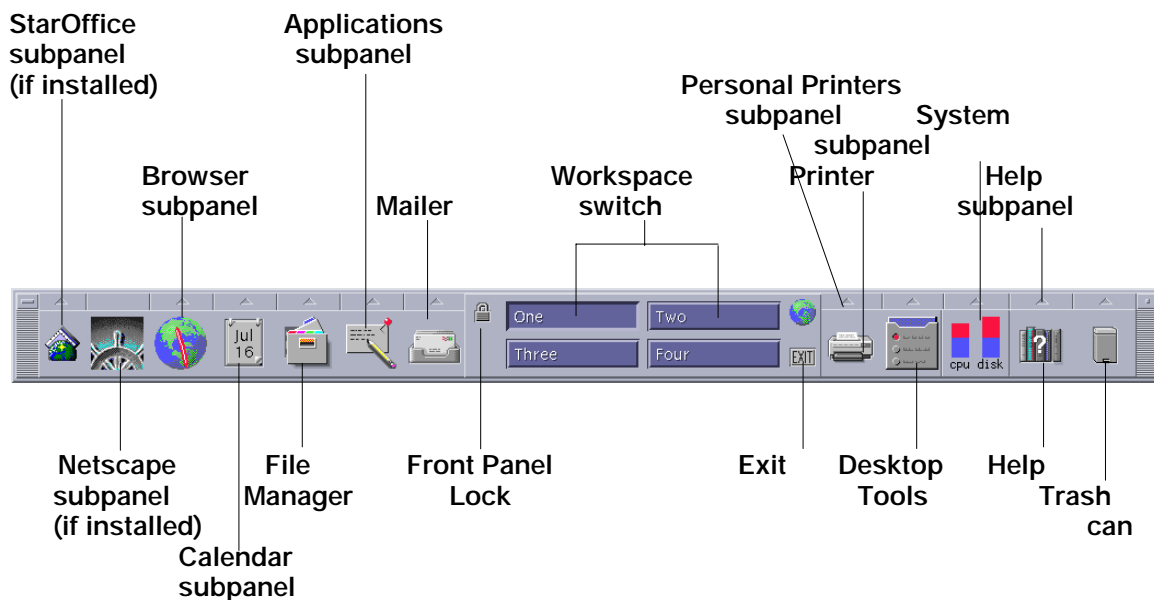
Using the Front Panel

The Front Panel window appears at the bottom of the desktop. It provides controls for starting applications, indicators, and subpanels (menus) you use in your everyday work.

The Front Panel also provides the workspace switch for selecting a workspace. Arrow buttons over the Front Panel controls identify subpanels.

In this module, you will learn how to use the following CDE tools:

- File Manager
- Text Editor
- Desktop Controls
- Online Help



Starting Applications

In CDE, there are several ways to start applications.

- Click the Front Panel Control
- Type a command in a Terminal window, accessed from the Text Editor subpanel
- Use the Workspace menu
- Use Application Manager

Using the Workspace Menu

To access the Workspace menu, click mouse button 3 on the workspace backdrop (background).

The Workspace menu includes:

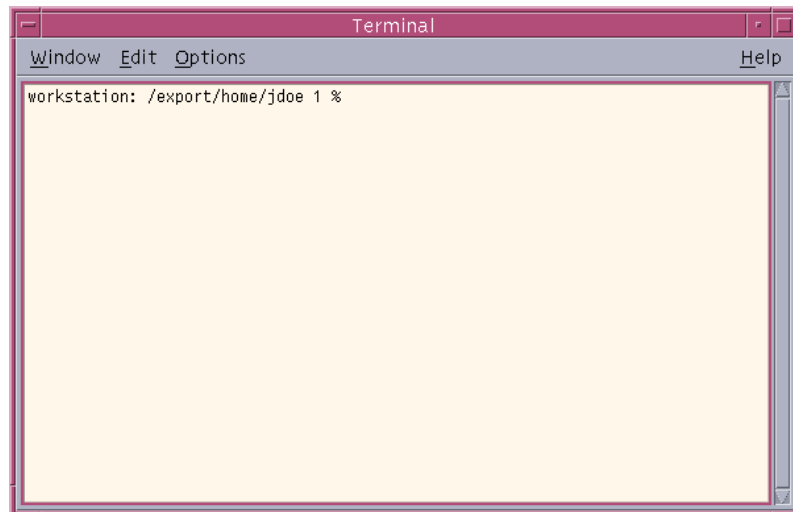
Programs	Menu of tools such as Mailer, Terminal, Calendar, etc.
Shuffle Up	Brings the bottom window forward
Shuffle Down	Puts the top window in the background
Refresh	Redraws the display
Minimize/Restore Front Panel	Turns the Front Panel into an icon or opens it from the icon
Restart Workspace Manager	Stops then restarts the Workspace Manager (typically after you have customized configuration files)
Log out	Same as Front Panel Exit control

Using a Terminal Window

The Terminal window is used to access a prompt for entering UNIX commands.

● *To start a Terminal Window*

1. With mouse button 3, click on the desktop background and from the pop-up menu choose Tools.
2. Click on Terminal in the Tools submenu.
3. Enter commands at the prompt.



Using Keyboard Accelerators

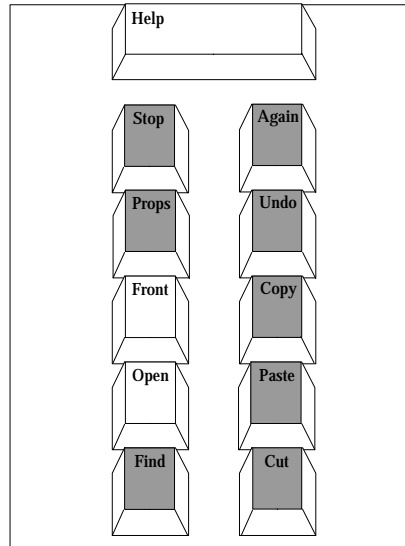


Figure 1-5 Keyboard Accelerator keys

The left Function Keys on your keyboard are labeled.

The **Front** key brings the window at the pointer location to the front of the screen. When the window is already at the front, it is moved to the back of the screen. If there are no overlapping windows, there is no change.

The **Open** key opens the icon at the pointer location, or closes the window at the pointer location.

The **Help** key opens a help window at the pointer location.

The **Cut**, **Copy**, **Paste**, **Again** and **Undo** accelerator keys are particularly helpful when working in a Text Editor window and Compose window in Mailer.

Advantages/Disadvantages - CDE Desktop

Advantages

- Standardizes the look and feel of the UNIX desktop regardless of the manufacturer.
- Integrated with other tools and applications such as OpenWindows Snapshot and StarOffice.
- Use standard keyboard accelerators within the majority of CDE applications.
- Do not need to know UNIX commands to create, move, and copy files and folders.
- Use drag and drop for many actions.
- Multiple workspaces permit better organization of your tools, applications and projects.

Disadvantages

- Learning curve to become familiar with all the tools and applications.
- Using CDE controls and subpanels is slower to move files and change directories as compared to typing UNIX commands in a Terminal window.

What You Should Have Learned

Upon completion of this module and lab, the student should have learned:

- How to log in and out of an account.
- How to change system password.
- How to change window environments.
- How to use the mouse.
- How to access the CDE Front Panel, subpanels and applications.
- How to activate window focus.
- How to move and resize windows.
- How to minimize, restore and maximize windows and icons.
- How to use the Window menu.
- How to use the CDE Lock control.

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LAB **1**

Introduction to the Solaris 8 Desktop

Lab Overview

This lab introduces the skills you must know when using the CDE Window system. A section on CDE Terminology for this module is included. Review questions follow the lab.

Basic User Skills

- Starting a standard CDE session
- Moving, minimizing and opening the Front Panel
- Activating controls and using subpanels
- Activating window focus
- Moving and resizing windows
- Minimizing, restoring and maximizing window and icons
- Using the Window menu, and closing a window
- Scrolling in a window
- Bringing a window or icon forward
- Locking the display

Intermediate User Skills

- Using tear-off menus
- Changing, adding, deleting and renaming workspaces
- Placing windows in a workspace
- Using on-line Help

Advanced User Skills

- Starting applications from the Workspace menu
- Starting applications from a Terminal window
- Customizing the desktop, login and the Front Panel
- Remote login to your regular workstation

Basic User Skills

In this section of the lab, you'll login and work with CDE windows, controls and the Front Panel.

Preliminary Steps

● *Starting a standard CDE session*

1. In the CDE login screen, enter your login in the user name text box, and click OK.
2. Enter your password in the subsequent window then click OK. If you make a mistake, click the Start Over button to refresh the screen and remove any typed entry.
3. If the following window appears, choose the **Common Desktop Environment (CDE)** and then click OK. (Note: Your system administrator may have already done so for you.)



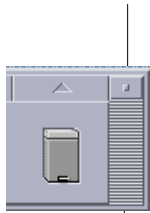
Note: As the default, you will see File Manager and Help Viewer start on your screen. If you quit these tools and exit, the next time you log into a CDE session, these tools will not start up again.

Using the CDE Front Panel

The two main elements of the Front Panel are the Main Panel and the subpanels indicated by an arrow button. The Quick Reference Card can also help you identify Front Panel controls. In the exercises below, you'll learn the basic skills for working with Front Panel controls.

● *Moving, minimizing and opening the Front Panel*

Minimize button



Move handle

1. To move the Front Panel, with mouse button 1 click and hold on the move handles located at each end of the Front Panel and drag to a different location on the desktop.

2. To minimize the Front Panel (close to an icon state), click the minimize button (small round dot) in the upper right corner of the Front Panel.

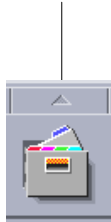
The icon is labeled with the workspace name.

3. To open the Front Panel window icon, with mouse button 1, double-click on the icon.

● *Activating controls and using subpanels*

1. To activate the Calendar control, click with mouse button 1 on the Front Panel Calendar control.

Arrow Button



2. To open the File Manager subpanel, with mouse button 1, click the arrow button above the control.

The subpanel (menu) slides up. A little later in the lab you'll learn how to add and remove desktop tools to the subpanel.

3. To move a subpanel, click and hold with mouse button 1 on the title bar and drag, just like other windows.

4. To close a subpanel, click with mouse button 1 on the Window button in the upper left corner of the subpanel and select Close.

Window menu button



Note: You may also click the Arrow button above the control to close a subpanel.

The subpanel closes automatically when you choose a control unless you have moved the subpanel from its original location.

5. Use the Window button in Calendar to close the window.

You may also double-click on the Window menu button located in the upper left corner of the window with mouse button 1 to close a window or menu.

Working with Windows and Icons

In the exercises below, you'll learn how to open, close and manipulate windows and icons, and use the Window menu. You'll be using the File Manager and Text Editor.

● *Activating window focus*

**File Manager
control**



1. Click the File Manager control to open a File Manager window.
2. Click the arrow above the Text Note control to access the subpanel.

**Text Editor
control**



3. Choose Text Editor from the subpanel to open the Text Editor window.
4. To make a window active, click with mouse button 1.

When selected, the cursor blinks, the window frame changes color and the window accepts input from your mouse or keyboard.

● *Moving and resizing windows*

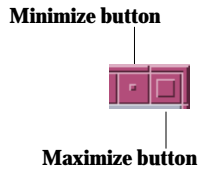
1. To move the Text Editor window, drag its title bar.
2. To resize the Text Editor window, drag its resize corner or border.



Resize corner

● *Minimizing, restoring and maximizing windows and icons*

1. To change the Text Editor window to an icon state. (minimize), click the minimize button in the upper right corner of the window.
2. To open (restore) the icon, double-click the icon.
3. To maximize the Text Editor window, click the maximize button in the upper right corner of the window to display the window in its largest allowable size.
4. Return the window to its former size by clicking the maximize button again.



● *Using the Window menu, and closing a window*

1. To access the Window menu, click the Window menu button (small rectangle) in the upper left corner of the Text Editor window.



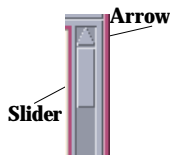
You may also use mouse button 3 on the window header bar to access the Window menu.

2. To close the Text Editor window, choose Close from the Window menu button.

● *Scrolling in a window*

Many windows include a "scrolling list." Information is provided below for scrolling in a window. There are no lab steps.

- To move up or down one line, click the appropriate arrow.
- Click above or below the rectangular slider to move up or down one screen.
- Drag the slider to move to a region of the window.



● *Bringing a window or icon forward*

1. Open another Text Editor window.
2. Click a visible part of the Text Editor window's frame, (or anywhere on an icon) to bring a window or icon to the front of other windows. You may also:
 - Use the Front key - usually located on the left side of your keyboard.
 - Bring a concealed window or icon to the foreground by choosing Shuffle Up from the Workspace menu which is discussed in the Intermediate User Skills section of this lab.
3. To send a window to the back of other windows, choose Lower from the Window menu button.

Using the CDE Lock Control

To prevent unauthorized use of your system when you are away from it, you may want to "lock the display" (turn on lockscreen).

● *Locking the display*

Lock control



1. To lock your display, click the Lock control in the Front Panel.
2. To unlock your screen, type your password and press Enter.

Please continue to the Intermediate User Skills section of this lab.

Intermediate User Skills

In this section of the lab, you'll work with tear-off menus, multiple workspaces, and on-line Help.

Using Tear-off Menus

The menus of some CDE tools may be kept anywhere on your desktop. In this exercise, you'll use a tear-off menu from the Calendar window.

Tear-off menu



● *Using tear-off menus*

1. Start a Calendar if one is not already on your desktop.
2. Click View to bring up the menu.
3. Click the dotted line at the top of the menu.

The menu stays on the desktop for continued use until such time as you decide to remove it from the desktop.

4. The menu may be closed by clicking the Window button in the upper left corner of the window.

Using Multiple Workspaces

Workspaces in CDE are like separate screens of windows that help you organize your work. A workspace named Reports could contain the tools you use to prepare reports, such as a spreadsheet, desktop publishing applications, and a graphics package. In the exercise below, you'll change workspaces, add a window to a workspace, and rename the workspace.

● *Changing and renaming workspaces*

1. Open the Calendar tool if one is not already on your desktop.

In a moment, you'll put the Calendar tool in more than one workspace.



Workspace Two

2. To display another workspace, click the workspace's button in the Front Panel - for example, workspace Two.
3. To rename this workspace, click the same workspace Front Panel button (workspace Two) with mouse button 3 and select Rename from the menu.
4. Type your first name in the text field and press Return.

Thus far, you have the Calendar tool in workspace One. Now, let's put the window in workspace Three.

● *Placing windows in a workspace*

1. Return to the original workspace where Calendar is on the desktop.
2. In the open Calendar window, from the Window menu, choose Occupy Workspace and select one or more workspaces from the dialog box.

Window menu button



Note: Hold down Shift while you select multiple contiguous workstation names, or hold down Control to select multiple discontinuous names.

3. Click OK in the dialog box.
4. Change to the various workspaces to see the Calendar tool in each workspace.

● *Removing a workspace*

1. Point to the workspace button with your name (the workspace you want to remove).
2. Press mouse button 3 and choose Delete from the control's pop-up menu.
If you remove a workspace that contains windows, those windows are not moved to another workspace.

● *Adding a workspace*

1. Press mouse button 3 in the workspace area, and choose Add Workspace from the menu.
2. Rename the workspace.
3. In the main workspace you have been working in, close the Text Editor and Terminal windows. It is not necessary to save the file.

Referencing On-line Help

Help Manager is a special help volume that lists all the on-line Help registered on your system. In the exercise below, you'll learn how to access Help Manager, choose a topic from the topic tree, navigate Help, and print a Help topic.

● *Opening, browsing, and navigating Help*

Help Manager
control



1. To open Help Manager, click the Help control on the Front Panel to display the top level of Help Manager.

The Welcome to Help Manager screen appears. The topic tree is shown in the top portion of the Help window.

2. Choose Overview and Basic Desktop Skills to browse this topic.
3. Select the topic Introducing the Desktop Skills to browse this topic
4. Select the topic How to Get Help.

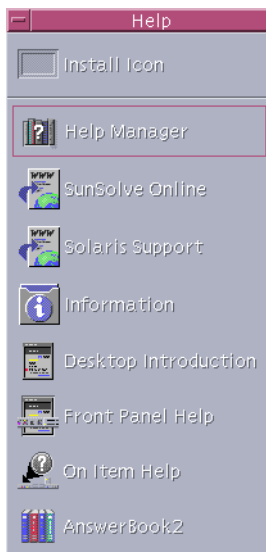
In the dialog box under the topic Getting Help, you will see topics: Help Key, Help Menu and Help Button.

5. Select one of the topics. The display area in the bottom portion of the Help window changes according to the topic selected.
6. Select a topic in the bottom portion of the display.
7. Now use the Backtrack, History, and Top Level buttons to move between Help topics.

● *Printing Help topics*

1. To print a Help topic, from the File menu, choose Print to display the dialog box.
2. In the Printer text area, type the name of the printer.
3. Select Current Topic, and click Print.
4. For now, use the Window menu button in the main window to close the Help Viewer.

In the exercise below, you'll learn how to access help for working with the Front Panel subpanels and controls by using Front Panel Help and On Item Help.



Help Subpanel

● *Accessing Help from the Front Panel*

1. Click the arrow above the Help control to pop-up the subpanel.
2. Drag it to the side of the desktop.
3. Choose Desktop Introduction from the subpanel.
4. Choose Glossary to view the on-line CDE glossary.

Now let's use the On Item Help feature.

5. To get On Item Help on a Front Panel control, choose On Item Help on the Help Manager control subpanel.
6. Move the question mark pointer to the control for which you want help - for example, the lock control, and click mouse button 1.
7. WAIT for the Help window to appear with a description of the Front Panel Lock control.
8. For now, close all the Help windows.

Most applications, including Help Manager, have a Help menu for requesting specific kinds of help. In this next exercise, you'll learn about the Help menu while working in a Terminal window.



● *Accessing and using an application's Help menu*

1. Open a Calendar window if one is not already open on your desktop.
2. Click the Help menu item in the upper right corner of the window. Standard menu items and application-specific menu items appear on the menu.
3. Choose Overview to display introductory information about the application and WAIT for the window to open.
4. In the Calendar window, from the Help menu, choose Tasks to display instructions for using the application.

Other Calendar Help menu items include:

- Choose Reference to display summary information about application components.
 - To use On Item help within the application, choose On Item from the menu, and click the question mark pointer on an icon on the toolbar to display the description.
 - The Using Help menu item displays information about using Help.
 - The About Calendar menu item displays version and copyright information about the application.
5. Close the Help subpanel, Help and Calendar windows.

Please continue to the Advanced User Skills section of this lab.

Advanced User Skills

In this section of the lab, you'll start applications from other than the Front Panel, customize the desktop, login and Front Panel.

Starting Applications

In the exercise below, you'll learn other ways to start desktop applications other than from the Main Panel or subpanels.

● *Starting applications from the Workspace menu*

1. To start applications from the Workspace menu, press and hold mouse button 3 anywhere in the workspace to pop-up the menu.
2. Choose Tools and an application from the submenu- for example, Terminal.

● *Starting applications from a Terminal window*

1. To start applications from a Terminal window, enter the command at the prompt- for example, to start the Netscape application, type:

netscape& <Return>
2. Close the Netscape application and Terminal windows.

Customizing the Desktop

In CDE, Style Manager is used to customize the desktop. In this exercise, you'll use the Window, Backdrop, and Font controls.

1. To access these controls, start Desktop Controls from the Front Panel.

● *Changing window behavior*

1. Double click on Window Style Manager to open the Window control. This action will also open a Style Manager window providing access to the same controls.

2. Choose Point In Window To Make Active.

This option will make the window active when the mouse pointer is in the window.

3. Click OK.

4. In the subsequent dialog box, click OK.

5. Click Exit on the Front Panel to log out.

6. Type your password to log back in.

7. Now move the mouse pointer to a Terminal window to see that it is no longer necessary to click in the window to make it active.

● *Changing screen backdrop (background)*

1. To change the backdrop pattern of a workspace, click on Backdrop in the Style Manager window to open the Backdrop control.

2. Choose a backdrop from the scrolling list and click OK. The change is effective immediately.

■ *Customizing fonts for new windows.*

1. To change font size and font group for titles, menu bars, window labels, and text, click on Font in the Style Manager window to open the Font control.
2. Click 4 in the scrolling list, then click OK.
3. In the subsequent Notice dialog box, click OK.
4. Start a new Terminal window and look at the difference in the point size of the text.

Customizing Login

Whenever you are logged into the desktop, you are working in a *current session*. By default, when you log out, the desktop saves your current session and restores it the next time you log in.

You can also save a *home session*, a session you want to be able to return to regardless of what you do during the current session.

In this exercise, you'll customize your login.

■ *Changing how your next session starts*

1. To change how your next session starts, click to open the Startup control, select the settings you want, and click OK.

Note: To define a new home session based on your current session, select Set Home Session.

If you have never set a home session, the system default session is used when you select Return to Home session. Choose the Ask Me at Logout setting if you want to decide what your next session will be at logout time.

2. Close the Style Manager window.

Note: If the Command Line Login option is chosen, you must press the Return key within ten seconds of making the choice, otherwise the CDE login screen will restart.

Customizing the Front Panel

In this exercise, you'll put a subpanel control in the Front Panel, add an OpenWindows application to a subpanel, plus add and remove subpanels.

● *Placing a subpanel control in the Front Panel*

1. Click the arrow to open the Text Note subpanel-Applications.
2. Point (don't click) to the Text Editor subpanel control.
3. Press mouse button 3 and choose Promote to Front Panel from the control's pop-up menu.

The Text Editor control appears on the Front Panel.

Note: Controls are never deleted from the Front Panel. Simply repeat the above procedure to replace one control with another control.

4. Keep the Applications subpanel on your desktop

Next, you'll use Application Manager which is a container for applications and other desktop tools - such as OpenWindows applications.

● *Adding and removing an OpenWindows application on a subpanel*

Application
Manager
control



1. Start the Application Manager by placing the pointer on Applications and press mouse button 1.
2. In the Application Manger window double-click to open the OpenWindows folder.
3. Drag the OW File Manager to the Install Icon on the Applications subpanel.

The OW File Manager appears on the subpanel.

4. To delete the OW File Manager from the Application subpanel, place the pointer on the icon, press mouse button 3 and choose Delete from the pop-up menu.

Review Questions

1. What CDE control is used for lockscreen?

2. Correctly name the 3 mouse buttons.

3. What CDE control provides access to a command line interface with prompt? _____

4. Define *Close* in CDE terminology.

5. How do you discern a "tear-off menu" from other menus?

6. When is using multiple workspaces advantageous?

7. Identify the differences between using Help Manager and using the Help menu. _____

8. What is the name of the CDE control used to customize the desktop?

9. What control is used to customize login?

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CHAPTER **2**

File Manager

Objectives

The purpose of this module is to introduce the learner to the CDE tool, File Manager, and the concepts related to maintaining and organizing files.

Upon completion of this module, the student will be able to:

- Describe directories and files.
- Use file naming conventions.
- Identify file types.
- Identify the home folder.
- Change folders.
- Create files and folders.
- Move and copy files and folders.
- Delete files and folders to the Trash Can.

About the File Manager

File Manager provides you with a graphical display of the UNIX file system. You can use it to find, copy, move, open, close, delete, undelete and print files

The File Manager displays icons that represent directories, data files and applications. You can select and operate on these icons within the File Manager either by dragging and dropping, or using cut, copy and paste. In addition, you can reorganize your file system by moving or copying files between folders, create new files and print existing files. File Manager may also be used to link files and transfer files to other machines.

Icons representing folders may be dragged out of the File Manager window onto the desktop for easy drag and drop between folders. Files and folders may be dragged directly to the Trash Can control on the Front Panel.

Solaris File System

Organizing Data

The file system organizes data similar to the way a file cabinet does, in a hierarchical structure.

- Directories are like file drawers.
- Subdirectories are similar to folders.
- Files are equivalent to the contents of the folders, the pieces of paper.

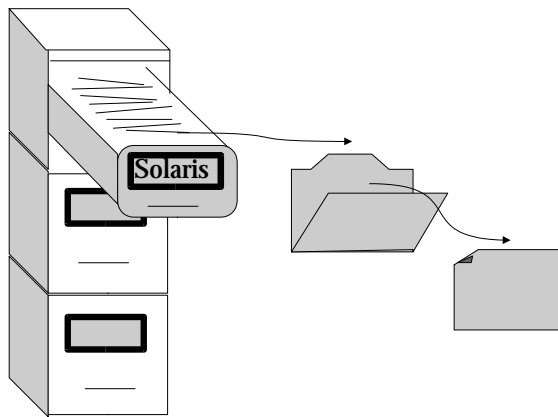


Figure 2-1 Similarity of Solaris file system and file cabinet

Directory Naming Conventions

- Alpha Characters: *A-Z* and *a-z*
Solaris is a case sensitive operating system. The directories *memos* and *Memos* are seen as two distinct directories by the system.
- Numeric: *0-9*
- Special Characters: *_*, *.*, *%*, *+*, *-*, *=*, *#*, *@*, *^*, *:* etc.

As a general guideline, users should avoid using special characters when creating new folder names, because unexpected results may occur.

Note: It is *recommended* that only the "*_*" (underscore) and "*.*" (period) be used if a special character is desired.

Examples of legal directory names:

Budget	Staff	budget.93
Memo_3	sched.q1	Equip-forecastFinal+
Equip-forecast	Final	

Examples of illegal directory names:

>1987	1987 1988	-Equip-Forecast
\$Forecast	Final&	Staff* Fsct&Final

File Naming Conventions

- Alpha Characters: *A-Z* and *a-z*

Solaris is a case sensitive operating system. The files *sched.q1* and *sched.Q1* are seen as two distinct files by the system.

- Numeric: *0-9*

- Special Characters: *_*, *.*, *%*, *+*, *-*, *=*, *#*, *@*, *^*, *:* etc.

As a general guideline, users should avoid using special characters and spaces when creating new file names, because unexpected results may occur.

Note: It is *recommended* that only the "*_*" (underscore) and "*.*" (period) be used if a special character is desired.

Examples of legal file names:

budget.2090	sched.q1	staff.rpt
dept.goals	Equip-forecastFinal+	

Examples of illegal directory names:

q1<q2	>1987	a_priority?
\$revenue.q4	-action /mgt&staff/	

Suffices

A suffix is included with many file names to help identify the type of file. A list of these suffices include:

.sdc	StarOffice spreadsheet	.txt	ASCII text
.sdw	StarOffice word	.ps	PostScript
.sda	StarOffice drawing	.tar	tape archive
.sdd	StarOffice presentation	.au	audio
.pdf	portable document format		
.Z	compressed		

File Naming Conventions

All files are either executable or non-executable. Executable files are understood by the system, and non-executable files are understood by people or an application program.

Executable Files

Each executable file is of a specific type. Some of the most common are:

- Application Program
- C Program
- Shell Script

Non-executable Files

Each non-executable file can contain a different kind of data. Some of the most common are:

- ASCII text
- Application Program Specific data
- Audio data

ASCII Text Files

ASCII stands for "American Standard Code for Information Interchange" (pronounced as'-key). This code was developed jointly by equipment manufacturers and users to simplify and standardize machine-to-machine and system-to-system communications. The common text editors used on a Sun workstation to alter or view an ASCII file are "vi" and "Text Editor".

Application Program Specific Files

Application Program Specific data files are understood by the application program which created them. Examples are:

- StarOffice files
- Microsoft Office files

Raster File

A raster file is a standard bit-mapped image which can be altered and displayed by various Application Programs or UNIX commands. A 1-bitplane image can have two colors (usually black and white), and an 8-bit plane image can have 256 colors.

Audio File

An audio file is a standard 8-bit audio sample which can be heard on a SPARC workstation; and can be created, altered, or played using various application programs.

Advantages/Disadvantages - File Manager

Advantages

- Integrated with other CDE tools.
- Use standard keyboard accelerators.
- Do not need to know UNIX commands to create, move, and copy files and folders.
- Use drag and drop for many actions.
- Use the Trash Can control on the Front Panel for simple disposal of unneeded files and folders
- Use multiple windows to simultaneously view the contents of different folders which is helpful when copying and moving files.

Disadvantages

- Cannot view every single file on your system at a glance.
- Cannot drag and drop files and folders on the icon path.
- Using CDE controls and subpanels is slower to move files and change directories as compared to typing UNIX commands in a Terminal window.

What You Should Have Learned

Upon completion of this module and lab, the student should have learned:

- How to describe directories and files.
- How to use file naming conventions.
- How to identify file types.
- How to identify the home folder.
- How to change folders.
- How to create files and folders.
- How to move and copy files and folders.
- How to delete files and folders to the Trash Can.

LAB **2**

File Manager

Lab Overview

This lab introduces the skills you must know when using the CDE File Manager. Complete all sections of the lab in order - Basic, Intermediate and Advanced exercises. Review questions follow the lab.

Basic User Skills

- Identifying file types
- Identifying the home folder
- Changing to other folders
- Creating folders and files
- Using drag and drop in File Manager
- Printing a file
- Copying and moving folders and files
- Deleting folders and files
- Using folder and file icons in the workspace

Intermediate User Skills

- Renaming folders and files
- Setting View options
- Using Selected menu items

Advanced User Skills

- Linking folders and files
- Finding folders and files

Basic User Skills

In this section of the lab, you'll identify file types, change to other folders, create and delete files and folders, and use drag and drop.

Starting File Manager



● *Starting File Manager*

1. Click the File Manager control to open the window.

The window opens automatically to your home directory. From that folder, you can move to other folders, both up and down in the hierarchy.

Identifying File Types

● *Identifying folders, data files, and executable files*

1. Directories are indicated by icons which look like folders. Do you have one or more directories showing on your screen?

_____ yes _____ no

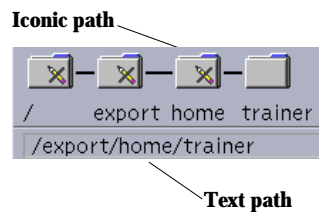
2. Data files such as documents, graphic files, and spreadsheet files are displayed as sheets of paper with lines simulating text. Do you have a data file showing in your home directory?

_____ yes _____ no

3. Application icons are executable files whose icon includes a lightning bolt. Do you have an executable file showing in your home directory?

_____ yes _____ no

● *Identifying your home folder*



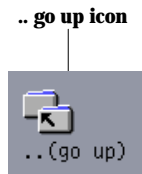
1. Look at the row of folder icons (also called directories) immediately below the menu items at the top of the File Manager window. All of these folder icons represent the *pathname* to your "home" directory (in this example, trainer is the "home" directory).

● *Changing to another folder*

1. With mouse button 1, double-click on a folder icon.

Notice that the folder icon is now located at the end of the path, following your home directory.

● *Changing to the parent and home folders*



1. To change to the parent folder, choose Go Up from the File menu, or double-click the ..(go up) icon in the object viewing area.

The parent folder is the folder *above* the folder in which you are currently working.

You may also click the Folder name in the text path to change to a parent or other folder.

2. To quickly change to the home folder, choose Go Home from the File menu.

● *Changing to another folder using Go To*

1. From the File menu, choose Go To to open the window.
2. In the Destination Folder text type the following replacing *<folder_name>* with the name of a folder located in your home directory.

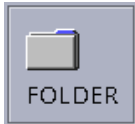
~/<folder_name>

3. Click OK.
The window disappears and you are changed to the correct directory.

Creating Folders and Files

In this exercise, you'll create folder and files.

● *Creating folders and files*



1. From the File menu, choose New Folder.
2. In the New Folder Name text box, type:

ClassFolder

The name of this folder begins with a capital letter to make identifying it as a folder easier. Files begin with a lower case letter, identifying them as files. UNIX does **not** allow spaces in a file name or directory name. If you need to separate two words in the file or directory name, use the underscore (`_`).

3. Click Apply.

Repeat steps 1 and 2 to create a folder named **Labs** and click OK.

Next, let's create a new file named `classfile`.

4. From the File Menu, choose New File.
5. In the New File Name text area type:

classfile

Notice the standard UNIX naming convention of using lowercase letters for naming files is followed.

6. Click OK.

● *Adding text and saving the file*

1. Double-click the icon to open `classfile`.

A Text Editor window opens. Notice the name of the file appears in the header bar of the window.



2. With the pointer inside the large white pane of the Text Editor window, type:

This document is being created in a Text Editor window.

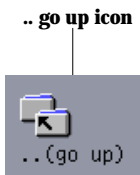
3. From the File menu, choose Save.
4. From the File menu, choose Close.
5. Open the same Text Editor file again (`classfile`) to see the text you entered earlier, then close the window.

Using Drag and Drop in File Manager

You may drag and drop files in File Manager to a subdirectory or parent folder, to the Printer control on the Front Panel, and to copy file and folders.

● *Drag and drop a file to a subdirectory or parent folder*

1. To drag and drop a file into a subdirectory folder, place the mouse pointer on the `classfile` icon and using mouse button 1, click and hold while you drag the file on top of the `ClassFolder` icon.
2. Change to the `ClassFolder` folder by placing the mouse pointer on the folder icon and double-clicking mouse button 1. You should see that the file has been moved.
3. To move the `classfile` file to the parent folder, drag the icon on top of the `..(go up)` icon.
4. Change to the parent directory to see the file.



Printer control



● *Printing a file*

1. Drag the `classfile` from the File Manager to the Printer control on the Front Panel.
2. In the Print window, type the *classroom printer name* in the Printer text area.
3. Click Print. The dialog box disappears.

Note: With the file selected (highlighted), you may also choose Print from the Selected menu in File Manager.

● *Copying folders and files*

Using the Control key when you drag and drop *copies* a file.

1. Press the Control key, then drag the `classfile` icon to the `ClassFolder` icon.

Note: Make sure you release the mouse button **before** you release the Control key, otherwise, the file will be *moved* rather than copied.

2. Using the Control key again, copy the `ClassFolder` directory to the `Labs` directory.

Note: To cancel a drag in progress, press the Esc (Escape) button on the keyboard before releasing the mouse button.

3. Change to the `Labs` directory to see the folder has been copied.

Deleting Folders and files

In this exercise, you'll learn several ways to put folders and files into the Trash Can, put back a file and delete a folder or file permanently.

● *Putting folders and files into the Trash Can*

1. Click to open the ClassFolder directory.
2. Drag the `classfile` icon onto the Trash Can control on the Front Panel.

Note: You may also select a folder or file icon, then choose Put in Trash from the File Manager Selected menu.

● *Putting back a folder or file from the Trash Can*

1. Click to open the Trash Can window on the Front Panel.
2. Drag the same file from the Trash Can window back to the ClassFolder directory in File Manager.

Note: You may also select a folder or file icon, then choose Put back from the Trash Can File menu.

Files are not actually removed from the file system until the trash is "emptied." You can only change your mind and *restore* a file you've put in the Trash Can if the Trash Can hasn't been emptied.

The Trash Can control on the Front Panel is a drag-and-drop zone and need not be open to collect folders and files.

● *Deleting a folder and file permanently*

1. Drag the `classfile` to the Trash Can for the final time.
2. With the `classfile` icon selected, choose Shred from the File menu.

Trash Can control



3. Click OK in the confirmation dialog box.

Note: Shredded files can not be recovered unless you have a backup mechanism.

4. Close the Trash Can window.

Using Folder and File Icons on the Workspace

Dropping an icon on the workspace/desktop creates a *reference* to the dropped item. This procedure is often used when files and directories that are several levels deep need to be relocated to another directory. Rather than starting two File Manager windows, you drag files and directories onto the workspace temporarily while you change to another directory.

In this exercise, you'll drag a file from the `Labs` directory on your desktop to your home directory in the main File Manager window.

1. Change to the *Labs* directory.
2. Create a new folder named **Lab_2**.
3. Change to the *Lab_2* folder and create a new folder named **States**.
4. Change to the *States* folder and create a new file named **california** with the following contents:

California became a state in 1850.

Create a second file named **alaska** with the following contents.

What year did Alaska become a state?

5. Change back to the *Labs* directory.
6. Drag the `Lab_2` folder to the workspace/desktop.
7. Double-click to open the *Lab_2* folder to see its contents.
8. In the original File Manager window, from the File menu, choose Go Home to return to your home directory.

9. Change to the States directory in the second File Manager window (*Lab_2*).
10. Drag the `california` file to your home directory in the main File Manager window.
11. Click the Minimize button to close the States File Manager window to an icon. *States* appears as the name of the icon.
12. Position the pointer over the `Lab_2` folder on the workspace, and using mouse button 3 choose Remove from the Workspace to remove the `Lab_2` icon from the desktop.

Please continue to the Intermediate User Skills section of this lab.

Intermediate User Skills

In this section of the lab, you'll rename folders and files, set view options and work with selected menu items.

Preliminary Steps

The following preliminary steps will put you into the correct directory in which you will create and work with files.

1. From the File menu, choose Go Home to make certain you are in your home directory.
2. From the File menu, choose New File and name it:

success

3. Double-click to open the `success` file.
4. In the Text Editor window, type the following text:

The only place where success comes before work is a dictionary.

-Vidal Sassoon

5. From the File menu, choose Save.
6. From the File menu, choose Close to close the Text Editor window.
7. In File Manager, from the File menu, create a new folder and name it:

Sayings

8. Drag the `success` file into the Sayings folder. Resize the window if necessary to easily see the folder.

Renaming Folders and Files

In the CDE File Manager, there are two ways in which to rename folders and files.

● *Renaming folders and files*

1. Select the `Sayings` folder.
2. From the Selected menu, choose Rename.
3. In the text box beneath the folder, type:

Quotations

4. Press Return.
5. Open the `Quotations` folder.
6. Click the name of the `success` file icon to change it to a text box, then type the new name:

sassoon

7. Press Return.
8. Click the `..`(go up) icon to go to the parent folder.

You should be in your home directory.

Setting View Options

In File Manager, the View menu allows you to set view options and see hidden files.

● *Setting view options*

1. From the View menu, choose Set View Options.
2. Change the Placement option to: As Placed

3. Change Representation to: By Small Icons

4. Click OK, and look for the changes in the File Manager window.

5. Drag several folders to a different spot in the File Manager window. What happens to the folder?

6. What does the Clean Up item on the View menu do?

7. Return the placement of icons to Rows and Columns.

8. Look at the footer of the File Manager window. Write in the number of items _____, and the number of hidden items _____.

9. From the View menu, choose Show Hidden Objects. How many are hidden how? _____

10. What kind of files are "hidden" and why are these files normally hidden from daily view?

11. From the View menu, choose Show Hidden Objects again to hide the files from view.

12. From the View menu, choose Set View Options.

13. Change the Show option to: By Tree, then select Folders and Files and click OK.

Using Selected Menu Items

In the following exercises, you'll work with various items from the Selected menu. Folders must be "selected" in order for these items on the menu to work.

● *Using the Selected menu*

1. The two items identified below appear on the Selected menu. On the lines provided below, identify the difference between them.

a. Open in Place

b. Open New View

2. If you want to change permissions for a particular file or folder, what menu item is used and where is it found?

Please continue to the Advanced User Skills section of this lab.

Advanced User Skills

In this section of the lab, you'll work with linked files, find folders and files and use pop-up menus.

Preliminary Steps

1. In your home directory, create a new file and name it:

fun.file

2. Open the file, and type the text as it appears:

There are soome mispeled woords in this document.

3. Save the file, and close the Text Editor window.

In a moment, you'll create a linked version of the file and place it in another directory. You'll then make a change to the file and see the result.

Linking Folders and Files

A link icon is a copy of a copy that points to the same file or folder as the original icon. Any changes you make to one file will be reflected in the other file.

Linking and unlinking a file

1. Select the `fun.file`
2. From the Selected menu, choose Copy As Link.

3. In the Destination Folder dialog box, change the destination directory to:

~/Labs/Lab_2

Note: The tilde (~) is a shortcut for all the folders in the path of your home directory, for example: /export/home/trainer

4. Change the file name to:

linked.file

5. Click OK.
6. Change to the Lab_2 directory and open the file.
7. Correct the spelling, save the file and close the Text Editor window.
8. Return to your home directory and open the original `fun.file`.

Any editing changes you make to a file with links are reflected in all folders, since there is really only one file, not multiple copies of it.

9. Close the Text Editor window.

● *Linking a folder*

1. Using the Go To dialog box from the file menu and the following path, change to the Lab_2 directory.

~/Labs/Lab_2

2. Create a new folder and name it:

Vacations

3. Click once to select the `Vacations` folder.
4. From the Selected menu, choose Copy As Link.
5. In the dialog box, specify your home directory, and click OK.

6. Change to your home directory.
7. In your home directory, use the Control key to copy the `fun.file` into the `Vacations` subdirectory.
8. Now change to the `Labs/lab_2/Vacations` directory to see a copy of the `fun.file`.

Finding Folders and Files

The Find menu option allows you to search through the file system hierarchy using search criteria such as the name of the folder or file, or in the case of a file, the contents. Wildcard characters can be used when specifying the name of a file, for example, the asterisk (*).

● *Finding folders and files*

1. From the File Manager File menu, choose Go Home to change to your home directory.
2. From the File Manager File menu, choose Find to access the window.
3. Use the `alaska` file as the search criteria and enter it into the text box. Click Find.
4. When will you get an error message indicating the file is not found?

5. In the Find window, what do the Put in Workspace and Go To options do?

Review Questions

1. In CDE, how is the parent folder displayed?

2. Using a menu, describe how to change to the home folder.

3. State when drag and drop works and does not work in CDE.

4. Identify 2 ways to use the Control key in File Manger.

5. Identify the menu on which File Manager options are found.

APPENDIX **A**

Answer Key

Lab 1: Introduction to the Desktop

1. What CDE control is used for lockscreen?

The Lock control, found on the Front Panel is used to lock the display.

2. Correctly name the 3 mouse buttons.

Mouse button 1

Mouse button 2

Mouse button 3

3. What CDE control provides access to a command line interface with prompt?

The Terminal control, found on the Workspace Menu and Tools submenu.

4. Define *Close* in CDE terminology.

In CDE terminology, "close" means to quit the tool/desktop.

5. How do you discern a "tear-off menu" from other menus?

A tear-off menu has a dotted line at the top of the menu.

6. When is using multiple workspaces advantageous?

Workspaces are like separate screens of windows that help you organize your work. One workspace could contain tools to create reports: spreadsheet, desktop publishing application, graphics package.

A second workspace could contain tools that you check periodically during the day: Mailer, Calendar, Netscape

7. Identify the differences between using Help Manager and using the Help menu.

Help Manager lists all the on-line help registered on your system. You are able to search for a topic, use an index, and click hypertext.

The Help menu is found in the upper-right corner of most applications and CDE tools. It enables you to request specific types of help including an overview about the application, tasks, table of contents, summary information about application components, and context-sensitive (on-item help).

8. What is the name of the CDE control used to customize the desktop?

Style Manager or Desktop Controls

9. What control is used to customize login?

The Startup control found in Style Manager is used to customize login.

Lab 2: File Manager

1. In CDE, how is the parent folder displayed?

The .. (go up) icon represents the parent folder, or choose Go To from the File menu.

2. Using a menu, describe how to change to the home folder.

Choose Go Home from the File menu.

3. State when drag and drop works and does not work in CDE.

Drag and drop does *not* work on minimized folder icons.

Drag and drop *does* work when dragging a Text Editor icon in File Manager to the Printer control on the Front Panel.

Dropping an icon on the workspace/desktop area creates a *reference* to the dropped item. The original icon still appears in File Manager.

4. Identify 2 ways to use the Control key in File Manger.

To copy a folder or file icon: Control + Select+ Drag + Drop

To select multiple folders/files: Click first icon with mouse button 1, hold down Control, then select additional icons.

5. Identify the menu on which File Manager options are found.

File Manager options are found on the View menu. Properties for selected files/folders are found using the Selected menu.