ELEC 301
Lab 1: UNIX Setup

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Introduction

This lab will introduce you to **OpenWindows**. Also, you will review the basics of UNIX and set up the environment for using Cadence.

Setup the UNIX environment

Step 1. Login by typing your login name and password on the workstation. If you cannot login successfully, try again or ask for help from your TA.

1.1 After you login, you will be getting in the **OpenWindows** window environment if you are a new user.

1.2 If you are not in **OpenWindows**, type "**user-setup**" at the UNIX prompt. And then choose "**openwin**" from "**win**" of Application Classes. If you don't know how to do this, ask your lab instructor.

OpenWindows

OpenWindows is Sun's network-based application environment. It provides the user with a consistent look and feel and allows users to run Solaris command shells, editors, debuggers, and DeskSet tools like FileManager, and CalendarManager, each in its own window.

When you are in **OpenWindows**, you will notice that there are some basic features. Let's take a look at them briefly one by one.

Console Window - a place to read messages and type commands.

Command Tool – a window to type commands.

File Manager – a place to work with your files graphically.

Wastebasket – a place to put unwanted files by dragging file icons to it.

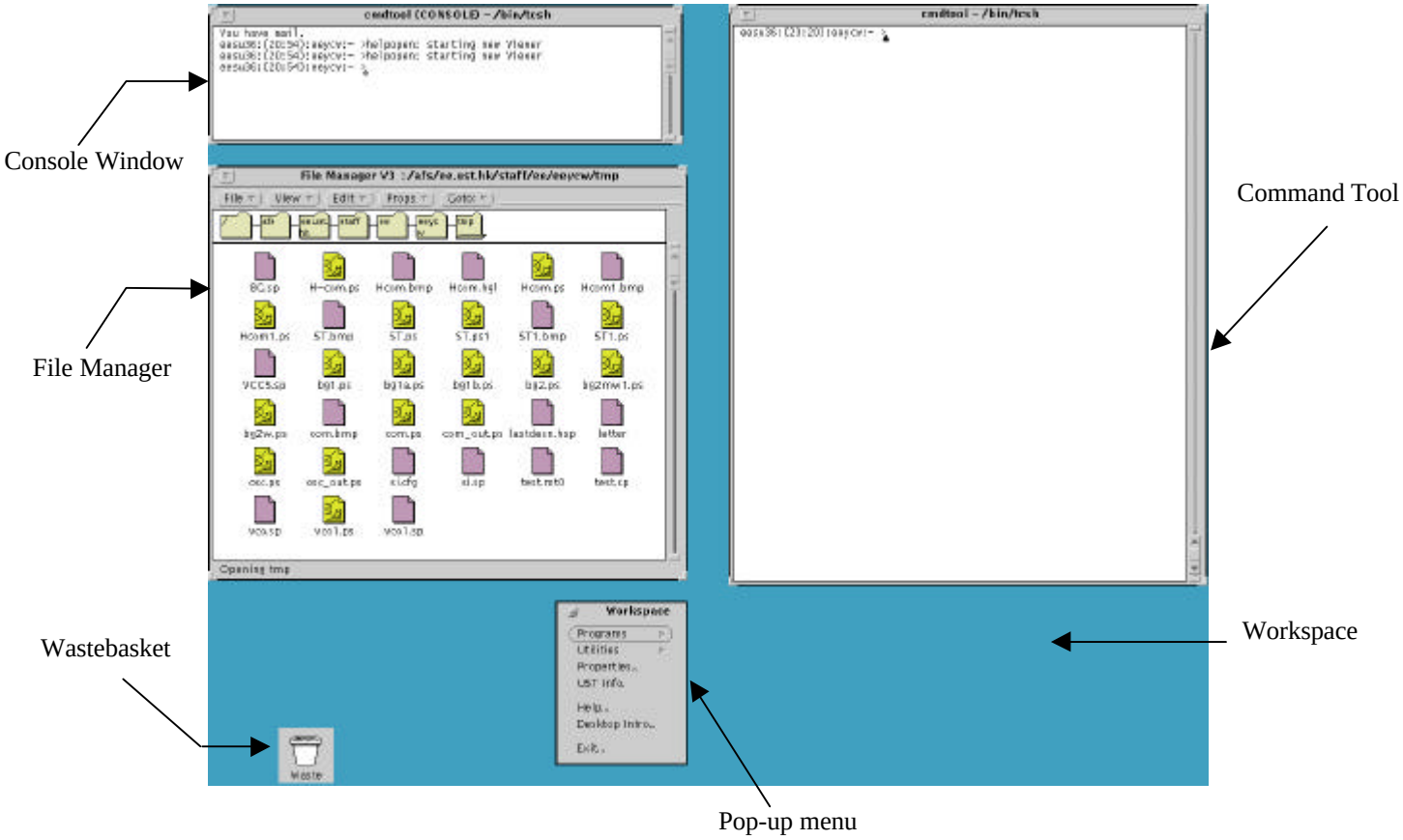
Workspace - the background screen on which windows and icons are displayed.

Pop-up menu - to call up a pop-up menu, hold down the right mouse button. At different location pointed by the mouse pointer, different menus will pop up.

Also, for all Sun's Workstations, all mouse have three mouse buttons. They have different names as shown below. The function of these three mouse buttons depends on which software you are using.

To learn more about the basics of **OpenWindows**, choose **Desktop Intro…** from the pop-up menu (on the workspace).

To quit **OpenWindows**, choose **Exit…** from the pop-up menu (on the workspace).



Basic UNIX Commands

The most common UNIX commands are listed below. Make sure that you know how to use most of them. If you are already familiar with it, you may skip it at once. The *CCST UNIX User's Guide* (http://www.ust.hk/ccst/pub/handbooks/unix.pdf) and the *UNIXhelp for Users* (http://www.ust.hk/ccst//unix/UNIXhelp1.3/Pages/) may be found useful if you need more references.

To ...	**UNIX command**
display list of files	ls
display contents of file	cat
display file with pauses	more
copy file	cp
find string in file	grep
rename file	mv
delete file	rm
delete directory	rmdir
change file protection	chmod
create directory	mkdir
change working directory	cd
get help	man
display date and time	date
display free disk space	df
Print	lpr
display print queue	lpq
remove print job	lprm
Display user's account quota	fs lq

Changing password

The initial passwords for newly created accounts are pre-assigned by the system. In order to minimize password intrusion, you are advised to change for a new ee network password before using any network services.

2.1 Login your ee UNIX account.

2.2 At the UNIX command prompt, type in "passwd" and press < Enter >.

2.3 Type in your old password after the "Old password:" prompt and press < Enter>.

2.4 Type in your new password after the "New password:" prompt and press < Enter >. (Your new password should contain 8-14 characters and the word must not be found in a dictionary.)

2.5 Retype your new password again after the "Retype new password:" prompt for verification and then press < Enter >.

2.6 Your ee network password should now be changed and you can logout from UNIX.

Auto-execute C-shell Scripts

.login
The C-shell executes the **.login** file located in the user's home directory after login. This file contains commands to be executed once at the beginning of each login session to declare type of terminal being used, setting certain terminal parameters, etc. It is set up properly when a user's account is created and **should not be modified**.

.login_user
This file is executed after the execution of the **.login**. The file can be modified if the user would like to have his/her own login startup commands.

.cshrc
The C-shell executes this file located in user's home directory each time a new C-shell is invoked, including the login C-shell. This file **should not be modified**.

.cshrc_user
This file is executed after execution of the **.cshrc**. The file can be modified if the user would like to have his/her own C-shell initialized commands. For example, set up C-shell history, path, prompt and aliases.

.logout
The C-shell executes this file in the user's home directory when he/she logs out from UNIX.

Mail Tools and Forwarding e-mails

In this course, it is very important that you read e-mails to keep in close contact of this course. There are few ways that you can read e-mails. The most common ones are:

- In **OpenWindows**, use **Mail Tool** by click on the menu **Programs -> Mail Tool…**.
- At the UNIX prompt, type **mail** for SunOS system or **mailx** for Solaris system.
- Use **PINE** by typing **pine** at the UNIX prompt.

Besides your ee account, you also have a CCST account. You may want all e-mails going to only one account. You can do that by making use of the **.forward** file.

If the **.forward** file under your home directory does not exist, then create it. Inside the **.forward** file, add the e-mail address of the account that you want all the incoming e-mails will forward to. If there are multiple entries, separate them by comma.

Setup Cadence

Step 3. This step helps you to setup your ee UNIX account in order to run Cadence tools. You need to perform these steps to modify your *.cshrc_user* file under your home directory by using a text editor. eg **vi** or **pico**.

3.1 Add the following line to your file ~/.cshrc_user,

```
source /usr/eelocal/cadence/9712/.cshrc
```

3.2 In order to use the new setup, type the following UNIX command at the UNIX prompt,

```
source ~/.cshrc
```

3.3 When you run Cadence, its default is to store all of its files in the directory that you start it up. You need to create a new directory (working directory) that will be used to keep all these files, therefore make sure that you perform this step by typing

```
mkdir cadence
```

Policy of Using Workstations

1. No remote login for the workstations.
2. Don't use the workstation other than things related to ELEC301.
3. Don't console login on more than one workstation at any time.

End of Lab