Types of Operating Systems
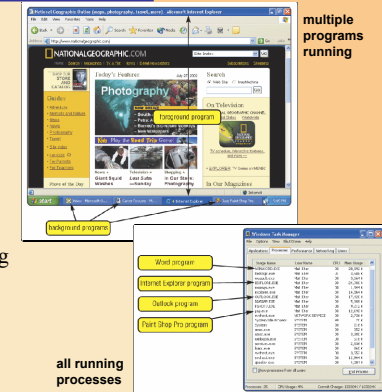
What are three categories of operating systems?

Embedded   Network

Stand-alone
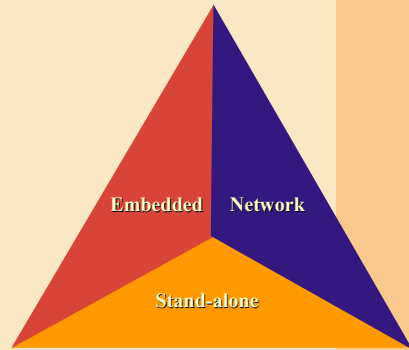
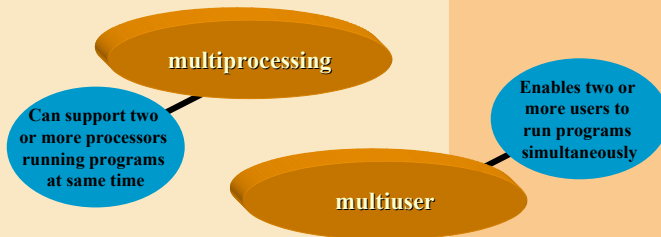## Operating System Functions

What is single user/ multitasking?

➢ **Working on two or more programs that reside in memory at same time**

- **Foreground** contains application you are using
- **Background** contains programs that are running but are not in use

multiple programs running

all running processes

Operating System Functions

What are other program management features of operating systems?

multiprocessing

Can support two or more processors running programs at same time

Enables two or more users to run programs simultaneously

multiuser

Stand-Alone Operating Systems

What is DOS (Disk Operating System)?

Developed in early 1980s for personal computers

Hardly used today because it does not offer GUI

D O S

Used command-line interface when first developed, later included menus

Stand-Alone Operating Systems

How do Windows versions compare?

| Windows Version	Year Released
Windows 3.x	1990
Windows NT 3.1	1993
Windows 95	1995
Windows NT Workstation 4.0	1996
Windows 98	1998
Windows Millennium Edition	2000
Windows 2000 Professional	2000
Windows XP	2001
Windows XP SP2	2004

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Next ▶

Stand-Alone Operating Systems

What is Windows XP?

➢ **Microsoft's current Windows operating system**

➢ **Available in five editions:
Home Edition,
Professional Edition,
Tablet PC Edition,
Media Center Edition,
and 64-bit Edition**
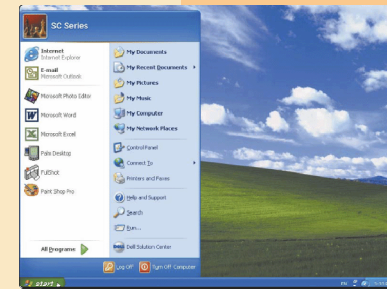
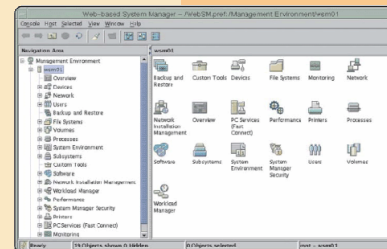## Stand-Alone Operating Systems

What is Mac OS X?

➢ **Available only for computers manufactured by Apple**
➢ **Macintosh operating system has been model for most GUIs**


Stand-Alone Operating Systems

What is UNIX?

➢ **Used by power users because of its flexibility and power**
➢ **Most versions offer GUI**
➢ **Both a stand-alone and a network operating system**

2

Stand-Alone Operating Systems

What is Linux?

➢ **Popular, free, multitasking UNIX-type operating system**

➢ **Open-source software— code is available to public**

➢ **Both a stand-alone and a network operating system**
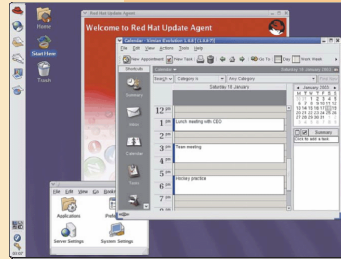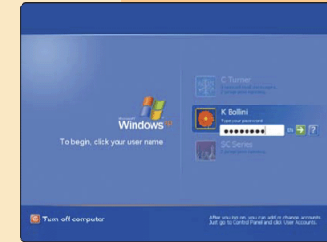
Red Hat provides a version of Linux called Red Hat Linux. The GNOME graphical user interface is shown in this example.

Operating System Functions

What is a network operating system?

➢ **Allows users to share printer, Internet access, files, and programs on a network**

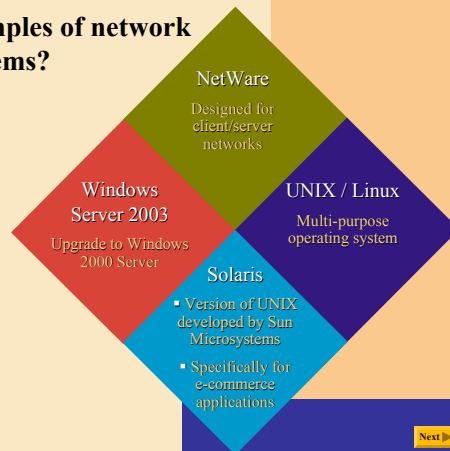➢ **Administers security by establishing user name and password for each user**

Next ▶

Network Operating Systems

What are examples of network operating systems?

NetWare
Designed for client/server networks

Windows Server 2003
Upgrade to Windows 2000 Server

UNIX / Linux
Multi-purpose operating system

Solaris
▪ Version of UNIX developed by Sun Microsystems

▪ Specifically for e-commerce applications

Click to view Web Link, click Chapter 8, Click Web Link from left navigation, then click NetWare below Chapter 8
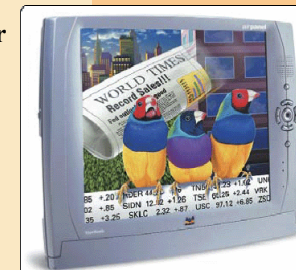
Next ▶

Embedded Operating Systems

What is an embedded operating system?

➢ **OS resides on a ROM chip**

➢ **Found on most mobile computers, PDAs, and other small devices**

➢ **Windows CE is scaled-down version of Windows**

Embedded Operating Systems

What are two operating systems for PDAs?

➤ **Windows Pocket PC 2003 or Windows Mobile for Pocket PC**

➤ **Palm OS for Palm, Visor, and CLIE**

Click to view Web Link, click Chapter 8, Click Web Link from left navigation, then click Windows Mobile below Chapter 8

Click to view Web Link, click Chapter 8, Click Web Link from left navigation, then click Palm OS below Chapter 8

p. 423 - 424 Figs. 8-31–8-32

Next ▶

Embedded Operating Systems

What is Symbian OS?

➤ **Open-source, multitasking operating system designed for smart phones**

➤ **Make telephone calls, save appointments, browse Web, send and receive e-mail and faxes, and more**

p. 425 Fig. 8-34

Next ▶

Operating Systems

What is a cross-platform application?

➤ **Runs identically on multiple operating systems**

  ▪ Operating system that computer uses is sometimes called the **platform**

```
                    Application
        /         |          |          \
Operating System/ Operating System/ Operating System/ Operating System/
Platform A        Platform B        Platform C        Platform D
```

4