

# Lesson 8

## Operating Systems

Computer Literacy BASICS: A Comprehensive Guide to IC<sup>3</sup>, 4<sup>th</sup> Edition

### Objectives

- Identify the purpose of an operating system.
- Identify different operating systems.
- Share files on different operating systems.
- Identify user rights.
- Troubleshoot common operating system problems.

### Vocabulary

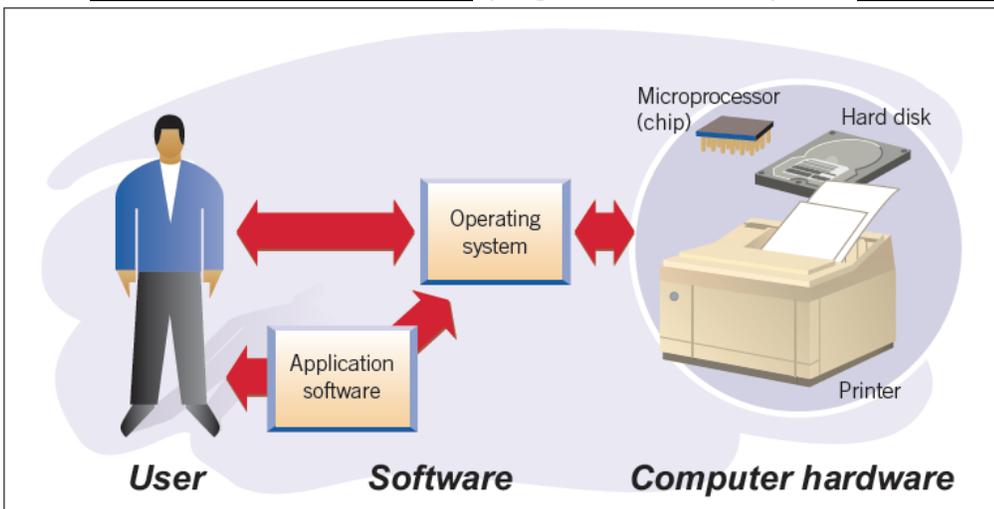
- administrative rights
- administrator account
- driver
- embedded operating system
- emulation card
- file system
- Linux
- Mac OS X
- operating system (OS)
- Palm OS
- system administrator
- UNIX
- Windows Embedded CE
- Windows Phone

### Identifying the Purpose of an Operating System

- An operating system (OS) is \_\_\_\_\_ software that enables the computer hardware to communicate and operate \_\_\_\_\_ the application software.
- Drivers are programs provided by \_\_\_\_\_ device manufacturers that the operating system uses to communicate with various \_\_\_\_\_ devices.
- The way an operating system stores files on disk is called a \_\_\_\_\_ system.

### Identifying Different Operating Systems

- An operating system provides an \_\_\_\_\_ between the user or \_\_\_\_\_ program and the computer \_\_\_\_\_.



### Personal Computer Operating Systems:

- The Windows operating system is designed to work with an Intel \_\_\_\_\_ or clone.
- The \_\_\_\_\_ operating system is called Mac OS X.
- \_\_\_\_\_ is the operating system frequently used by scientists and \_\_\_\_\_.
- \_\_\_\_\_ is a variant of UNIX.

## Handheld and Embedded Operating Systems:

- Also known as \_\_\_\_\_ operating systems, they are smaller and generally \_\_\_\_\_ capable than desktop operating systems.



## Handheld and Embedded Operating Systems

- \_\_\_\_\_ handheld and embedded operating systems include the following:
  - Android
  - Apple iOS
  - BlackBerry
  - Embedded Linux
  - Palm OS

## Sharing Files on Different Operating Systems

- In many business, \_\_\_\_\_, and educational settings, people \_\_\_\_\_ files across operating system platforms.
- One type of hardware solution is an \_\_\_\_\_ card that is added to the motherboard of a computer.

## Sharing Files on Different Operating Systems (continued)

- Rich Text Format (.rtf) documents can generally be \_\_\_\_\_ to other operating systems across a \_\_\_\_\_, to a Linux server, or to a handheld or mobile device.

## Identifying User Rights

- The system administrator is a user who has an \_\_\_\_\_ account, which is a local account or a local \_\_\_\_\_ group.
- The administrator can grant administrative \_\_\_\_\_ to other users, allowing them to make specified types of \_\_\_\_\_.

## Troubleshooting Common Operating System Problems

- **Incompatibility:** Application software and files need to be \_\_\_\_\_ with the computer's operating system.
- **File corruption:** You can use a system \_\_\_\_\_ that identifies and repairs \_\_\_\_\_ files.
- **Disk crashes:** In some instances, \_\_\_\_\_, or rebooting, the system can \_\_\_\_\_ the problem.

## Summary

In this lesson, you learned:

- An operating system is system software that enables computer hardware to communicate and operate with the application software. Without an operating system, a computer would not function because the operating system manages and coordinates the activities and resources of the computer.
- Operating systems provide a consistent way for applications to communicate with hardware without duplicating settings or learning details about the hardware. They also perform system and file maintenance tasks.
- Windows, Mac OS X, and Linux are common operating systems for personal computers.
- Handheld and embedded operating systems, also known as mobile operating systems, are similar in principle to operating systems such as Windows or Linux. These systems, however, are smaller and generally have fewer capabilities than desktop operating systems.
- To share files across operating system platforms, you can use solutions involving hardware, software, and data. For example, saving data or work files in the Rich Text Format means that most other operating systems can read the file.
- An operating system sets limitations to protect itself and the data on the computer. The operating system grants permission to you to perform some tasks but prevents you from performing others according to your user rights.
- The system administrator has unrestricted access to make system-wide changes to the computer, including those that affect other users. Without administrative rights, you cannot make changes such as system modifications, installing software, or changing network settings.
- Typical operating system problems include file incompatibility, file corruption, and disk crashes.