

## Lesson 4

### Computer Maintenance

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

## Objectives

- Identify problems that can occur if hardware is not properly maintained.
- Identify routine maintenance that can be performed by users.
- Identify maintenance that should be performed by experienced professionals.

## Vocabulary

- |                    |                      |                     |
|--------------------|----------------------|---------------------|
| • cable management | • ergonomic keyboard | • sectors           |
| • corona wires     | • fragmentation      | • seek time         |
| • cookie           | • maintenance        | • touchpad          |
| • defragmentation  | • Recycle Bin        | • wireless keyboard |

## Introduction

- There are \_\_\_\_\_ of computing if equipment is not properly maintained, but there are measures that can be taken to \_\_\_\_\_ those risks.
- The type of maintenance determines whether a \_\_\_\_\_ or you as the computer \_\_\_\_\_ should perform the maintenance tasks.

## Maintenance Issues

- A computer is no different from a car—it requires \_\_\_\_\_ maintenance.
- Managing computer \_\_\_\_\_ is an overlooked problem.
- Cable management \_\_\_\_\_ are available to organize and protect cables.

## Hardware Maintenance

- One of the best ways to cut down on computer repair is through \_\_\_\_\_ maintenance performed on a \_\_\_\_\_ schedule.
- As a general rule, you should \_\_\_\_\_ a computer every 3–6 months.
- In a \_\_\_\_\_ environment, you should clean it more often.

### Keyboard and Mouse:

- Use a can of \_\_\_\_\_ air to remove dust from the keyboard.
- Turn keyboard \_\_\_\_\_ down if you \_\_\_\_\_ liquid.
- Clean mouse \_\_\_\_\_ by removing the cover, removing \_\_\_\_\_ inside, and then reassembling the mouse.

### Inkjet Printer:

- Access self-\_\_\_\_\_ mode through printer's \_\_\_\_\_ panel or use an inkjet cleaning cartridge.
- Use a small vacuum or roller \_\_\_\_\_ sheets to clean the printer rollers.

### Laser Printer:

- Should be cleaned when print \_\_\_\_\_ deteriorates or when you change the \_\_\_\_\_ cartridge.
  - Turn \_\_\_\_\_ printer and unplug it.
  - Clean \_\_\_\_\_ the toner opening.
  - \_\_\_\_\_ paper fragments.
  - Wipe up any \_\_\_\_\_ toner and dust.
  - \_\_\_\_\_ the rollers.
  - Replace the \_\_\_\_\_ cartridge.
- \_\_\_\_\_ brush or vacuum exposed \_\_\_\_\_ wires.

## Upgrades and Consumables

- Hardware components may be \_\_\_\_\_ and need to be changed, or output and production needs to be \_\_\_\_\_. This can be enhanced by upgrading various elements.

### **Computer Memory:**

- Adding \_\_\_\_\_ to a computer generally helps \_\_\_\_\_ performance, \_\_\_\_\_, and usability.

### **Keyboards:**

- Ergonomic keyboards allow for a more \_\_\_\_\_ positioning of your \_\_\_\_\_ and hands.
- \_\_\_\_\_ keyboard reduces \_\_\_\_\_ and improves mobility.

### **Mouse:**

- A variety of mouse devices are available, including \_\_\_\_\_, optical, \_\_\_\_\_, and combinations.
- Touchpads can be used instead of a mouse. They \_\_\_\_\_ the position of your \_\_\_\_\_ and move the pointer accordingly.

## **Preventative Maintenance**

- You should run \_\_\_\_\_ following a routine maintenance schedule so that the computer can run \_\_\_\_\_ and more efficiently.

### **Disk Defragmentation:**

- Occurs when a piece of data is \_\_\_\_\_ up into many pieces that are \_\_\_\_\_ stored close together.
- The sectors are stored in \_\_\_\_\_ of nonadjacent \_\_\_\_\_, thus creating fragmented files.
- Disk \_\_\_\_\_ time is one of the more time-consuming elements in a computer's performance and can significantly \_\_\_\_\_ the speed of the processing cycle.
- Windows contains a defragmentation utility that \_\_\_\_\_ the amount of fragmentation by physically \_\_\_\_\_ the contents of the disk to store the pieces of each file contiguously.

### **Recycle Bin:**

- The Windows Recycle Bin is a \_\_\_\_\_ area for files and folders before their final \_\_\_\_\_ from a storage device.
- Right-click the Recycle Bin icon to \_\_\_\_\_ the contents.
- Right-click an item to \_\_\_\_\_ commands to restore, cut, delete, or display properties.

### **Temporary Files:**

- Created for three reasons:
  - To \_\_\_\_\_ memory for other programs
  - To act as a \_\_\_\_\_ net to prevent data loss
  - For printing
- Use Disk Cleanup utility to delete \_\_\_\_\_ files and other files that are \_\_\_\_\_ needed.

### **Cookies:**

- A cookie is a small \_\_\_\_\_ file that a Web site uses to identify a specific computer.
- Used to gather information; not a \_\_\_\_\_ to your computer's security.

## **Specialized Maintenance**

- Some maintenance or \_\_\_\_\_ should generally be performed by a computer professional:
  - \_\_\_\_\_ the \_\_\_\_\_ supply or opening the power supply case
  - Replacing other \_\_\_\_\_ components
  - \_\_\_\_\_ the processor
  - Replacing or \_\_\_\_\_ a hard disk
  - Replacing or adding additional RAM
  - \_\_\_\_\_, printer, scanner problems

## Summary

In this lesson, you learned:

- A computer requires maintenance on a regular schedule to prevent problems such as the degrading of the hard disk performance and monitor trouble.
- Damaged and poorly maintained cables can prevent peripheral devices from communicating with the computer. Unorganized and unprotected cables can also create safety hazards. Cable management should therefore be part of a regular computer maintenance routine.
- To maintain the computer keyboard, use a can of compressed air to remove the dust from the keyboard every six months.
- Clean a mechanical mouse by removing its bottom cover, removing debris from the roller, and then reassembling the mouse.
- Printer maintenance helps to prevent many common printing problems. Many inkjet printers have a self-cleaning mode. If yours does not, use an inkjet cleaning cartridge to flush dirt and debris out of clogged printer nozzles. Clean a laser printer when you change the toner cartridge.
- Adding computer memory often provides the best value for increasing overall computer performance.
- All computers slow down as you work with them. To improve or maintain computer efficiency, periodically use Windows tools to defragment hard drives, empty the Recycle Bin, delete temporary files, and remove cookies.
- Some maintenance procedures are not suitable for the average computer user, and should be performed by a computer professional, such as replacing the power supply or opening the power supply case, replacing other electrical components, including the processor and RAM, and adding an internal hard disk.