System Software
System Utilities: Housekeeping Tools

• System utilities (utility programs)
  o Software programs—essential to effective management of the computer system
  o Perform tasks such as:
    • Backing up files
    • Providing antivirus protection
    • Searching for and managing files
    • Compressing files
    • Providing accessibility utilities to individuals with special needs
System Utilities: Housekeeping Tools

- **Backup software**—copies data found on the hard disk to a backup device
  - **Full backups**—include all files and data
  - **Incremental backups**—include only those files changed or added since the previous backup
  - **Drive imaging software**—creates a mirror image of the entire hard drive
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Location of Backup and Restore utility

Storage medium for the backup
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• **Antivirus software**—protects the computer from viruses
  
  o Popular antivirus programs:
    • BitDefender Antivirus
    • Kaspersky Anti-virus
    • Webroot AntiVirus with SpySweeper
    • Norton AntiVirus
    • ESET Nod32 Antivirus
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• Searching for and managing files
  o **File manager**—utility software that organizes and manages data
    • Copy files
    • Determine how and where files are stored
    • Delete files
  o **Search utility**—enables you to locate files
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Enter the description of your search into the Search box located at the bottom of the Start menu.

The Save Search tool can save frequently used searches.

Search results begin to appear as soon as you start to type.

In the Search Results window, your search string appears in the upper right corner.
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• Scanning and defragmenting disks
  o **Disk scanning programs**—find and resolve disk file storage problems
    • **Bad sector**—irregularity on the disk’s surface that renders a portion of the disk unable to store data reliably
  o **Disk cleanup utilities**—remove unnecessary files to save space
  o **Fragmented disk**—results from computer creating and erasing files on hard disk
    • Causes disk access to slow while system looks in several locations to find all file segments
  o **Disk defragmentation programs**—reorganize stored data in a more efficient manner
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• **File compression utilities**
  - Decrease the size of files, resulting in faster downloads
  - Create **archives** by storing files in a special format

![Compressed document](image)

Notice the difference in file size.

![Original document](image)
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- **Accessibility utilities**
  - Designed to make computing easier for individuals with special needs
    - Magnifier
    - On-screen keyboard
    - Speech recognition
    - Narrator
System Utilities: Housekeeping Tools

• **Systems update**
  - **Windows Update** for Windows 7 and Vista automatically downloads and installs updates.
  - Includes service packs, version upgrades, and security updates.
System Utilities: Housekeeping Tools

- **Safe mode**
  - Windows loads a minimal set of drivers known to function correctly
  - Use Control Panel to discover devices that are causing the problem