Discovering Computers
Technology in a World of Computers, Mobile Devices, and the Internet

Chapter 4

Programs and Apps

Objectives Overview

Identify the general categories of programs and apps	Describe how an operating system interacts with applications and hardware	Differentiate among the ways you can acquire programs and apps

Identify key features of productivity applications	Identify the key features of graphics and multimedia applications

See Page 152
for Detailed Objectives

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Objectives Overview

Identify the uses of personal interest applications	Identify the purpose of software used in communications
Identify the key features of security tools	Identify the key features of file and disk management tools

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Programs and Apps

- A **program**, or **software**, consists of a series of related instructions, organized for a common purpose, that tells the computer what tasks to perform and how to perform them
- An **application**, or **app**, sometimes called application software, consists of programs designed to make users more productive and/or assist them with personal tasks
- An operating system is a set of programs that coordinates all the activities among computer or mobile device hardware
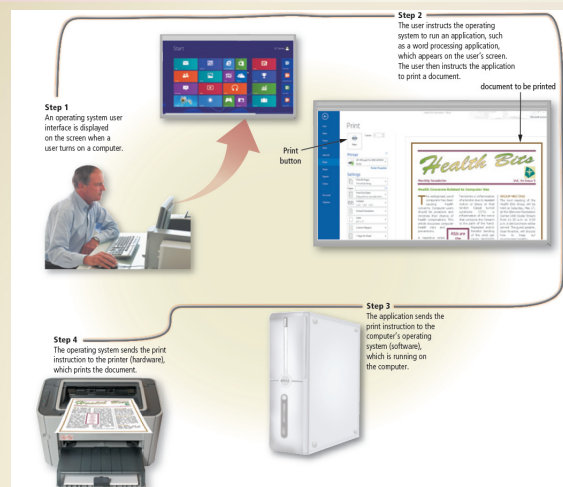 – System software

Programs and Apps

Table 4-1	Programs and Apps by Category	
Category	**Types of Programs and Apps**	
Productivity (Business and Personal)	• Word Processing • Presentation • Spreadsheet • Database • Note Taking • Calendar and Contact Management • Project Management	• Accounting • Personal Finance • Legal • Tax Preparation • Document Management • Support Services • Enterprise Computing
Graphics and Media	• Computer-Aided Design (CAD) • Desktop Publishing • Paint/Image Editing • Photo Editing and Photo Management • Clip Art/Image Gallery	• Video and Audio Editing • Multimedia and Website Authoring • Media Player • Disc Burning
Personal Interest	• Lifestyle • Medical • Entertainment • Convenience • Education	
Communications	• Blogging • Browser • Chat Room • Discussion Forum • Email • FTP	• Instant Messaging • VoIP • Videoconference • Web Feeds • Wireless Messaging
Security	• Personal Firewall • Antivirus • Malware Removers • Internet Filters	
File and Disk Management	• File Manager • Search • Image Viewer • Uninstaller • Disk Cleanup	• Disk Defragmenter • Screen Saver • File Compression • PC Maintenance • Backup and Restore

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Programs and Apps

Step 1
An operating system user interface is displayed on the screen when a user turns on a computer.

Step 2
The user instructs the operating system to run an application, such as a word processing application, which appears on the user's screen. The user then instructs the application to print a document.

document to be printed

Print button

Step 3
The application sends the print instruction to the computer's operating system (software), which is running on the computer.

Step 4
The operating system sends the print instruction to the printer (hardware), which prints the document.

Programs and Apps

- Software is available in a variety of forms:

Retail	Custom	Web app
Mobile app	Mobile web app	Open source
Shareware	Freeware	Public domain

Programs and Apps

- Productivity applications can assist you in becoming more effective and efficient while performing daily activities at work, school, and home

Word processing	Presentation	Spreadsheet	Database	Note taking
Calendar and contact management	Project management	Accounting	Personal finance	Legal
Tax preparation	Document management	Support services	Enterprise computing	

Productivity Applications

- With productivity applications, users often:

Create a project	Edit a project	Format a project	Save a project	Distribute a project

Productivity Applications

- **Word processing software** allows users to create and manipulate documents
- **Clip art** is a collection of drawings, photos, and other images

document is displayed in window

image

printed document
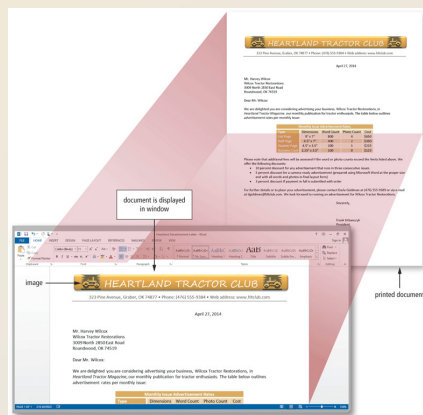
Productivity Applications

- **Presentation software** allows users to create visual aids for presentations to communicate ideas, messages, and other information to a group
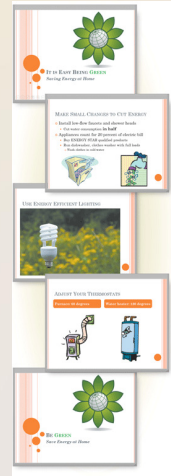
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Productivity Applications

- **Spreadsheet software** allows users to organize data in rows and columns and perform calculations

Productivity Applications

- A **database** is a collection of data organized in a manner that allows access, retrieval, and use of that data
  - **Database software** allows users to create, access, and manage a database

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Productivity Applications

- **Note taking software** is an application that enables users to enter typed text, handwritten comments, drawings, or sketches anywhere on a page
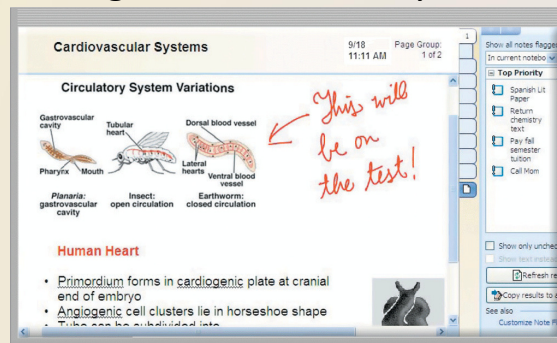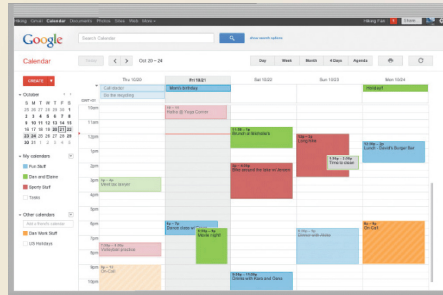
Productivity Applications

- **Calendar and contact management software** is an application that helps you organize your calendar, keep track of contacts, and share this information with other devices or users
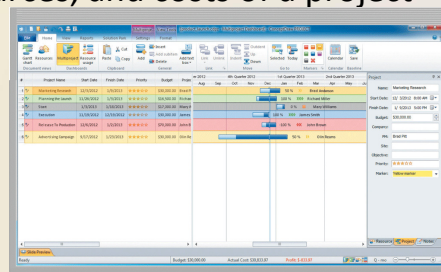
Productivity Applications

- A **software suite** is a collection of individual programs available together as a unit
- **Project management software** is an application that allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project
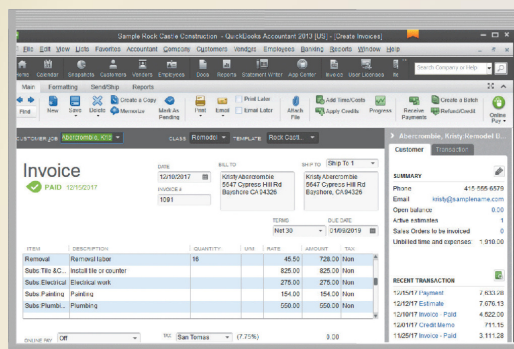
Productivity Applications

- **Accounting software** is an application that helps businesses of all sizes record and report their financial transactions
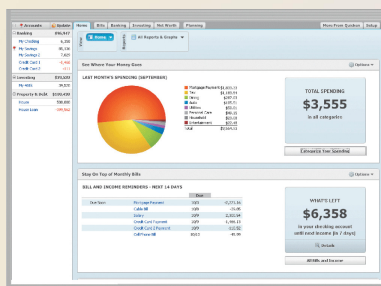
Productivity Applications

- **Personal finance software** is a simplified accounting application that helps home users and small/home office users balance their checkbooks, pay bills, track personal income and expenses, verify account balances, transfer funds, track investments, and evaluate financial plans

Productivity Applications

- **Legal software** is an application that assists in the preparation of legal documents and provides legal information to individuals, families, and small businesses

Productivity Applications

- **Tax preparation software** is an application that can guide individuals, families, or small businesses through the process of filing federal taxes

Productivity Applications

- **Document management software** is an application that provides a means for sharing, distributing, and searching through documents by converting them into a format that can be viewed by any user
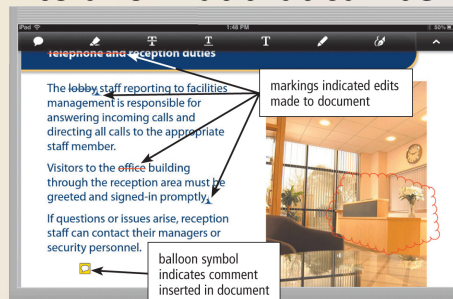
markings indicated edits made to document

balloon symbol indicates comment inserted in document

Productivity Applications

- A variety of desktop, mobile, and web apps provide a service intended to make business or personal tasks easier to accomplish

Reference applications	Travel applications	Retail applications

Productivity Applications

- A large organization, commonly referred to as an enterprise, requires special computing solutions because of its size and geographic distribution

Human resources software	Accounting software	Engineering or product development software	Manufacturing software	Marketing software
Sales software	Distribution software	Customer service software	Software for information technology staff	

Graphics and Media Software

Computer-aided design (CAD) software

Desktop publishing software

Paint/Image editing software

Graphics and Media Software

Photo editing software

Clip Art / Image Gallery

Video and audio editing software

Graphics and Media Software

- **Multimedia authoring software** allows users to combine text, graphics, audio, video, and animation in an interactive application
- **Website authoring software** helps users of all skill levels create webpages that include graphics, video, audio, animation, and special effects with interactive content
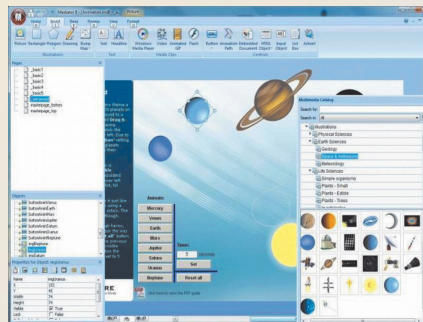
Graphics and Media Software

- A **media player** is a program that allows you to view images and animations, listen to audio, and watch video files on your computer or mobile device
- **Disc burning software** writes text, graphics, audio, and video files on a recordable or rewritable disc

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Personal Interest Applications

Lifestyle applications

Medical applications

Entertainment applications

Convenience applications

Education applications

Communications Applications

Blogging	Browsing	Chat Room	Discussion Forum
Email	FTP	Instant Messaging	Videoconference
	VoIP	Web Feeds	Wireless Messaging
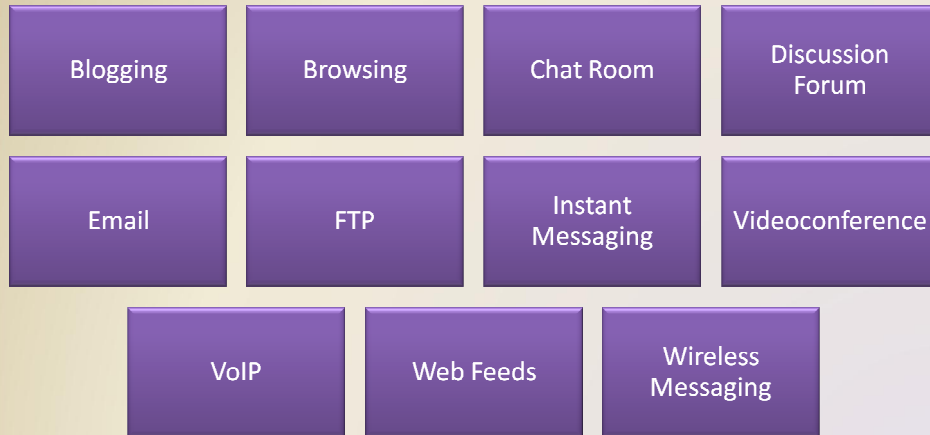
Security Tools

- A **personal firewall** is a security tool that detects and protects a personal computer and its data from unauthorized intrusions
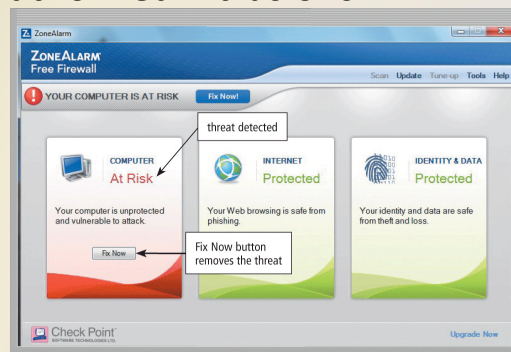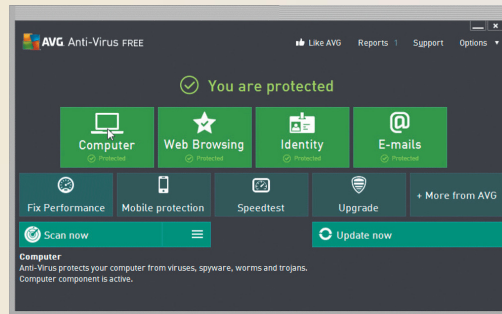
Security Tools

- An **antivirus program** protects a computer against viruses by identifying and removing any computer viruses found in memory, on storage media, or on incoming files

Security Tools

- Spyware is a program placed on a computer or mobile device without the user's knowledge that secretly collects information about the user and then communicates the information it collects to some outside source while the user is online

- Adware is a program that displays an online advertisement in a banner or pop-up window on webpages, email messages, or other Internet services

Security Tools

A **spyware remover** is a program that detects and deletes spyware and similar programs

An **adware remover** is a program that detects and deletes adware

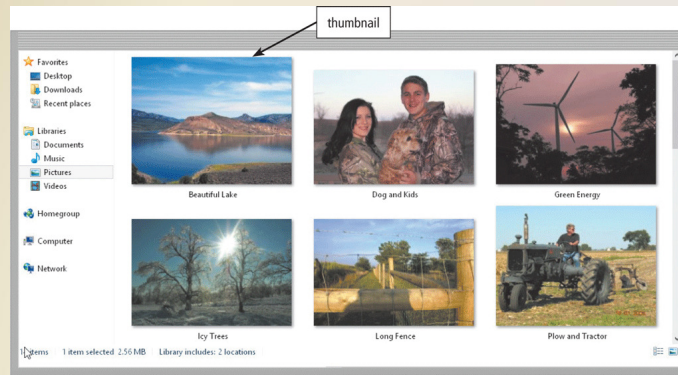## Security Tools

Internet filters

Anti-spam programs

Web filters

Phishing filters

Pop-up blockers

File and Disk Management Tools

- A **file manager** is a tool that performs functions related to file management

thumbnail
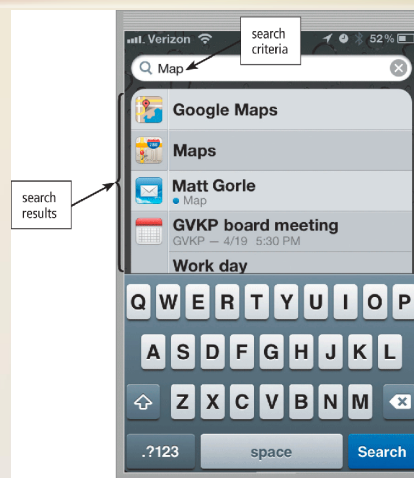

File and Disk Management Tools

- A **search tool** is a program, usually included with an operating system, that attempts to locate a file on your computer or mobile device based on criteria you specify
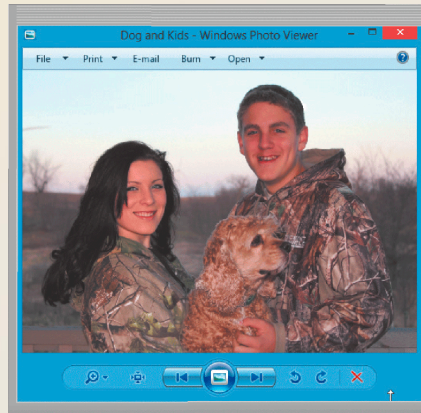

search criteria

search results

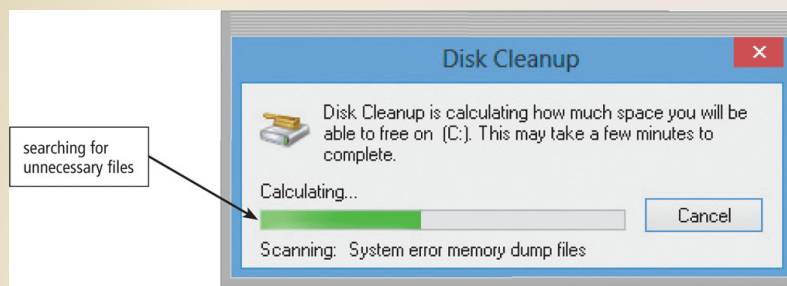# File and Disk Management Tools

- An **image viewer** is a tool that allows users to display, copy, and print the contents of a graphics file, such as a photo
- An **uninstaller** is a tool that removes a program, as well as any associated entries in the system files
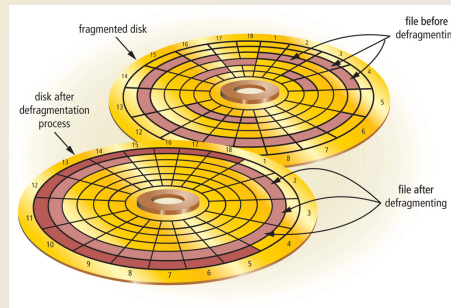

File and Disk Management Tools

- A **disk cleanup** tool searches for and removes unnecessary files

searching for unnecessary files

File and Disk Management Tools

- A **disk defragmenter** is a tool that reorganizes the files and unused space on a computer's hard disk so that the operating system accesses data more quickly and programs run faster
  - **Defragmenting**


File and Disk Management Tools

A **screen saver** is a tool that causes a display device's screen to show a moving image or blank screen if no keyboard or mouse activity occurs for a specified time

A **file compression tool** shrinks the size of a file(s)

A **PC maintenance tool** is a program that identifies and fixes operating system problems, detects and repairs disk problems, and includes the capability of improving a computer's performance

File and Disk Management Tools

- A **backup tool** allows users to copy, or back up, selected files or the contents of an entire storage medium to another storage location
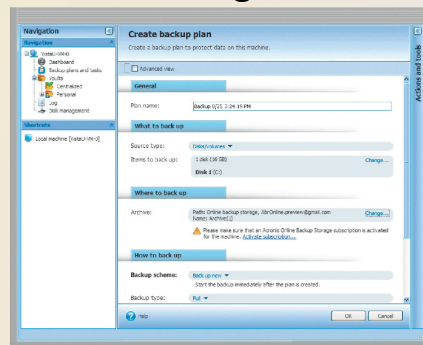
Summary

Programs and apps available for computers and mobile devices	Role of the operating system and the various ways software is distributed	Features of a variety of applications

Communications applications	Security tools and file and disk management tools

Discovering Computers

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Chapter 4

Programs and Apps

Chapter 4 Complete