Software

• A set of instructions that tells the computer what to do—**programs**
• Two main types of software
  – System software
  – Application software
System Software vs. Application Software

System Software
• Coordinates instructions between software and hardware
• Includes
  – Operating system
  – Utility programs

Application Software
• Programs used to complete tasks
• Includes
  – Productivity software
  – Specialty software
  – Entertainment software
  – Educational and reference software
  – Personal software
Application Software

- **Productivity**
  - Word processing
  - Spreadsheet
  - Presentation
  - Database
  - Personal Information Manager
  - Personal finance

- **Media**
  - Image editing
  - Audio editing
  - Video editing
  - Media management

- **Home/Entertainment**
  - Gaming
  - Education
  - Reference
  - Drawing

- **Business**
  - Home business
  - Large business
  - Specialized business
Productivity Software

Programs that enable you to perform tasks required in home, school, and business

– Word-processing programs
– Spreadsheet programs
– Presentation programs
– Database programs
– Personal information manager programs
Word-Processing Software

- Used to create and edit written documents
- Features include:
  - Quick and easy editing
  - Formatting options
  - Graphics
  - Templates
  - Wizards
- Examples:
  - Corel WordPerfect
  - Microsoft Word
  - OpenOffice Writer (free)
Spreadsheet Software

- Used to perform calculations and numerical analyses
- Features include:
  - Worksheets with cells
  - Values, formulas, and functions
  - Automatic recalculation
- Examples:
  - Lotus 1-2-3
  - Microsoft Excel
  - OpenOffice Calc
Presentation Software

- Used to create slide shows
- Features include
  - Templates and layouts
  - Different views
- Examples
  - Corel Presentations
  - Microsoft PowerPoint
  - OpenOffice Impress
Database Software

• Used as a complex electronic filing system
• Features include:
  – Ability to group, sort, and retrieve data and generate reports
  – Organized into fields, records, and tables
• Examples:
  – Corel Paradox
  – Microsoft Access
  – OpenOffice Base
Personal Information Manager Software

• Used to replace the management tools found on a traditional desk
• Features include:
  – Calendar, address book, notepad, to-do list
  – Some contain e-mail management features
• Examples:
  – Lotus Organizer
  – Microsoft Outlook
Productivity Software Tools

• Wizards
  – Step-by-step guides that help you complete a task
Productivity Software Tools

• Templates
  – Predesigned forms included with software
Productivity Software Tools

- Macros

  Small programs that group a series of commands to run as a single command
Integrated Software Applications vs. Software Suites

Integrated Application
• Single program that incorporates many software programs
• Complex features are not included
• Example: Microsoft Works

Software Suite
• Collection of stand-alone software programs packaged together

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Personal Financial Software

- Used for tax preparation and financial planning
- Examples
  - TurboTax and H&R Block’s TaxCut
  - Intuit’s Quicken and Microsoft Money
  - Web-based programs
    - Mint.com
    - Wesabe.com
Speech-Recognition Software

• Translates spoken words into typed text
• Accuracy levels of 95–99 percent can be achieved
Digital Image-Editing Software

• Used to edit photographs and other images
• Also called photo-editing software
• Features include:
  – Tools for basic modifications to digital images
  – Painting tools that allow you to create images
• Example: Adobe Photoshop
• Photo collection software
  – Google Picasa
  – Microsoft Photo Story
Digital Audio Software

- MP3: Audio compression format
- Software allows you to record, rip (copy CD to MP3), and burn (make a CD) files
- Also allows you to perform format conversion
- Audio-editing software includes tools to edit audio files
Digital Video-Editing Software

• Used to edit digital videos
• Features include
  – Special effects
  – Transitions
  – Narration/voiceover
  – Overlays
• Examples
  – Adobe Premiere
  – Microsoft Movie Maker
  – Apple iMovie
Media Management Software

• Software to organize media files
  – Sort, filter, and search by artist, album, or category
• Windows Media Player, Nullsoft Winamp, or Apple iTunes are examples
• Manage individual tracks and generate playlists
• Burn songs to CD and print liner notes
Online Photo Management

- Web-based sites allow easy management and sharing of digital photos
- Allow creation of photo albums
- Offer professional printing services
- Examples:
  - Flickr.com
  - Snapfish.com
  - Shutterfly.com
Gaming Software

• Requires:
  – Processing power
  – Memory (RAM)
  – Hard disk capacity
  – Sound card
  – Video card
  – Speakers
  – Monitor
  – CD or DVD drives
Educational and Reference Software

Educational Software
• Provides instruction or training
• Types include:
  – K-12 education
  – Skills
  – Test preparation
  – Course management
  – Simulation training

Reference Software
• Sources of reference
• Types include:
  – Atlases, dictionaries, thesauri, encyclopedias
  – Medical and legal references
Course Management Software

• Used for Web-based classes
• Features include:
  – Calendars
  – Grade books
  – Discussion boards
• Examples:
  – WebCT
  – Blackboard
  – Moodle
Drawing Software

• Used to create and edit
  – Two-dimensional drawings
  – Technical diagrams
  – Animations
  – Geometric shapes

• Also referred to as illustration software

• Examples:
  – Adobe Illustrator
  – Microsoft Visio
Accounting Software

• Helps small-business owners manage their finances
• Provides tools for tracking accounts receivable and accounts payable
• Includes templates for invoices, statements, and financial reports
• Examples:
  – Intuit QuickBooks
  – Peachtree from Sage Accounting
Desktop Publishing Software

• Used to arrange text and graphics for publications
• Features include
  – Text formatting
  – File importing
  – Graphics tools
  – Web publishing
• Examples:
  – QuarkXPress
  – Adobe InDesign (formally PageMaker)
Web Page Authoring Software

• Used to design Web pages
• Knowledge of HTML is not necessary
• Features include:
  – Wizards and templates
  – Reference materials
• Examples:
  – Microsoft Expression Web
  – Adobe Dreamweaver
• Office applications
  – Save as Web page
Common File Format: PDF

• PDF (Portable Document Format)
• Common file format avoids file-sharing problems between programs
• Create with
  – Adobe Acrobat
  – Cutepdf Writer (freeware)
  – Add-in in Office 2007, Open Office Writer, and Corel WordPerfect
Large-Business Software

• Used across a variety of industries
• Includes:
  – Business and marketing plan software
  – Project management software
  – Customer relationship management (CRM) software
  – Enterprise resource planning (ERP) system
  – Mapping programs
Specialized Business Software

• Tailored to the needs of a particular company or industry
• Called vertical market software
• Proprietary software
  – Programs custom-developed to address the specific needs of a particular company
  – Software is then owned by that company
Computer-Aided Design Software

• Used to create 3-D automated designs, technical drawings, and model visualizations

• Industrial use includes:
  – Architecture
  – Automotive
  – Aerospace
  – Medical engineering
  – Manufacturing
  – CAD/CAM
Getting Help with Software

• Types of help
  – Frequently asked questions (FAQs)
  – Online help and support
  – ScreenTips
  – MS Office integrated help

Click the question mark to open the Microsoft Word Help window.

Help is available offline from information stored on your computer or from online reference materials.
Software Licenses

• You buy a license, not the software itself.
• Check license for
  – Ultimate owner of software
  – Number of installations allowed per license
  – Per computer, per user, or per family (Apple)?
  – Warranties
• Family license or multi-user licenses may also be available.
Buying Software

• Software may be purchased
  – Through retail stores
  – Online—from creator or broker
  – At computer shows
  – Through catalogs

• Preinstalled software

• Web-based application software
  – Hosted on a Web site
  – Requires no installation on your computer

• Discounted software
Freeware and Shareware

• Freeware: Copyrighted software you can get free
• Beta versions: Programs still under development
• Shareware: Software that allows users to run it for a limited time free of charge
• Open source: free to use
Software Versions

- Numbers are used to represent major and minor upgrades.
  - Major upgrade: Version 2.0
  - Minor upgrade: Version 2.1

- Years (Microsoft Office 2007) and letters (WordPerfect Office X3) are also used.
System Requirements

• Minimum standards for the operating system, RAM, and hard-drive capacity

Sample Minimum System Requirements

Microsoft Windows® 2000 SP4/XP SP2/Vista SP1.
  Pentium® II 233 MHz processor or faster.
  128 MB RAM (256 MB for XP or Vista).
  265 MB free hard disk space.
  8X CD-ROM.
  800 X 600 16-bit color video card.
  DirectX® 8.0.
  Windows-compatible mouse, speakers.
Installing/Uninstalling Software

• Installing software
  – Installation wizard
    • Automatic
    • Control Panel: Programs and Features icon
  – Full/custom installation

• Downloading software from the Web

• Uninstalling software
  – Software uninstall utility
Opening Software (to execute)

- Opening software
  - Quick Launch toolbar
  - Desktop shortcut
  - Start menu
  - Computer/Windows Explorer

- Creating shortcuts

The small arrow at the bottom left corner of the icon indicates that this is a desktop shortcut.

The Quick Launch toolbar provides quick and easy access to frequently used programs.
Can I Borrow Software That I Don’t Own?

- Loading software you don’t own is software piracy.
- 40 percent of all software is pirated.
- Check for legal licenses at
  - www.bsa.org/usa
  - www.microsoft.com/piracy