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Chapter 5

Application Software

General application software: General-purpose applications are programs used by many people to accomplish frequently performed tasks.

Productivity

- Word processing
- Spreadsheet
- Database
- Presentation
- Project management
- Personal information management


Media and Graphic

- Desktop publishing/Multimedia authoring
- Image animation creation and editing
- 3D rendering
- Audio editing
- Video editing



Internet
Based

- E-mail
- Web browsers
- Internet messaging
- Video conferencing and IP telephony
- Web-hosted applications
- Spyware, adware, pop-ups



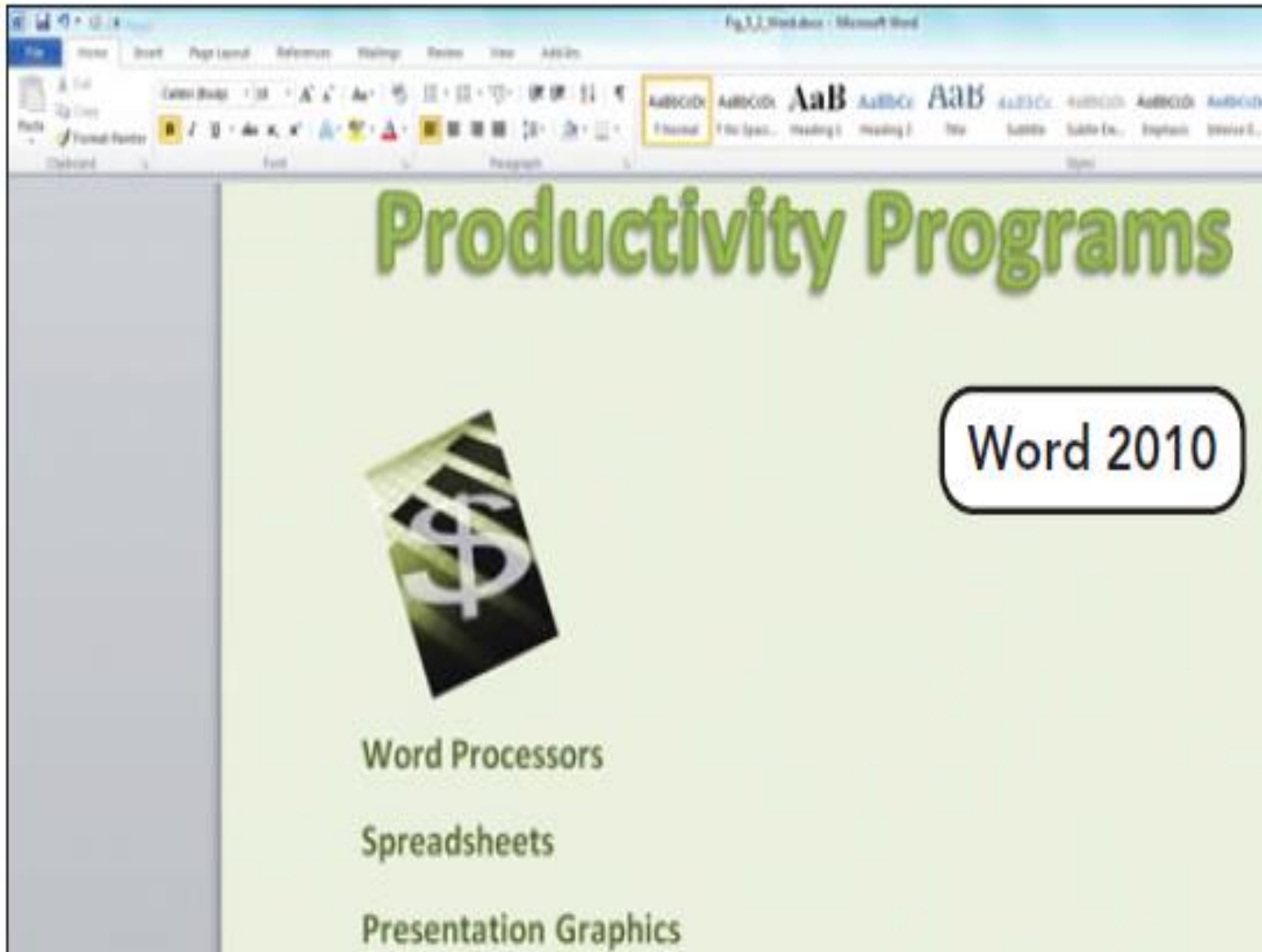
Home and
Educational

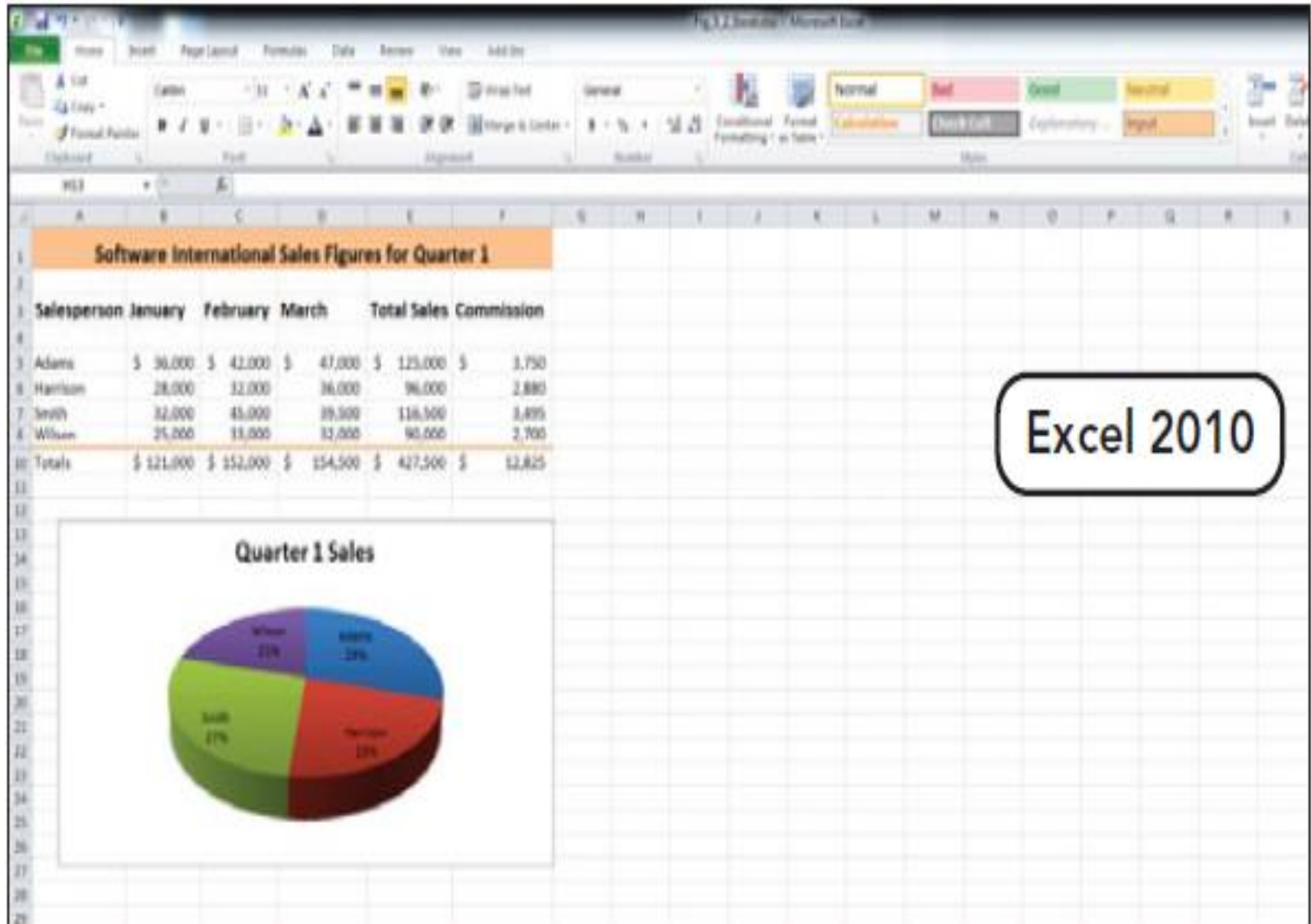
- Personal finance
- Tax preparation
- Home design and landscape design
- Computer-assisted tutorials
- Computer-assisted referencing (e.g., encyclopedias and maps)
- Games

Productivity programs: Help individuals work more efficiently and effectively on both personal and business-related documents.

Productivity Category	Example Programs	Manufacturer	Uses
Word Processing	Pages WordPerfect Documents Word	Apple Corel Google Docs Microsoft	Write, format, and print documents and reports
Spreadsheet	Numbers Quatro Pro Spreadsheets Excel	Apple Corel Google Docs Microsoft	Enter and manipulate financial data through the use of formulas
Database	FileMaker Pro and Bento Paradox Access	Apple (actually FileMaker, Inc., a subsidiary of Apple) Corel Microsoft	Manage and connect data between related tables to produce queries, reports, and forms
Presentation	Keynote Presentation Presentations PowerPoint	Apple Corel Google Docs Microsoft	Create slide shows
Project Management	Project Tenrox	Microsoft (runs on Windows XP, Windows Vista, Windows 7) Tenrox (runs on Windows XP, Windows Vista, Windows 7), Mac OS, Linux)	Manage and schedule resources among multiple projects
Personal Information Manager	Calendar Lotus Organizer Entourage Outlook Desktop	Google IBM Microsoft (for the Mac OS) Microsoft Palm (Free)	Keep e-mails, contact lists, schedules, and calendars of appointments

Microsoft Office





Access 2010

The screenshot displays the Microsoft Access 2010 interface. The main window shows a table named 'Contact List' with the following data:

ID	First Name	Last Name	E-mail Address	Business Phone	Company	Job Title
1	Ann	Harrison	harrison@education.org	(307) 335-6344	Educational Ende	Instructor
2	Marcus	Dean	Dean@marcus@friends.com		Hayes Pharmacia	Physician
3	Raymond	Fetcher	Fetcher@friends.com	(307) 335-4099	Smith Brothers A	Lawyer
4	Joseph	Fraser	Joseph_Fraser@memoworld.com	(307) 335-8026	Wally's world	Sales Manager
5	Ann	Garrison	AnnGarrison@Fsg.com		First Packaging	Sales Executive
6	Paul	Schiller	paul@strove.com	(307) 335-3267	Corner Stone	Sales Representative
7	Rachel	Hayes	Hayes_447@yahoo.com	(867) 456-7787	SDM Publishing	Editor
8	Frank	Adams	Adams_Frank@friends.com	(867) 335-3209	Sheen Agency	Head supervisor
9	Jake	Jamison	jamison_44_33@gmail.com		SDM Publishing	Editor
10	Zack	Webster	webster@friends.com	(307) 335-3345	Toys Inc	Quality Controller

Below the table, a 'Contact Details' form is open for 'Jake Jamison'. The form includes the following fields:

- First Name: jake
- Last Name: jamison
- Company: SDM Publishing
- Job Title: Editor
- E-mail: jamison_44_33@gmail.com
- Web Page: (empty)

The image shows a screenshot of the Microsoft PowerPoint 2010 application window. The title bar at the top reads "PowerPoint.ppt - Microsoft PowerPoint". The ribbon menu is visible, showing tabs for Home, Insert, Design, Transitions, Animations, Slide Show, Review, and Help. The main workspace displays a presentation slide with the following content:

Know Your Product

- Know the Features of each product being sold
 - Word
 - Excel
 - Access
 - PowerPoint
 - Outlook
- Know the needs of your customer
 - What programs are they currently using?
 - Are those programs meeting their needs?
 - Show how their needs can be meet with our products and services

Microsoft Project 2010 interface showing a Gantt chart and task list for a project named "New Product Launch.mpp".

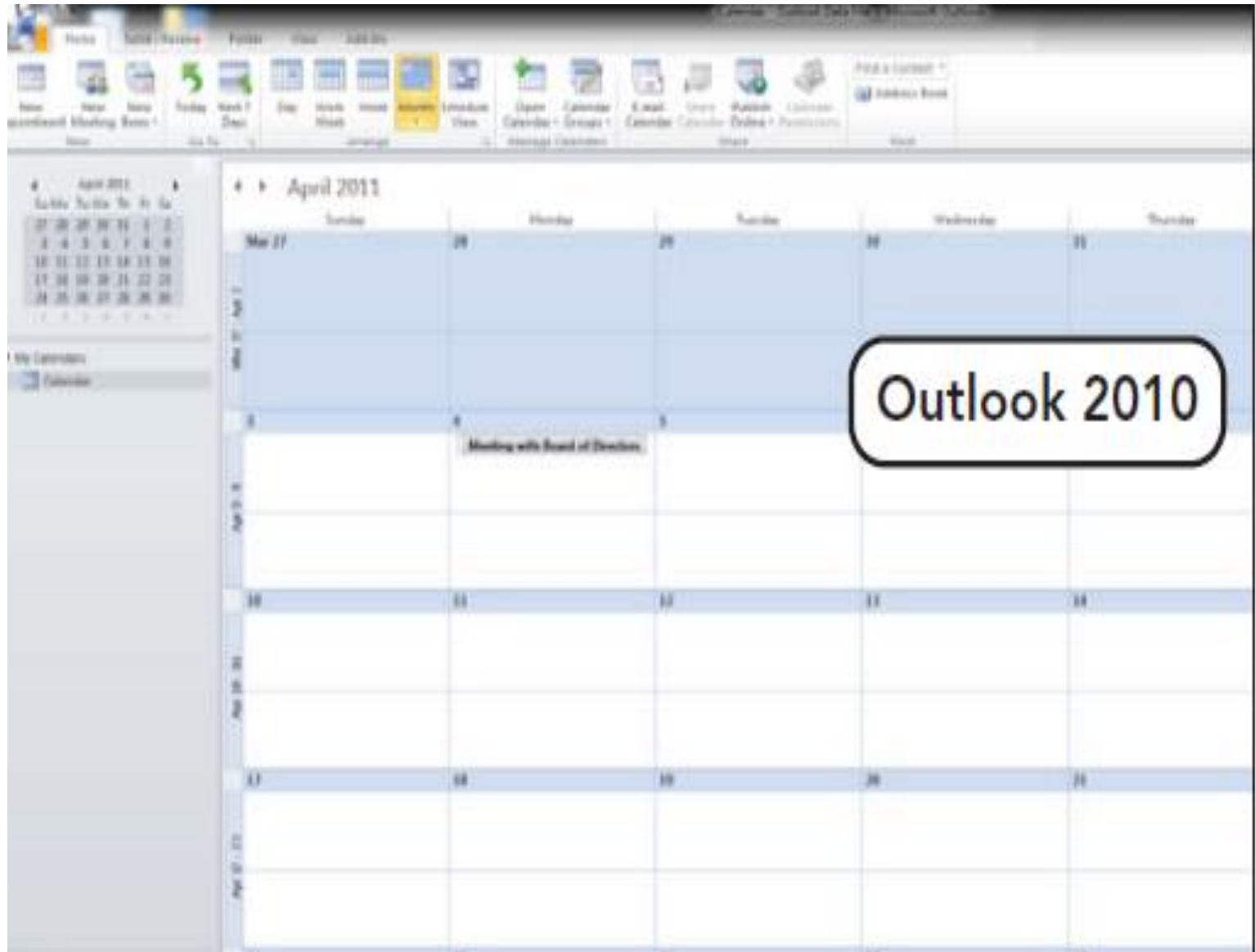
The ribbon includes: File, Task, Resource, Project, View, **Gantt Chart Tools** (Format), and Properties.

The Gantt chart shows a timeline from 2/15/10 to 2/27/10. A task bar is visible starting on 2/16/10.

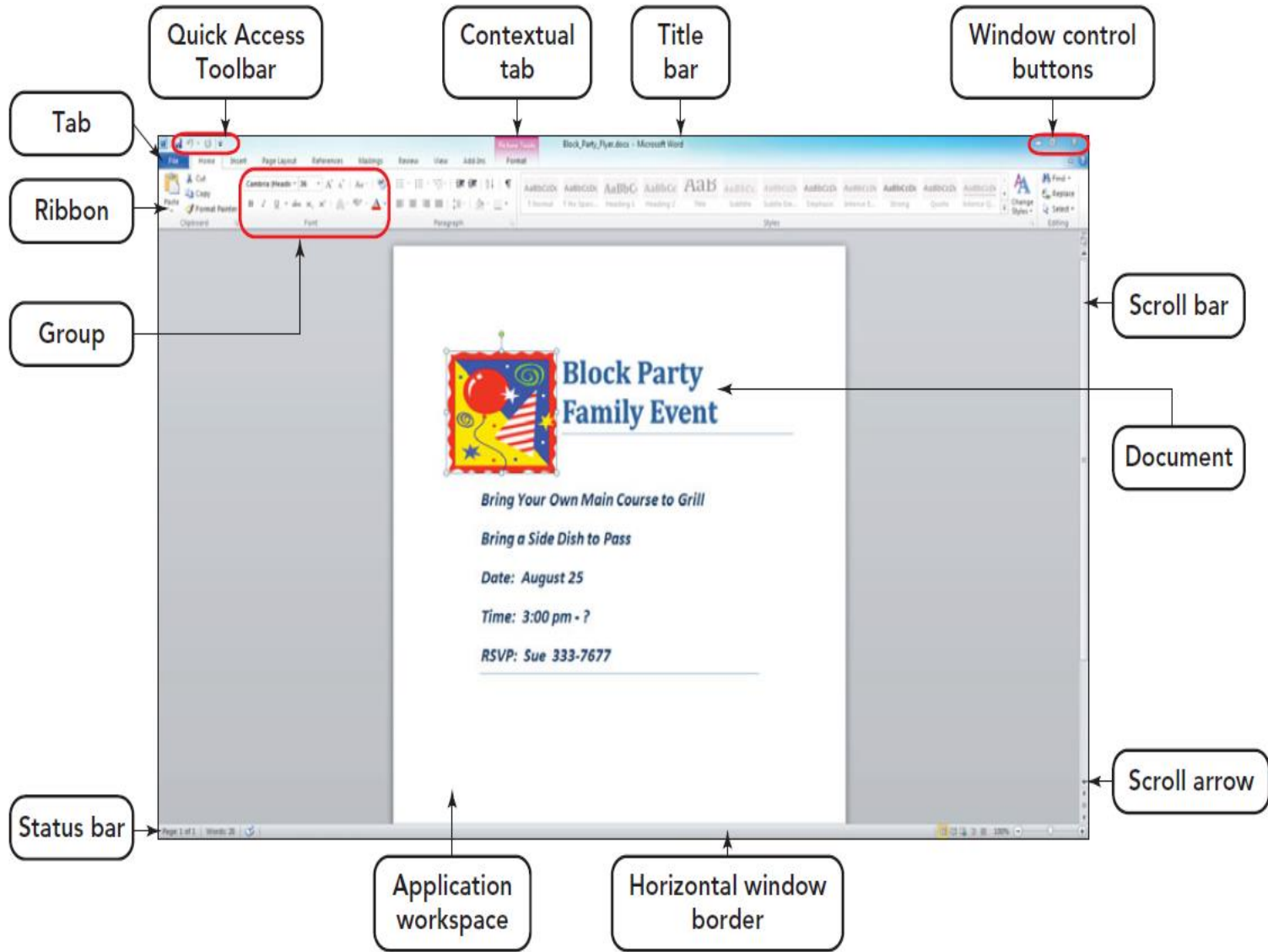
The task list table is as follows:

ID	Task Mode	Task Name	Duration
1		New Product Launch	16.86 days?
2		Read the note for an explanation of the purpose of this template	0 days
3		New Product Launch Preparation	16.86 days?
4		Phase 1 - Planning	6.86 days?
5		Identify the launch team	0.86 days?
6		Determine sales objectives	1 day?
7		Define launch goals (launch timing and publicity objectives)	1 day?

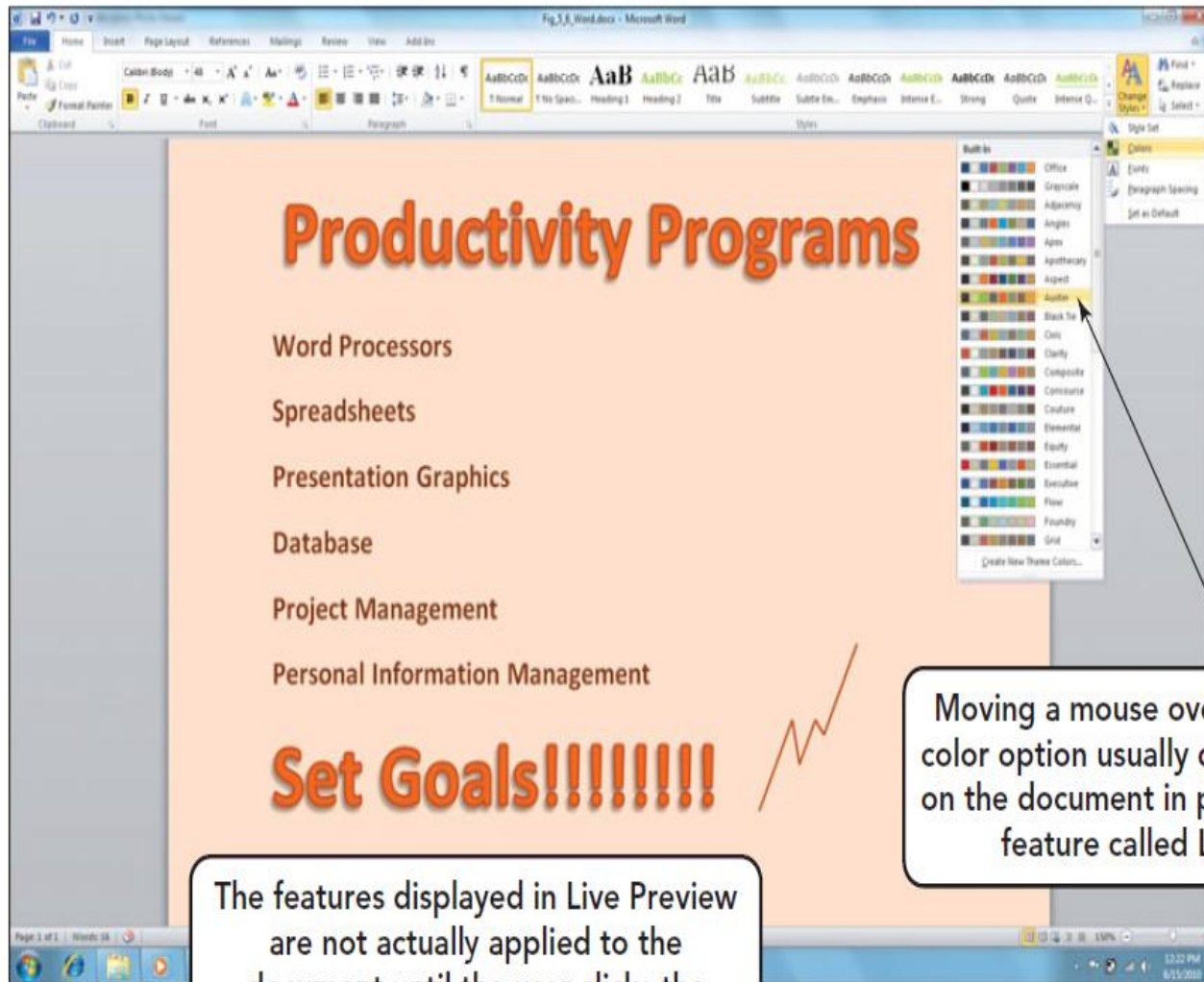
A callout box on the right contains the text: **Project 2010**



Microsoft Interface



Microsoft Word



Productivity Programs

Word Processors

Spreadsheets

Presentation Graphics

Database

Project Management

Personal Information Management

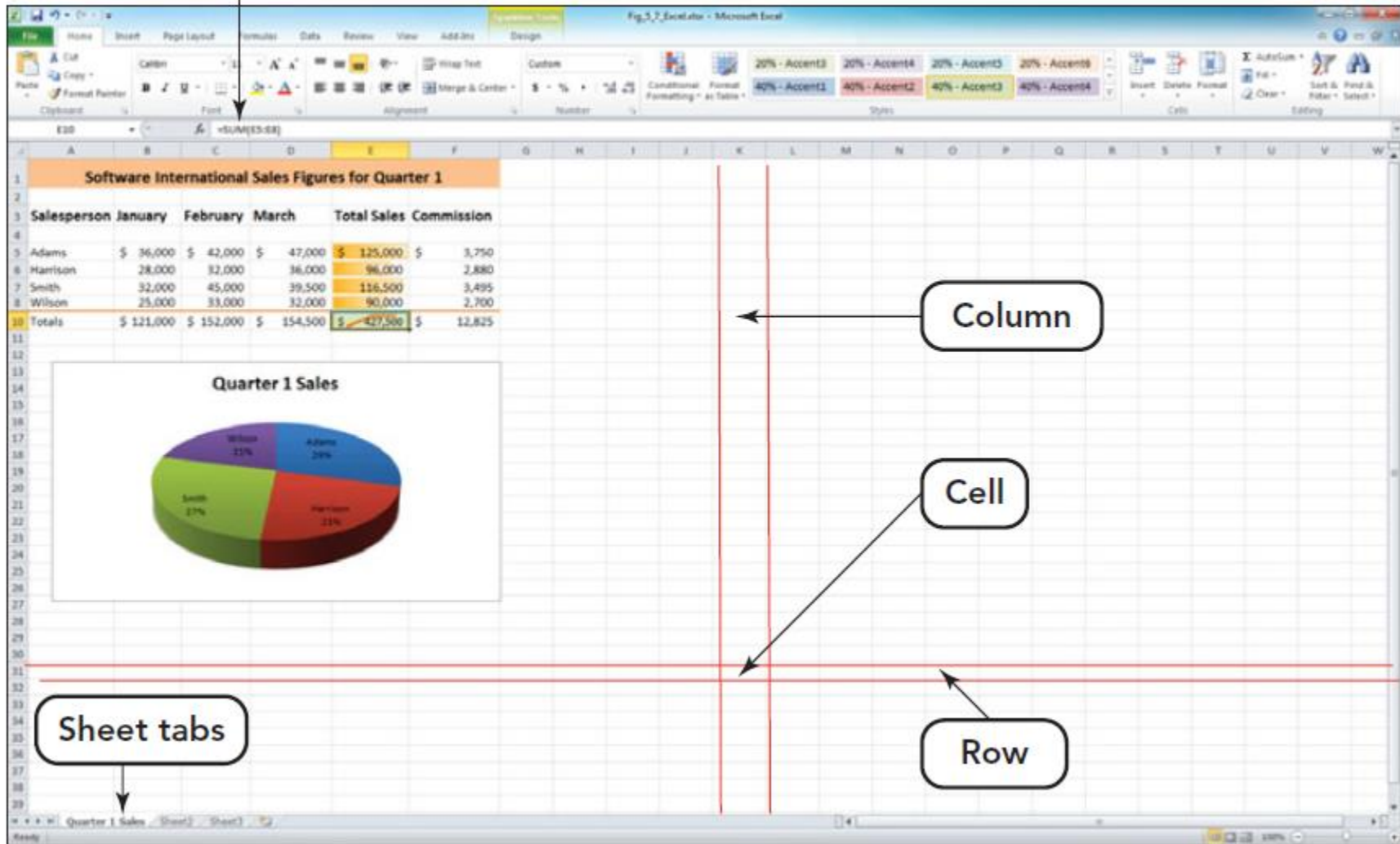
Set Goals!!!!!!!!!!

Moving a mouse over a style, font, or color option usually displays the results on the document in progress through a feature called Live Preview.

The features displayed in Live Preview are not actually applied to the document until the user clicks the mouse on the option.

Microsoft Excel

Formula



Microsoft Access

The screenshot displays the Microsoft Access interface for a database named 'Contacts: Database (Access 2007)'. The main window shows a 'Contact List' table with the following data:

ID	First Name	Last Name	E-mail Address	Business Phone	Company	Job Title
1	Ann	Harrison	ann@education.org	(309) 555-6544	Educational Incls	Instructor
2	Marcus	Deen	DeenMarcus@friends.com		Hayes Pharmaceu	Physician
3	Raymond	Fletcher	Fletcher@friends.com	(555) 555-4699	Smith Brothers A.	Lawyer
4	Joseph	Fraser	Joseph_Fraser@menso.world.com	(309) 555-4628	Wally's world	Sales Manager
5	Ann	Garrison	AnnGarrison@fhdg.com		First Packaging an	Sales Executive
6	Paul	Schiller	paul@stnre.com	(300) 555-9287	Corner Stone	sales Representative
7	Rachel	Hayes	Hayes_445@yahoo.com	(667) 436-7787	SDM Publishing	Editor
8	Frank	Adams	Adams_Frank@friends.com	(607) 555-1209	Sheen Agency	Head supervisor
9	Jake	Jamison	Jamison_44_55@gmail.com		SDM Publishing	Editor
10	Zach	Webster	Webster@friends.com	(309) 555-1143	Toys Inc	Quality Controller

Below the table, the 'Contact Details' form is open for 'Jake Jamison', showing fields for First Name, Last Name, Company, and Job Title. To the left, the 'Contact Phone List' report is displayed, showing a list of contacts and their business phone numbers, grouped by first letter (C, F, G).

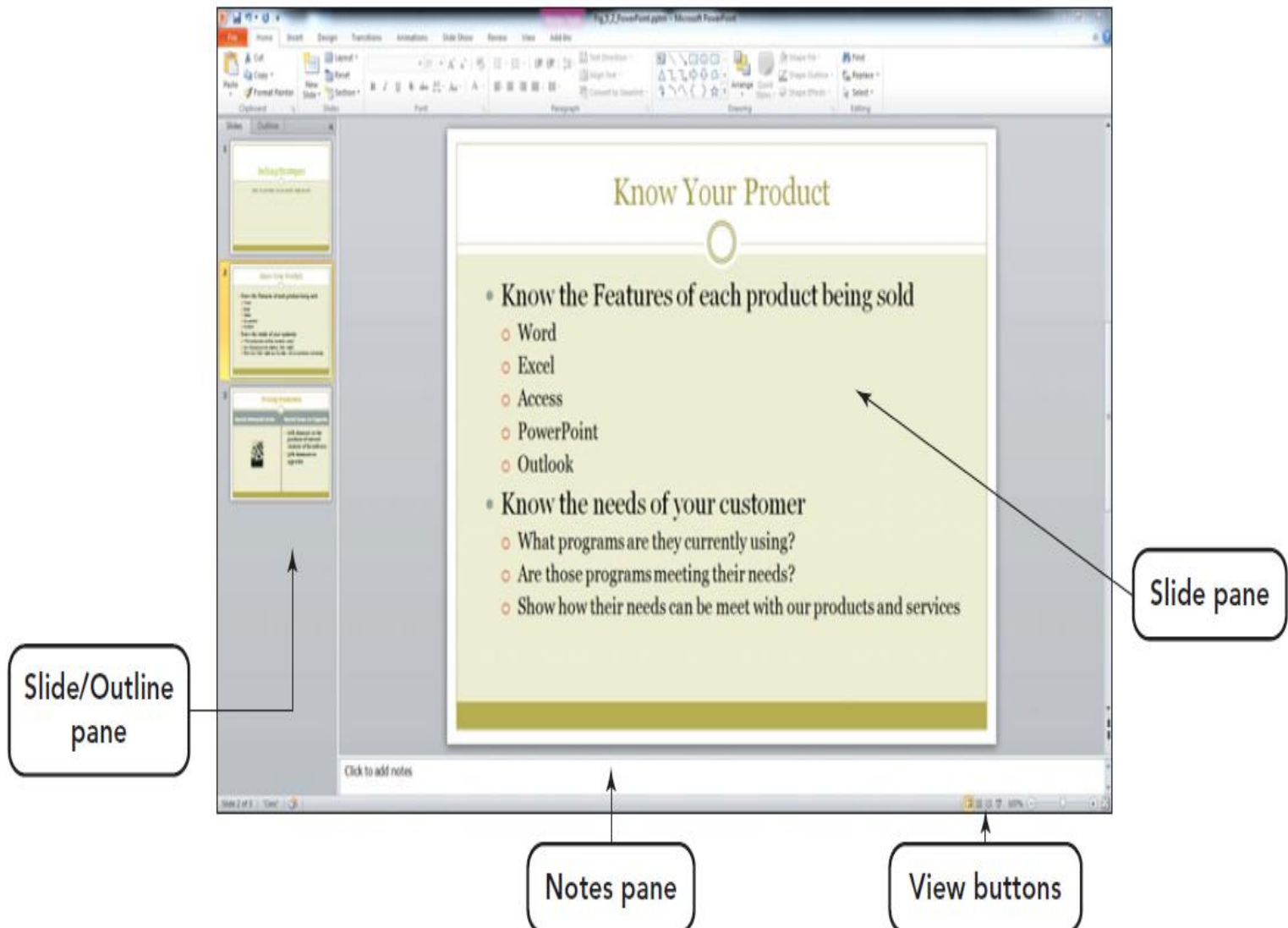
Access objects:
Tables, queries,
forms, reports

Table

Form

Report

Microsoft Power Point



Microsoft Project

Team Planner Tools

The screenshot shows the Microsoft Project Team Planner interface. The 'Team Planner Tools' ribbon is highlighted in orange, containing various task and resource management icons. A 'Show/Hide' callout points to a 'Show/Hide' sub-ribbon with checkboxes for 'Expand Resource Rows', 'Unassigned Tasks', and 'Unscheduled Tasks'. A 'Resources' callout points to the resource names in the Gantt chart, and a 'Tasks' callout points to task bars. A 'View Options' callout points to the view icons at the bottom right.

Resource Name	Unscheduled Tasks	Sep 27, '09	Oct 4, '09	Oct 11, '09
Steve Masters	Perform event day arrival, setup, event	Determine demand generation process	Send transportation an	
Jon Kaufthal			Review target audience and forecasted attendance	Confirm speaker
Brian Smith	Obtain speaker information	Select presentation		
Unassigned Tasks: 2				
	Select food options		Identify speakers	

Show/Hide

Resources

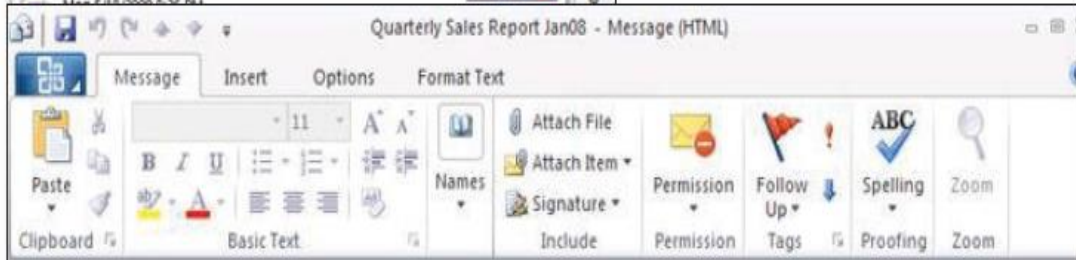
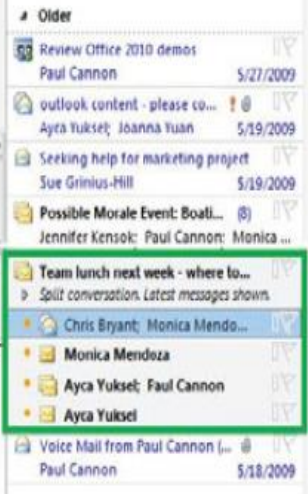
Tasks

View Options

Microsoft Outlook



Arranging messages by conversations makes it easier to locate all e-mail related to the same topic.



A list of concerns appears before an e-mail is sent, allowing the sender to remove flagged recipients.

Media and Graphic Software

Most media and graphic software today are referred to as **multimedia programs because they enable the user to incorporate more than one of these technologies.**

Interactivity : Users can choose their own path through the presentation.

Interactivity is a big factor in the popularity of the Web. In fact, the Web could be viewed as a gigantic interactive multimedia presentation.

Compression and Decompression

Codecs

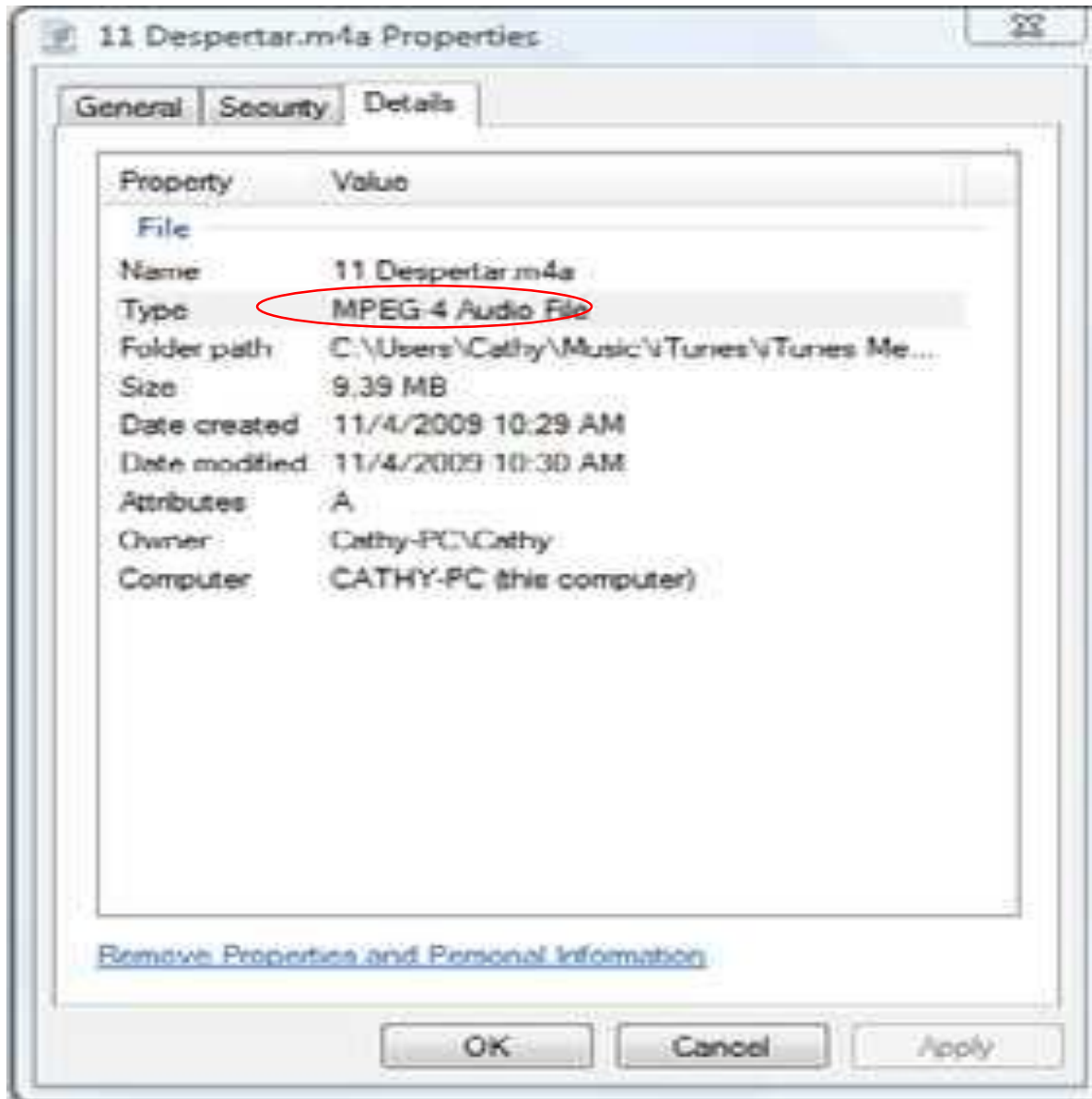
**Are the technical name for
compression/decompression or
code/ decode algorithms.**

Codecs

1- Lossless compression: the original file is compressed so that it can be completely restored, without flaw, when it is decompressed.

2- Lossy compression: the original file is processed so that some information is permanently removed from the file.

Codec Type



Desktop Publishing programs

These programs are used to create newsletters, product catalogs, advertising brochures, and other documents that require unusual design and layout.

Microsoft Publisher

Paint programs

Paint programs are used to create bitmapped graphics (also called raster graphics), which are composed of tiny dots, each corresponding to one pixel on the computer's display.

Standard format for paint programs

1- Graphics Interchange Format (GIF) : 256 color file format uses **lossless compression**. It is best for simple images with large areas of solid color. (Web standard).

2- Joint Photographic Experts Group (JPEG): files can store up to 16.7 million colors and are best for complex images such as photographs. Web standard. The JPEG file format uses **lossy compression** to reduce file size.

Standard format for paint programs

3- Portable Network Graphics (PNG): A patent-free alternative to GIF, PNG produces images that use **lossless compression** and are best suited to Web use only.

4- Windows Bitmap (BMP): BMP is a standard bitmapped graphics format developed for Microsoft Windows. **Compression is optional**, so BMP files tend to be very large.

Standard format for paint programs

5- Tag Image File Format (TIFF): This format, used in publishing, allows very specific instructions to be attached to an image and captures as much detail as possible.

Drawing programs

Drawing programs are used to create vector graphics, images generated by the use of points, lines, curves, polygons, and basically any shape that can be generated by a mathematical description or equation.

CorelDRAW Graphics Suite and Adobe Illustrator.

Vector



Bitmap



Page Description Language PDLs consist of commands given by the computer and carried out by the printer to precisely re-create the image on a printed page.

Three-Dimensional Rendering Programs: A 3D rendering program adds three dimensional effects to graphic objects.



Computer Aided Design (CAD) Programs: Such programs are sophisticated 3D rendering programs used frequently by engineers to design entire structures and by scientists to display cell structure.

AutoCAD

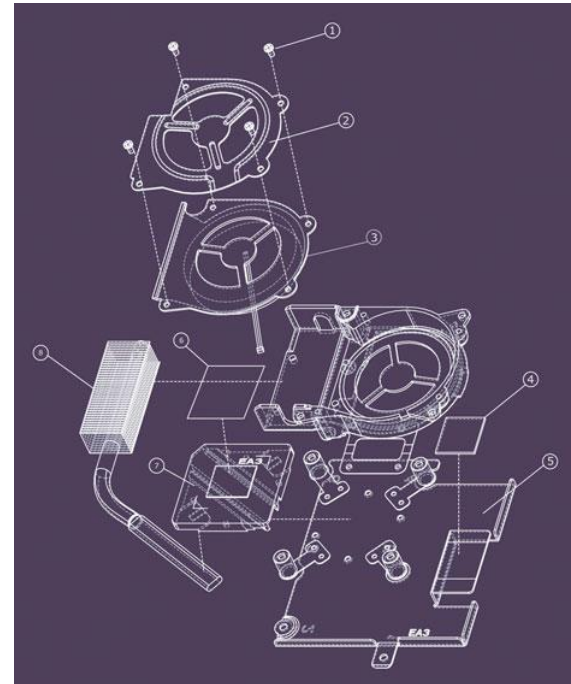


Image editors are sophisticated versions of paint programs that are used to edit and transform but not create complex bitmapped images, such as photographs.

Photoshop



Animation programs

Computer animators create each of the still images separately in its own frame with the help of computer programs that contain tools to facilitate the image creation as well as animation. Web browser can read GIF files and play the animations. GIF animations are common on Web.

Animation programs

Flash

Category	Example Program	Manufacturer	Use
Desktop publishing	Publisher QuarkXPress	Microsoft Quark	Home/educational Professional
Paint/image editor	Painter Paint	Corel Microsoft	Professional Home/educational
Drawing/design	Illustrator AutoCAD CorelDraw Graphics Visio	Adobe Autodesk Corel Microsoft	Professional Professional Professional Professional
Photo/image editing	PhotoShop PhotoShop Elements PaintShop Photo Pro Picassa GIMP	Adobe Adobe Corel Google Open Source	Professional Home/educational Home/educational Home/educational Home/educational

Audio Editing programs

A variety of programs are available for capturing and processing sound for multimedia presentations, including sound mixers, compression software, bass enhancers, synthesized stereo, and even on-screen music composition programs.

GoldWave

Sound files

1- MP3: MP3 is a patented audio sound file format that enables to compress Cd quality digital audio by a ratio of 12:1 using **lossy compression** format. The compression greatly reduces the file size with no perceptible loss in sound quality.

2- *Windows Media Audio (WMA):* WMA is a Microsoft proprietary data compression File format that is similar to the MP3 format.

Sound files

3- WAV: The default Microsoft Windows sound file format uses the .wav extension (short for “Wave Sounds”). It can be saved with a variety of quality levels, from low-fidelity mono to Cd quality stereo. WAV sounds usually **aren’t compressed**, so they tend to take up a lot of disk space.

Sound files

4- Ogg Vorbis: An open source format that is an even faster format than MP3, Ogg files are also about 20 percent smaller than MP3 files. Can fit more of them on hard disk or MP3 player.

5- Musical Instrument Digital Interface (MIDI): MIDI is actually a language that enables the creation of an electronic instrument sound out of an acoustical instrument. MIDI files, generally small in size, contain a text based description that tells a synthesizer when and how to play individual musical notes

Video Editing

- * Programs that enable to modify digitized videos.**
- * All video file formats use codec techniques. For the best playback, special video adapters are required. These adapters have hardware that decodes videos at high speed.**
- * Streaming video formats: enable the video picture to start playing almost immediately after the user clicks the video link.**

Video file formats

1- *Moving Picture Experts Group (MPEG)*: A family of video file formats and **lossy compression** standards for full-motion video.

2- *QuickTime*: A video file format developed by Apple Computer.

3- *Video for Windows*: The native (or original format a program uses internally) video file format for Microsoft Windows, Video for Windows is often called AVI (Audio Video Interleave).

Multimedia Authoring Systems

iMovie and Windows Live Movie Maker allow the user to convert photos, video, and music into a movie, add transitions and titles, and upload the movie to YouTube to share with family and friends.

Adobe Director

Multimedia Authoring Systems

- * It's necessary to download and install a plug-in program (software that extends another program's capabilities).**
- * Multimedia authoring programs tend to use lots of disk space and often require extra memory to run efficiently.**

Web page Authoring Programs

The Adobe Creative Suite media development kit is a powerful combination of programs used to develop multimedia Internet applications.

Dreamweaver

Flash

Fireworks

Category	Example Program	Manufacturer	Use
Animation	Flash GIF Animator	Adobe Microsoft	Professional Home/educational
Sound editing	Soundbooth Music Maker Media Player Dexster Audio Editor	Adobe MAGIX Microsoft Softdiv Software	Professional Home/educational Home/educational Home/educational
Video editing	Premier Elements Premier Pro Final Cut Pro Studio Pro	Adobe Adobe Apple Corel	Home/educational Professional Home/educational Home/educational
Multimedia authoring	Director iMovie Video Studio Windows Live Movie Maker	Adobe Apple Corel Microsoft	Professional Home/educational Home/educational Home/educational
Web authoring	Dreamweaver Fireworks Flash	Adobe Adobe Adobe	Professional Professional Professional

Web Host Technology

The capability to upload files to an online site so they can be viewed and edited from another location.

Windows office Live
Google Docs

Spyware

- * Internet software that is installed on computer without knowledge or consent**
- * It may monitor computer or online activity, relay information about to the spyware's source, or allow others to take control of computer.**

Adware

Like spyware, only it's created specifically by an advertising agency to collect information about Internet habits, or encourage to purchase a product.

Tailor Made Application

Application are designed for specialized fields or the business market.

Examples of such areas include military projects, billing needs of medical offices, restaurant management systems, and occupational injury tracking software.

Custom software is developed by programmers and software engineers to meet the specific needs of an organization.

Packaged software: aimed at a mass market that includes both home and business users.

A stand-alone program is a program that is fully self-contained Microsoft Word and Excel are examples of stand-alone programs. Can purchase and install them separately, and they function perfectly well all by themselves.

An integrated program is a single program that manages an entire business or set of related tasks. It combines the most commonly used functions of many productivity software programs, like word processing, database management, spreadsheet, accounting, and customer service, into one single application.

Microsoft Works

Software suite (sometimes called an office suite) is a collection of individual, full-featured, stand-alone programs, usually possessing a similar interface and a common command structure, that are bundled and sold together.

Microsoft office

System requirements: the minimal level of equipment that a program needs in order to run.

Software upgrading describes the process of keeping version of an application current with the marketplace. Some upgrades are small changes called patches; sometimes they are major fixes called service releases or service packs.

A software license is a contract distributed with a program that gives the right to install and use the program on one computer.

Colleges and universities often purchase site licenses, which are contracts with a software publisher that enable an organization to install copies of a program on a specified number of computers.

Software that must be purchased is commercial software. The current trend is to make these programs available as an online download or initially as shareware.

Shareware is more of a marketing method than a type of software. It permits a user to have a set period of time in which to “try before buying” the program

Software given away for free is referred to **freeware, can't turn around and sell it for profit.**

Public domain software is expressly free from copyright, and can do anything want with it, including modify it or sell it to others.

Program includes some mechanism to ensure that don't make or run unauthorized copies of it, it is called **copy-protected software.**

Launching an application transfers the program code from computer's hard disk to memory, and the application then appears on the screen.

Lunching application methods

1- Start button → all programs → choose application

2- Type the program name in the start search text box.