Spreadsheet programs

Spreadsheet programs are software applications that allow you to enter, manipulate, and analyze sets of numbers. Spreadsheets are used for organizing and calculating financial information or any information in which numbers are involved. For example, the following types of documents are created using spreadsheets:

Tax records	Inventory lists	Family budgets
Sports statistics	Bank statements	Credit card bills

Some widely used spreadsheet programs are Microsoft Excel, IBM Lotus 1-2-3, Microsoft Works Spreadsheet, OpenOffice.org Calc, Apple iWork Numbers, IBM Lotus Symphony Spreadsheets, and Corel Quattro Pro. Popular online spreadsheet programs are Google Docs (http://docs.google.com) and Zoho Sheet (http://sheet.zoho.com).

In a spreadsheet program, you generally work in a document called a **worksheet**. Several worksheets may be grouped together in a **workbook**.

Just as in a word processor, a spreadsheet interface has a menu bar and toolbars. In addition, a spreadsheet has a special **formula bar**. The formula bar allows you to create and edit data and formulas in the worksheet.

An empty worksheet looks like a grid, with horizontal rows and vertical columns. The intersection of any column and row is called a **cell**. Each cell is given a column letter and a row number. This information is called a **cell address**. Thus, the cell at the second column and third row would have a cell address of B3.

When you want to work with a cell, you can select it with the mouse or arrow keys. If a cell is selected, it will be surrounded by a bolded rectangle, called a **cell pointer**. In addition, the formula bar will show the address of the selected cell and will allow you to change the data or formula located in the cell.

In general, you may enter one of the following into a cell: a label, a value, a date, or a formula. A **label** is a piece of text found in a worksheet. Labels are usually used for titles or to identify the contents of a particular row, column, or single cell. A **value** is a number. Values may be entered by a user, or they may be the result of calculations based on other entered numbers.

A **date** is, of course, the set of numbers that tells you the day and year. A date may be entered to identify when the worksheet was created. In addition, dates may be used in performing some calculations. For example, a company might use a date in a spreadsheet to determine if a customer owes late fees for a service.

A **formula** is a set of instructions that tells the spreadsheet to perform various mathematical operations. Cells containing formulas calculate results (new values) based on the information contained in other cells.

Today, spreadsheet software is designed to work easily with other applications in creating documents, especially ones that are rich with multimedia content. Spreadsheets can contain cells with audio, graphics, animation, or links to another application or a Web page. You can usually cut information from word processors and paste it in a worksheet, and vice versa.

✔ **SELF-CHECK 15**
Complete the Self-Check on page 310 of the textbook.

ASSIGNMENT 15, PART 2: Read pages 311 through 318 in your textbook and the Quick Review below. Then, complete Assignment 15 Review on page 96 in this guide.

QUICK REVIEW:

Presentation programs

Presentation programs are designed to produce slides for slide shows. A **slide** is a single-screen image. Slides may contain text, numbers, and graphics, and they usually have a colorful background. You can also use animated text and transitions, embed sound or video files, or even use links to Web pages or other software. Users often create slide shows to illustrate lectures or presentations made to a group of people in person or online. For instance, salespeople often use presentation programs to pitch their products to an audience of potential customers.

A presentation program combines many features of a word processor and spreadsheet. In addition, it has some of the functions of a graphics creation—or paint—program. Thus, a presentation program will often allow you to write text, create graphics, and manipulate numbers. Some widely used presentation programs are Microsoft Office PowerPoint, OpenOffice.org Impress, Apple iWork Keynote, IBM Lotus Symphony Presentations, and Corel Presentations. Popular online presentation programs are Google Docs (http://docs.google.com) and Zoho Show (http://show.zoho.com).

Most presentation programs use standard GUI features, such as windows, menu bars, toolbars, rulers, and so on. As in other programs, you can cut and paste different elements either within the document, or from one document to another.

Presentation programs often come with a wide selection of templates. A **template** is a blank document that already contains standard formatting. With a template, you input the information into a predesigned layout. Templates are useful when you want to create a series of slides that have similar formatting. You can simply use the same template for each slide, and then your entire presentation will have the same fonts, backgrounds, and layouts.

Presentation programs make frequent use of **frames**. Frames are resizable boxes for charts, tables, clip art, and other graphical elements. They also use **text boxes**, which are resizable boxes that contain text. You create a slide by choosing a slide type and then adding content to the text boxes and frames. Instructions for inserting data are often shown on screen.

A presentation is generally composed of several slides. Presentation programs can save an entire presentation in a single file.

Some of the other special features of presentation programs include outlining, annotations, animation, and sound and video. **Outlining** allows you to keep track of and rearrange the order of your presentation. You can create an outline of the order in which you want to present your slides. As you view your outline, you can also edit your slides at the same time. **Annotations** are a set of notes you write to yourself to accompany each slide. Presentation programs generally allow you to create annotations that can be viewed by you and no one else. **Animations** are drawings that appear to be in motion. For example, TV cartoons are animations. Most presentation programs include some simple animation tools. Among these are the ability to create animated **transitions** from slide to slide. For example, you may be able to make one slide appear to fade into another slide.

Presentation programs allow you to include sound and video elements with each slide. Slides can also have links to other applications or the Internet. You can even save a presentation in HTML format and place it on the World Wide Web.

Once you have made slides in a presentation program, you can show them to an audience in a variety of ways. The easiest way is to present them directly from a PC. When showing a presentation,

you usually move from one slide to the next by clicking the mouse or hitting the Enter key. Alternately, you can use a preset display time, so that the screen displays a slide for a certain number of minutes or seconds, and then automatically moves on to the next.

Most presentations are a fixed sequence of slides. If you are working directly from a computer, however, it is usually easy to show a slide out of order if it seems useful to do so. In addition, you can prepare auxiliary frames and links to show alternate material if the group discussion is steered in an unintended direction.

The one problem with showing slides directly from a computer is that the computer screen is usually too small to provide easy viewing for a group of people. There are, however, several ways in which you can make your computer screen image visible to a larger group. Some of these are large-format monitors, television screens, and PC projectors. See Figure 8A.24 on textbook page 315 for an example of a worker using a PC to present a slide show.

A **large-format monitor** is simply, as the name suggests, a large monitor suitable for viewing by large numbers of people. They are, however, quite expensive and can be difficult to move.

Another way to make the data on your computer screen visible is to connect your computer to a television set using a **PC-to-TV converter**. This can be very convenient, since televisions are widely available. However, it may not be possible to make some computers work with some televisions. In addition, image quality may not be ideal in some cases.

A third option is using a **data projector**, which plugs into a computer's video ports and projects the image from the screen onto a wall or other surface. This is perhaps the best option for displaying slides, but it can be very expensive.

Personal Information Managers

Nowadays, it can be difficult to keep track of all the contact information for friends, family members, online buddies, employers, and coworkers. A person can have numerous points of contact that can include a home and work address, e-mail addresses, a P.O. box, an instant messenger ID, a home and cell phone, a Web site or blog, a MySpace or Facebook page, and message board usernames.

To help organize all this contact and personal information, many people use a **personal information manager** (**PIM**). This type of application software is very useful to those who have busy schedules. Its tools help the user keep track of the contact information of every person in their address book. Users can also use a PIM to record events on a calendar, create daily To-Do lists, and keep notes. (See Figure 8A.25 on textbook page 317 and Figure 8A.28 on page 318).

In each entry in a PIM, you can input all sorts of details about each person in the address section (see Figure 8A.26 on textbook page 318 for an example of an entry).

ASSIGNMENT 15 REVIEW *

- Read the Summary on page 319 in your textbook.
- Take some time to reflect on each key term listed on page 320. Be sure to turn back to the indicated pages if you are uncertain of the meaning of a particular term.
- Complete the Key Term Quiz on page 320.
- Complete the Multiple Choice questions on page 321.
- Complete Review Questions 1 and 5 on page 322.

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