Excel 101

An Introduction to Microsoft® Excel 2000,
Excel XP (2002), and Excel 2003
For Microsoft® Windows NT, 2000, & XP

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Table of Contents

List of Figures

List of Tables

1. Microsoft Excel—The History

What exactly is Microsoft Excel? If you've spent time "poking" at this program you know that Excel is a "spreadsheet" application. It consists of a two-dimensional array ("rows" and "columns") of "cells" into which you can type data—numbers, text, and those all-consuming mysteries called "formulas" (for the insistent Latin scholars among us, "formulæ"…).

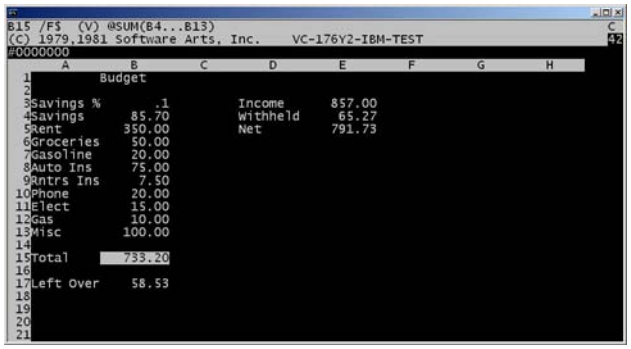

Fig. 1.1 – Excel's Granddaddy: VisiCalc for DOS

Excel is the late-model evolutionary descendent of a long history of software development that began in 1978 with an iconoclastic Harvard Business School student named Dan Bricklin, his good friend Bob Frankston, and an idea of Dan's that in short order became a program for the Apple II microcomputer which they dubbed "VisiCalc." (Bricklin has a detailed and interesting history of VisiCalc—including a downloadable copy of the MS-DOS version that you can run on your Windows computer—posted at his web site, www.bricklin.com/visicalc.htm.) VisiCalc arguably did more to promote the early growth of the personal computer industry than any single product other than the computer itself.

Bricklin's idea was to take the notion of a row-and-column data manipulation program (several of which he'd been exposed to in his career at Digital Equipment Corporation and as a Harvard MBA student) and add a means to "program by example," that is to interactively modify the structure and contents of a "spreadsheet." The term "spreadsheet" was not coined by computer types. It had been in use by accountants for decades to describe the grid-ruled paper they employed (and which you can still buy in office supply stores) to organize columns of figures (See Fig.'s 1.2 and 1.3 on the next page). Recounting the history of his idea, Bricklin says:

> *"…imagine if I had a heads-up display, like in a fighter plane, where I could see the virtual image hanging in the air in front of me. I could just move my mouse/keyboard calculator around, punch in a few numbers, circle them to get a sum, do some calculations, and answer '10% will be fine!' (10% was always the answer in those days when we couldn't do very complicated calculations…)"*[1]

So where pre-computer accountants had to maintain their spreadsheets by hand, recalculating column totals manually any time a value on the sheet changed, Dan imagined being able to concentrate solely on the data and its structure. He'd have the computer do the all drudge work *without* the user having to be an expert at computer programming (although creating the spreadsheet program to begin with was, clearly, an expert programmer's task). Thus was born the "electronic spreadsheet."

Once out of the bag, an idea like VisiCalc was bound to attract promoters, imitators, embellishers, a cornucopia-like flood of similar products and capabilities. And so it did. Microsoft's earliest version of Excel ran on its MS-DOS operating system and had very much the look and feel of VisiCalc and Lotus 1-2-3. With the advent of the Macintosh and the Windows operating systems and their GUI ("Graphical User Interface"), the spreadsheet program (Excel in particular) came into its own. Over time, and certainly due as much to Microsoft's overwhelming penetration of the personal computer software market as to any other factor, Excel became *the* preeminent spreadsheet application. Like it (and Microsoft) or not, these days, if you want to count yourself among the "computer literate," you almost certainly have to be conversant with Excel.

[1] www.bricklin.com/history/saiidea.htm

I teach classes on how to use Excel through the Tamalpais Union High School District Adult and Community Education program in Marin County, California. I frequently begin by holding up one of those accountant's columnar pads I mentioned earlier and asking, "Does anyone here *not* know what this is?" Occasionally, a brave soul will hold up his or her hand, but for the most part people seem unwilling to admit they don't recognize the item. Not surprising since its use has almost completely disappeared, coupled with the fact that a beginning class in Excel is populated by students already a bit intimidated by what seems to be an awfully complex and difficult-to-master program. My purpose in showing the spreadsheet pad is to reinforce the idea that Excel is not something entirely new, but is rather just the logical evolutionary descendant of the accountant's hand-written sheet of figures.

A history lesson can be fun, but it doesn't necessarily get you to the point where in a job interview you can say, "Why, yes, as a matter of fact, I *do* know quite well how to use Excel!" So let's dive in, shall we?

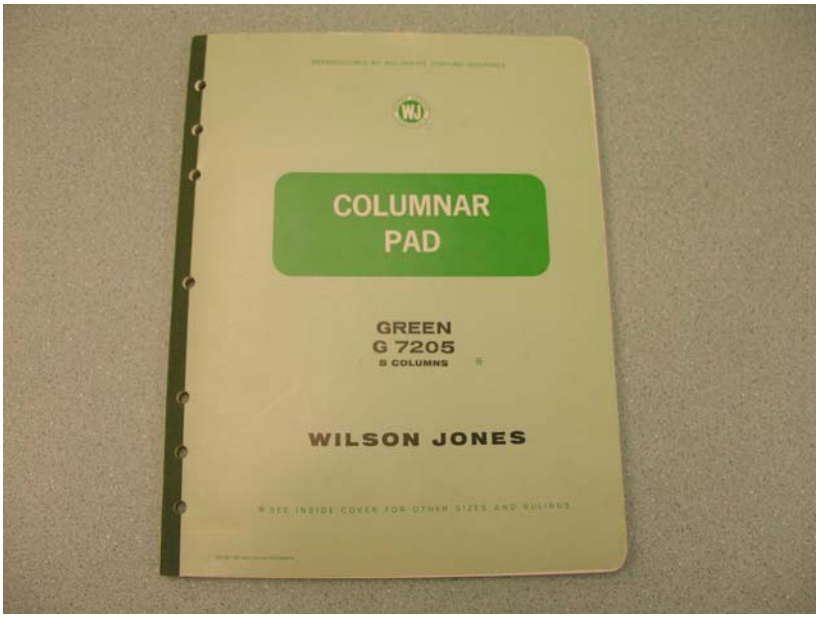

Fig. 1.2 – Excel's Great-Great Granddaddy

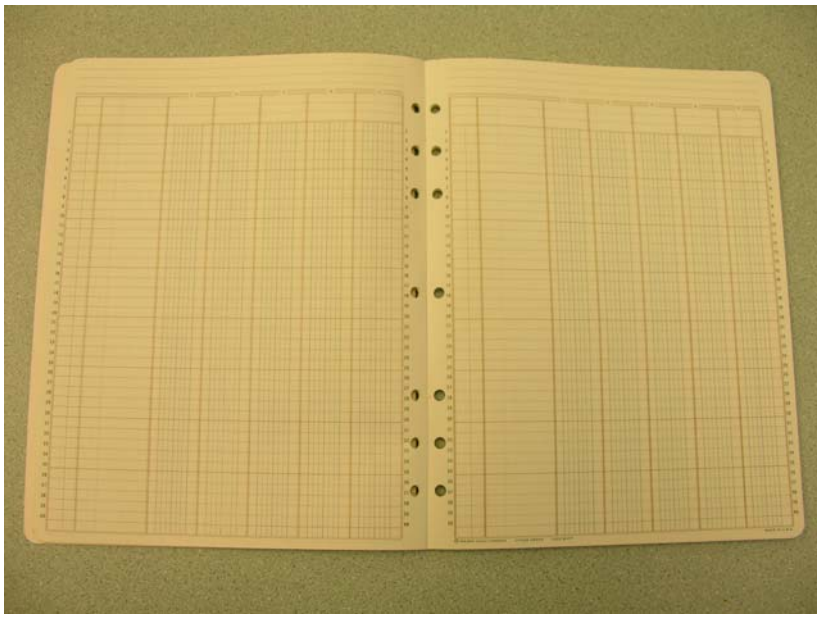

Fig. 1.3 – Excel's Great-Great Granddaddy: The Inside Story

2. Microsoft Excel—The 10¢ Tour

2.1 Excel Versions

Microsoft Excel has gone through many revisions and upgrades. As of this writing, the latest version available is Excel 2003 which most people acquire as part of the Microsoft Office 2003 suite of programs.[2] A great many users, though, still have earlier versions—Excel XP (a.k.a. Excel 2002), Excel 2000, and Excel 97. Each was obtained as part of the Microsoft Office suite with the same version number, or as a standalone product. The examples and exercises outlined here will concentrate on Excel 2000 and Excel XP (2002). Where differences between the two versions might make the instructions confusing, illustrations will show both. Where the differences are minimal (just the shapes of toolbar buttons, for example), the Excel 2000 version will be used. In all cases, the procedures and concepts discussed are applicable to Excel 2003 and Excel 97.

2.2 The Excel Screen

Figure 2.1 on page 4 shows the Excel 2000 screen the way it appears after Excel has been installed, has been activated for the first time, and before any customization has been done to the interface ("out-of-the-box," so to speak). Please study this image and the elements that are labeled. They are all things the exercises to come will use, so familiarize yourself with them. Note that the Excel screen is "maximized," that is, it is set to occupy as much of the Windows display area as possible (everything except the Windows Task Bar at the bottom).

When you start the Excel program, you are presented with a screen that shares many standardized features with most Windows[3] applications. These include the program's Title Bar, it's Menu Bar, various toolbars, scrollbars, the minimize, restore/maximize, and close buttons, and so forth. The most important part of the Excel screen is the cell grid in the center of the window—this is where all the "main events" in Excel take place.

2.3 The Cell Grid

The Excel spreadsheet **Cell Grid** is made up of **Rows** and **Columns**. The rows are labeled along the left edge of the spreadsheet (the **Row Headers**) with numbers starting at 1 and extending to 65,536. The columns are labeled at the top of the spreadsheet (the **Column Headers**) with capital letters starting at "A," extending to "Z," then to "AA," "AB," "AC," and so forth up to "AZ," then to "BA," "BB," and so on. The sequence continues in this curious fashion up to column "IV." If you're clever enough to convert this sequence into numbers, you'll discover that the spreadsheet has a total of 256 columns.

Every place where a row and a column intersect is called a **Cell**. The cell is the fundamental unit of organization of the Excel spreadsheet, and a given spreadsheet has a maximum of 256 (columns) times 65,536 (rows), or 16,777,216 cells. Trust me when I tell you that although this is a finite number, it is *way* more than enough to eliminate any worries you may ever have about running out of space on a spreadsheet.

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[2] Alas, as of January 30, 2007, a brand new version of the Office suite—Office 2007—is scheduled to make its debut. For now, of course I won't make any further mention, other than to note that Microsoft has carried out a major redesign of the user interface, replacing menus with items more like floating toolbars (…sigh!).

[3] This monograph will concentrate on how to use Excel running under the Windows operating system. Macintosh users fret not—everything you're exposed to here works the same way on the Mac. The only real difference comes in bringing up so-called "context menus." Windows users click the right-hand mouse button (indicated in the instructions as "right-click"). Macintosh users click the (one and only) mouse button while holding down the control ("Ctrl") key on the keyboard (" 

-click").

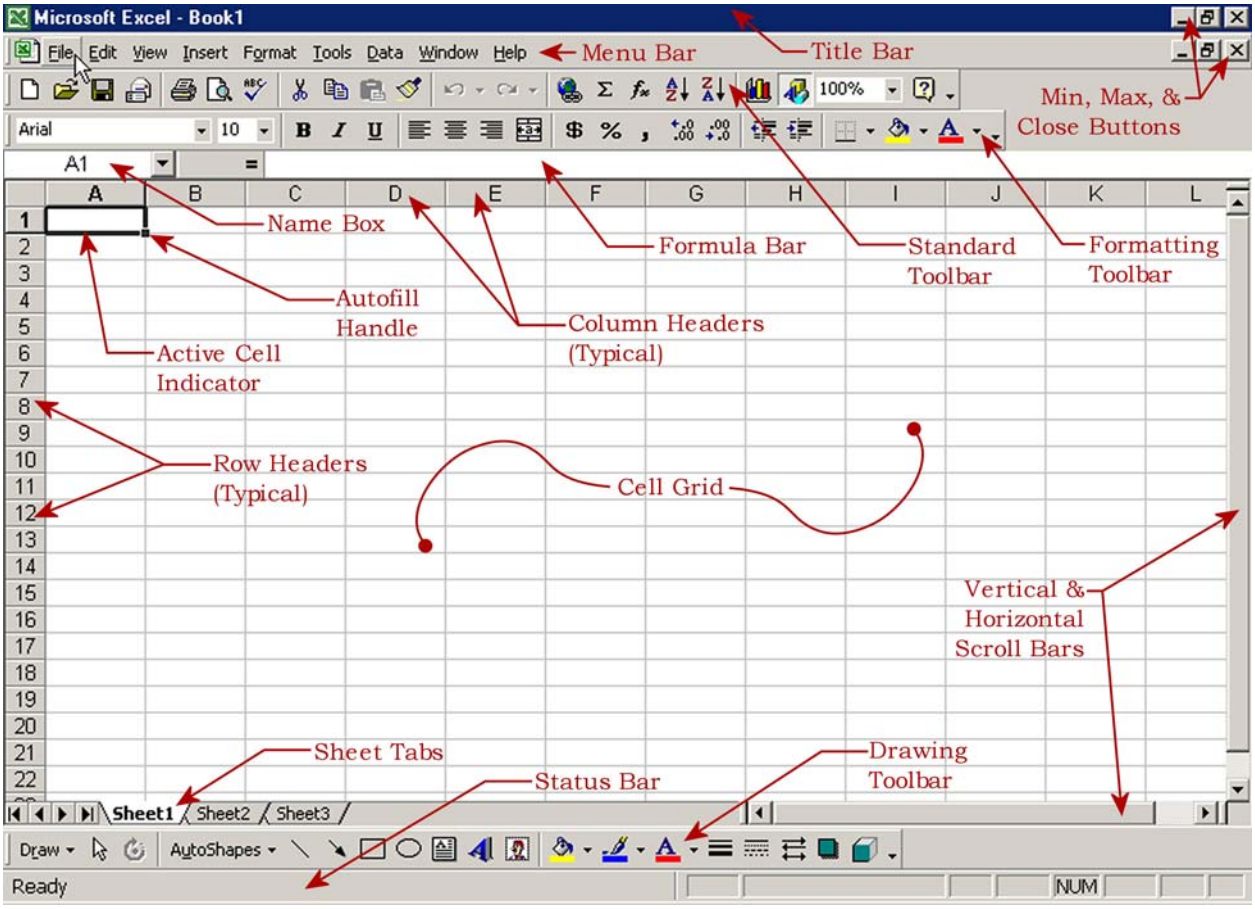


Fig. 2.1 – Excel 2000 "Out-of-the-Box"

2.4 Identifying Cells—The Cell Reference

Each of these 16-million-plus cells is unique and possesses a unique identifier, or **Cell Reference**. A cell reference is simply the cell's column letter (or letters) followed by its row number. So for example the upper-leftmost cell on the spreadsheet is referred to as cell "A1," and the bottom-rightmost cell is referred to as cell "IV65536." From this point on, we'll use a shaded box (like this: B7) to indicate a cell reference.

2.5 The Active Cell

In Figure 2.1, note the element labeled **Active Cell Indicator**. This is the heavy black border that appears around a single cell and indicates where the next piece of data you enter into the spreadsheet will be stored. Each cell can contain a single datum, and you can only enter data into one cell at a time. The cell with the heavy border is that cell. It's called the **Active Cell**.

In addition to the Active Cell Indicator, Excel gives you two other visual clues to the Active Cell's reference. First, both the Column Header and the Row Header of the Active Cell are displayed with their respective letter or number highlighted. In Excel 2000 they are set in boldface and appear to be raised slightly from the surface of the screen (the headers for column "A" and row "1" in Figure 2.1). In Excel XP and Excel 2003 their background colors are altered (Figure 2.2). Second, the actual cell reference—the letter/number combination—is displayed in the **Name Box**.

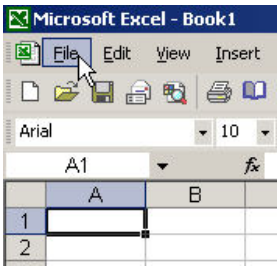


Fig. 2.2 – Excel XP Active Cell Indicators

Note also in Figure 2.1 the element labeled **Formula Bar**. This area of the screen displays the raw contents of the Active Cell, whereas the

value displayed directly in the cell also shows the influence of any formatting applied to the cell (*lots and lots* more about which later). The importance of the Formula Bar is not immediately apparent upon starting up Excel, but it will become crucial, especially as we begin to discuss the subject of Formulas. In that same context, we'll see how the Active Cell Indicator is used to indicate exactly which cell's contents we're examining.

2.6 Screen Resolution

If a modern computer screen were to show 10,000 cells at once (100 rows by 100 columns, less than one one-thousandth of that 16-million-plus maximum), each cell would have to be so small that it couldn't be read. Excel provides both horizontal and vertical scroll bars to allow you to move the Cell Grid within its portion of the Excel screen and bring cells that are currently off the screen into view.

The number of cells you can actually see on the screen at once depends on two factors—the "zoom" setting currently applied to the spreadsheet (which will be discussed later), and the computer's display resolution. The latter is controlled by the Windows (or Macintosh) operating system, and the range of available settings will vary from one computer to another, depending on the particular video circuitry and display device in use. All screen images in this monograph were generated on a display set to show 800 by 600 pixels, that is, a computer screen made up of a grid of colored dots or "picture elements"—"pixels"—800 across by 600 up-and-down. You are, of course, free to adjust your computer display to whatever resolution you like. Higher resolutions, though, make individual elements appear smaller, and there is a point where you start having to squint to make things out on the screen. The only rule of thumb where Excel is concerned is that the more of a spreadsheet you can see at once, the easier it is to work with. Even so, it' s probably a good idea to keep your screen resolution at a setting less than the "squint limit"—you, as the user, must be the judge.

2.7 Mouse Pointers

Excel is a visual tool. As such, it makes extensive use of visual indicators to tell you what's going on with your spreadsheet. One of the key visual indicators it uses is the mouse pointer. Different mouse symbols indicate differing effects that a click of the left mouse button will have, and the way the mouse symbol varies depends on where on the Excel screen the mouse is pointing as you click. The symbol you see most of the time when the pointer is over the Cell Grid is a heavy white "plus sign," or "white cross" (Fig.'s 2.3 and 2.4). When you see this mouse pointer you know that whatever cell you click on will become the Active Cell and will become surrounded by the Active Cell Indicator.

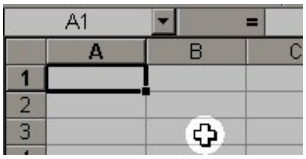


Fig. 2.3 – Cell Pointer (Before Click)

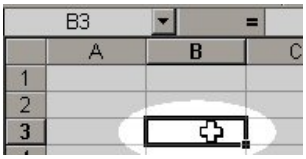


Fig. 2.4 – Cell Pointer (After Click)

Other mouse pointers you'll see are those used to change the width of columns or the heights of rows. These appear by maneuvering the mouse pointer into the thin boundary between adjacent header boxes (Fig. 2.5). There is also a pointer that only appears when the mouse is poised over the small black square at the lower right corner of the Active Cell Indicator (Fig. 2.6). The small black square is known as the **Autofill Handle** (more about which later).

Fig. 2.5 – Column Width and Row Height Pointers

Fig. 2.6 – Autofill Handle Pointer

There is another feature that goes along with mouse pointers. Whenever you point the mouse at a toolbar button (any of the small square icon-buttons located in the region between the Menu Bar and the Cell Grid) and pause the mouse momentarily without clicking, a small text

Fig. 2.7 – Pointer & Tooltip

box with a pale yellow background appears that gives the name of the command that will be activated if you click that particular button. This so-called **Tooltip** (Fig. 2.7) will remain visible until you move the mouse again, or it will disappear on its own after a delay of several seconds. To make the Tooltip reappear, move the mouse pointer back over the button and pause it again. Tooltips are a feature you will find not just in Excel, but in all the Microsoft Office applications and in the great many Windows application programs.

2.8 Sheet Tabs

The elements in Figure 2.1 (page 4) labeled **Sheet Tabs** are a feature that was not present in the earliest versions of Excel, but was included starting with Excel 97. Each tab activates a separate worksheet, and the entire collection of tabs visible on the screen are all stored together in a single Workbook document file (see below). A new, blank spreadsheet contains (by default) three sheet tabs, labeled Sheet1, Sheet2, and Sheet3. There is no set limit to how many sheets you may add to a Workbook, but no Workbook may contain less than one sheet. Each and every sheet tab has available on it that complete range of cells—over 16 million—that we discussed earlier, and each tab's cells are separate from the cells on every other tab. So if you weren't convinced before that you'll never run out of cells, you should be now!

If you think of the rows and columns of a sheet as being like the horizontal and vertical dimensions on a piece of graph paper, then the separate sheet tabs form a third dimension giving the Workbook a "width" dimension (across the columns), a "height" dimension (down the rows), and a "depth" dimension from one sheet to another. We won't go into any more "depth" on this here, other than to point out that with this feature, it is possible to construct "spreadsheets" that are three-dimensional.

2.9 Workbook ("Document") Files

The totality of the sheet tabs, all the data stored in the cells on all the sheets, all the formatting applied to any of those cells, and a group of settings that affect how the sheet or sheets are printed—all of this is stored together in a single file (or "document") on your computer's disk drive called a **Workbook**. When you save your spreadsheet by using either the [File] menu's [Save] or [Save As…] command, everything you see on the screen is stored into a single file. In the Windows operating system, the name you give to the file has the characters ".xls" added to it which is the Windows way of declaring the file to be an Excel Workbook. Depending on how your Windows operating system is configured, you may or may not see the ".xls" at the end of the file name. If you don't see it, you do not have to (and in fact you *should* not) type it yourself—Excel will add the ".xls" to the end of the filename automatically.

In Figure 2.1 (page 4) the element at the very top of the screen has the label **Title Bar**. The name you give to your Excel Workbook is displayed on the Title Bar just after the words "Microsoft Excel." Excel is a so-called MDI—Multiple Document Interface—program, which means that it's possible to have more than one Workbook file open at once. If you have multiple Workbooks open, then no matter how many there are, there is at any given instant exactly one of them that you are working on (putting data into cells, changing formatting, and so forth). This current **Active Workbook** is the one whose name is displayed in the Title Bar.

3. Microsoft Excel—Nuts and Bolts

3.1 Excel's Fundamental Unit of Organization—The Cell

Like the subheading says, the **Cell** is the fundamental unit of organization in Microsoft Excel (in all spreadsheet programs, actually, all the way back to VisiCalc). We've already seen how cells are referenced by their column letters and row numbers. You can think of a Cell as a small "storage box" into which you can stuff a piece of information.

The Cell holds the piece of information, the datum, and makes it available for display. The Cell also stores information about how to *format* the piece of information for display, which is an issue separate from and in addition to the existence of the actual datum. **Data Entry** and **Formatting** are the two very broad categories into which you can divide all the work you do with Microsoft Excel. We will hold our (very considerable) discussion of Formatting for later on, and will begin at this point with the subject of Data Entry.

3.2 Putting Data Into Cells

You insert data into an Excel cell by typing. That's it—just by typing. The cell the data goes into when you start typing is the Active Cell (the one highlighted by the Active Cell Indicator). As you start typing, you'll see several things happen. The keystrokes you type will appear in two places simultaneously—in the cell itself, and in the white "text box" area of the Formula Bar. The principal thing to notice while you're typing data into a cell is the presence just to the left of the Formula Bar of two symbols you didn't see while you were navigating around the spreadsheet—the red "X" and the green check mark (see the discussion below of User Modes, and Table 3.1 on the next page).

3.3 Excel Data Types

The term "data type" is computer geek-ese for the idea that, regardless of the specific *value*, a given piece of information can be a member of one of several different data categories—data "types." Excel has three data types, which is to say that whatever you type into a cell will fall into one of three distinct categories:

- Numbers
- Text (also called "Labels" in some references)
- Formulas

Technically, there are two additional possibilities, but they are not of immediate interest to the beginning Excel user:

- Blank cells
- Error values

3.4 Excel User Modes

There are two principal modes you work in with Excel. I'll refer to these as **Navigation Mode** and **Data Entry Mode**. There is a very simple way to determine which mode you are currently in: the presence or absence of the two symbols—the red "X" and the green check mark—next to the Formula Bar. If they are visible, you are in Data Entry Mode; if they are not visible, you are in Navigation Mode. *Remember this*—it will solve a great many frustrations typically encountered by the beginning user.

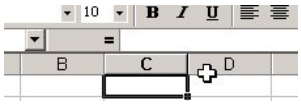
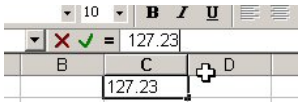
Screen Appearance	Symbol Visibility	Mode
	Red "X" and green check mark are *not* visible	**Navigation Mode**
	Red "X" and green check mark are *visible*	**Data Entry Mode**

Table 3.1 — Distinguishing Excel's Navigation and Data Entry Modes

When you start Excel, you are in Navigation Mode. In this mode, you can scroll the spreadsheet, select cells, examine the contents of any cell you select, and issue commands to control formatting of the values displayed in selected cells.

When a single cell is selected (when it has the Active Cell Indicator), the first keystroke you type that is anything other than a navigation or Ctrl-key sequence[4] puts Excel into the Data Entry Mode, and the red "X" and green check mark make their appearance. Data Entry Mode continues—you keep typing stuff into the selected cell—until one of three things happen. If you 1) press the Enter key on the keyboard (or on the numeric keypad), or 2) you click the mouse on the green check mark, Excel will take the information you have typed, store it in the cell, evaluate it to see which data category ("data type") it falls into, and then return you to the Navigation Mode (the red "X" and green check mark will disappear). If 3) you click the mouse on the red "X," or if you press the [Esc] key on the keyboard, Excel will cancel Data Entry Mode, discard whatever you've pending changes to the cell's contents you've typed, and return you to Navigation Mode.

3.5 Determining the Excel Data Type

If you type something into a cell and then either click the green check mark or press the Enter key, Excel attempts to classify what you've typed into one of its allowable categories. Excel makes its choice based on the following set of rules:

First. If the very first character you typed into the cell was the equal sign ("="), then Excel assumes you are typing in a formula. We will go into a great deal more about formulas later, but for now just be aware that any cell entry that begins with "=" is automatically considered to be a formula.

Second. If what you've typed can be interpreted as a number, then it is stored and classified as a number. This means that the keystrokes you typed consisted *strictly* of numeric digits, numeric punctuation (a period to indicate a decimal point, commas at the thousands breaks, for example), and/or a limited set of additional symbols associated with numeric values (e.g., the "$" symbol).

Third. If what you typed does not fit either of the first two classifications, then it is stored as text. In particular, typing a sequence that includes one or more non-numeric characters (for example, any letter of the alphabet) forces Excel to consider the entry as text. Let's say you were creating a spreadsheet to track a parts inventory and you typed in a sequence like "12345Q" (indicating a part number). The presence of the "Q"—a non-numeric character—forces this to be a text datum, even though all the other characters are numeric digits.

If in any one of these steps Excel decides that it cannot understand what you've typed (much more likely in the first than either of the other two, since Formulas have very strict syntax requirements that are easy to violate), Excel will display an error value in the cell. You can tell

[4] See the Addendum for a list of commonly-used Excel keyboard command shortcuts.

this because the cell itself will show some sort of cryptic-looking code that bears no resemblance to what you typed, and that begins with the "#" (number sign) symbol. For now, don't worry about error values, just be aware that they exist.

That's it—end of story. When you type something into a cell, it becomes either a formula, a number, or a text value (or if you are unlucky and make a goof, an error value)—there are no other possibilities. This, too, is extremely important. Keep it in mind and, again, it will save you a considerable amount of frustration.

3.6 What About Dates and Times?

You can type a value into an Excel cell something like "2/14/07" and when you click the green check mark or press the Enter key it will be stored in the cell and displayed pretty much the way you typed it—"2/14/07"—the conventional way for writing a calendar date.

So which data type is this? Based on the data typing rules outlined above, it's not a formula since its first character is not "=". It's not an error value since you don't see a "#" as its first displayed character. Is it then a number, or is it text? You may be tempted to say it's a text value because it contains "/" characters which are *not* numeric symbols.

Sorry, but you're wrong! It's a number. It doesn't look like one, since (as mentioned) numbers don't have the forward slash ("/") character as part of their symbology. What's confusing is that there are actually some things going on in addition to what I've described so far. Typing a value that fits the conventional notation of a calendar date makes Excel not only store a numeric value that represents that date, but it also automatically applies a particular *formatting* to the cell along with storing the value.

The result still fits the formula/number/text paradigm with respect to Excel data types, but it also makes the date value appear the way we're accustomed to seeing dates. The actual raw value stored is a number that counts how many days there are between January 1st, 1900 and the date value indicated (this is sometimes called a Julian date, a concept familiar to accountants). So for the date "2/14/07" the number stored is 39,127, meaning that the time lapsed from January 1st, 1900 to February 14th, 2007 is 39,127 days long. You don't actually see the "39,127" value, but it's there.

We don't usually think of dates as sequential numbers, which is why Excel goes to the trouble of preserving the "month/day/year" formatting we're accustomed to. But there are two very strong reasons for doing things this way "under the hood." First, it fits Excel's data type model. Second (and more interestingly), it now becomes possible to carry out date arithmetic, a topic we'll arrive at after discussing formulas.

In a very similar fashion, values indicating a time of day (for example, "3:37 PM") are also stored as numbers. Again, you type them the way you are used to seeing them and Excel stores them as numbers with a "time" display format applied. The numeric values representing times of day are always numbers between 0.0 and 1.0 which correspond to the fraction of a 24-hour day represented by the particular time. So for example, 12:00 AM is stored as 0.0, 6:00 AM is stored as 0.25 (6 out of 24 hours, or one-fourth of the way through the day), 12 noon is stored as 0.5 (half way through the day), the exemplar 3:37 PM from above is stored as approximately 0.6506944, 6:00 PM is stored as 0.75, and 11:59:59 PM (one second before midnight) is stored as approximately 0.9999884 (not quite 1.0).

Appendix A — Suggested Additional "Excellent" Reading

Excel for Starters: The Missing Manual, by Matthew MacDonald; © 2006, O'Reilly Media, Inc.; ISBN 0-596-10154-6 (Trade Paperback)

Excel: The Missing Manual, by Matthew MacDonald; © 2005, O'Reilly Media, Inc.; ISBN 0-596-00664-0 (Trade Paperback)

F1 Get the Most out of Excel—The Ultimate Excel Tip Help Guide, by Joseph Rubin, CPA; © 2004 by Joseph Rubin, CPA; ISBN 0-9746368-2-7 (Paperback)

Excel Charts for Dummies, by Ken Bluttman; © 2005, Wiley Publishing, Inc., ISBN 0-7645-8473-1 (Trade Paperback)

Excel Formulas and Functions for Dummies [Abridged], by Ken Bluttman & Peter G. Aitken; © 2005, Wiley Publishing, Inc., ISBN 0-7645-7739-5 (Trade Paperback)

Excel 2003 for Dummies, by Greg Harvey; © 2003, Wiley Publishing, Inc., ISBN 0-7645-3756-3 (Trade Paperback)

Excel 2002 for Dummies, by Greg Harvey; © 2001, Hungry Minds, Inc., ISBN 0-7645-0822-9 (Trade Paperback)

Excel 2000 for Windows for Dummies, by Greg Harvey; © 1999, Hungry Minds, Inc., ISBN 0-7645-0446-0 (Trade Paperback)

Addendum: Microsoft Excel 2000/XP/2003 Keyboard Shortcuts

Key(s)	Effect
Worksheet Navigation	
Ctrl + Home	**Move** the **Active Cell** to **Cell A1**.
Ctrl + End	**Move** the **Active Cell** to the **Cell** at the intersection of the **Farthest Right Column** and the **Lowest Row** with data (if necessary, the sheet will scroll).
←	**Move** the **Active Cell** Left **One Cell**.
→	**Move** the **Active Cell** Right **One Cell**.
↑	**Move** the **Active Cell** Up **One Cell**.
↓	**Move** the **Active Cell** Down **One Cell**.
Ctrl + ←	**Move** the **Active Cell** Left to the **Last Active Cell**.
Ctrl + →	**Move** the **Active Cell** Right to the **Last Active Cell**.

Key(s)	Effect
Ctrl + ↑	**Move** the **Active Cell** Up to the **Last Active Cell**.
Ctrl + ↓	**Move** the **Active Cell** Down to the **Last Active Cell**.
Page Down	**Scroll** the worksheet **Down One Screen** (toward the bottom of the worksheet).
Page Up	**Scroll** the worksheet **Up One Screen** (toward the top of the worksheet).
Home	**Move** the **Active Cell** to the **Beginning** of the **Current Row** (Column A, or the first non-hidden column)
Workbook Management	
Ctrl + N	Create a **New** (Blank) Workbook.
Ctrl + O	**Open** an existing Workbook (same as [File]➡[Open…]).
Ctrl + S	**Save** the current Workbook (same as [File]➡[Save]).

Key(s)	Effect
Ctrl + P	**Print** the current **Sheet** (same as [File]➡[Print…]).
Editing a Worksheet	
Ctrl + Z	**Undo** the most recent action (same as [Edit]➡[Undo]).
Ctrl + Y	**Repeat** the most recently "undone" action (same as [Edit]➡[Repeat]).
Ctrl + X	**Cut** the current contiguous cell selection* to the clipboard (same as [Edit]➡[Cut]).
Ctrl + C	**Copy** the current contiguous cell selection* to the clipboard (same as [Edit]➡[Copy]).
Ctrl + V	**Paste** the contents of the clipboard into the Worksheet with the upper-left corner of the insertion at the **Active Cell** (same as [Edit]➡[Paste]).
Ctrl + A	**Select** the **Entire Worksheet**, from Cell A1 to Cell IV65536 (Note: This is *not* very useful!).
Text and Cell Content Deletion	
← (Backspace) or Delete	*When Cell(s) are selected:* **Clear** the contents of the selected Cell(s). *When the contents of a Cell are being edited:* **Backspace** deletes one character to the Left of the insertion caret; **Delete** deletes one character to the Right of the insertion caret. Either key deletes a selected range of text.
Spelling, Grammar, and Thesaurus	
F7	**Activate** the **Spelling** dialog (same as [Tools]➡[Spelling …]).
Basic Cell and Character Formatting	
Ctrl + B	**Toggle**** the Font **Boldface** attribute for the selected Cell(s) or text (or for the text about to be typed).
Ctrl + I	**Toggle**** the Font *Italic* attribute for the selected Cell(s) or text (or for the text about to be typed).
Ctrl + U	**Toggle**** the Font Underline attribute for the selected Cell(s) or text (or for the text about to be typed).
Ctrl + % 5	**Toggle**** the Font ~~Strikeout~~ attribute for the selected Cell(s) or text (or for the text about to be typed).
Access All Cell Formatting Options	
Ctrl + ! 1	**Activate** the **Format Cells Dialog** for the selected Cell(s).
Getting Help	
F1	**Activate** the **Excel Help** dialog, or the Office Assistant (depending on configuration) (same as [Help]➡[Microsoft Excel Help]).
Shift + F1	**Activate "What's This?" Help** (same as [Help]➡[What's This?]).
Configuring Microsoft Excel	
Change Microsoft Excel's configuration settings by activating the **Options Dialog** [Tools]➡[Options…] (no keyboard shortcut).	

* In Excel, the Cut and Copy commands apply only to a single contiguous cell selection, or to a contiguous selection of text in a cell being edited. They do *not* apply to a discontiguous selection of cells.

** "Toggle" means if it's off turn it on, if it's on turn it off—these are the only two possibilities.