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# Introduction to Excel 2002

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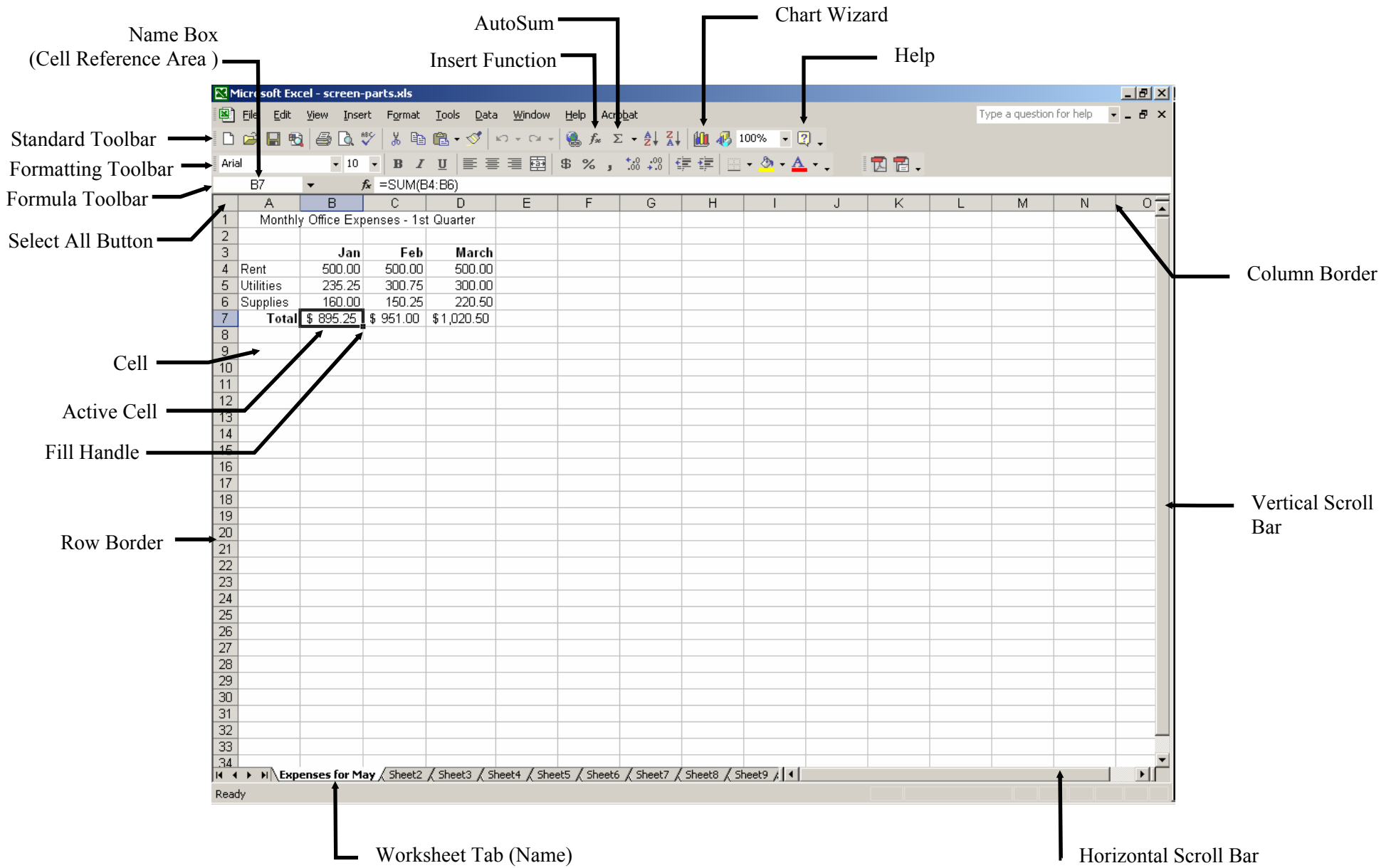
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# Basic Parts of an Excel Screen



## Terminology

### Worksheet

- Microsoft's name for a spreadsheet; it's where you enter the data and formulas so you can perform calculations.
- A sheet tab (located at the bottom of a worksheet) is the name assigned to a worksheet; the default names are Sheet1, Sheet2, etc.
- To change the name of a sheet tab, double-click the sheet tab and type a new name.

### Workbook

- A collection of worksheets.

### Cell

- Location where you enter data (text or numbers) and formulas.

### Active Cell

- The cell which is currently selected (using the mouse, Tab key, Enter key, etc.).

### Cell Reference

- An address, composed of a letter and a number, that uniquely identifies each cell.
- Examples:           A1       D50     G19

### Range

- A group of adjacent cells that are referenced by the beginning and ending cell references of the group.
- Examples:  
          A1:A4           A1:D1           A1:D4

## Mouse Pointers and Their Functions

There are many different types of mouse pointers that are used in Excel. The following are the most commonly used:

- | Insertion Point..... used to enter & edit data
- ⊕ Block Plus Sign..... selects cells (for formatting, etc.)
- + Cross Fill Handle ..... copies data or formulas from one cell to another
- ↻ Block Arrow Handle ..... drags contents of cells, rows, or columns to another location
- ↔ Horizontal Double Arrow ..... adjusts column widths
- ↑↓ Vertical Double Arrow..... adjusts row heights

## Data Types

There are two types of data which may be entered into a cell:

1. Constant - text or numbers; these values do not change unless you edit the cell's contents
2. Formula - value that is produced as a result of calculations; value changes when data is changed in the worksheet; formulas begin with an equal sign (=).

### Numbers

- Includes the digits 0 through 9 and the following special characters: + - ( ) , / \$ % . E e
- By default, all cells are formatted with the General number format (which displays numbers as integers, decimals, or in scientific notation).
- Numbers, by default, are right justified.
- A different format may be applied to numbers by selecting **Format/Cells** from the menu and then clicking the Number tab; or use the short-cut buttons in the Formatting toolbar.
- When the length of a number exceeds the column width, number signs (#####) will be displayed in the cell or the number will be displayed in scientific notation; to display the entire number, move the column border to desired width. Or, select the column and then from the menu select **Format/Column/AutoFit Selection** to increase the column width.
- In some cases, you may want to enter numeric data as text. To do so, type an apostrophe before the number or, prior to entering the number, format the cell as text (by selecting **Format/Cells** from the menu and then select the Number tab and choose Text).

### Text

- Includes any character that is not interpreted as a number by Excel.
- By default, all text is left justified; a different format may be used by using the short-cut buttons in the Formatting toolbar.
- A long text entry will appear to overflow to adjacent cells.
- Cells may be formatted to allow for word wrapping by selecting **Format/Cells** from the menu and then select the Alignment tab and choose Wrap Text.

## Formulas and Functions

### Formula

- Formulas are used to compute values.
- Functions are formulas that have already been “pre-written”.
- An equal sign must precede a formula.
- Formulas may be typed in lower or uppercase letters; you may type a space between operators.
- Examples:  
    = b4+h4          = b4 \* h4          = B4 / H4
- Formulas may be entered by typing the complete formula or by using the point mode method (or by using the Insert Function Wizard).

### Function

- A prewritten formula that provides a quick means of performing a calculation.
- Common functions include: Average, Sum, Maximize, Minimize.
- The AutoSum button may be used to sum numbers. To do so, click the AutoSum button once to display formula, then click again to display the value.
- Functions may be entered by using the Insert Function button or by selecting **Insert/Function** from the menu.
- Examples:  
    =SUM(A2:A10)                      =MIN(A2:A10)                      =AVERAGE(A2:A10)

### Operators

- Arithmetic operators include: + (addition), - (subtraction), \* (multiplication), / (division), % (percentage), and ^ (exponentiation).
- When more than one operator is used in a formula, the order of operations is as follows: negation ( - ), percentage ( % ), exponentiation ( ^ ), multiplication ( \* ), division ( / ), addition ( + ), subtraction ( - ).
- Parentheses may be used to override the order of operations.
- Examples:  
    8 \* 5 - 2 = 38                      8 \* (5 - 2) = 24                      =C4 \* (A5 - B2)

### View Formulas & Functions

- To display all formulas in your worksheet, press the Ctrl and the ` keys at the same time. (The ` key is located above the Tab key.) Or, select **Tools/Options/View** from the menu and then click on Formulas. To turn the formulas off, press the Ctrl and the ` keys at the same time.

### Relative vs. Absolute Reference

- Relative - Cell references are automatically adjusted when formulas or functions are copied.
- Absolute - Refers to a specific cell; a dollar sign (\$) is used to indicate an absolute reference.
- Examples of relative references:                      Examples of absolute references:  
    B15    A10    C2                                      \$B\$15    \$A\$10    \$C\$2

## Editing the Worksheet

### Changing Column Widths and Row Heights

- The width of a column may be changed by several different methods:
  - Method 1 – Select column. From the menu, select **Format/Column/Autofit Selection**.
  - Method 2 - Double-click on column border.
  - Method 3 - Position mouse pointer over column border, click, and drag to desired width.

### Selecting Cells, Rows, Columns, or Worksheet

- To select a single cell, move the mouse pointer over the cell and click.
- To select a group of cells, position mouse pointer over the first cell in the group and drag.
- To select an entire row, click the row number.
- To select an entire column, click the column letter.
- To select the entire worksheet, click the Select All button.

### Inserting/Deleting Rows and Columns

- Rows are inserted immediately above the mouse pointer.
- Columns are inserted to the left of the mouse pointer.
- To insert a row, move mouse pointer to desired location, and select **Insert/Rows** from the menu.
- To insert a column, move mouse pointer to desired location, and select **Insert/Columns** from the menu.
- To delete a row or column, click the row number or column letter and then select **Edit/Delete** from the menu.

### Copying and Moving Cells to Replace Existing Data

- Cells may be copied or moved to another location in the worksheet.
- Warning: When you paste data into another cell, the existing data is overwritten.
- There are two methods for copying cells:
  - Method 1 - Highlight the cells you wish to copy, select **Edit/Copy** from the menu, move cursor to destination, and select **Edit/Paste** from the menu.
  - Method 2 - Highlight the cells you wish to copy, move mouse pointer over the border of the selected cells and press mouse button, hold down the Ctrl key (mouse changes to a plus sign), and drag border to destination.
- Another method for copying data to adjacent cells is by using the fill handle:
  - Method - Highlight the cells you wish to copy, move mouse pointer to the fill handle, drag the cross fill handle across desired cells.
- There are two methods for moving cells:
  - Method 1 - Highlight the cells you wish to move, select **Edit/Cut** from the menu, move cursor to destination, and select **Edit/Paste** from the menu.
  - Method 2 - Highlight the cells you wish to move, move mouse pointer over the border of the selected cells and press mouse button, and drag border to destination.

