Excel III

Introduction

In this class I intend to round out the material covered in Introduction to Excel and Intermediate Excel by picking up a few added details and extra techniques we can use.

Advanced Editing

Freezing Panes

This trick is designed to make the column titles(or other desirable information) visible at all times. By freezing the top row of a spreadsheet you can take control of what is shown on your screen. Notice how the row count is 1, 41, 42. These rows haven't been hidden, row one has just been given the equivalent of the "Always on top" option available in Windows.

To freez panes in a worksheet follow these steps:

1. Locate the highlighting box directly below the section you wish to freeze(in the example above that would be cell A2).
2. Open the "Window" menu and choose "Freeze Panes"

To remove this effect you need only re-open the "Window" menu and choose "Unfreeze Panes".

Selecting Noncontiguous Ranges

When edits, formatting changes, or deletions you want to make are in multiple separate areas of the worksheet, you can select these noncontiguous ranges by adding the control key to the selection procedure. To select multiple ranges that don't share adjacent cells, follow these steps:

1. Select the first cell or range of cells
2. Release the mouse, and press and hold down the Ctrl key
3. Using the mouse again, select the next cell or range of cells
4. Repeat until you've selected all the ranges you need

*NOTE: You can only copy and paste multiple ranges if they are all the same size. Other operations (e.g. formatting, deleting) can be performed on variable sized ranges.

Grouping Worksheets

If you want to work with a group of cells over several worksheets then you can do what's called grouping them. This is done by selecting the group of cells you want to edit, then, holding the ctrl button down, left-click the other worksheets you wish to include.

Naming Ranges for Fast Access

Sometimes you'll have a number of cells that you want associated with each other, other times you just find it easier to refer to cells and blocks of cells by name rather than cell address. To name cells follow these steps:

1. Select the cell(s)
2. Choose Insert→Name→Define
3. In the Names in Workbook text box, type a name for the selected cell(s)
4. Click OK

You can now refer to those cells by name on any worksheet in your file.

Protection and Tracking

These are not features that apply if you store your Excel files on your own desktop and you're the only one who works with them. However, most business environments involve shared resources and several people interacting with the same files. For this reason we're given the power to protect our workbooks from being changed and/or track any changes that are made.

How To Allow Changes Only To Specific Cells

This is complex and easy to have trouble with do to the extensive, and sometimes redundant, steps involved. Be sure to follow exactly:

1. Protect Worksheet
2. Unprotect Worksheet
3. Highlight Cells you wish to be edit-able
4. Open the Format menu
5. Choose “Cells”
6. Click the “Protection” tab
7. Un-check the “Locked” check-box
8. Protect Worksheet again (using the same password or lack of password)

Practical Applications of Protection

Creating forms that look more professional and are easier to use is easy when combining protection with the merge cells feature. The first step is to create a spreadsheet clearly identifying the location users are supposed to enter, then merge those areas into 1 cell per question. Next, unlock the new merged cells leaving everything else locked. Finally, when protecting the worksheet uncheck the “Select locked cells” box. This will force the cursor to move from unlocked cell to unlocked cell, making filling out the form faster.

Advanced Formulas

Converting Results to Values

If you write a formula then delete the referenced cells the formula will no longer work, to solve this problem you can change stop the formula from calculating anymore and just change the field to the results. This is done by:

1. Select the formula
2. Copy
3. Choose Edit→Paste Special
4. Select Paste = Values, Operation = None
5. Click OK

AutoFill

I've shown many of you this independently and I'm sure some of you might have found this out on your own. But just to be sure everyone knows about this extremely useful Excel technique, we're going to go over AutoFill. AutoFill helps you recreate a function over a large number of cells, changing the appropriate information for each cell. You can use it for numeric calculations, dates, days of the week, and any other function. To AutoFill a formula follow these steps:

1. Enter your formula in the first cell
2. Select the formula cell

3. Look for the small black box in the lower right corner called a fill handle
4. Click and drag this handle across all the cells you want to include the formula.

Useful Functions

There are quite a few functions built in to the Excel program, here are a few I think might be helpful for you (we'll briefly discuss them all during class):

NOW and *TODAY:* =now()

LEFT and *RIGHT:* =LEFT(text, num_chars)→to use click the cell where you want the result, type =left(click the cell containing the value you want to extract characters from, type a comma (',') then the number of characters you want to extract. Type ')'. Use Autofill to finish the formula on down the page.

CONCATENATE: 1. type = and click the first cell to be joined 2. type & 3. type the next cell to be joined 4. repeat

RAND: To get a random number type "=int(rand()*x)" where x is the range you want the number to be in.

UPPER,LOWER, and *PROPER*: converting text to look how you like. Type "=upper(", click on the cell you want to change, type ")", click enter

SUMIF: =sumif(range, criteria, sum_range)

*NOTE: You can use the Range Names we learned to create earlier in these or any functions.

Charts and Graphs

We briefly examined the creation of charts in Intermediate Excel, learning how to select data for use in a chart, how to determine the style of chart used, and how to change superficial details like colors. Today we'll spend more time on the different things we can do in making charts in Excel.

Using the Chart Wizard

Steps:

1. Create Table you want to chart
2. Select the table
3. Choose "Insert→Chart" or click the Chart Wizard button on the Standard toolbar.
4. Follow the steps in the Chart Wizard dialogue boxes. Click Finish to create the chart

Editing Existing Charts

Changing a Chart Sheet to an Embedded Chart(or vice versa):

-Select "Chart→Location" then select "As Object"(or "As Worksheet") and use the drop down list to determine where the chart will appear.

Adding a Trendline:

Trendlines can only be added to two-dimensional charts. To add a trendline select the data series you want the trendline to represent, Choose "Chart→Add Trendline" to open the Add Trendline dialogue box. Select the type you want and choose OK.

Adding or Adjusting Source Data

1. Select the chart and choose "Chart→Source Data"
2. Edit the data range to have the appropriate numbers

Adding a Secondary Axis to the Chart

More often than not you'll want to use one chart to compare two sets of data that are very different in value. We can do this by using a secondary axis:

1. Select the data series you want to plot on the secondary axis
2. Choose "Format→Selected Data Series"
3. Select the Axis tab
4. Under Plot Series On choose Secondary Axis
5. Click OK

6. Once returned to the graph you can use the toolbar to make that series a different graphical style

Value Axis Scaling

Controlling the scale of the Axes allows you to control the chart's visual characteristics, and thereby the assumptions that the audience makes based on viewing the chart. You can adjust the scale of the axes by constraining visual highs and lows: the place where the two axes intersect(the origin), the maximum value displayed, and the unit iteration(how big the tick marks are) between values.

Changing the maximum, minimum, and tick mark values:

1. Select the axis
2. Choose "Format→Selected Axis"
3. Click the "Scale" tab
4. Edit values accordingly

Repositioning the Category Axis:

1. Select the axis
2. Choose "Format→Selected Axis"
3. Click the "Scale" tab

4. Edit the number in the "Value (Y) axis crosses at category number:"

Troubleshooting(now you should know how to solve these problems)

-How do I make data appear smaller on the chart? Change the maximum value of the Value Axis

-How do I change the chart type of just on of the data series in a chart? Select the data series, use toolbar to change chart type.

-I have two data series with dramatically different values, how do I chart them together? Create secondary axis.

Customizing Excel

Why customize excel? Every user is different, if you've reached this level in Excel it's likely that you use the program often, and with frequent use I'm certain you'll find there are things you change regularly. Maybe most of your workbooks have 12 worksheets, maybe you like a larger font, maybe you're tired of getting a certain warning message that you knew all about long before it popped up. There are a lot of possible changes to make using Excel a faster, and easier process for you.

Changing the Default Excel Settings

-"Tools→Options" make changes, click OK