2016 NC Baptist Secretaries Conference
Advanced Excel

Work With Multiple Worksheets

By default, a Microsoft Excel **Workbook** consists of 3 **Worksheets**. The maximum number of worksheets in a workbook is 255. **(Note: Worksheets can be named by double-clicking on the sheet tab and typing in a name of up to 31 characters, including spaces.)** If most of the information inside multiple worksheets is the same, you can enter it simultaneously and then later complete the rest of the data that is different.

You can work with multiple worksheets inside a workbook. These sheets can be adjacent or nonadjacent.

Select Multiple Adjacent Worksheets:
1. Click on the first sheet tab to select.

2. Hold down the **[Shift]** key and click on the last sheet tab to be selected. (For example: Click on Sheet1, hold down the **[Shift]** key and click on Sheet3. Sheets 1 – 3 will be selected.)

Select Nonadjacent Worksheets:
1. Click on the first sheet tab to select (Sheet1).

2. Hold down the **[Ctrl]** key and click on Sheet 3. (Only sheets 1 and 3 will be selected.)

De-select Worksheet Tabs:
1. Click on any non-selected worksheet tab.
   OR

   Click the Right Mouse Button on any selected worksheet tab and click on **Ungroup Sheets**.

Create And Format Multiple Worksheets

If multiple worksheets inside the file are going to contain the same information and be formatted the same, it will be quicker to select the worksheets and create them simultaneously. Type everything that is the same and format it accordingly. Just do not enter the information that is different (yet.)

Product	Part Number	Purchase Price	Sale Price	Difference
Monitor				
System Unit				
Laser Printer				
Scanner				
Total				

Move Worksheets Within A Workbook
You can change the order of the worksheets within a workbook by dragging the sheet tab from one location to another along the bottom of the screen. To move several sheets at once, select multiple sheets and drag.

Move Worksheets Between Workbooks
You can also move worksheets to a new blank document or to an existing workbook. The existing workbook must be opened before you can move a worksheet into it. Click the Right Mouse Button on the sheet tab and click on **Move or Copy**. Select the destination workbook and where in the workbook you want the sheet to be placed. **(Remember: you are moving this sheet out of this workbook into another file.)**

Copy Worksheets Within A Workbook
Instead of moving worksheets from one workbook to another, you can copy them. This leaves a copy of the worksheet in the original file as well as one in another file. To copy a sheet to a new location in the same workbook, select the sheet tab. Hold down the **[Ctrl]** key and drag the sheet tab to a new location. To copy several sheets at once, select multiple sheets and drag.

Copy Worksheets Between Workbooks
You can also copy worksheets to another workbook. Click the Right Mouse Button on the sheet tab and click on **Move or Copy**. Select the destination workbook and where in the workbook you want the sheet to be placed. You must click on the **Create A Copy** option at the bottom of the **Move or Copy** Dialog Box, or you will be moving the worksheet instead of copying it.

Insert A New Worksheet
You can insert a new worksheet at any time inside the workbook. You get 3 worksheets by default in a new workbook, so if you insert a new one it will be named Sheet4.

1. Right-click on an existing worksheet tab
2. Click on **Insert…**
3. Click **OK**.

Delete A Worksheet
You can delete worksheets at any time as well. **(Note: If you delete a worksheet, you cannot click on Undo to get it back!)**

1. Right-click on the worksheet tab to delete
2. Click on **Delete**
3. Click **OK**

Summarize Multiple Worksheets
You can summarize numbers in multiple worksheets into a Summary Sheet. This allows you to view the total for all the sheets combined, or look at the totals for individual sheets. An example of how this would be used is in an annual budget. You would have an individual sheet for Qtr 1, Qtr 2, Qtr 3, and Qtr 4. You would then have another sheet that would total the four quarters and be able to view the entire year's budget on one sheet.

1. Open **Sales Workbook.xls**.

2. Click in Cell **C5**.

3. Type =**sum(**

4. Click on the **Jones** tab and click in Cell **C5**.

5. Hold down the **[Shift]** key and click on the **Andrews** tab.

6. Press **[Enter]** to complete the formula.

7. Click in Cell **D5**.

8. Type =**sum(**

9. Click on the **Jones** tab and click in Cell **D5**.

10. Hold down the **[Shift]** key and click on the **Andrews** tab.

11. Press **[Enter]** to complete the formula.

12. Click in Cell **E5**.

13. Type: **=sum(**

14. Click on the **Jones** tab and click in Cell **E5**.

15. Hold down the **[Shift]** key and click on the **Andrews** tab.

16. Press **[Enter]** to complete the formula.

17. Select Cells **C5:E5**.

18. Place the mouse pointer on the lower-right corner of the selected area.

19. Hold down the Left Mouse Button and drag down to Row 14.

20. Save and close the file.

Calculate Single Cells From Multiple Worksheets
You can also create formulas that will calculate values within multiple worksheets and/or files without using the SUM function. In this case you would make sure that you have all of the files open that contain the values to be calculated. You add the values to the formula by clicking on the appropriate worksheet and cell.

1. Open **Advanced Formulas.xlsx** and **Sales.xlsx** files.

2. Click in Cell **B1**.

3. Type =

4. Click on Cell **G14**.

5. Press: +

6. Click on Cell **G31**.

7. Press: +

8. Click on the **View** tab

9. Click on the **Switch Windows** icon

10. Click on **Advanced Formulas.xls** to switch to that file.

11. Click on Cell **F6**.

12. Press: **[Enter]**.

13. Press the **[Up Arrow]** key on the keyboard.

14. Look at the formula in the **Formula Bar**.

15. Close both files.

Freeze Panes

When a worksheet is too large to fit on the window, it can be helpful to use the **Freeze Panes** command to "lock" certain rows or columns of information on the window while you scroll through the rest of the worksheet.

If column and/or row headings disappear as you scroll through the worksheet, you need to **Freeze Panes**. This assists you in knowing what data to enter into the spreadsheet and where to enter it.

1. Open **5 Year Loan.xls**.

2. Click on the **Payments** tab at the bottom of the window.

3. Click on the Down Arrow on the Vertical Scroll Bar. Notice that Rows 1 – 10 scroll out of site very quickly.

4. Click in Cell A11.

5. Click on the **View** menu

6. Click on the **Freeze Panes** icon.

7. Click on **Freeze Panes**.

8. Click on the Down Arrow on the Vertical Scroll Bar. Notice that Rows 1 – 10 remain on the window as you scroll.


Remove Freeze Panes

1. Click on the **View** menu

2. Click on the **Freeze Panes** icon.

3. Click on **Unfreeze Panes**.

Create Print Titles

The **Print Titles** option prints the same column and/or row headings at the top of every page. If the printout contains multiple pages, you might want a title on top of each page, or in the first column of each page. **Print Titles** will do this for you.

1. Open **5 Year Loan.xls**.

2. Click on the **Payments** tab at the bottom of the window.

3. Click on the **Page Layout** tab.

4. Click on the **Print Titles** icon.

5. Click in the **Rows to repeat at top:** box.

6. Type **a1:a4**.

7. Click on the **Print Preview** button on the right side of the Dialog Box.

8. Scroll through the preview pages and notice the row headings print at the top of each page.

9. Click on **Close**.
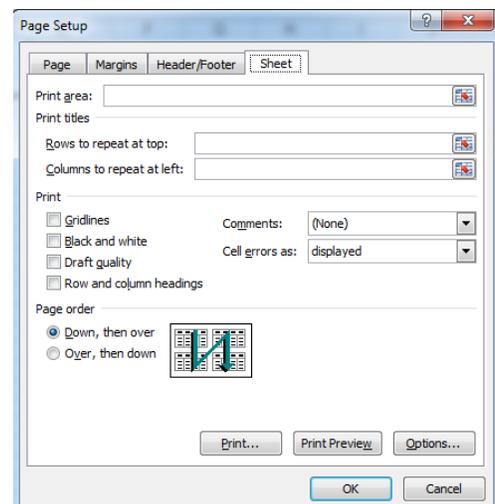
Concatenating data

Now let's look at the opposite situation. Suppose that you've already split data into two or more columns and now you decide you want it combined. (That's what concatenate means -- to combine.)

Concatenating data temporarily
To merge data temporarily, create a new column, and in it, set up formulas that concatenate the values of the individual cells.

Let's do this with the example file: **sort data.xlsx**

In cell M1, enter the formula =B5&" "&C5.

The **&** sign is the concatenation operator, so technically =A1&B1 would put the two values together. However, there would be no space between them. That's why the " " exist. It's a space, nestled between two quotation marks.

Note: You can also use the CONCATENATE function to do the same thing, like this: =CONCATENATE(Al," ",B2)

Notice that with the function, you separate the pieces with commas rather than & signs because each piece is a separate argument.

Pivot Tables

Pivot Tables are used in Excel to quickly summarize, organize, analyze, and/or compare large amounts of data. The data used to create a **Pivot Table** is called the *source data*. **Pivot Tables** simplify the process of summarizing data in the worksheet. **Pivot Tables** consist of row and column headings that can be rotated to generate different configurations of the data. If the source data changes, you can update the **Pivot Table**.

Create A Pivot Table Using the PivotTable Wizard
The PivotTable Wizard displays boxes that use data fields to create the **Pivot Table**.

1. Open **Pivot Table.xlsx**.
2. Click anywhere inside the list of data.
3. Click on the **Insert** menu**.**
4. Click on **PivotTable** icon.
5. Click on **OK**.
6. Drag the **Year** field to the **Report Filter** box.
7. Drag the **Area** field to **Row Labels** box.
8. Drag the **Month** field to **Column Labels** box.
9. Drag the **Sales** field to **Values** box.

Change and Reorganize Data in a Pivot Table
To change the way data is displayed in the pivot table, click on the down arrow beside specific fields in the spreadsheet and change options. (For example, instead of showing all the years, click on a specific year.)

Refresh a Pivot Table
If the source data changes after you create a **Pivot Table**, you can update or refresh the table to reflect the changes to the source data. The changes made when you refresh the **Pivot Table** include:

- Data field changes made in the source data.

- Deleted items or fields from the source data.

- Existing row or field data that have been changed or added in the source data.

1. Click on the Options menu in the PivotTable Tools toolbar.

2. Click on the Refresh icon in the Data group on the ribbon.

Deleting A Field From A Pivot Table
You can easily change which portion of the source data appears in a pivot table by removing whole fields. A pivot table must have a least one field; therefore, you cannot delete all of the fields.

Group Selected Items In A PivotTable
There may be times when you want to summarize data at a higher level than the source data allows. This can be done by grouping items within **PivotTable** fields. For example, if you have three Engineering departments (Chemical, Electrical, and Support), you can group them as Engineering so that their data are summarized together. Excel will not automatically name the new group. You must select the default group name (Group1, Group2, etc.) and type in the desired heading name.

Items can be grouped in one of three ways, depending on the item type:
- Grouping items by categories (as in Qtr1, Qtr2, etc.)

- Grouping numeric items into ranges (grouping inventory numbers.)

- Grouping dates and times into larger time units (grouping dates into months, quarters, or years.)

1. Select the items you want to combine.
2. Click the Right Mouse Button inside the selected area and click on **Group**. Microsoft Excel creates a new item that combines the selected items and adds a group field to the PivotTable. **Excel adds a new row heading (Group1, Group2, etc.)**
3. Click on the heading **Group1** and type the new heading name (i.e., Qtr1).
4. Click on the new field button to select it and type a new name (i.e., Quarters).

Ungroup Items In A PivotTable
To return the items back to their original view, you must **Ungroup** them. You cannot ungroup a single set of numbers, dates, or times that you've grouped at the same time; Microsoft Excel ungroups all sets.

Show Pages
The **PivotTable** will create a separate worksheet for each of the items in the **Page** field. For example, if you have **Area** as the **Page** field, the **Show Pages** option will create a worksheet for each area. You can also create individual pages by double-clicking on a cell that has a value in it.

1. Drag the appropriate button to the **Page** area of the **PivotTable** (Year, Area, etc.)
2. Click the Left Mouse Button anywhere inside the **PivotTable**.
3. Click on the down arrow to the right of the **Options** icon.
4. Click on **Show Report Filter Pages**. A new worksheet will be created for each item in that field.