



Software Application Tutorial



Microsoft Excel 2010 Managing Data

Copyright 2010, Software Application Training Unit, West Chester University. No Portion of this document may be reproduced without the written permission of the authors.

For Assistance Call x3350

A Member of the Pennsylvania State System of Higher Education

Table of Contents

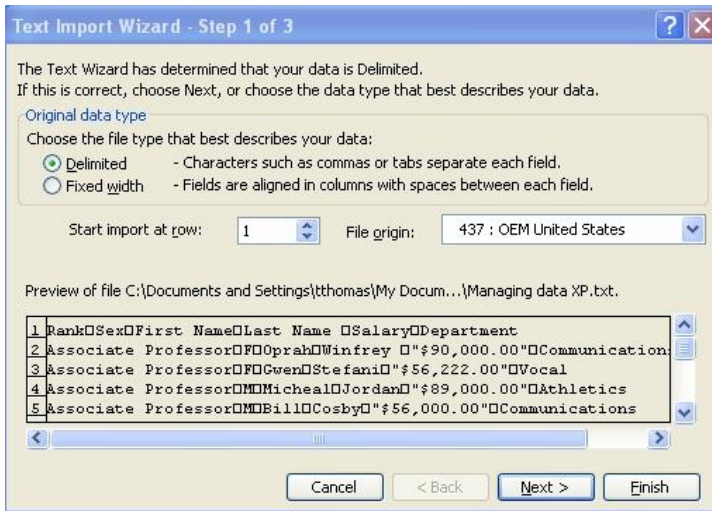
- IMPORTING TEXT FILES..... 1
- CREATING A TABLE 3
- TABLE MANIPULATION 4
- AUTO FILL 5
- SORTING & FILTERING..... 6
- DATA VALIDATION 8
- DATA MANIPULATION FUNCTIONS 10

IMPORTING TEXT FILES

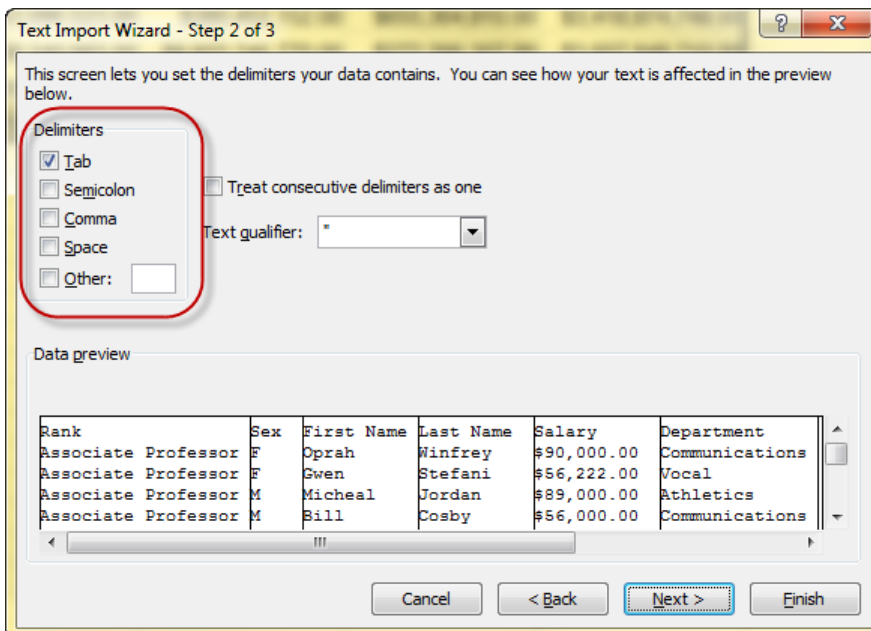
1. Click the Data tab, select From Text
2. Locate the file and click import
3. The Text Import Wizard will appear

Text Import Wizard

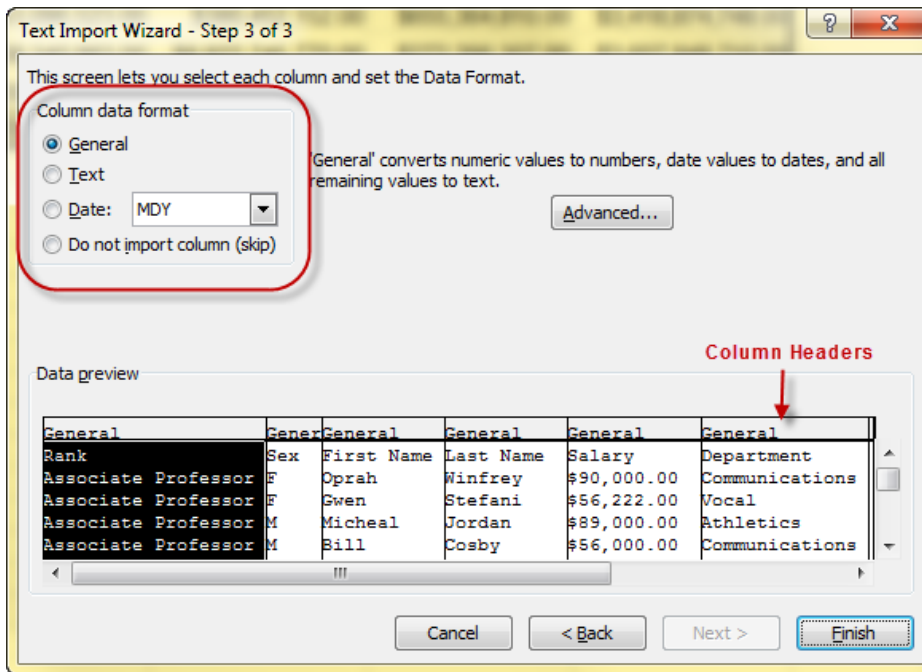
1. Choose the file type that describes your data. If you are unsure of the type leave the default settings > Click Next
 - Delimited – information separated by characters such as commas or tabs
 - Fixed with – information separated by spaces between each file



2. Select the delimiter(s) your data contains, if you are unsure leave the default. > Click Next

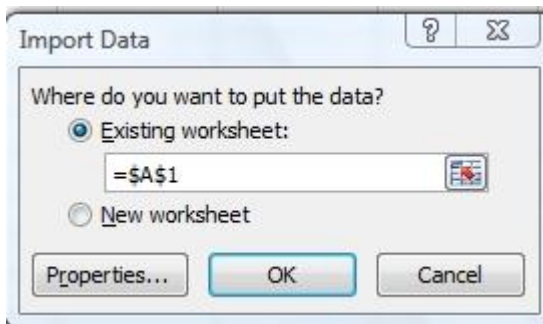


3. Select a format for each column. To select a column, click on the column headers



4. Click Finish

5. Select where you want to place your data



CREATING A TABLE

When creating a table in Excel keep the following in mind:

- Create the table on one spreadsheet
- Create column headers at the top of each column
 - a. In the example below the column headers are: **Rank, First Name, and Last Name**

Note: Try not to leave any blank rows or columns but you may have blank cells.

	A	B	C
1	Rank	First Name	Last Name
2	Associate Professor	Oprah	Winfrey
3	Associate Professor	Gwen	Stefani
4	Associate Professor	Micheal	Jordan
5	Associate Professor	Bill	Cosby
6	Doctor	Robert	Redford
7	Doctor	Salma	Hayek
8	Doctor	Jules	Asner
9	Doctor	Matt	LeBlanc
10	Professor	P	Diddy
11	Professor	Sandra	Bullock
12	Professor	Matt	Damon
13	Professor	Jeff	Goldblum

Range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.

Table: A series of rows and columns that contains related data that is managed independently from the data in other rows and columns on the worksheet.

Creating a table from predefined data

1. Select the contents of your range
2. Select the Insert Tab > Select Table in the Tables group
3. Click OK to the Create Table box



Creating a new table

1. Select the range of cells to be included in the table
2. Click the Insert Tab > click Table in the Tables group
3. Click Ok

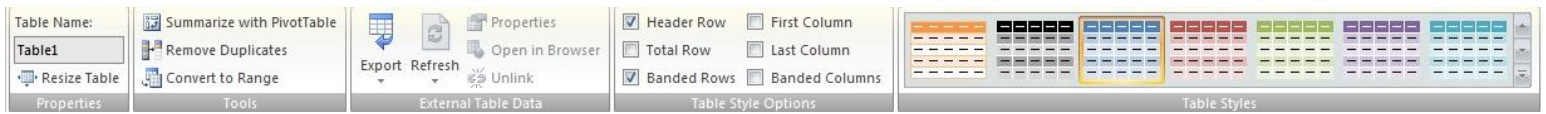


Note: You can create multiple tables on one spreadsheet

TABLE MANIPULATION

Design Tab

This tab will only display when a table is active.



Properties Group:

- Table Name: Give the Table a name if you plan to use it in future formulas
- Resize Table: Add/Remove columns and rows

Tools Group:

- Summarize with PivotTable
- Remove Duplicates- Remove duplicate rows from a sheet
- Convert to Range – Converts table into a normal range of cells

Table Style Options:

- Header Row
- Total Row
- Banded Rows
- First Column
- Last Column
- Banded Columns

Table Style

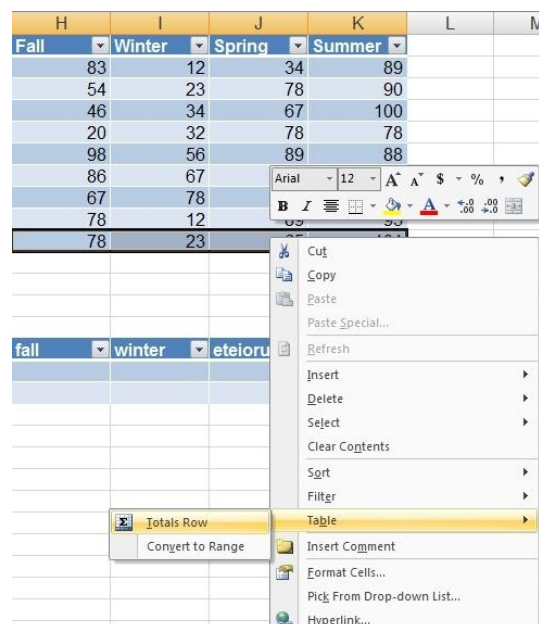
- Change the color styles of the table

Total Row

This row provides access to summary functions so that you can quickly calculate your data.

Turning on the Total Row

1. Select the last row of your table
2. Right-Click in the last row > Click Table > Click Total Rows



AUTO FILL

Use the Auto fill feature to fill cells with data that follow a certain sequence.

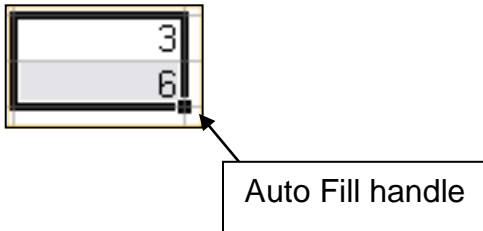
Numbers

Auto filling a sequence of numbers:

1. Type the first two numbers in the sequence
2. Highlight those two numbers
3. Click the Auto fill handle (lower right hand corner of the cell) and drag down

Auto filling a series:

1. Type the first couple of characters of the sequence.
2. Hold down the control key on your keyboard and the Auto fill handle then drag down



Dates

Auto filling a sequence of dates:

1. Type in the first date in the sequence
2. Click on the Auto fill handle (lower right hand corner of the cell) and drag down

Custom Lists

1. Click the File tab > Click Options
2. Click Advanced
3. Under the General section, click Edit Custom Lists
4. Click in the List Entries section and type your list, hit enter after each entry
5. Click Add
6. Click Ok twice

SORTING & FILTERING

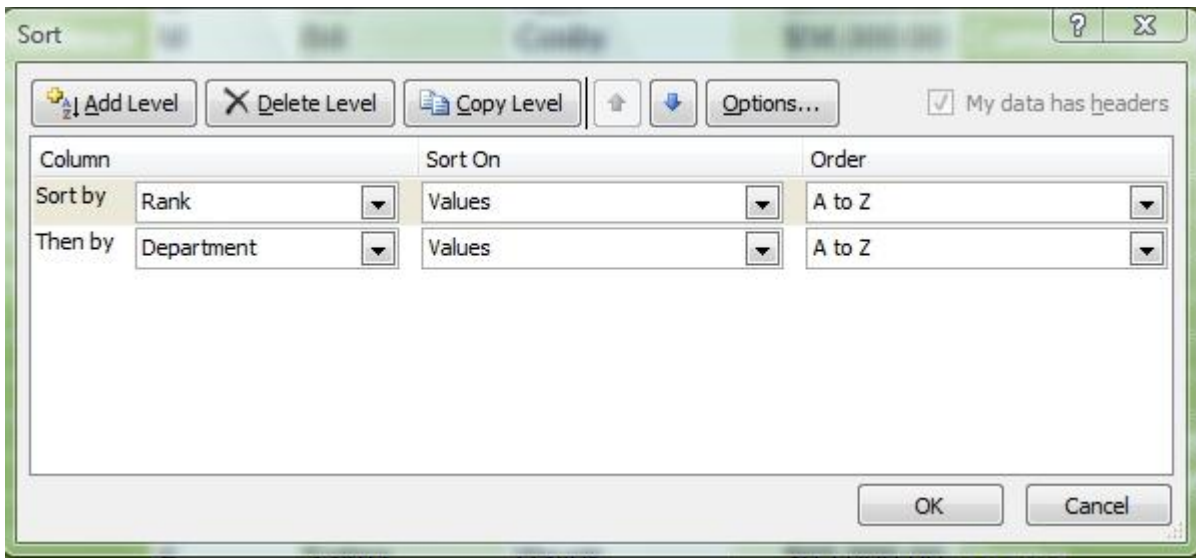
Sorting:

Sorting one column

1. Click the down arrow, located in the column header, of the column to be sorted
2. Select the Sort order, ascending (a-z) or descending (z-a)

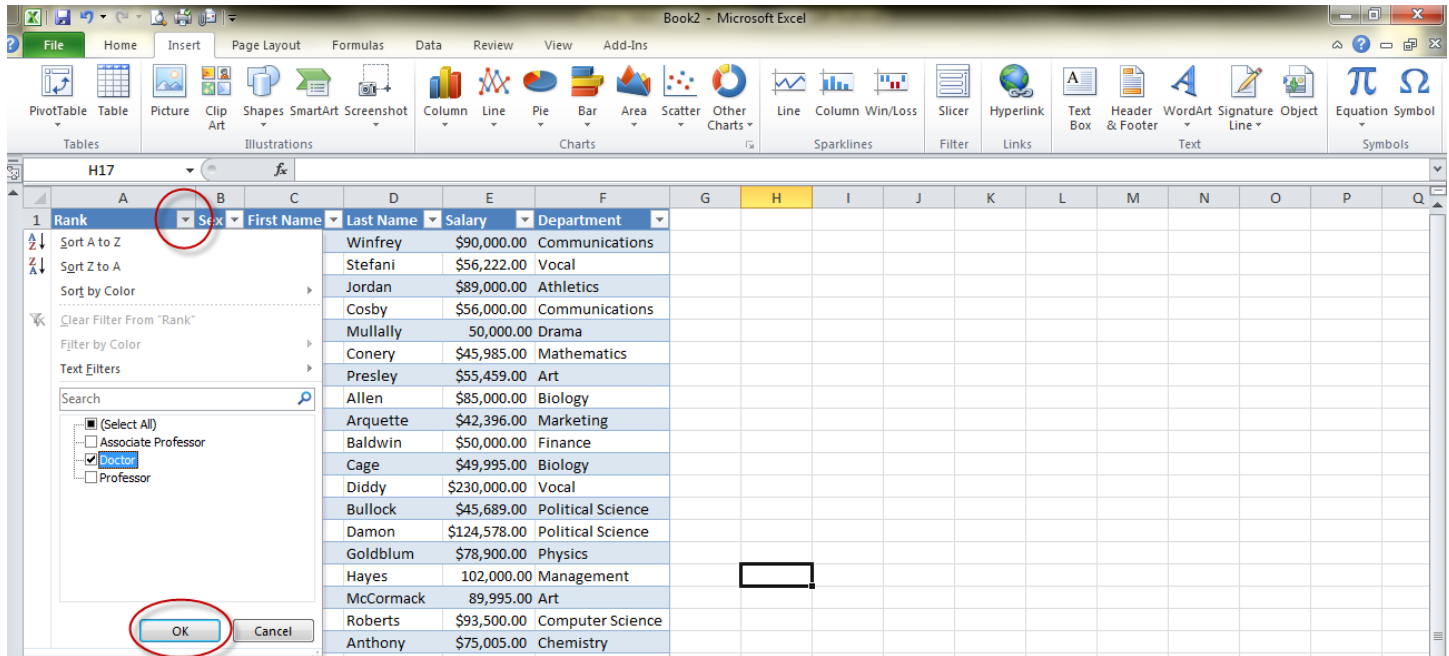
Sorting multiple columns - You can sort up to 64 fields at one time

1. Click the Data tab > in the Sort & Filter group click Sort
2. Click Add Level to add additional levels
3. Under Column select the fields you want to sort
4. Under Sort On select one of the following: values, cell color, font color, cell icon
5. Under Order select the sort order, ascending (a-z) or descending (z-a)



Filtering:

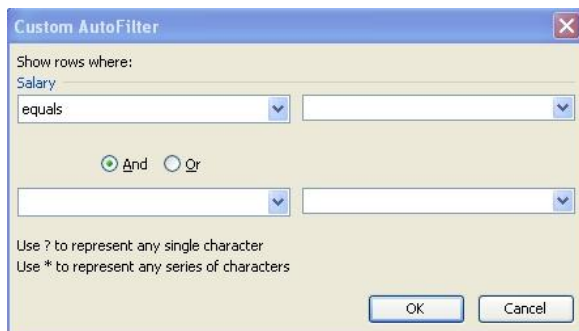
1. Click the down arrow in the column that is to be filtered
2. Check off the condition you want to filter
 - Depending on the size of your list it may be better to check off the “Select All” option first then select your filter criteria.
 - You can filter more than one field.
3. Click Ok



Example: The above example has all Doctors filtered out of the list.

Custom Filters:

1. Click the down arrow in the column you want to filter
2. Select Text Filters or Number Filters (this will depend on what you are trying to filter)
3. Enter the parameters for your filter



Turn off the filter:

1. Click the down arrow in the column where the filter has been applied
2. Select Clear Filter

DATA VALIDATION

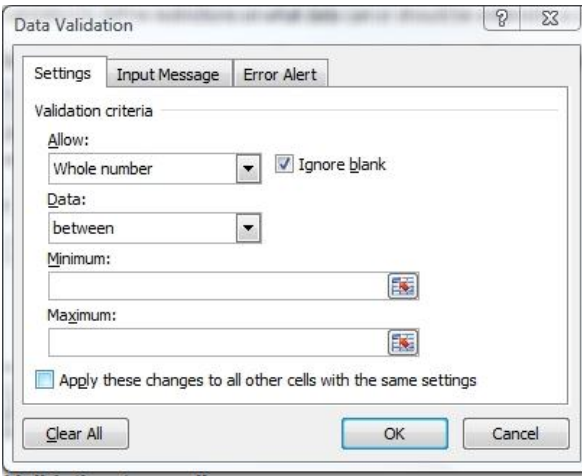
You can use data validation to define restrictions on what data can or should be entered in a cell.

Adding Data Validation to a cell

1. Select the cell you want to validate
2. Select the Data Tab and in the Data Tools Group select Data Validation

Settings Tab

1. On the Settings tab, under Allow, select the type of criteria you want to allow in the cell. Under Data enter in the excepted values



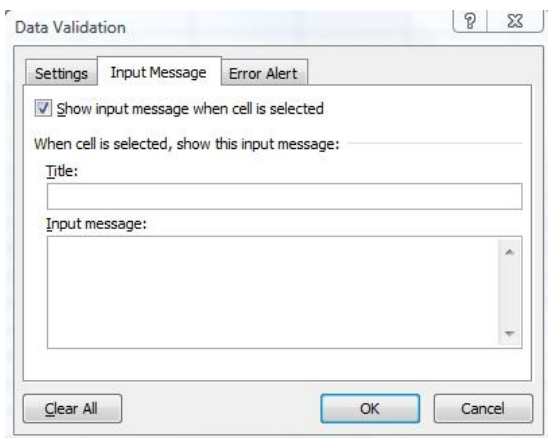
2. Click Ok

Data validating from an existing list

1. Select List under the Allow box
2. Type your values in the source box, placing commas after each selection **OR** if you currently have a list in your worksheet, go back to the worksheet and select the list

Input Message Tab- Used to create helpful messages for validated cells.

1. Type in a title for the message
2. Type in a message, your message should indicate a reason or a brief explanation for the validation or restriction



Error Alert Tab - Used to create an alert when invalid data is entered.

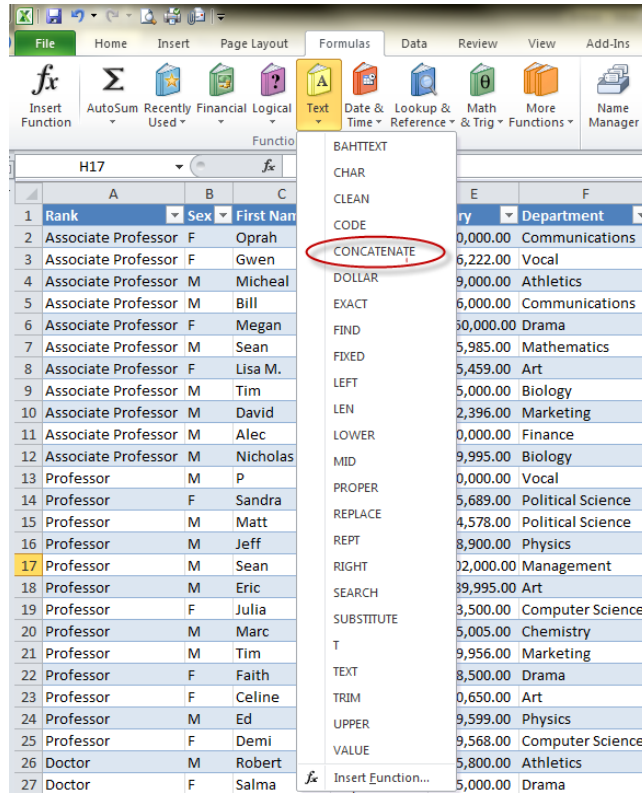


1. Select your style
 - a. **Stop** – Allows the user to select **Retry** or **Cancel**
 - b. **Warning** – Allows the user to click **Yes** to accept the invalid entry, **No** to edit the invalid entry, or **Cancel** to remove the invalid entry
 - c. **Information** – This is the most flexible alert, this allows the user to click **OK** to accept the invalid value or **Cancel** to reject it
2. Enter a title and an error message

DATA MANIPULATION FUNCTIONS

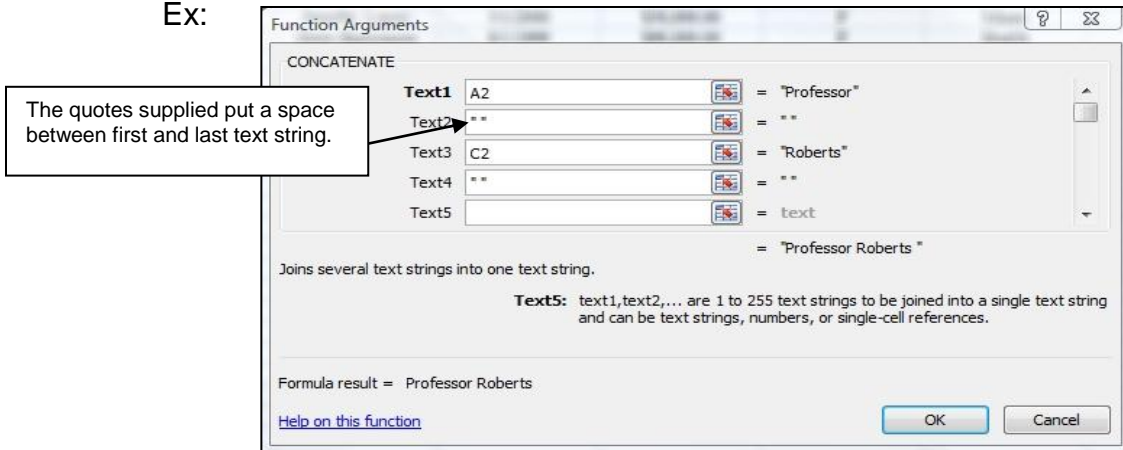
Concatenate Function – Joins several text strings into one.

1. Select the cell where the consolidate date will be entered
2. Click the Formulas tab – select Text – select Concatenate

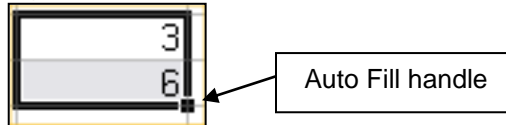


3. In the Function Arguments window, click in the Text1 box and enter the cell reference for the first part of the string and in the Text2 box enter the cell reference for the second part. You can add up to 255 text strings.
 - a. You must specify any spaces or punctuation that you want to appear in the results by using quotation marks in the appropriate Text box.

Ex:



4. Use the Fill Handle in the lower right hand corner of the cell to apply the function to the remainder of the list.



- **To remove the link between the referenced cells**

1. Highlight the row with the concatenated data
2. Select Copy
3. Select the down arrow under Paste and select Paste Values

Left and Right Function - These two functions are used to split text. Use the Left function to split out characters on the left and use the Right function to split our characters on the right.

- **Left Function**

1. Select the cell where the information will be entered
2. Select the Formulas tab – select Text – select Left
3. In the Function Arguments window, place the cell reference of the text string in the Text box. Then in the Num_chars box type the number of characters you want to extract from the left.
4. Click Ok

- **Right Function**

1. Select the cell where the information will be entered
2. Select the Formulas tab – select Text – select Right
3. In the Function Arguments window, place the cell reference of the text string in the Text box. Then in the Num_chars box type the number of characters you want to extract from the right.
4. Click Ok

- **Adding additional characters**

In the formula bar type the ampersand (&) in between the functions

ROW function - This function will return the number of the row that you reference. Ex: =ROW(A1) returns the number 1.

1. Select the cell where the numbering will start and type =ROW(A1)
2. Drag the fill handle down or across the range you want to fill.

RANDBETWEEN function – Returns a random set of numbers

1. Select the cell where the information will be entered
2. Select the Formulas tab – select Math & Trig – select RANDBETWEEN
3. Enter your bottom and Top numbers
4. Click Ok