

# Alan's Top Excel Tips

## Session 1

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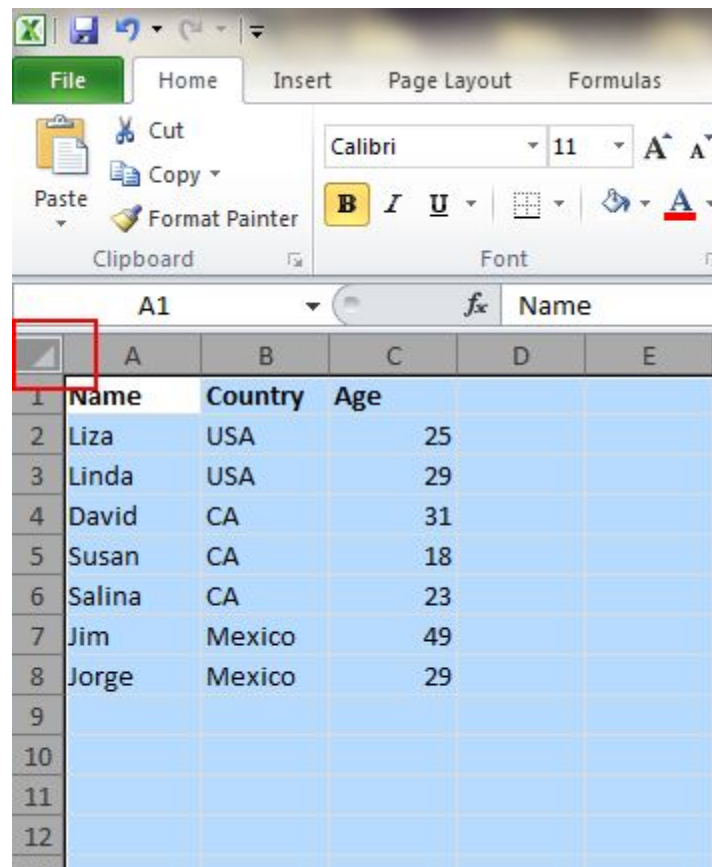
After Microsoft developed Excel to the 2010 version, it offered more surprises than ever. In order to deal with tons of big data, you can't ignore the important role Excel plays in daily work. However, both for beginners and advanced users, there are still many useful tips and tricks that are inevitably overlooked. In my 2020 Excel webinars I am going to share many of them with you

## 1.AutoSum

AutoSum can save a number of repetitive steps for those working with a range of numbers. If, for example, you would like to add a range of numbers, you need only to place the cursor in a cell at or near the end of the range and double click on the **AutoSum** icon to capture the sum.

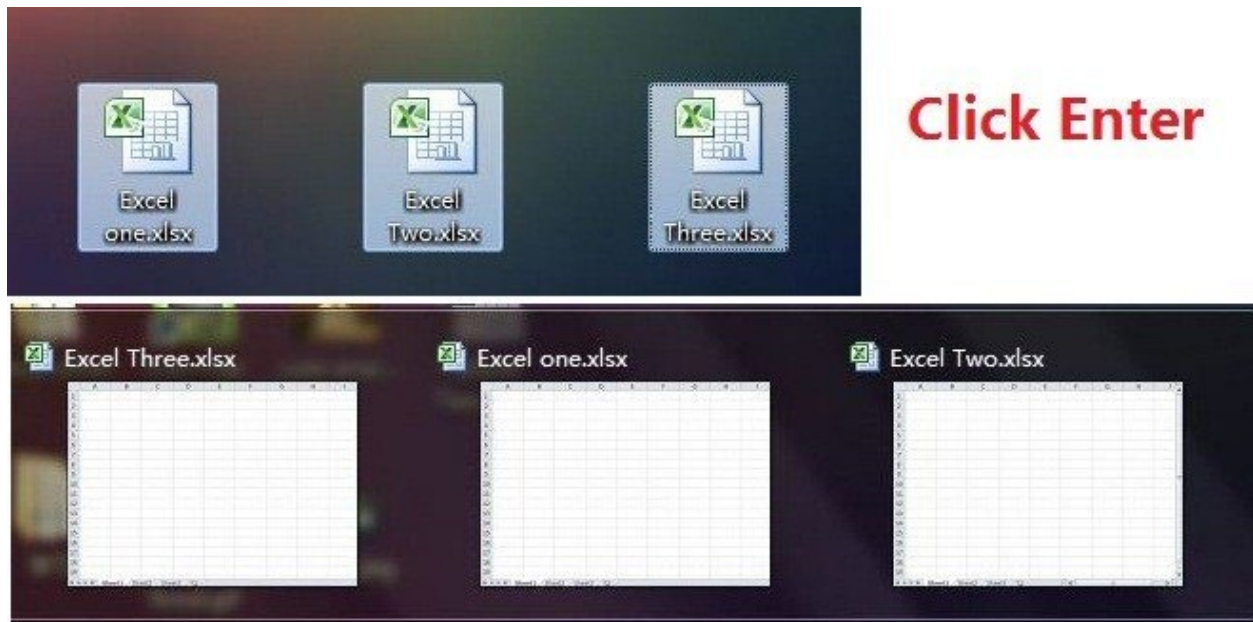
## 2. One Click to Select All

You might know how to select all by using the Ctrl + A shortcut, but few know that with only one click of the corner button, as shown in the screenshot below, all data will be selected in seconds.



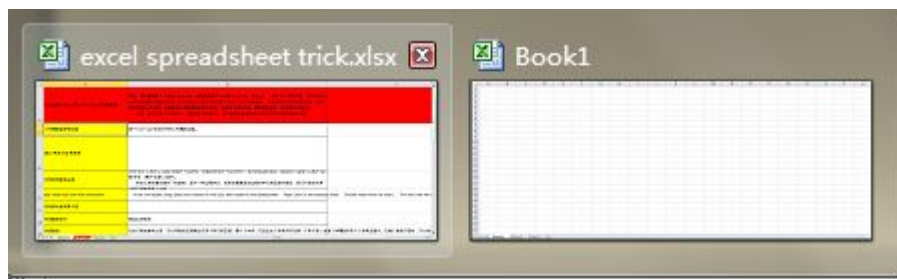
## 3. Open Excel Files in Bulk

Rather than open files one by one when you have multiple files you need to handle, there is a handy way to open them all with one click. Select the files you would like to open then press the Enter key on the keyboard, all files will open simultaneously.



#### 4. Shift Between Different Excel Files

When you have different spreadsheets open, it's really annoying shifting between different files because sometimes working on the wrong sheet can ruin the whole project. Using Ctrl + Tab you can shift between different files freely. This function is also applicable to other files like different Windows tabs in Firefox when opened using Windows 7.



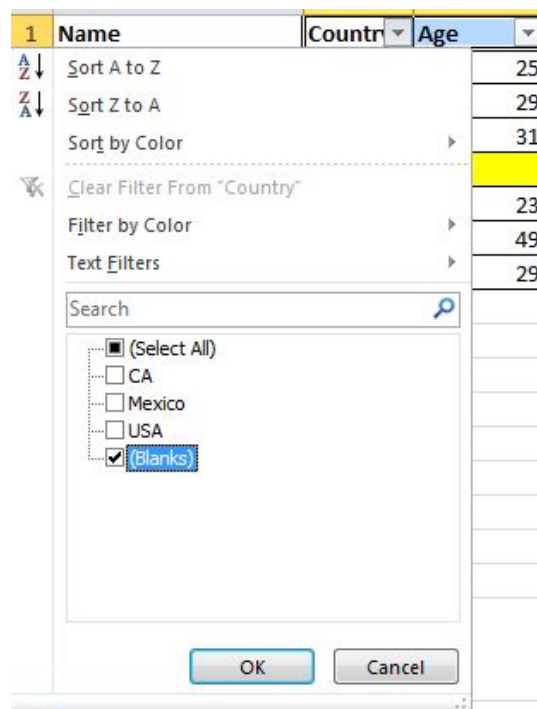
#### 5. Speedily Move and Copy Data in Cells

If you want to move one column of data in a spreadsheet, the fast way is to choose it and move the pointer to the border, after it turns to a crossed arrow icon, drag to move the column freely. What if you want to copy the data? You can press the Ctrl button before you drag to move; the new column will copy all the selected data.

A	B	C	D	E
Code	Name	Country	Age	
1	Liza	USA	25	
2	Linda	USA	29	
3	David	CA	17	
4	Susan	CA	24	
5	Salina	CA	23	
6	Jim	Mexico	49	
7	Jorge	Mexico	29	

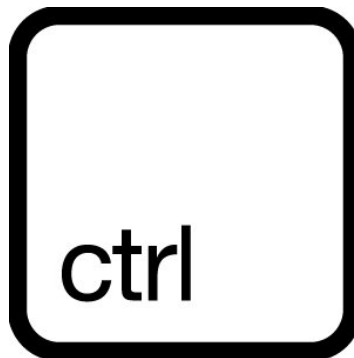
## 6. Speedily Delete Blank Cells

Some default data will be blank, for various reasons. If you need to delete these to maintain accuracy, especially when calculating the average value, the speedy way is to filter out all blank cells and delete them with one click. Choose the column you want to filter, go to Data->Filter, after the downward button shows, undo Select All and then pick up the last option, Blanks. All blank cells will show immediately. Go back to Home and click Delete directly, all of them will be removed.



## 7. Fast Navigation with Ctrl + Arrow Button and the Mouse

When you click Ctrl + any arrow button on the keyboard, you can jump to the edge of the sheet in different directions. If you want to jump to the bottom line of the data, just try to click Ctrl + downward button.



## 8. Hide Data Thoroughly

Almost all users know how to hide data by right clicking to select the Hide function, but this can be easily noticed if there is only a little bit of data. The best and easiest way to hide data thoroughly is to use the Format Cells function. Choose the area and go to Home->Font->Open Format Cells->Number Tab->Custom->Type ;;; -> Click OK, then all the values in the area will be invisible, and can only be found in the preview area next to the Function button.

C4		fx 17	
A	B	C	D
Name	Country	Age	Note
Liza	USA		@
Linda	USA		!
David	CA		?
Susan	CA		*
Salina	CA		^
Jim	Mexico		\$
Jorge	Mexico		#

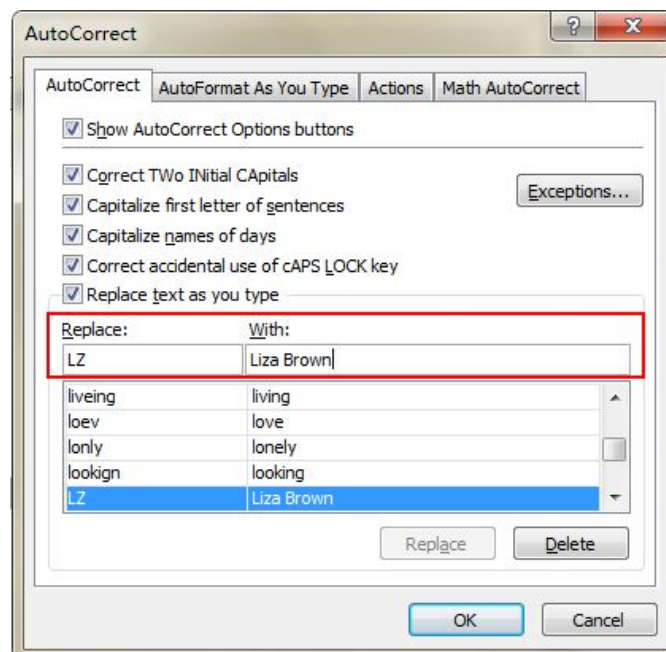
## 9. Input Values Starting with 0

When an input value starts with zero, Excel will delete the zero by default. Rather than reset the Format Cells, this problem can be easily solved by adding a single quote mark ahead of the first zero, as shown.

D2		fx '000123	
A	B	C	D
Name	Country	Age	Note
Liza	USA	25	000123
Linda	USA	29	
David	CA	17	
Susan	CA	24	
Salina	CA	23	
Jim	Mexico	49	
Jorge	Mexico	29	

## 10. Speed up Inputting Complicated Terms with AutoCorrect

If you need to repeat the same value and it is complicated to input, the best way is to use the AutoCorrect function, which will replace your text with the correct text. Take my name, Liza Brown, for example, which can be replaced by LZ. Therefore, every time I input LZ, it can autocorrect to Liza Brown. Go to File->Options->Proofing->AutoCorrect Options and input Replace text with correct text in the red rectangular area, as below.



## 11. Conditional Formatting

Conditional formatting makes data easier to interpret because a cell's value controls the appearance of that cell. Conditional formats make analyzing data – spotting unusual observations, tracking trends, checking status, and finding top values – easier and more effective. These formats are called *conditional formats* because their application depends on whether the data meets the conditions you specify.

Conditional formatting has been a part of Excel functionality since Excel 97, but it has been enhanced greatly over the years. Five types of conditional formats are available to apply to a cell or to a range of cells.

**Highlight Cells Rules** – Rules are created to highlight cells when some criteria are met. There are seven built-in rule types: Greater Than, Less Than, Between, Equal To, Text That Contains, A Date Occurring, and Duplicate Values.

**Top/Bottom Rules** – Formatting is applied to a selected range of cells that are more or less than a given threshold. There are six built-in rule types: Top N Items, Top N %, Bottom N Items, Bottom N %, Above Average, and Below Average.

**Data Bars** – This fills cells with gradient bars whose length is relative to all other values in the selected range. The color combinations available are dependent on the active theme.

**Color Scales** – This fills cells with gradient colors using a two- or three-color scheme. The shades are relative to all other values in the selected range. The color combinations available are dependent on the active theme.

**Icon Sets** – This fills the left-hand margin of cells with small graphic characters whose shape and color is relative to all other values in the selected range.

To apply conditional formatting to a cell or range of cells, highlight the cells and then select **Conditional Formatting** from the **Home** tab of the Ribbon. Select the conditional formatting type desired and fill out any additional dialogs to complete the process. Monthly sales greater than \$30,000 or those less than \$7,000 are highlighted in **Figure 22**. Two **Highlight Cells** rules produce the formatting.

	Jan	Feb	Mar	Apr	May	Jun	Total
Creme, Aloe Vera Hand, 9 oz	\$ 8,388	\$ 9,087	\$ 8,039	\$ 8,388	\$ 10,485	\$ 12,582	\$ 56,969
Creme, Extra Moisturizing Hand, 9 oz	8,988	9,737	8,614	8,988	11,235	13,482	61,044
Creme, Hand and Body, 16 oz	15,588	16,887	14,939	15,588	19,485	23,382	105,869
Lotion, Organic Body, 9 oz	9,588	10,387	9,189	9,588	11,985	14,382	65,119
Lotion, Organic Body, 16 oz	17,988	19,487	17,239	17,988	22,485	26,982	122,169
Lotion, Organic Body, 24 oz	26,388	28,587	25,289	26,388	32,985	39,582	179,219
Lotion, Extra Moisturizing Body, 9 oz	8,388	9,087	8,039	8,388	10,485	12,582	56,969
Lotion, Organic Hand and Body, 9 oz	10,188	11,037	9,764	10,188	12,735	15,282	69,194
Lotion, Organic Hand and Body, 16 oz	19,188	20,787	18,389	19,188	23,985	28,782	130,319
Mask, Organic Facial, 9 oz	16,788	18,187	16,089	16,788	20,985	25,182	114,019
Mask, Wrinkle Reducing Facial, 9 oz	22,788	24,687	21,839	22,788	28,485	34,182	154,769
Mask, Wrinkle Reducing Facial, 16 oz	5,399	4,679	4,139	4,319	5,399	6,478	30,413
Mask, Wrinkle Reducing Facial, 24 oz	8,099	7,019	6,209	6,479	8,099	9,718	45,623

As shown in **Figure 22**, multiple rules can be applied to the same range of cells. However, when a cell meets the criteria of more than one rule, the rule highest in the **Conditional Formatting Rules Manager** will prevail. As new conditional formatting rules are created, they are added to the top of the Rules



Manager list. The Rules Manager provides a single place to manage all rules for a selected range, the active worksheet, or another sheet in the active workbook. To access the Rules Manager, select **Conditional Formatting, Manage Rules** from the **Home** tab of the Ribbon.

The second example uses the same data but applies **Color Scales** to the sales totals to help you understand the relative sales contribution of individual products as shown in **Figure 23**. The detail columns have been hidden for presentation so that your focus is on total sales. In this case, the lowest sales volume is colored in red, the highest volume is colored in green, and the median value is colored in yellow. All other sales volumes are displayed in shades of these three colors to indicate their relative value.

	<b>Total</b>
Creme, Aloe Vera Hand, 9 oz	\$ 56,969
Creme, Extra Moisturizing Hand, 9 oz	61,044
Creme, Hand and Body, 16 oz	105,869
Lotion, Organic Body, 9 oz	65,119
Lotion, Organic Body, 16 oz	122,169
Lotion, Organic Body, 24 oz	179,219
Lotion, Extra Moisturizing Body, 9 oz	56,969
Lotion, Organic Hand and Body, 9 oz	69,194
Lotion, Organic Hand and Body, 16 oz	130,319
Mask, Organic Facial, 9 oz	114,019
Mask, Wrinkle Reducing Facial, 9 oz	154,769
Mask, Wrinkle Reducing Facial, 16 oz	30,413
Mask, Wrinkle Reducing Facial, 24 oz	45,623

**Figure 1 - Better Information Presentation Using Color Scales**

A similar result can be produced using **Data Bars** or **Icon Sets** as shown in **Figure 24**. There are a large number of built-in icon sets. Rule thresholds for icon sets and color scales can be adjusted through the Rules Manager. Both data bars and icon sets can be displayed with or without values.

	<b>Total</b>		<b>Total</b>
Creme, Aloe Vera Hand, 9 oz	\$ 56,969	☒	\$ 56,969
Creme, Extra Moisturizing Hand, 9 oz	61,044	☒	61,044
Creme, Hand and Body, 16 oz	105,869	⚠	105,869
Lotion, Organic Body, 9 oz	65,119	☒	65,119
Lotion, Organic Body, 16 oz	122,169	⚠	122,169
Lotion, Organic Body, 24 oz	179,219	✅	179,219
Lotion, Extra Moisturizing Body, 9 oz	56,969	☒	56,969
Lotion, Organic Hand and Body, 9 oz	69,194	☒	69,194
Lotion, Organic Hand and Body, 16 oz	130,319	✅	130,319
Mask, Organic Facial, 9 oz	114,019	⚠	114,019
Mask, Wrinkle Reducing Facial, 9 oz	154,769	✅	154,769
Mask, Wrinkle Reducing Facial, 16 oz	30,413	☒	30,413
Mask, Wrinkle Reducing Facial, 24 oz	45,623	☒	45,623

**Figure 2 - Conditional Formatting Using Data Bars and Icon Sets**





The **Highlight Cells** rules are the only rules that operate independently on each cell formatted with the condition. The other rule types format cells *relative* to the values of the other cells in the range formatted. For example, the length of data bars is relative to the largest value in the range formatted with the condition. If a range is expanded to include a larger value, the length of the data bars in the entire range will change.

The last example of conditional formatting will use a formula to apply formatting to accounts whose variances are greater than 10% of budget. The condition will be applied to the complete report table so that the entire row for each account meeting the condition will be highlighted in color. **Figure 25** displays the finished report along with the conditions set in the **New Formatting Rule** dialog box.

The screenshot shows the 'New Formatting Rule' dialog box on the left and a spreadsheet on the right. The dialog box has two sections: 'Select a Rule Type' and 'Edit the Rule Description'. Under 'Select a Rule Type', the option 'Use a formula to determine which cells to format' is selected. Under 'Edit the Rule Description', the formula '=ABS(\$E5/\$C5)>=.1' is entered. The 'Preview' section shows a yellow background with the text 'AaBbCcYyZz'. The spreadsheet on the right is titled 'Larry's Landscaping Services' and shows 'Actual to Budget Performance'. It has columns for Budget, Actual, and Variance. Rows 12 through 17 are highlighted in yellow, indicating they meet the condition. The total row at the bottom shows a budget of \$13,900, actual of \$15,042, and a variance of \$1,142.

	Budget	Actual	Variance
6230 Auto Fuel	\$ 150	\$ 149	\$ (1)
6240 Auto Maintenance	50	52	2
6400 Bank Service Charges	25	25	-
6550 Payroll Expenses	9,400	9,700	300
6600 Delivery Fee	1,000	980	(20)
6900 Insurance	250	250	-
7100 Equipment Rental	-	575	575
7200 Miscellaneous	100	263	163
7300 Office Supplies	50	41	(9)
7500 Rent	2,000	2,000	-
7553 Equipment Repairs	-	176	176
7700 Tools and Miscellaneous Equipment	150	133	(17)
7751 Gas and Electric	250	228	(22)
7753 Telephone	50	51	1
7752 Water	75	74	(1)
9000 Interest Expense	350	345	(5)
<b>Total</b>	<b>\$ 13,900</b>	<b>\$ 15,042</b>	<b>\$ 1,142</b>

**Figure 3 - Conditional Formatting by Formula**

To create the formatting rule, follow these six steps.

1. Highlight the range on which the conditional formatting will apply. In this case, highlight the range A5:E20.
2. From the Ribbon, select **Home, Conditional Formatting, New Rule**.
3. In the **New Formatting Rule** dialog box, select **Use a formula to determine which cells to format**.
4. Enter the following formula in the formula box.  
**=ABS(\$E5/\$C5)>=0.1**
5. Click the **Format...** button and choose the desired format to be applied to the selected cells when the criterion specified in the formula is met. Click **OK**.
6. Click **OK** to format the report.

All rows associated with absolute values of variances that are greater than 10% of budget are now highlighted in the report.



A bit of caution is advisable when using conditional formatting. Not all users of the report may not be knowledgeable about formulas that control the formatting. For example, a person simply looking at the results in **Figure 25** has no way of knowing the rule that created the yellow lines is based on 10% variances. Therefore, it may be a good practice to include an explanation or legend of what the conditional formatting reveals.

## 12. Using Slicers to Filter PivotTables

Think of **Slicers**, added to PivotTables with the 2010 release of Excel and to tables with the 2013 release of Excel, as end-user filters. Slicers allow you to filter data in a PivotTable, PivotChart, or table by clicking on buttons that represent one or more dimensions in a data set. You can resize and format these filtering windows like charts or other shapes in Excel. You can insert a Slicer by selecting any PivotTable or PivotChart and then selecting **Insert Slicer** from the **PivotTable Tools, Analyze** contextual tab of the Ribbon. By selecting the PivotTable or PivotChart first, the two objects will be associated with each other automatically.

The screenshot shows the Excel interface with a PivotTable titled 'Sales Revenue'. The 'PivotTable Tools' ribbon is active, with the 'Analyze' tab selected. The 'Filter' group contains the 'Insert Slicer' button, which is highlighted with a red box. Below the ribbon, there are two slicers: 'Region' and 'Years'. The 'Region' slicer has four buttons: 'New England', 'Southeast', 'Midwest', and 'West'. The 'Years' slicer has three buttons: '2016', '2017', and '2018'. The '2017' button is selected and highlighted in red. The PivotTable data is filtered to show only the data for the 'New England' region and the year '2017'.

	Region	Sales Revenue	Qtr1	Qtr2	Qtr3	Qtr4	Grand Total
3	New England	Astringent, Organic, 16 oz	27,017	33,686	43,758	32,875	137,336
4	Southeast	Astringent, Organic, 24 oz	51,963	65,005	83,574	63,719	264,261
5	Midwest	Astringent, Organic, 32 oz	77,639	96,417	124,063	94,763	392,882
6	West	Astringent, Organic, 48 oz	25,496	31,439	40,396	30,856	128,187
7		Cream, Aloe Vera Hand, 9 oz	28,483	34,739	45,253	34,231	142,706
8		Cream, Extra Moisturizing Hand, 9 oz	30,810	37,490	49,026	37,388	154,714
9		Cream, Hand and Body, 16 oz	53,172	64,826	84,583	64,565	267,146
10		Lotion, Extra Moisturizing Body, 9 oz	28,217	34,925	45,055	34,448	142,645
11		Lotion, Organic Body, 16 oz	60,188	74,449	97,200	73,410	305,247
12		Lotion, Organic Body, 24 oz	88,277	109,109	142,494	107,908	447,788
13		Lotion, Organic Body, 9 oz	32,649	40,040	52,311	39,619	164,619
14		Lotion, Organic Hand and Body, 16 oz	65,098	80,651	103,833	78,895	328,477
15		Lotion, Organic Hand and Body, 9 oz	34,231	42,307	54,847	41,812	173,197
16		Mask, Organic Facial, 9 oz	56,158	69,525	90,048	69,116	284,847
17		Mask, Wrinkle Reducing Facial, 16 oz	15,776	17,838	23,175	17,891	74,680
18		Mask, Wrinkle Reducing Facial, 24 oz	23,885	27,106	35,293	27,061	113,345
19		Mask, Wrinkle Reducing Facial, 9 oz	77,269	94,795	124,471	94,814	391,349
20		Scrub, Hypo-Allergenic, 16 oz	26,780	33,001	43,509	32,731	136,021
21		Scrub, Hypo-Allergenic, 24 oz	47,483	58,701	76,858	57,822	240,864
22		Scrub, Hypo-Allergenic, 9 oz	24,050	29,997	38,958	29,270	122,275
23		Grand Total	874,641	1,076,046	1,398,705	1,063,194	4,412,586

**Figure 4 - Slicers Provide Visual Filtering in Excel 2010 and Newer**

The items in each Slicer are colored when selected as shown in **Figure 208** and function similarly to the drop-down menus used to filter rows, columns, and report filters within a PivotTable. To clear filters and display all values in a PivotTable or PivotChart, click the **Clear Filter** icon in the Slicer's header.

Additionally, you can associate a single Slicer with multiple PivotTables by manipulating the **Report Connections** settings from the **Slicer Tools Options** tab on the Ribbon.

If you use Excel 2013 or newer, you can use Slicers to filter tables. To add one or more Slicers to a table, begin by clicking in the table. Next, choose **Insert Slicer** from either the **Insert** tab of the Ribbon or from the **Table Tools Design** tab of the Ribbon. Finally, choose the field(s) you want to filter with your Slicer and click **OK** to complete the process. As with Slicers applied to PivotTables, just click on the item(s) in the Slicer filter you want to use as your filter, and your table applies the filter immediately.