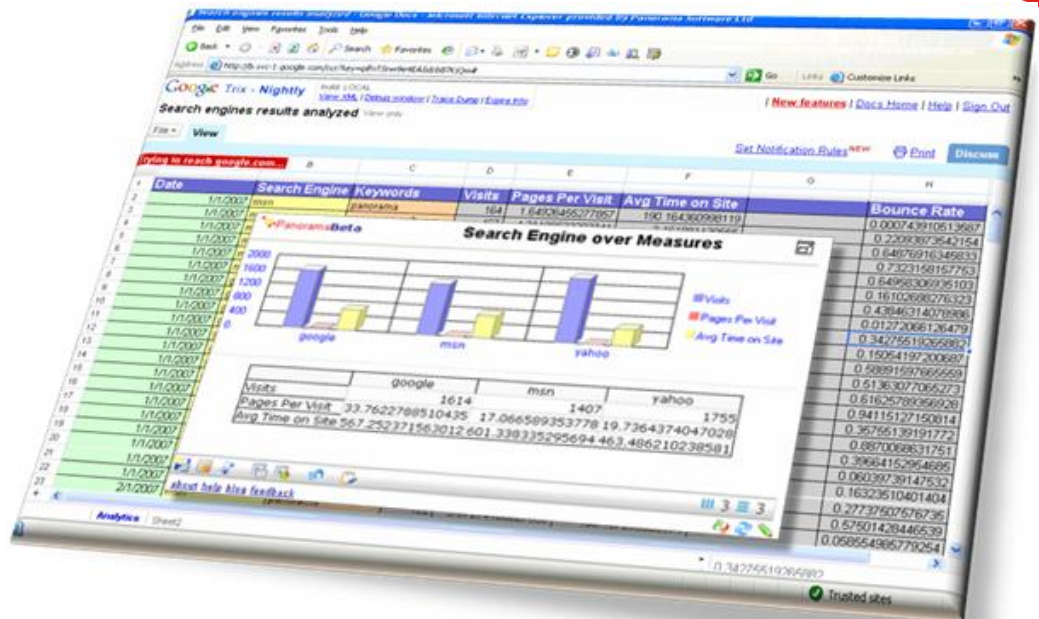


PANORAMA SOFTWARE

Pivot Tables for Google Spreadsheets



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Panorama® NovaView™
Pivot Tables for Google Spreadsheets

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Overview

Your Google Spreadsheets contain large amounts of data, but how much sense does all of it make? Are you able to get insights from your exhaustive spreadsheets? Can the spreadsheets bolster your decision-making abilities? Panorama's pivot table functionality for Google Spreadsheets can help you analyze your spreadsheet data and provide insights that will help you answer such questions.

In just a few steps, any user can find out, for example, the best-selling region, the best-selling sales manager, and which store is the most profitable. Ask questions and get the answers.

With Panorama's pivot table functionality for Google Spreadsheets, you can interact with data and look at it in various ways in a simple drag and drop environment.

In our simple tutorial, you will learn how to use Panorama's pivot tables for Google Spreadsheets in order to ask interesting questions and get the answers in seconds.

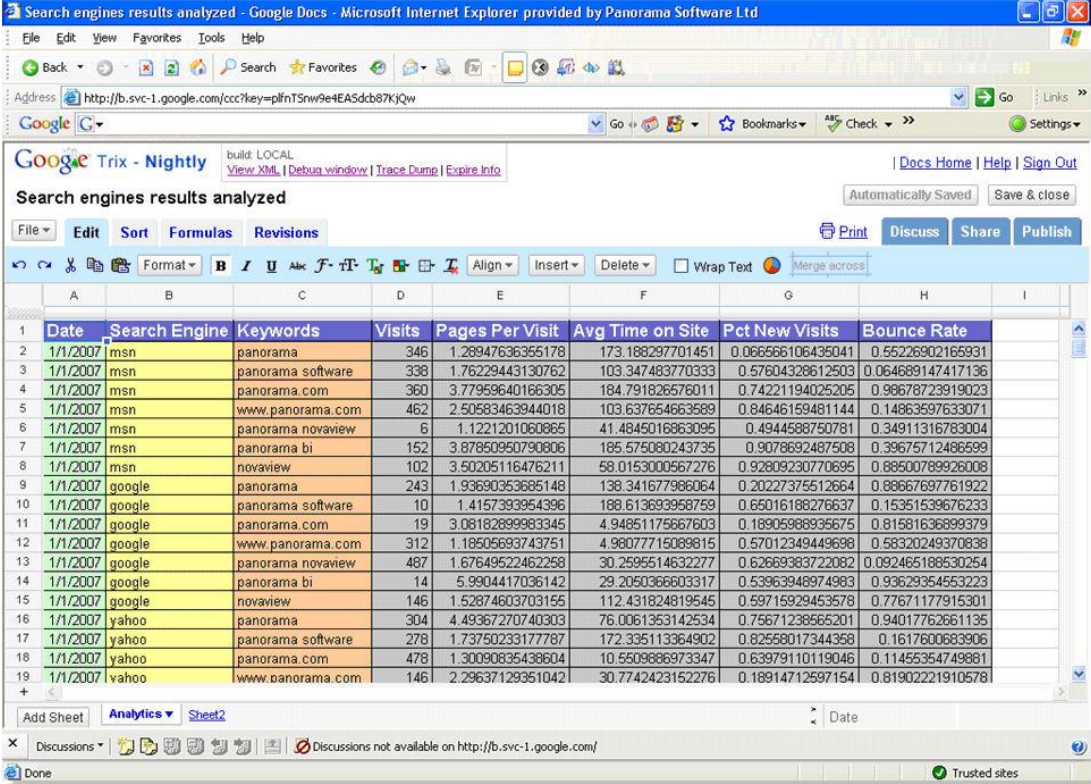
Using Panorama's Pivot Table Functionality for Google Spreadsheets

Like so many others, you too probably maintain huge spreadsheets with thousands of rows and columns of data. Such spreadsheets could, for example, lay out all the data about a product and its respective sales volume by geographic location. The challenge rises when you want to start using this data in meaningful ways; in ways that will help you transform it into smart insights. How can you know which product is your best seller? How can you know which location sold the most of specific products? Panorama's pivot table functionality for Google Spreadsheets provides the answers, transforming raw data into meaningful insights.

Step 1: Understanding Your Spreadsheet and Getting Ready for Pivoting

The first step in creating your pivot table is to ensure that your spreadsheet is properly structured. When creating a pivot table, each column of your spreadsheet will become a **slicer** that can be used interactively in the pivot table.

The names of the **slicers** that will form in the pivot table will come from the column titles in your source data. Be sure that you have a name for each column across the first row of the spreadsheet in the source data.



	A	B	C	D	E	F	G	H	I
1	Date	Search Engine	Keywords	Visits	Pages Per Visit	Avg Time on Site	Pct New Visits	Bounce Rate	
2	1/1/2007	msn	panorama	346	1.28947636355178	173.188297701451	0.066566106435041	0.55226902165931	
3	1/1/2007	msn	panorama software	338	1.76229443130762	103.347483770333	0.57604326612503	0.064689147417136	
4	1/1/2007	msn	panorama.com	360	3.77959640166305	184.791826576011	0.74221194025205	0.98678723919023	
5	1/1/2007	msn	www.panorama.com	462	2.50583463944018	103.637654663589	0.84646159481144	0.14863597633071	
6	1/1/2007	msn	panorama novaview	6	1.1221201060865	41.4845016863095	0.4944588750781	0.34911316783004	
7	1/1/2007	msn	panorama bi	152	3.87850950790806	185.575080243735	0.9078692487508	0.39675712486599	
8	1/1/2007	msn	novaview	102	3.50205116476211	58.0153000567276	0.92809230770695	0.88500789926008	
9	1/1/2007	google	panorama	243	1.93690353685148	138.341677986064	0.20227375512664	0.88667697761922	
10	1/1/2007	google	panorama software	10	1.4157393954396	188.613693958759	0.65016188276637	0.15351539676233	
11	1/1/2007	google	panorama.com	19	3.08182899983345	4.94851175667603	0.18905988935675	0.81581636899379	
12	1/1/2007	google	www.panorama.com	312	1.18505693743751	4.98077715089815	0.57012349449698	0.58320249370838	
13	1/1/2007	google	panorama novaview	487	1.67649522462258	30.2595514632277	0.62669383722062	0.092465188530254	
14	1/1/2007	google	panorama bi	14	5.9904417036142	29.2050366603317	0.53963948974983	0.93629354553223	
15	1/1/2007	google	novaview	146	1.52874603703155	112.431824819545	0.59715929453578	0.77671177915301	
16	1/1/2007	yahoo	panorama	304	4.49367270740303	76.0061353142534	0.75671238665201	0.94017762661135	
17	1/1/2007	yahoo	panorama software	278	1.73750233177787	172.335113364902	0.82558017344358	0.1617600683906	
18	1/1/2007	yahoo	panorama.com	478	1.30090835438604	10.5509686973347	0.63979110119046	0.11455354749881	
19	1/1/2007	yahoo	www.panorama.com	146	2.29637129351042	30.7742423152276	0.18914712587154	0.81902221910578	

In the figure above, the column titles "Search Engine", "Keyword", etc. will become **slicer** names. When the pivot table will be created, you will know that the "Search Engine" slicer represents the "Search Engine" data from the spreadsheet.

The underlying rows, below the headings, should contain similar types of data in their respective columns. For example, one column could have data in the form of text, another in the form of numbers and yet another in the form of dates. In other words, each column should contain the same type of data, not a mix of, for example, dates, numerical amounts and text.

Also, for best results, make sure that there are no empty columns or rows in your spreadsheet.

There are two types of columns in a spreadsheet: **Data Columns** and **Descriptive Columns**. An example of a **Data Column** would be one that contains quantifiable values such as the number of items sold for a specific product. An example of a **Descriptive Column** is one that would list the names of countries or sales agents.

Panorama's pivot table functionality for Google Spreadsheets provides advanced abilities that enable you to create relationships between descriptive columns for more advanced analytics. Such relationships are called **Aggregations**. For example, correlating a "City" column under the "Country" column is called an **aggregation**. This will help you perform more granular and advanced analysis of your data once your pivot table has been created.

Make sure you identify all the columns you want to **aggregate** before you start creating your pivot table.

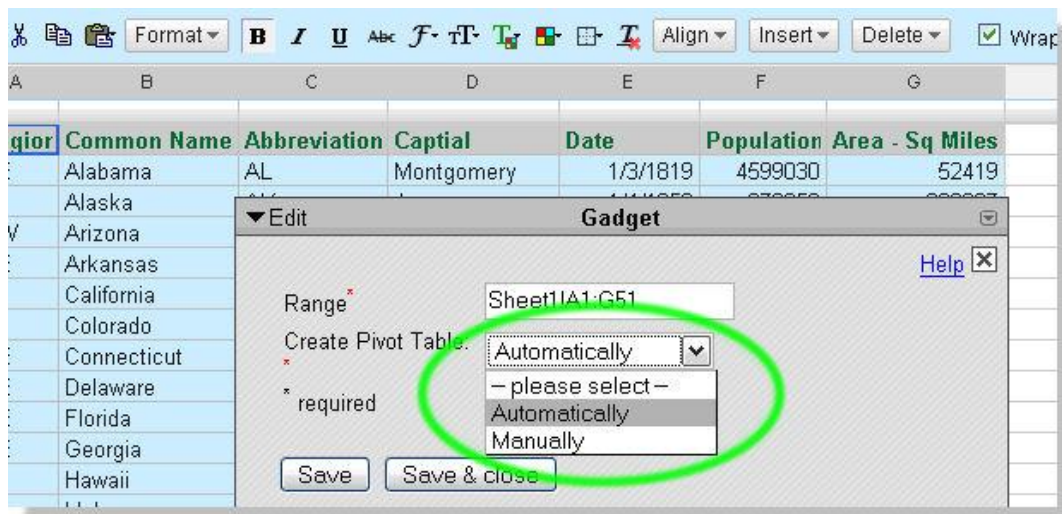
To summarize, an ideal spreadsheet to base your pivot table on would account for the following:

1. Have meaningful titles for columns.
2. Contain no empty rows and/or columns in the range that you intend to use for the pivot table.
3. Hold textual and numerical fields in each row.
4. Ensure that each column contains only one type of data (textual or numerical).

Step 2: Running the Pivot Table Wizard

Now that your spreadsheet is ready to go, click the **Insert** button on the toolbar of your Google Spreadsheet and choose **Gadget**. Once the gadget window pops up, add the **Panorama Pivot Table for Google Spreadsheets** gadget and carry out the following steps:

1. Once the new gadget is initiated, specify the **range** of data you would like to include in your pivot table. You can do this by typing the range manually or by selecting the range with your mouse prior to inserting the gadget. The range should include the header row.
2. In the **Create Pivot Table** pull-down menu, choose between creating the pivot table **Automatically** (recommended) or **Manually**. The following section will explain, in more detail, how to use the manual mode. In automatic mode, the pivot table will use its own algorithms to understand the spreadsheet and then recommend the best initial pivot table view. In Manual mode, you will be asked to give more information about whether a column contains **data** or a **descriptor**. In both modes, you will be able to edit the results later by choosing the **Advanced Mode** option from within the pivot table gadget.



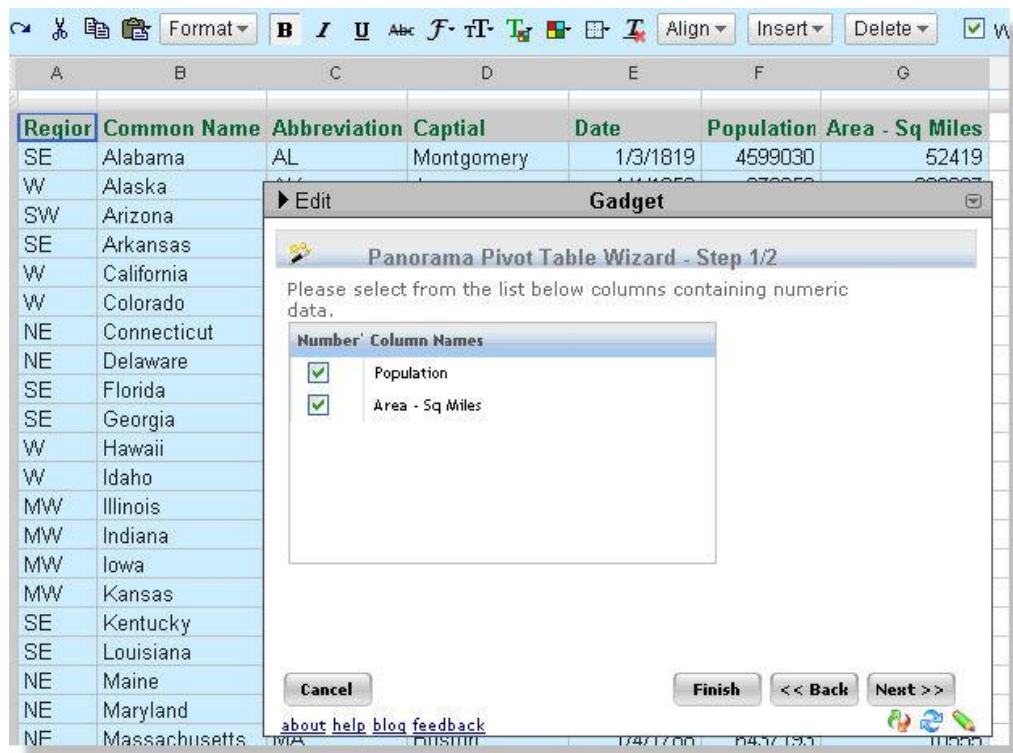
3. Select **Save & Close** (recommended) to go to launch the pivot table.

Step 3: Choosing Manual Mode (instead of Automatic Mode)

If you choose **Manual Mode**, the next screen will ask you for more information to help the gadget understand your spreadsheet for optimal pivoting results.

1. For each field, specify whether it is a **Data Column** (a column with numeric value) or not. Remember, a **Data Column** is a column that contains "measures" or data that is measurable and quantifiable, such as amount of units, revenue, grade, number of hits, etc.

The wizard will automatically check all the columns that contain numbers, and leave unchecked those that contain numbers but might be descriptors, such as Social Security Number or Product SKU Number.



Region	Common Name	Abbreviation	Capital	Date	Population	Area - Sq Miles
SE	Alabama	AL	Montgomery	1/3/1819	4599030	52419
W	Alaska					
SW	Arizona					
SE	Arkansas					
W	California					
W	Colorado					
NE	Connecticut					
NE	Delaware					
SE	Florida					
SE	Georgia					
W	Hawaii					
W	Idaho					
MW	Illinois					
MW	Indiana					
MW	Iowa					
MW	Kansas					
SE	Kentucky					
SE	Louisiana					
NE	Maine					
NE	Maryland					
NF	Massachusetts					

Gadget

Panorama Pivot Table Wizard - Step 1/2

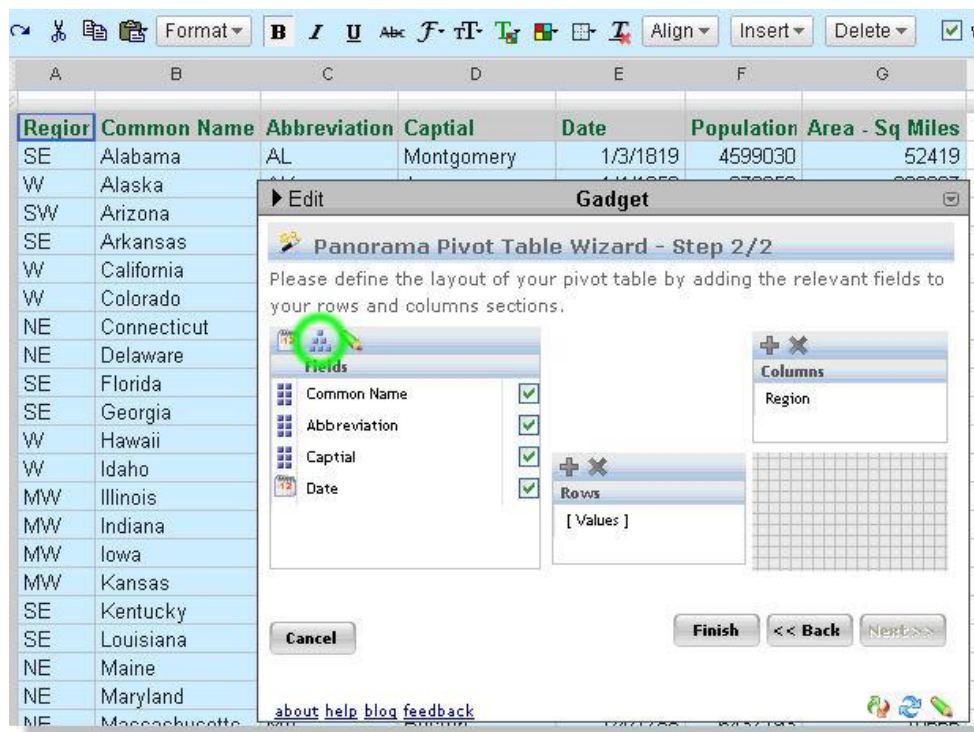
Please select from the list below columns containing numeric data.

Number: Column Names


- Population
- Area - Sq Miles

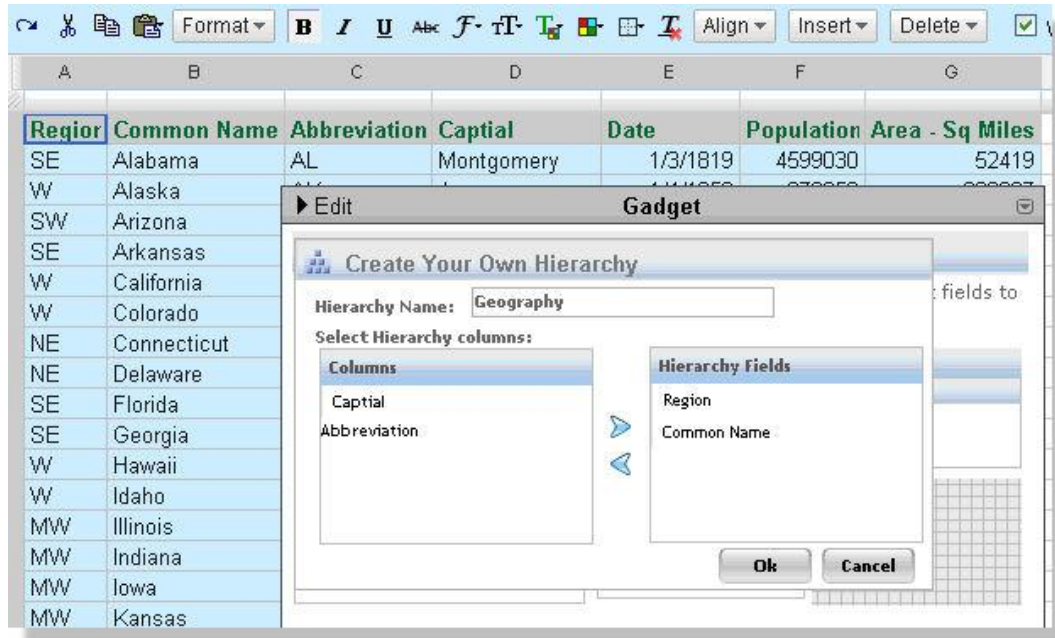
Buttons: Cancel, Finish, << Back, Next >>

2. Select **Next** to proceed. During the next step, you will need to set up **Aggregations** and the initial pivot table view.



3. **Aggregations**, as mentioned above, enable you to create relationships between multiple columns in a spreadsheet. For example, "Cities" should fall under "Countries", "Months" should fall under "Years", or, in the example above, "Common Name" and "Region". Defining **aggregations** will give you more analytical power.

To create an **aggregation**, click on the aggregation button () above the Fields section. The **aggregation** dialog will show.



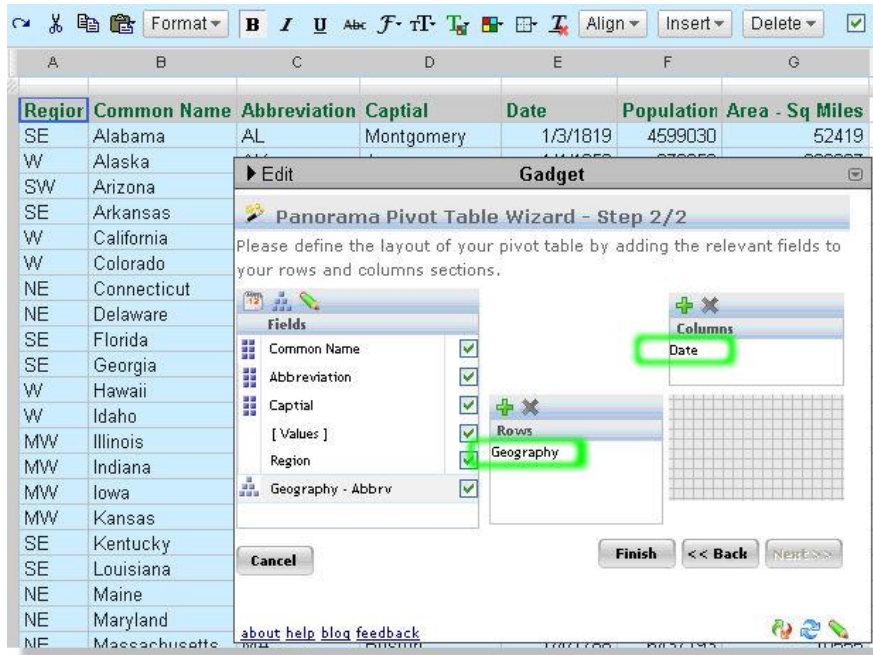
Choose a name for the group of aggregations and enter it the **Hierarchy Name** box. For example, here we've called this aggregation, "Geography".

Select the columns that construct the aggregation, ensuring the "parent" is above the "child". For example, "Country" above "City" or, in this case, "Region" above "Common Name".

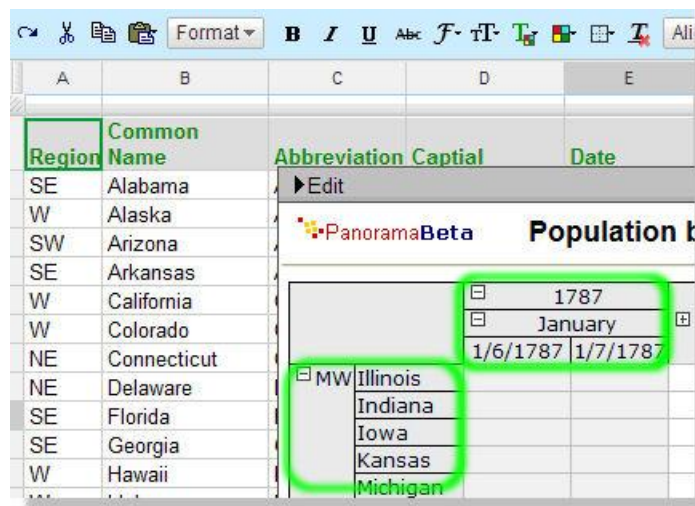
When you complete defining the aggregation, hit 'OK' to go back to the view creation screen

Note that aggregations will appear with their new defined names ("Geography" in the example above) in the "Fields" section.

- To set up the initial pivot table view, first select how you want your pivot table to represent the initial data. Highlight a field from the **Fields** section on the left by selecting it with your mouse, and click on the **+** sign in either the row or column areas to add the field to that area.



In the example below, we can see how the *Geography* and *Date* hierarchies will look in the completed pivot table:



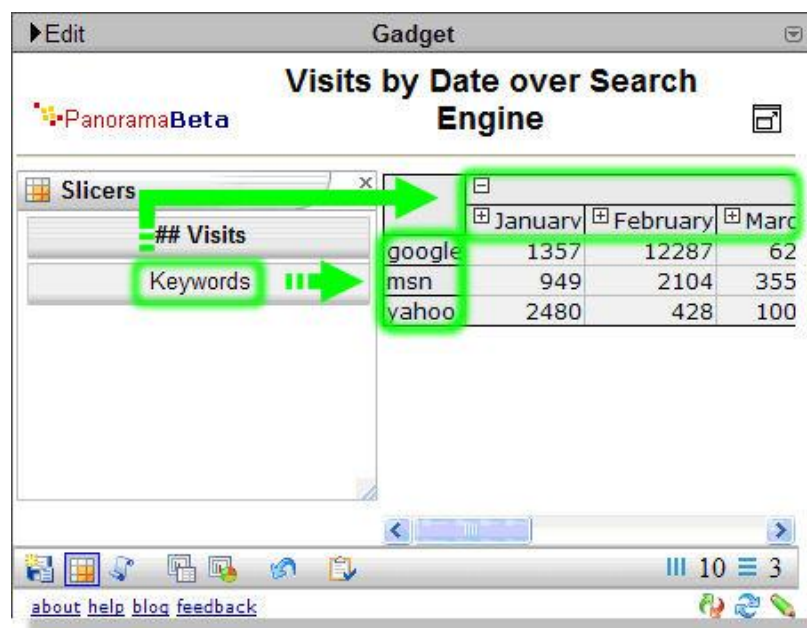
Select the **Finish** button and you are all done! Your pivot table is ready to use.

Step 4: Using the Pivot Table

You have now created a Panorama Pivot Table for Google Spreadsheets, but this is only the beginning! Remember all the questions you had about your data? A pivot table is more than just a static summary; you can use it to interactively explore the data's significance. Zero in on the details or pull back for an overview. For example, view sales by region or over time. You decide the type of customizations you want. To customize your pivot table, do one or more of the following:

Add or Remove Fields from the Crosstab

Do you want to view more or fewer fields of data in your pivot table report? You can easily add or remove fields to the rows or columns:



To exchange Fields do one of the following:

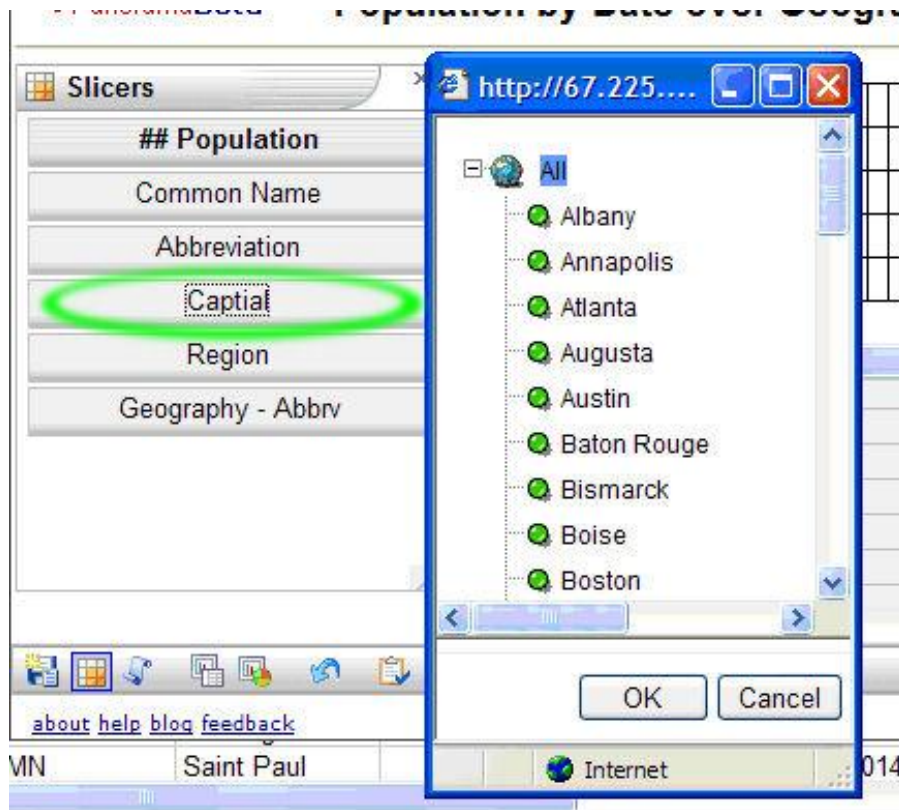
- Using your mouse, choose your desired Field from the **Slicers** pane and drag it to the row or column header in the crosstab. When the cursor is in the correct position (the mouse pointer icon changes), release the mouse button. From the shortcut menu that appears, select one of the following options:
 - ▶ **Replace <Field Member>** – the member in the crosstab moves out into the **Slicers** pane. The crosstab data is sliced by the selected member.
 - ▶ **Replace <Field>** – the Field moves out into the **Slicers** pane.
- Choose a field from a crosstab column or row header. Drag the field onto the field you want to replace in the **Slicers** pane. From the shortcut menu that appears, select one of the following options:
 - ▶ **Replace slicer with <Field>** – the two fields replace positions.
 - ▶ **Replace slicer with <Field Member>** – two fields replace positions and the crosstab is sliced by the field member.

Please note that, at minimum, at least one Field must remain on both the row and column of your pivot table.

Use Filters to View a Subset of the Data

Your Fields in the Slicers section also act as a powerful data filtering tool. If you just want to focus on a subset of the data, click on a Field button in the Slicers section, and select the data subset you want your report to be filtered on. Single or multiple selections are available.

To filter a Field, click in a Field button in the Slicers section. A window opens and shows the field members. Select one or more field members that you wish to filter the view by, and select **OK**.



Drilling Down and Up a Field Hierarchy

If the view you created includes **Aggregations**, then drilling up or down the field is available. You can drill down a field member to display information for its child members. Drill up a member to display summary information for a higher level.

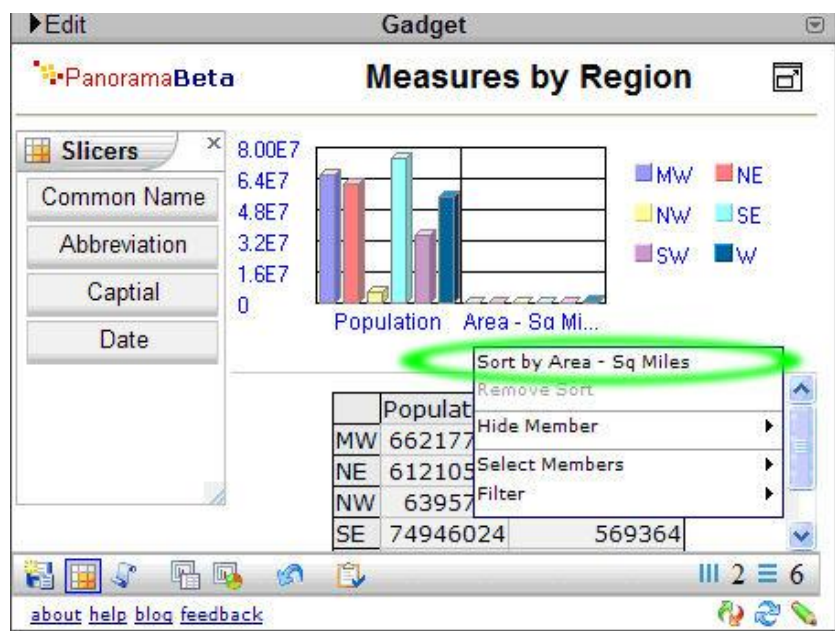
- ▶ To drill down a member, click the plus sign next to the field member name.
- ▶ To drill up a member, click the minus sign next to the field member name.

Sorting Data

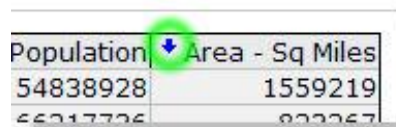
You can sort data within any member. Data can be sorted in ascending or descending order.

To sort crosstab data:

1. Right-click on the header of the field member that you want to sort.
2. From the shortcut menu, select the **Sort By <Member> option**. By default, the crosstab member is sorted in descending order.



To reverse sorting, click the arrow in the sorted member's header.



Population	Area - Sq Miles
54838928	1559219
66217726	822267

To remove sorting:






1. In the crosstab header, right-click on the header of the field member from which you want to remove the sorting.
2. From the shortcut menu, select the **Remove Sort** option.


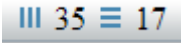




Step 5: Using the Gadget Toolbar Options

The Panorama Gadget Toolbar

The Gadget toolbar that is positioned at the bottom of the gadget contains shortcut buttons for frequently used actions.



Button	Description
	<p>Save View</p> <p>The save view option saves the current state of the view. The next time the spreadsheet is opened, the last saved view of the Gadget will be shown.</p> <p>If changes are performed to the view, such as expanding fields or moving fields in/out of the grid, it is required to save the view for the changes to be reflected in the next time the workbook is opened.</p>
	<p>Displays the following view layout options:</p> <p>Show Chart Above Crosstab – Displays the selected chart above the crosstab.</p> <p>Show Chart Below Crosstab – Displays the selected chart below the crosstab.</p> <p>Show Only Crosstab - Displays only the crosstab.</p> <p>Show Only Chart – Displays only the chart.</p>
	<p>Displays the Chart Menu.</p> <p>Different chart options are available, including switching the chart type, 3D state and layout/legend option</p>
	<p>Show/Hide Slicers</p> <p>To allow Pivoting and Filtering of the data, the Slicers section should be shown. Click the button to toggle its visibility state.</p>
	<p>Undo the last action.</p>

	<p>Show/Hide Legend The legend section shows information about your view structure and filter state. Show or hide it using this toolbar button.</p>
	<p>Status Bar The status bar displays the number of rows & columns in the grid.</p>
	<p>View Properties Opens the View Properties window where you can adjust settings.</p>
	<p>Panorama Pivot Table wizard</p>
	<p>Reset – resets the view to its last saved state</p>
	<p>Refresh – reloads the view data from the spreadsheet</p>