Advanced Microsoft Excel - PivotTable

Philip Chan

Agenda

- Create a PivotTable and PivotChart
- Rearranging Fields in a PivotTable
- Grouping, Filtering & Sorting Data
- Refresh PivotTable
- Format a PivotTable
- Calculation in a PivotTable
- Using External Data Sources for Your PivotTable
- Save Files

Create a PivotTable and PivotChart

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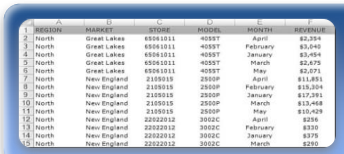
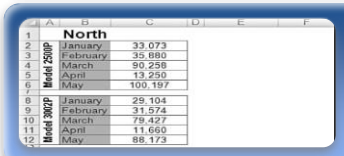
Preparing Your Data for PivotTable Reporting



Ensure Your Data Is in a Tabular Layout

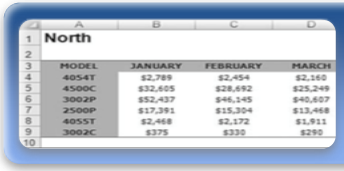


North		
Model 2500P	January	33,073
	February	35,880
	March	90,258
	April	13,250
	May	100,197
Model 3002P	January	29,104
	February	31,574
	March	79,427
	April	11,660
	May	88,173

Avoid Storing Data in Section Headings

North	MODEL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
	4054T	$2,789	$2,454	$2,160	$1,901	$1,673	$1,472
	4500C	$32,605	$28,692	$25,249	$22,219	$19,553	$17,207
	3002P	$52,437	$46,145	$40,607	$35,734	$31,446	$27,673
	2500P	$17,391	$15,304	$13,468	$11,851	$10,429	$9,178
	4055T	$2,468	$2,172	$1,911	$1,682	$1,480	$1,302
	3002C	$375	$330	$290	$256	$225	$198

Avoid Repeating Groups as Columns



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MODEL	JANUARY	FEBRUARY	MARCH
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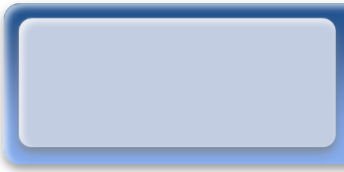
Eliminate Gaps and Blank Cells in Your Data Source



Apply Appropriate Type Formatting to Your Fields

Good Data Source Design

The first row of your data source is made up of field labels or headings that describe the information in each column.

Each column in your data source represents a unique category of data.

Each row in your data source represents individual items in each column.

None of the column names in your data source double as data items that will be used as filters or query criteria (that is, names of months, dates, years, names of locations, names of employees).

Creating a Basic PivotTable

Insert Tab → PivotTable → PivotTable

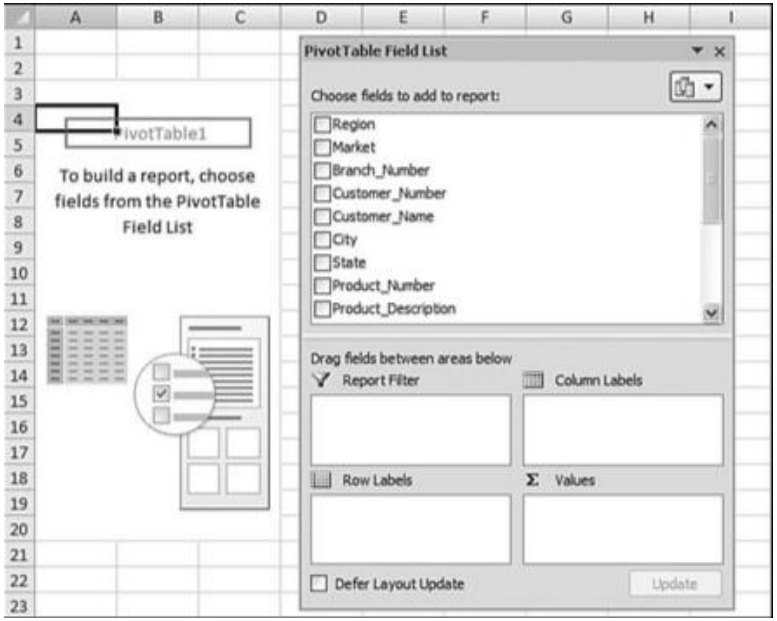
Adding Fields to the Report

- Report Filter
- Column Labels
- Row Labels
- Values

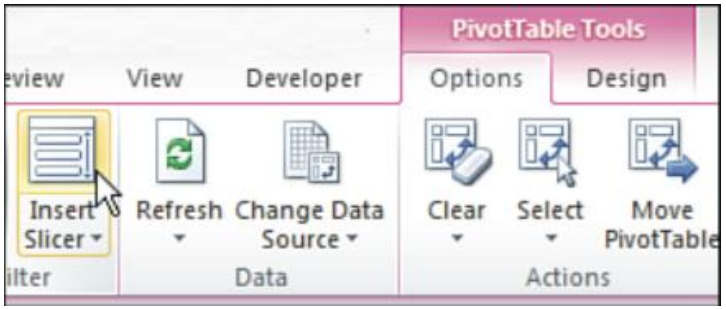
Adding Layers to a PivotTable

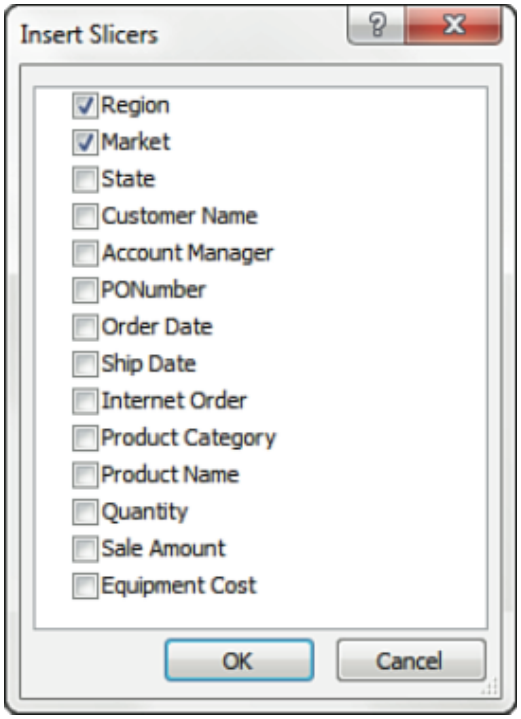
Rearranging a PivotTable

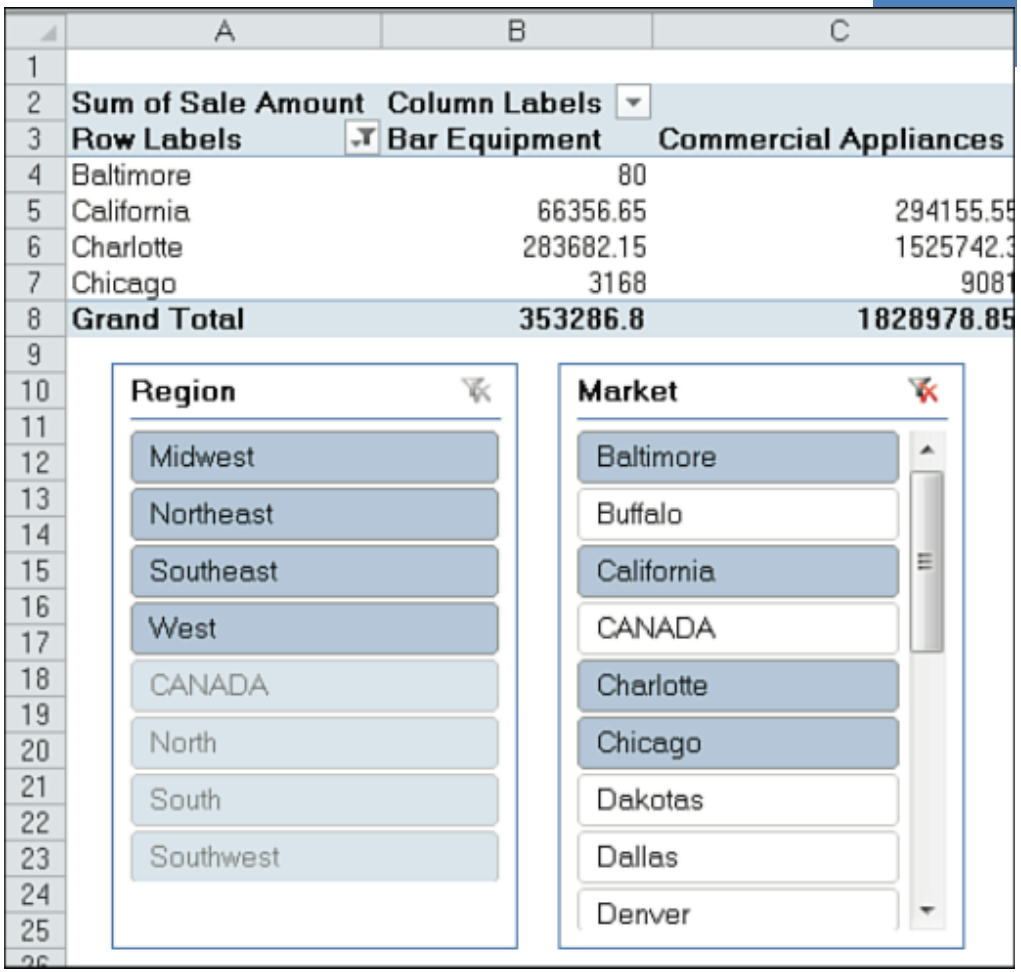
Creating a Report Filter



Introducing Slicers







Keeping Up with Changes in Your Data Source

Changes Have Been Made to Existing Data Sources

- Refresh Data

Data Source's Range Has Expanded

- Change Data Source
- Using Table

Rearranging Fields in a PivotTable

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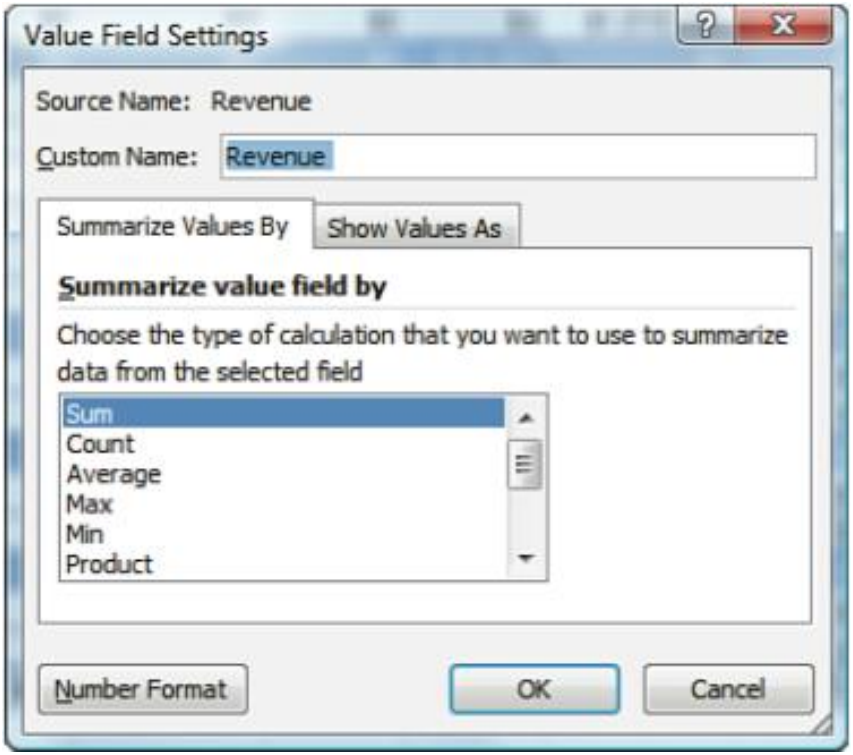
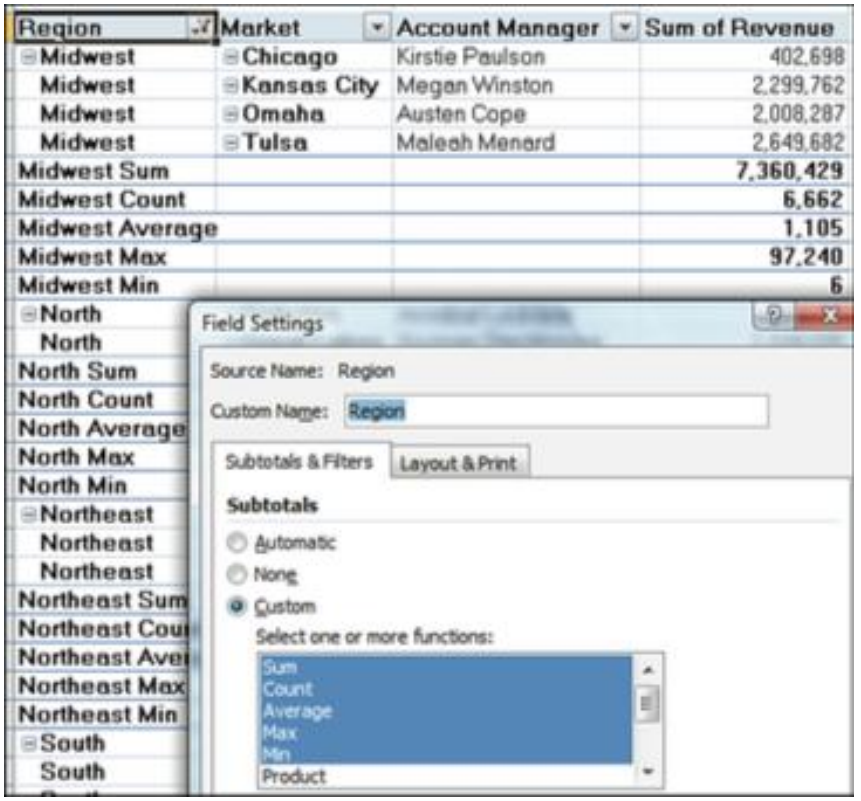
The Need to Customize

- Create new field or items
  - 11 subtotal options
  - 9 different running total options
- Controlled in the PivotTable Field dialog box

Displaying the PivotTable Field Dialog Box

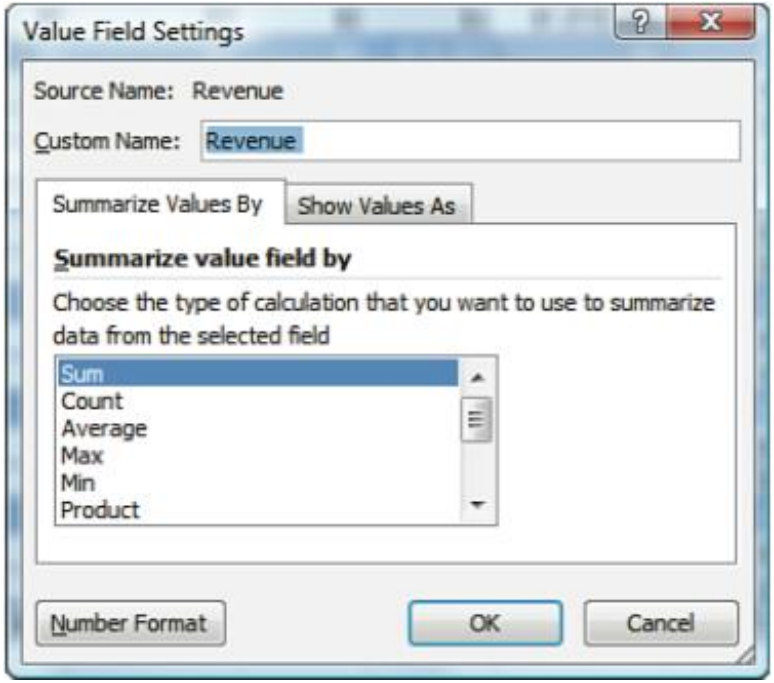
- Double Click Field Name on the PivotTable





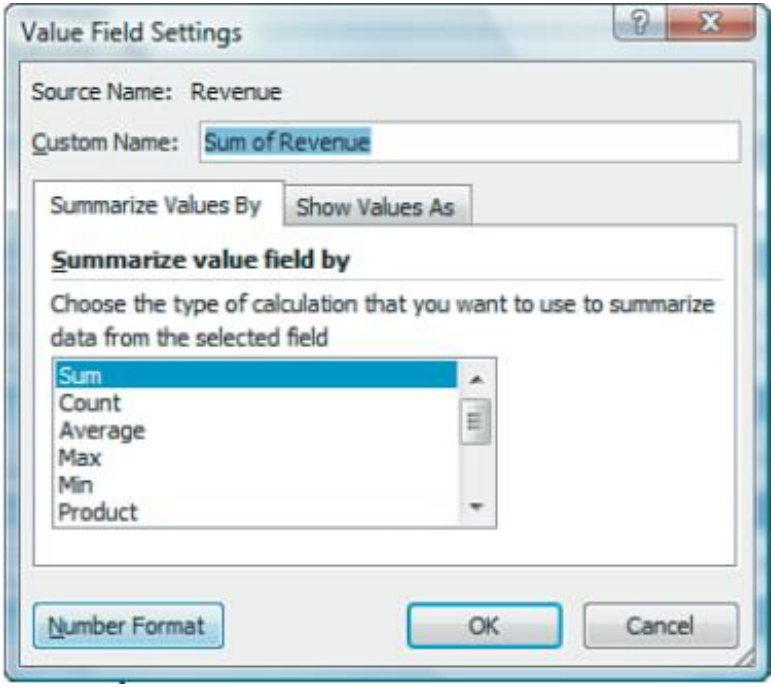
Customizing Field Names

- Options Tab → Field Settings
- Data Field Settings → Type New Name



Applying Numeric Formats to Data Fields

- Right-click a number → Value Field Settings
- Sum of field in the PivotTable Field List → Field Settings
- Options tab → Field Settings

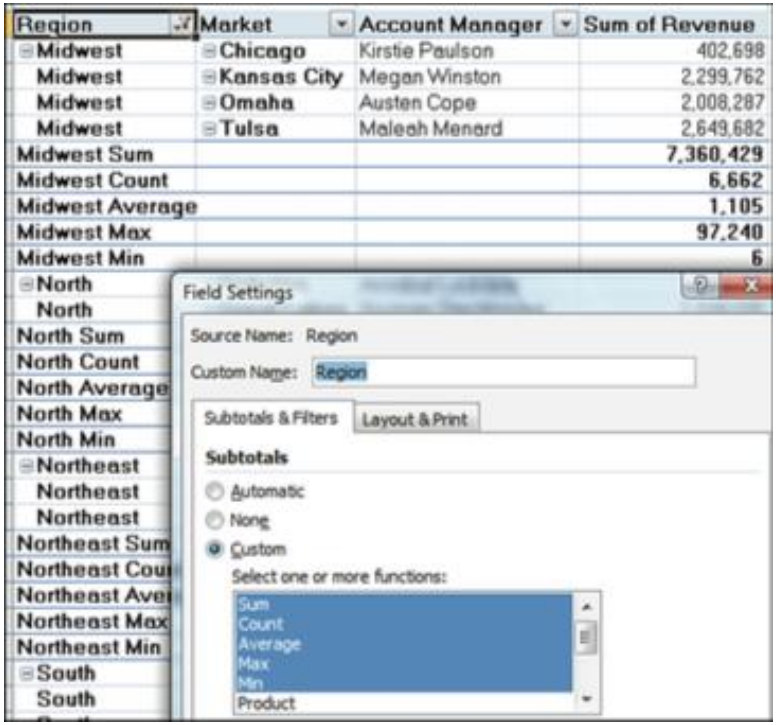


Changing Summary Calculations

- Understanding Why One Blank Cell Causes a Count
- Using Functions Other Than Count or Sum
  - Sum
  - Count
  - Average
  - Max
  - Min
  - Count Nums

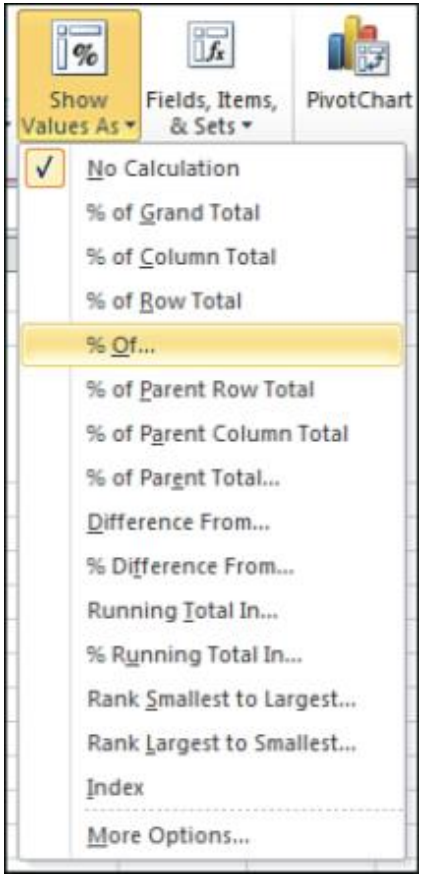
Adding and Removing Subtotals

- Suppress Subtotals When You Have Many Row Fields
- Adding Multiple Subtotals for One Field



Using Running Total Options

- YTD Numbers with Running Total In
- Percent of Running Total
- Percent of Parent Item
- Display Change from a Previous Field
- Showing Rank
- Using % of to Compare One Line to Another Line



Grouping, Filtering & Sorting Data

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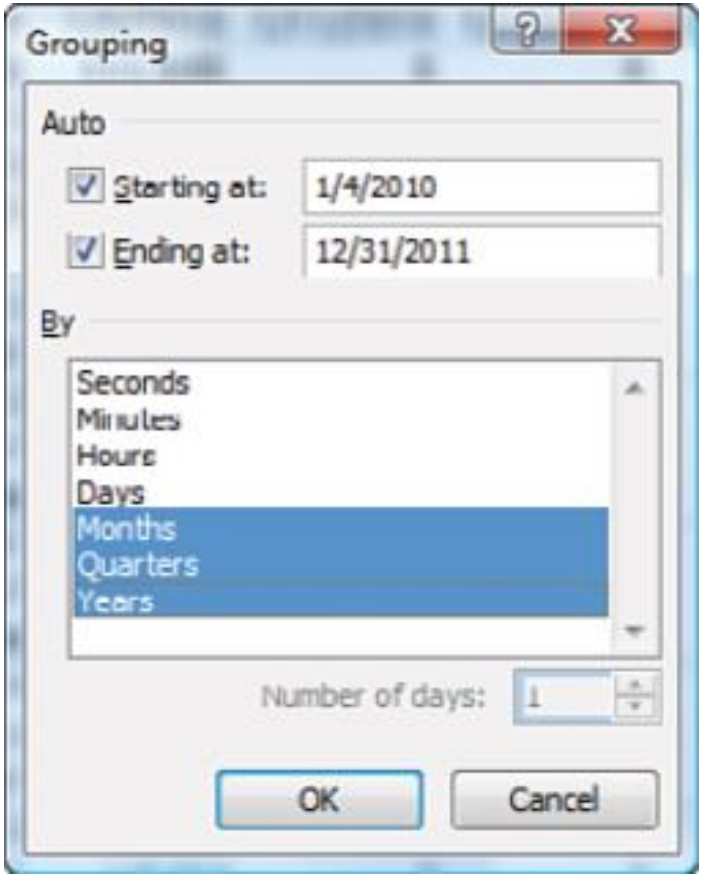
Grouping Pivot Fields

- Grouping Date Fields
- Including Years When Grouping by Months
- Grouping Date Fields by Week
- Grouping Numeric Fields
- Ungrouping



Sorting in a PivotTable

- Sorting Using the Sort Icons on the Options Tab
- Sorting Using the Field List Hidden Drop-Down

Filtering the PivotTable

- Using Filters in the Label Areas

Filtering Using the Report Filter

- Adding Fields to the Report Filter Area
- Choosing One Item from a Report Filter
- Choosing Multiple Items from a Report Filter
- Quickly Selecting or Clearing All Items from a Filter
- Using Slicers

Refresh PivotTable

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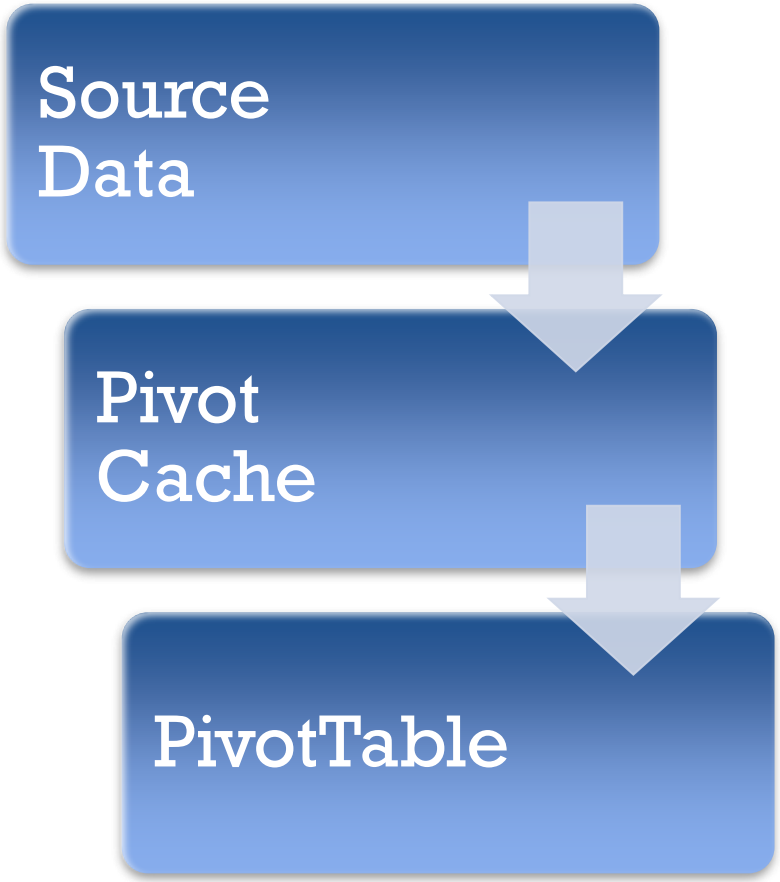
Sharing the Pivot Cache

- Create new PivotTable, a new Pivot Cache is automatically created
- Copy and Paste a PivotTable will create a new PivotTable without duplicating the pivot cache



Side Effects of Sharing a Pivot Cache

- Refreshing your Data
  - Affect both tables
- Adding a Calculated Field
  - Shows in both tables
- Adding a Calculated Item
  - Shows in both tables
- Grouping or Ungrouping Fields
  - Affect both tables

Format a PivotTable

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Using AutoFormat

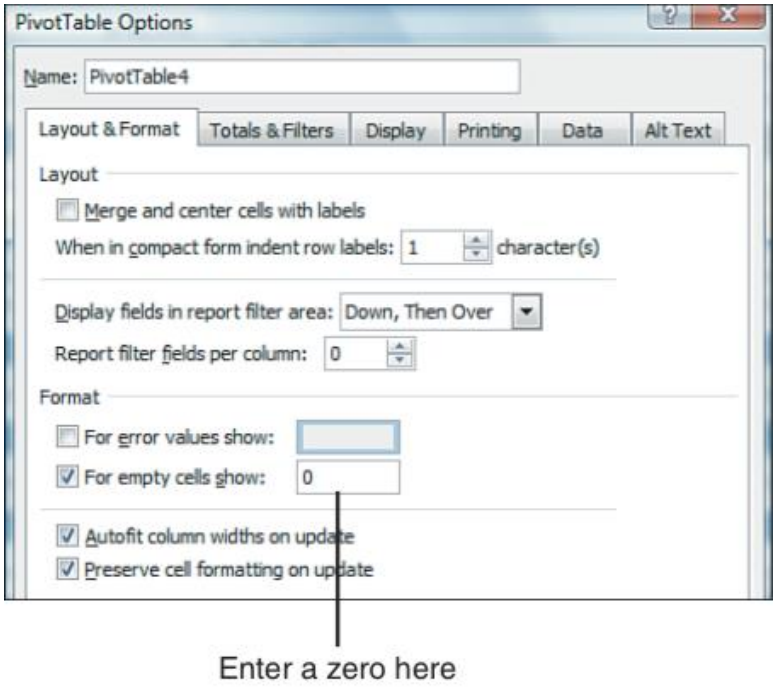
- Applying a Table Style to Restore Gridlines

Applying Your Own Style

- Customizing a Style
- Choosing a Default Style for Future PivotTables
- Modifying Style with Document Themes

Setting Table Options

- Replacing Blanks with Zeros
  - Select a Cell
  - Options Tab → Options
  - Layout & Format → For empty cells show



Calculation in PivotTable

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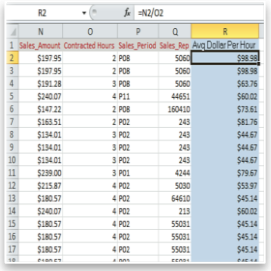
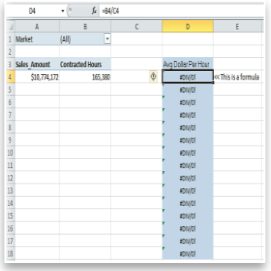
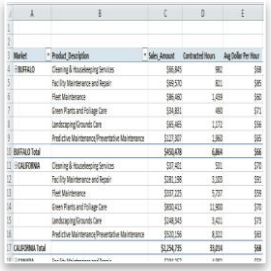
Introducing Calculated Fields and Calculated Items



Manually Add to the Data Source

Use a Formula Outside the PivotTable

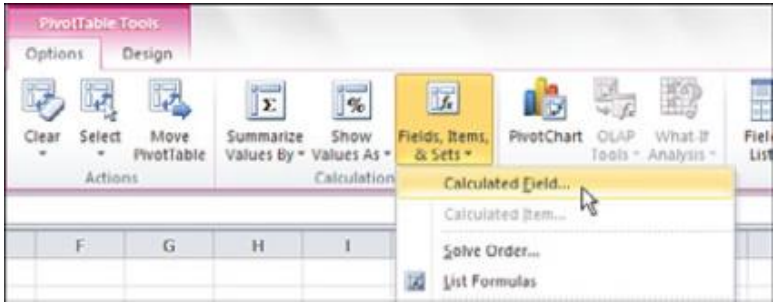


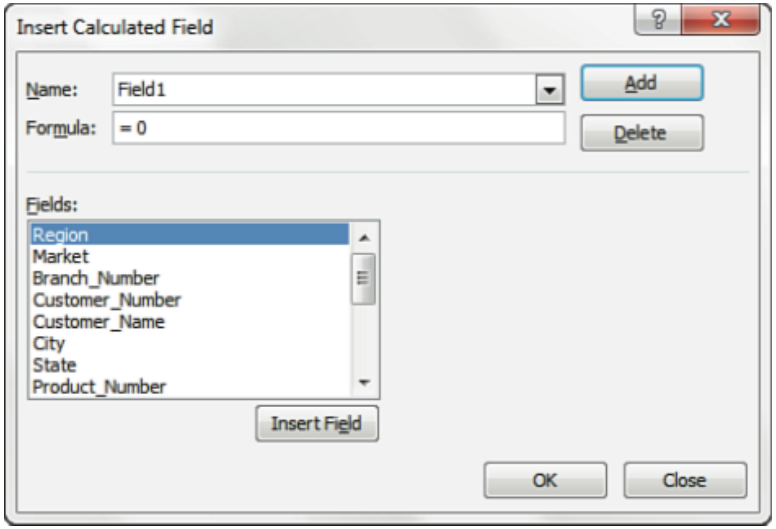


Insert a Calculated Field Directly into the Pivot Table

Creating Your First Calculated Field

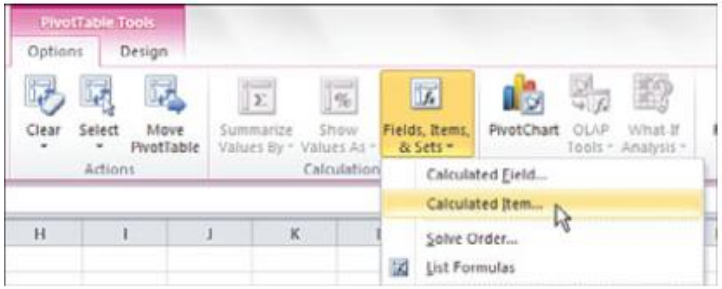
- Insert Calculated Field
  - Name
  - Formula
- Add Field and create formula
- No change in source data

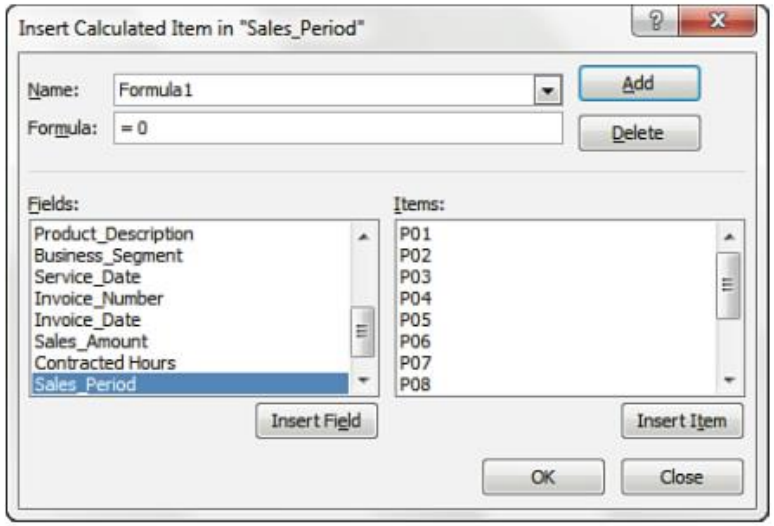




Creating Your First Calculated Item

- Virtual data item
- Group and aggregate a set of data items
- Fields, Items, & Sets → Calculated Item
- Create formula
- Use Filter





Understanding Rules and Shortcomings of Pivot Table Calculations

- Remember the order of operator Precedence
- Using Cell Reference and Named Ranges
- Using Worksheet Functions
- Using Constants
- Cannot referencing Totals

Managing and Maintaining Your Pivot Table Calculation

- Editing and Deleting Pivot Table Calculations
- Changing the Solve Order of Calculated Items
- Documenting Formulas

Using External Data Sources for Your PivotTable

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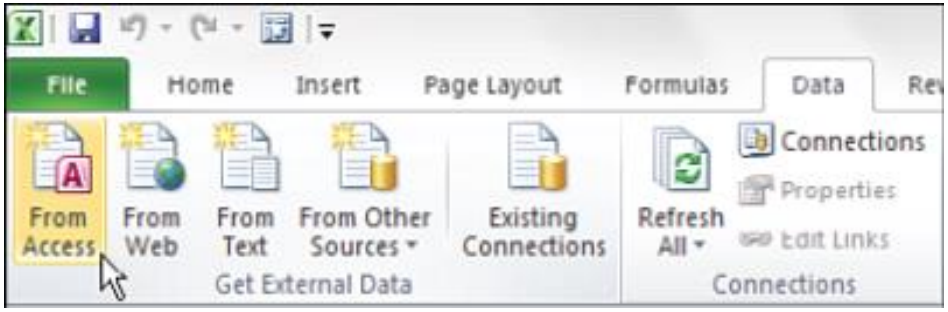
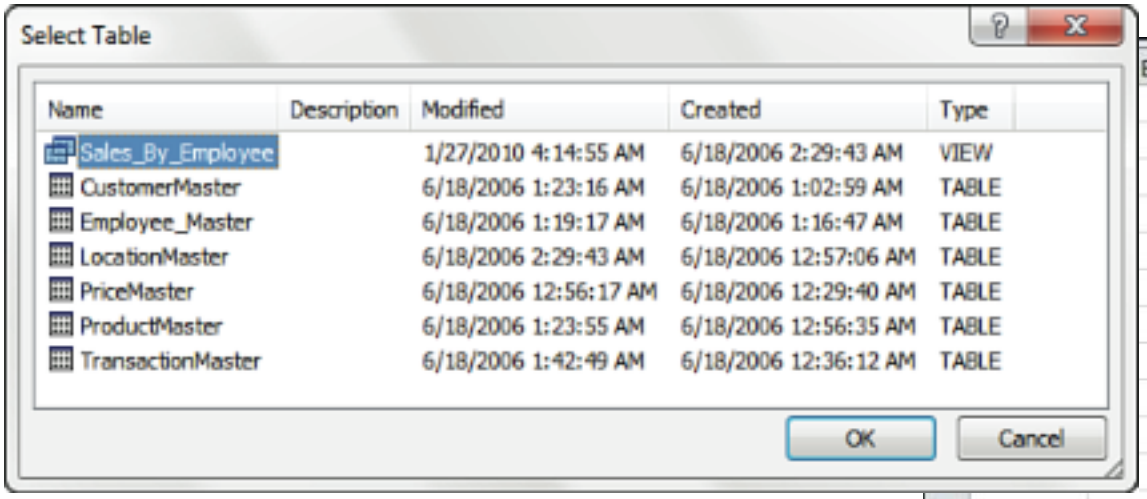
Building a PivotTable Using External Data Sources

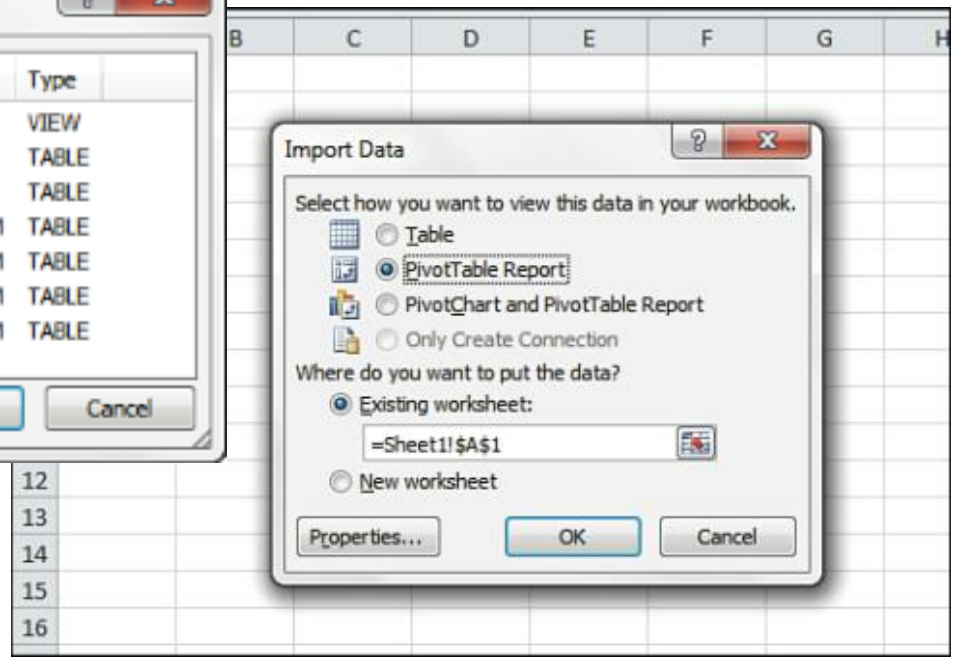
Building a Pivot Table with Microsoft Access Data

Building a Pivot Table with SQL Server Data

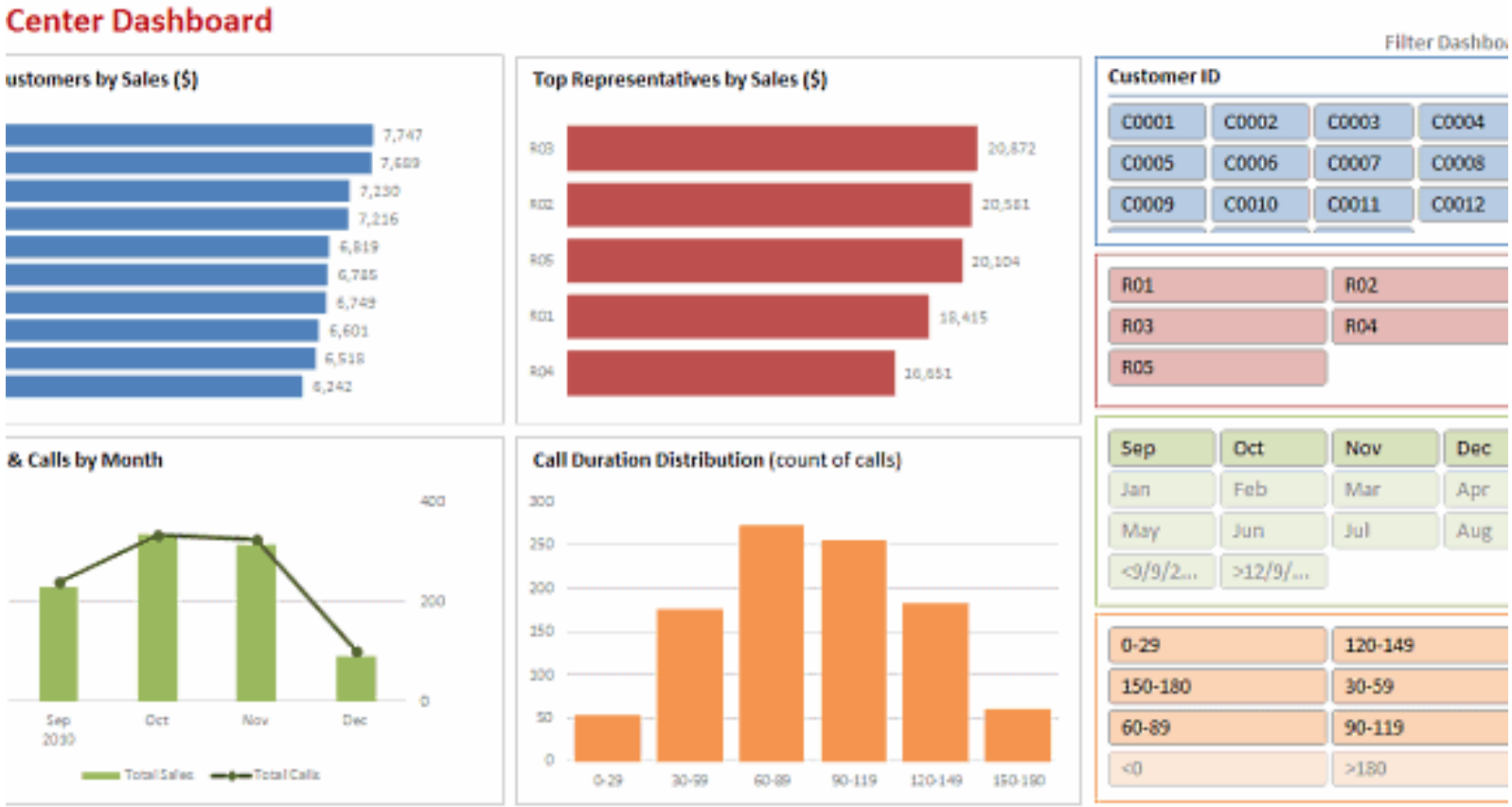
Importing and Using External Data Without the PivotTable Wizard



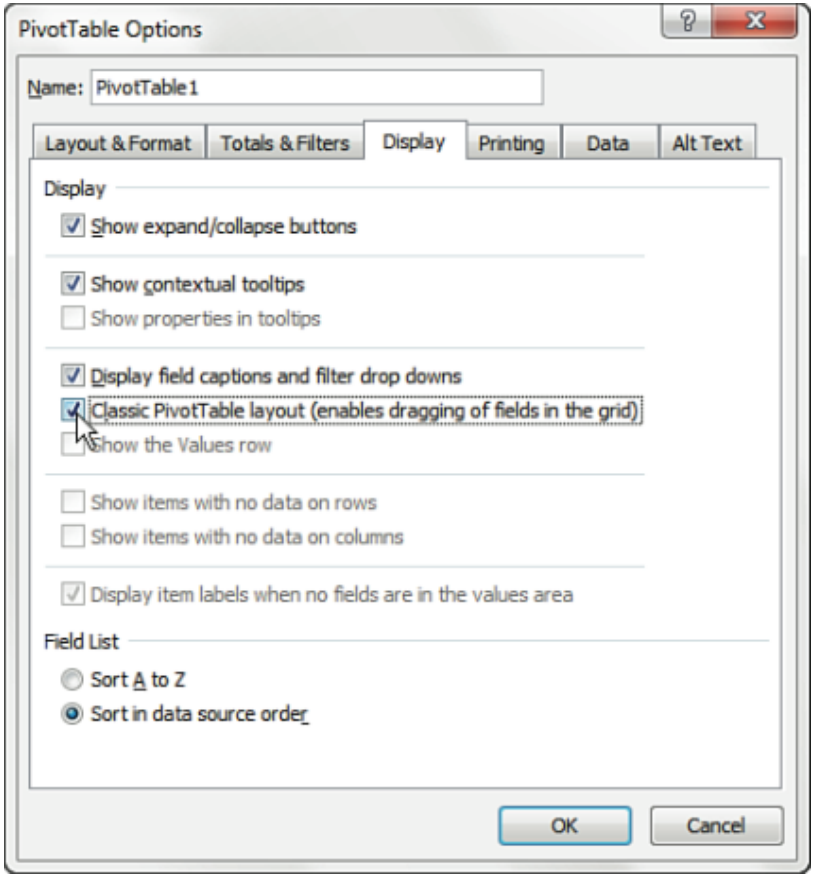




Creating Dynamic PivotTable Reporting Systems



PivotTable Data Options



Save Files

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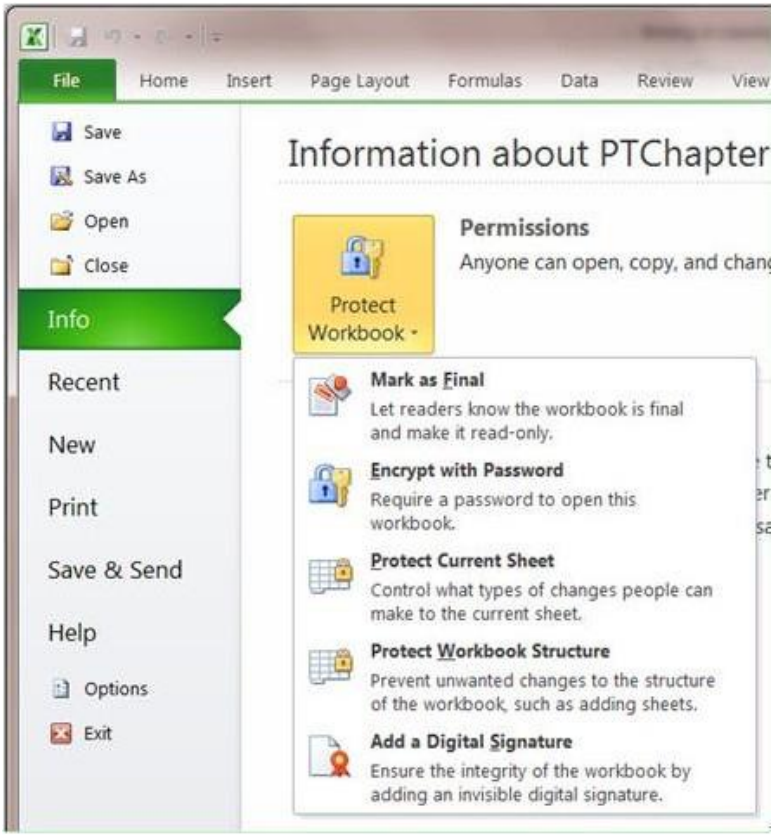
Save File With Password Protection

- File → Info → Protect Workbook → Encrypt with Password



Q & A

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