

Microsoft Excel Pivot Table Basics

June 22, 2021

What is a pivot table?

- A pivot table is a function in Microsoft Excel that creates a statistical summary of the database that allows for ease of data comparison and reporting of trends

When to use pivot tables?

The screenshot shows an Excel spreadsheet with a large data table. The columns include Date, Time, Meter, and various numerical values. The interface includes the ribbon (File, Home, Insert, Page Layout, Formulas, Data, Review, View, BLUEBEAM, Acrobat) and a status bar at the bottom.

- Database Analysis
- SCADA Data
- Consumer Billing Data



Let's Try a Pivot Table Example



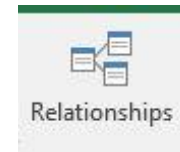
Microsoft Excel
Worksheet

Step 1: Database Formats & Clean-Up

- It is important to clean-up your database prior to creation of a pivot table:
 - Header row with description
 - No blank columns
 - No blank rows
 - No merged cells
 - Getting Data into Single Worksheet (if possible)

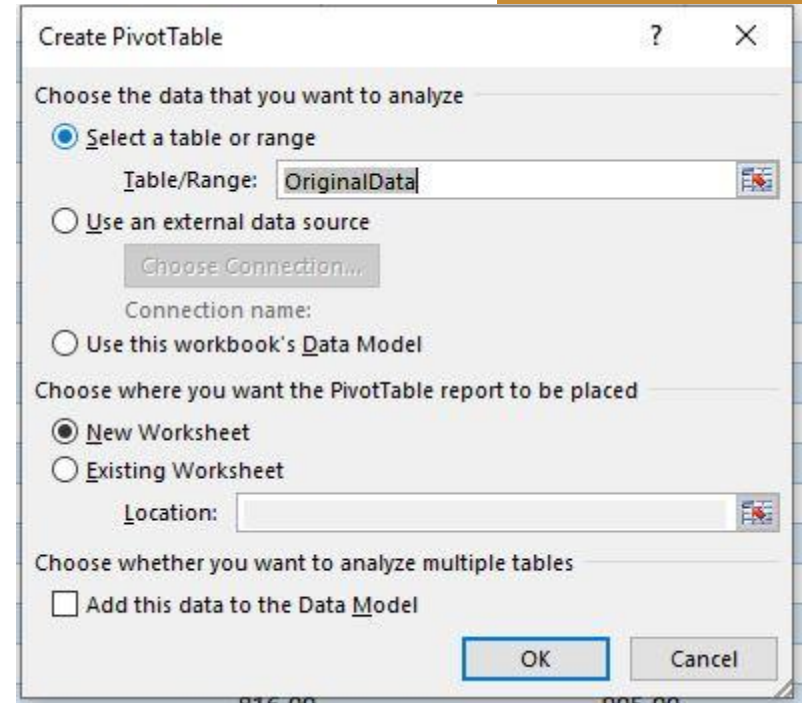
Adding Data from Multiple Sources

- If raw data comes in multiple spreadsheets or tabs:
 - Create Relationships
 - Create Queries
 - Combine into one sheet



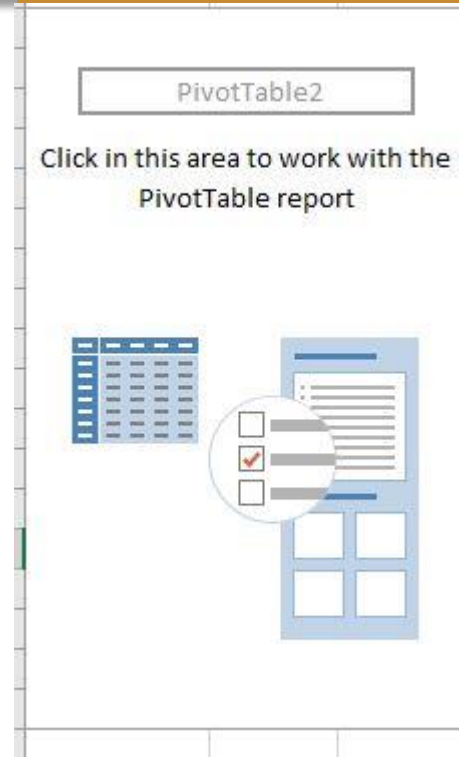
Step 2: Creating a Pivot Table

- Insert > Pivot Table
- Select Table or Range
- New Worksheet
- Add this data to the Data Model



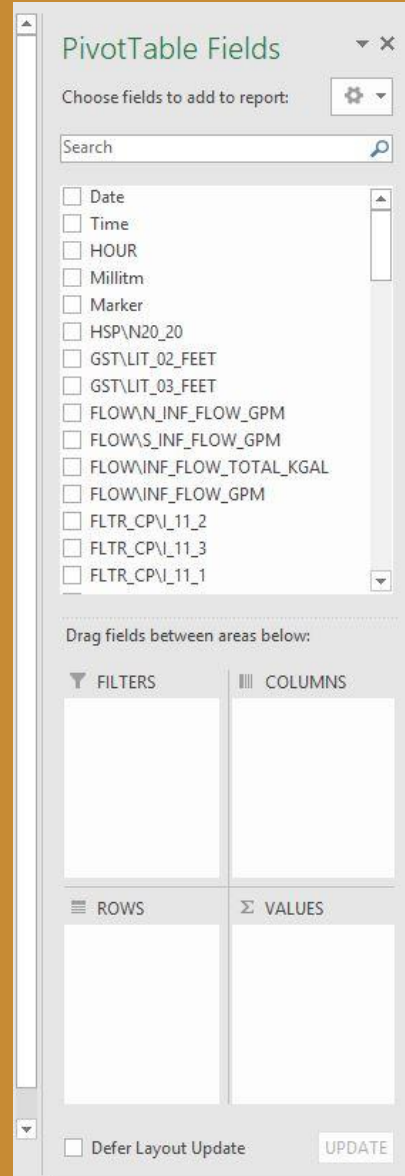
Pivot Table Items to Note

- Click in the area designated at any time to open Pivot Table Fields
- Pivot Table Fields can be dragged in and out of areas at any time



Step 3: Pivot Table Fields

- Filters = filters the data by the selected parameter
- Rows & Columns = puts the selected data in a row or column format
- Σ Values = sum of the selected data parameter

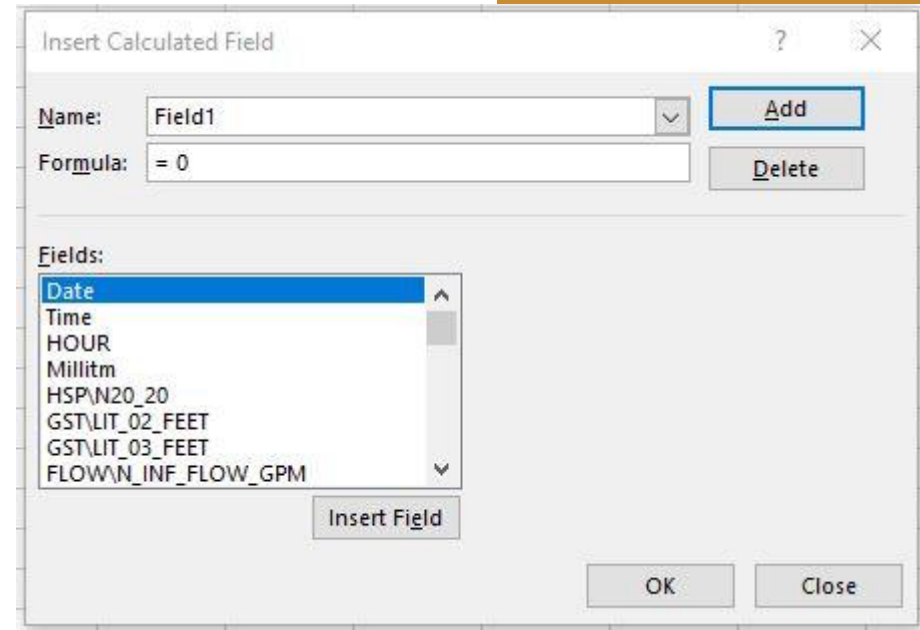


Step 4: Pivot Table Formulas

- Drag field desired into Σ Values
- Right-click on header of pivot table
- Summarize Values By
- Show Values As

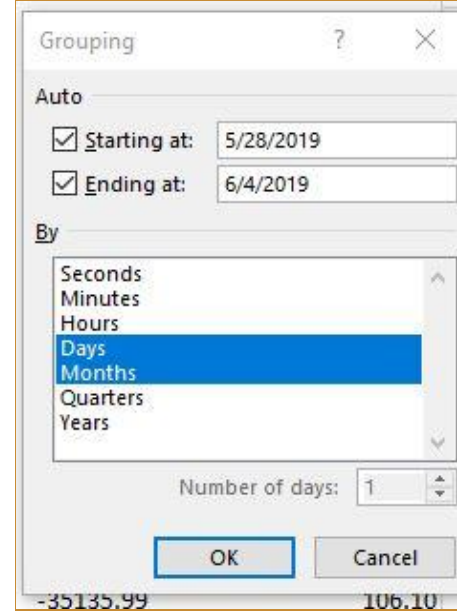
Step 4: Pivot Table Formulas (cont'd)

- Go “Analyze” on the top ribbon bar
- Select “Fields, Items & Set” > “Calculated Field...”
- Insert Field Name & Formula



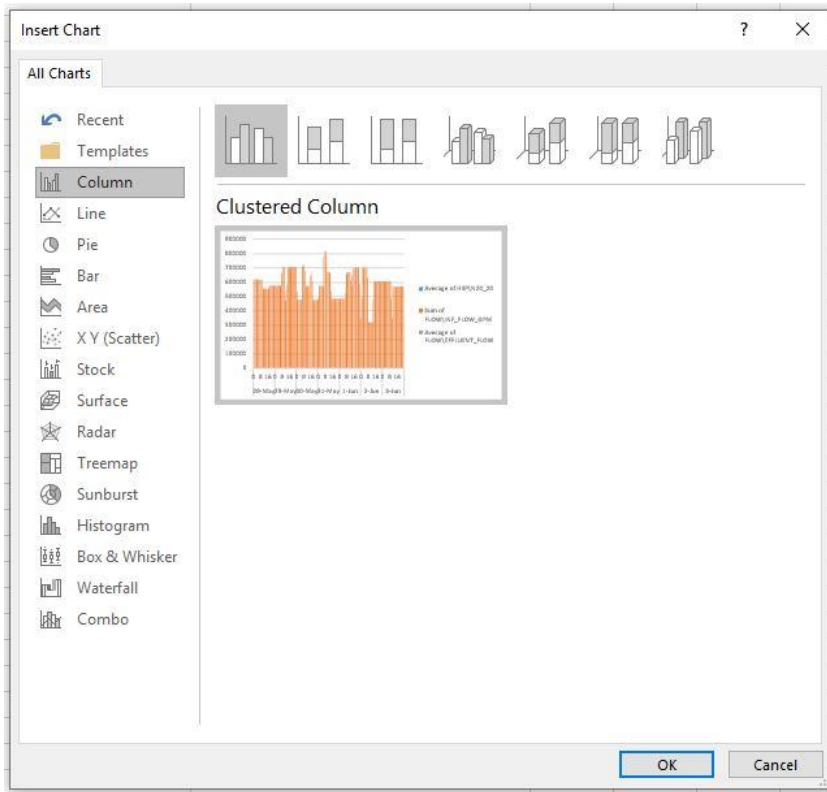
Grouping

- To group data by time, select “Analyze” on the top ribbon bar > “Group Selection”



Step 5: Pivot Table Charts

- Analyze > PivotChart
- Select Chart Type



Add Slicers

- Select PivotChart
- Go to “Insert” on the top ribbon > “Filters” > “Slicers”



Duplicate Pivot Table Sheet

- Once the Pivot Chart is set-up, make a copy of the pivot table sheet
- This allows for creation of additional pivot tables utilizing the same data set without altering the original pivot table

Questions?