Tableau Concepts

Tableau Concepts

- Why are some fields dimensions and others measures?

- What effect will adding a filter have on my view?

- Why is the background color blue for some fields, and green for others?

- The topics in this section attempt to clarify these and other questions about what you can see and experience as you use Tableau Desktop.

- If you're new to Tableau Desktop, also consider working through the Build-It-Yourself Exercises, and check out the Free Training Videos on the Tableau website.

- **Data Types**
- **Field Types**
- **Tableau's Order of Operations**
- **Understanding Data Fields**
- **Aggregations**
- **Cube Data Sources**

Data type icons in Tableau

Icon	Data type
Abc	Text (string) values
📅	Date values
📅🕐	Date & Time values
#	Numerical values
T|F	Boolean values (relational only)
🌐	Geographic values (used with maps)

Field Types

By default, dimensions are discrete and measures are continuous, but in fact all four combinations are possible:

discrete dimensions	Product Name
continuous dimensions (possible only with Date dimensions)	⊞ QUARTER(Order Date)
discrete measures	SUM(Profit)
continuous measures	SUM(Profit)

Dimensions and Measures

Dimensions and the Level of Detail

Tableau's Order of Operations

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Order of Operations →

- Extract Filters
- Data Source Filters
- Context Filters
- Sets, Conditional and Top N Filters, FIXED Level of Detail expressions (calculated)
- Dimension Filters
- Data Blending

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Order of Operations →

- Data Blending
- INCLUDE and EXCLUDE Level of Detail expressions (calculated)
- Measure Filters
- Totals (calculated)
- Forecasts and Table Calculations (calculated)
- Trend Lines, Reference Lines (calculated)

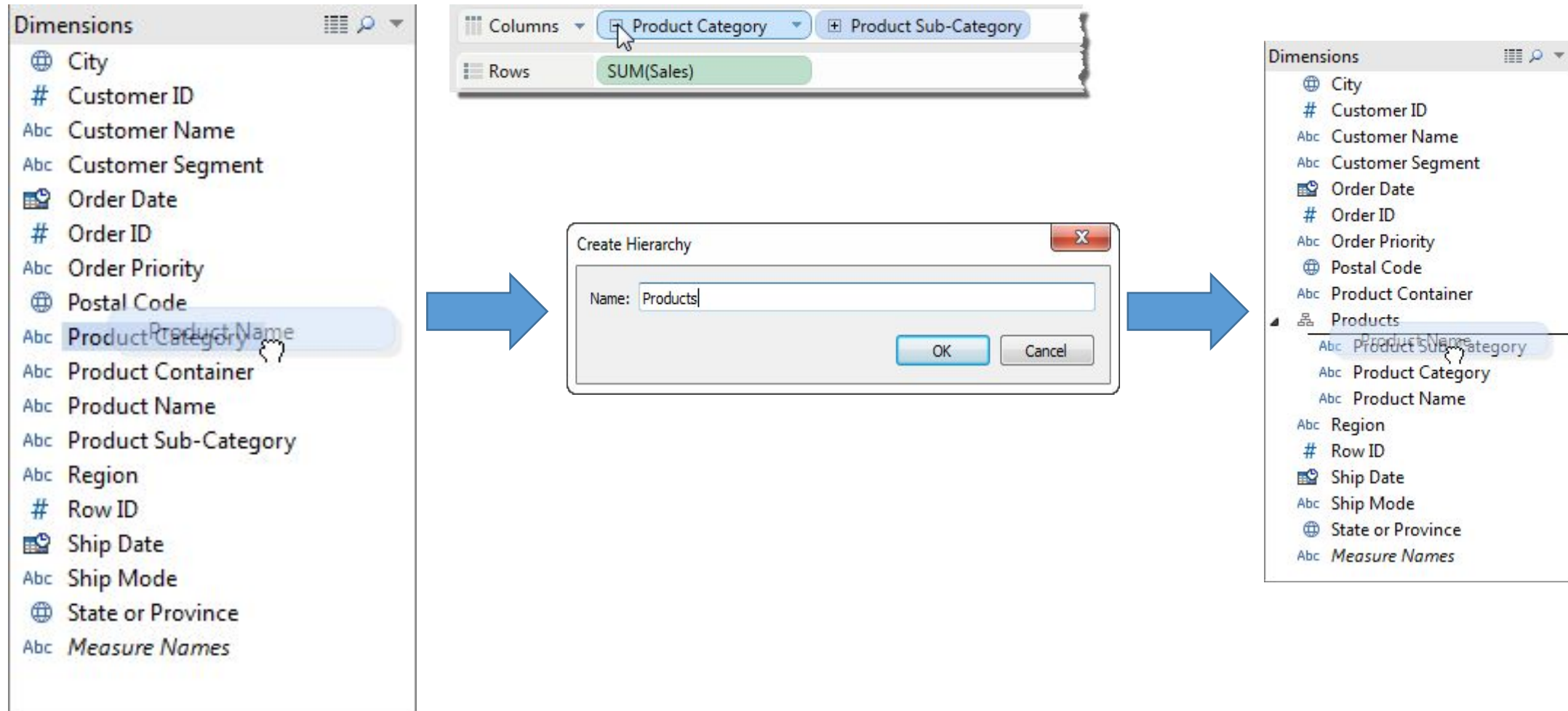# Convert Fields between Discrete and Continuous

Understanding Data Fields

- **Understanding the Data Pane**

- **Data Pane Features and Functions**

- **Editing Field Properties**

- **Special Values**

Understanding the Data Pane
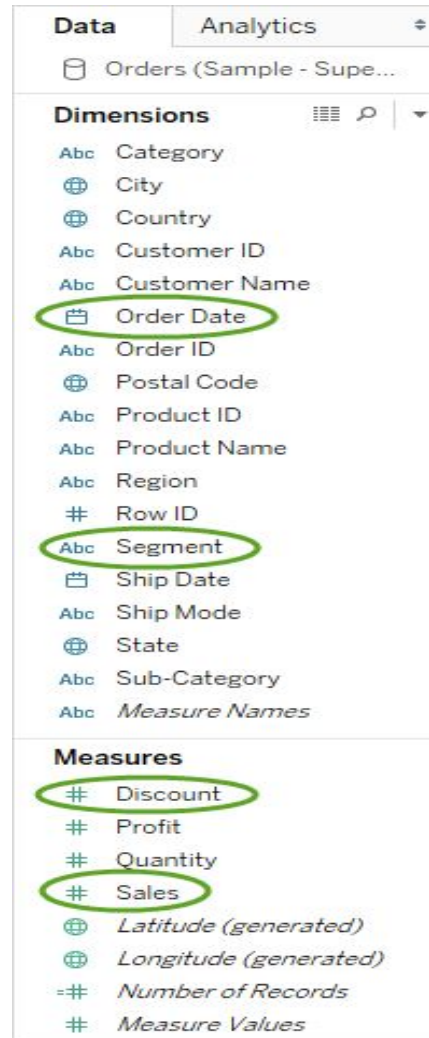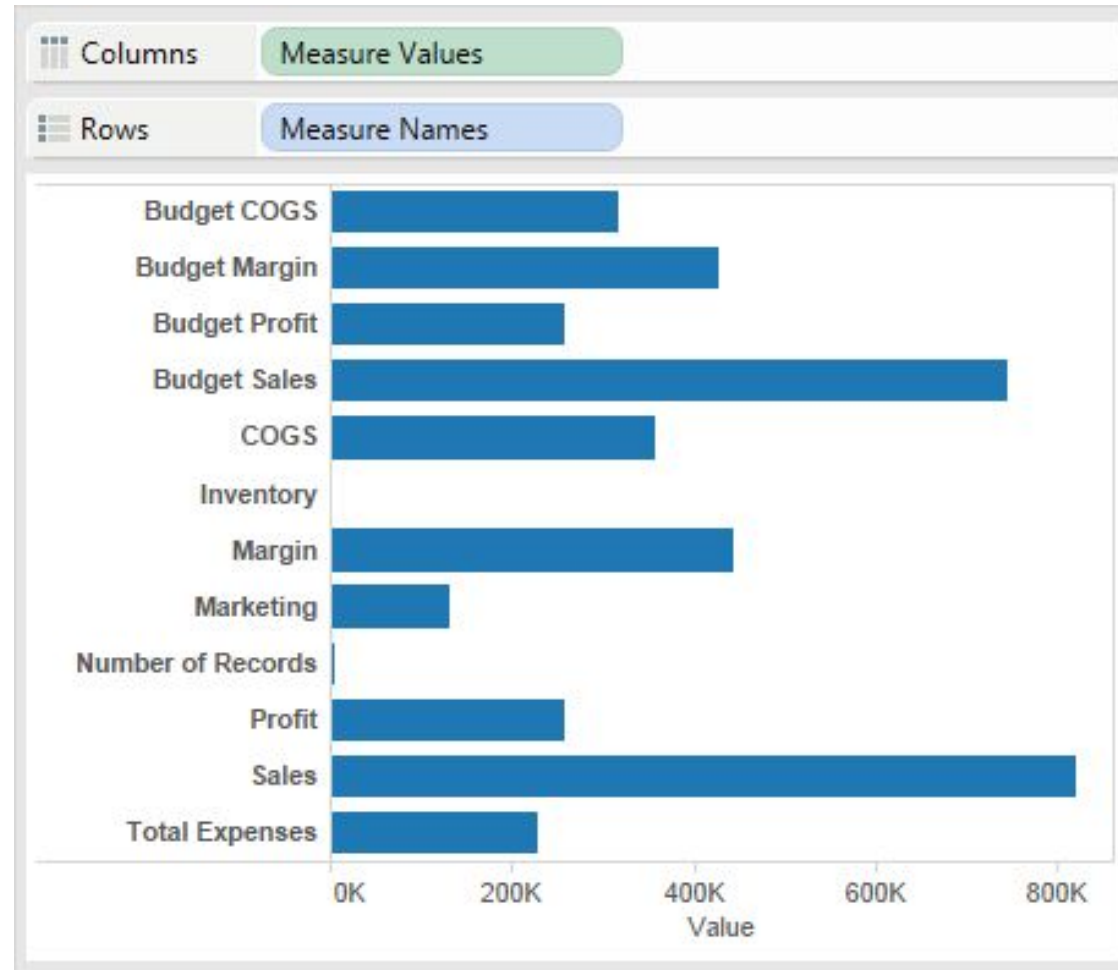
Hierarchies (For Relational Databases)

Relational and Cube Data

# Measure Values and Measure Names

Number of Records

- In addition to the Measure Names and Measure Values fields, the Data pane contains a **Number of Records** field that is also not part of the underlying data. This field represents the number of rows in the data source. It is useful when you are working with a data source that is primarily categorical resulting in very few measures.
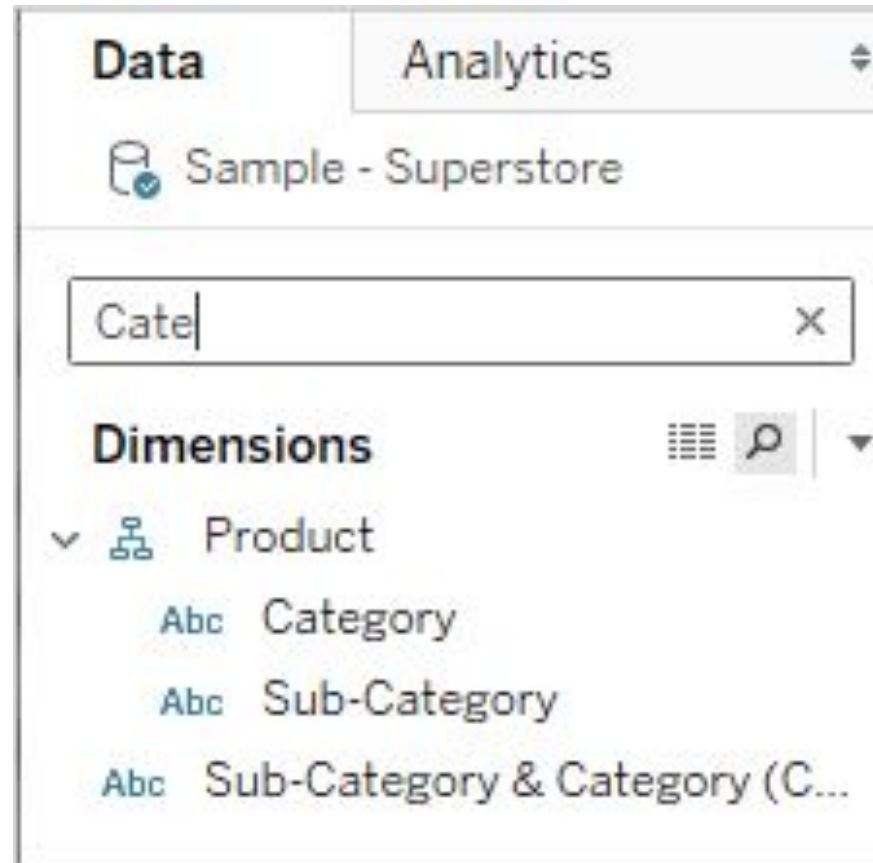
Data Pane Features and Functions

- The Data pane has many features and functions to help you organize your data fields, find specific fields, and hide others.
- **Organize the Data Pane**
- **Find Fields**
- **Rename Fields**
- **Combine Fields**
- **Hide or Unhide Fields**
- **Add Calculated Fields to the Data Pane**
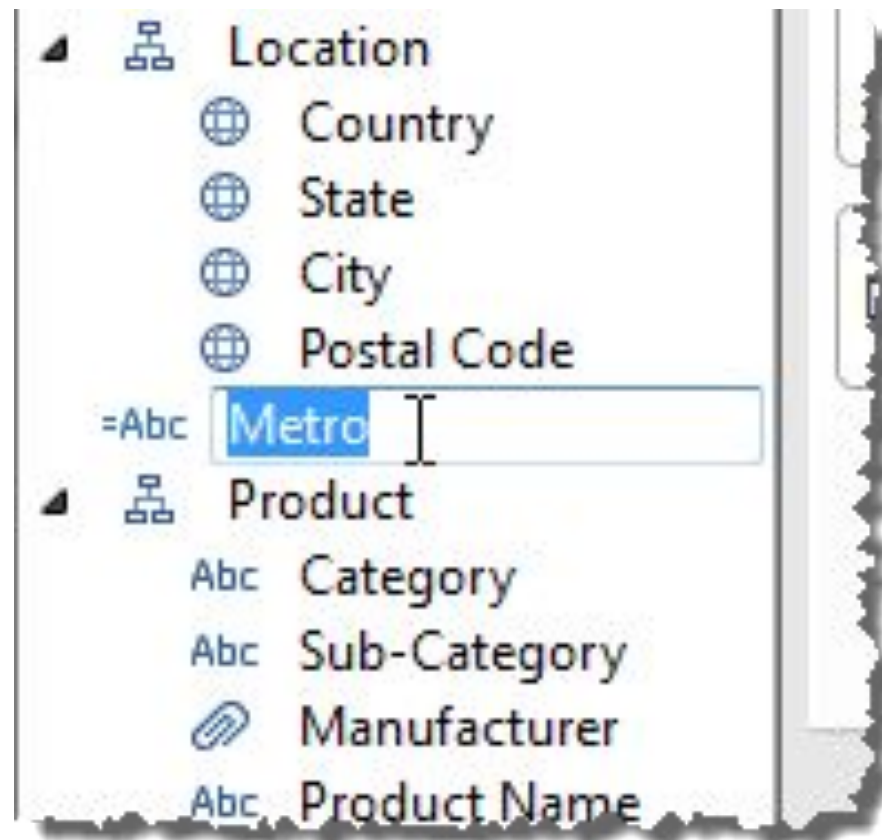- **Navigate Data Sources in the Data Pane**
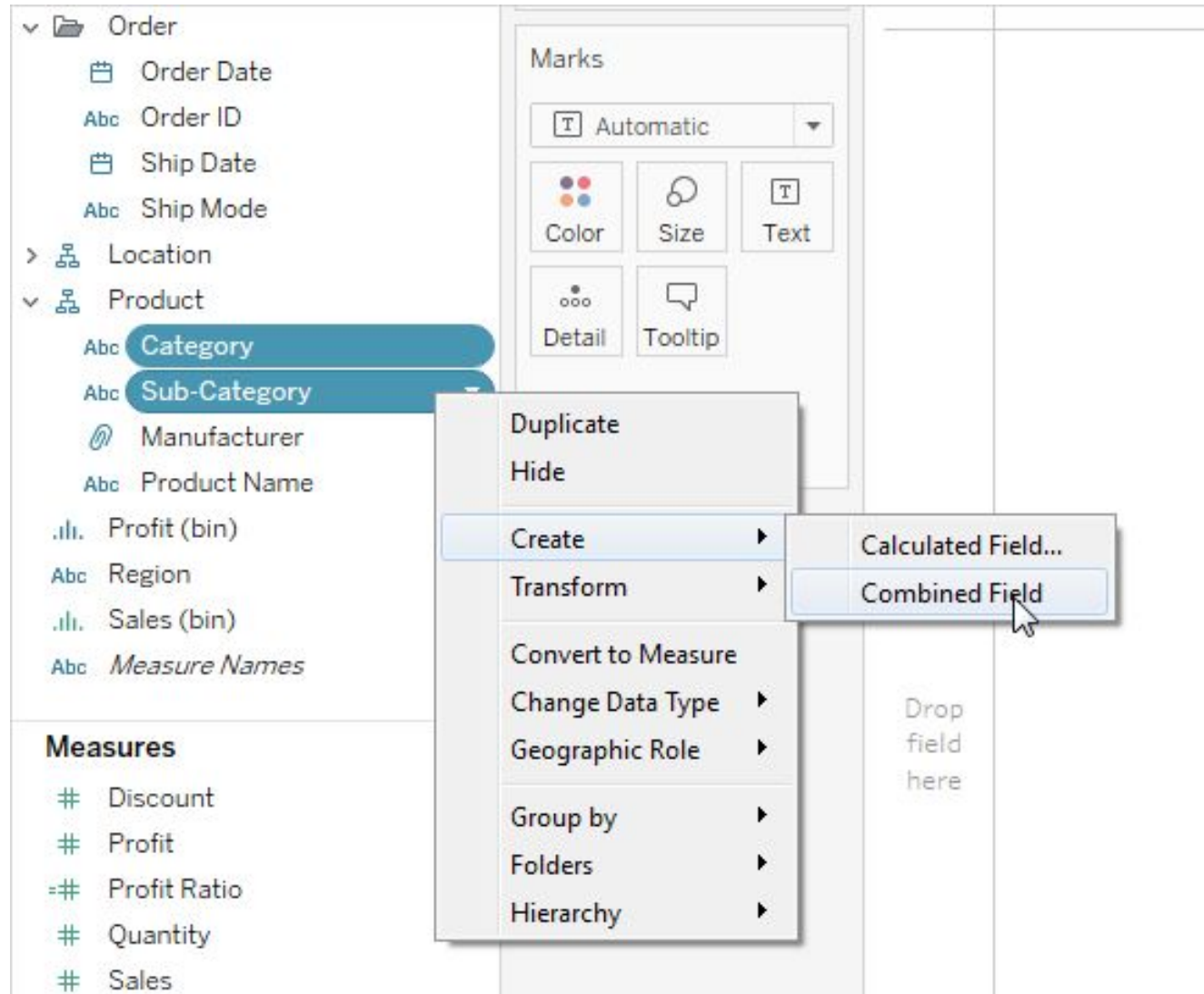
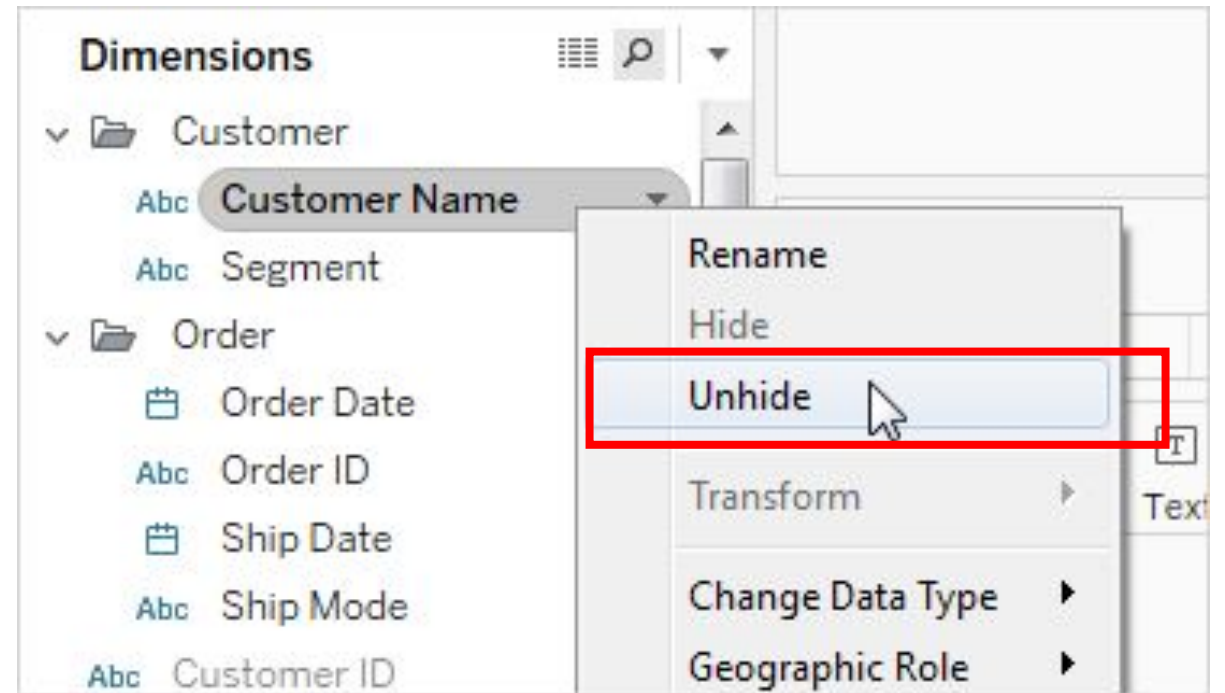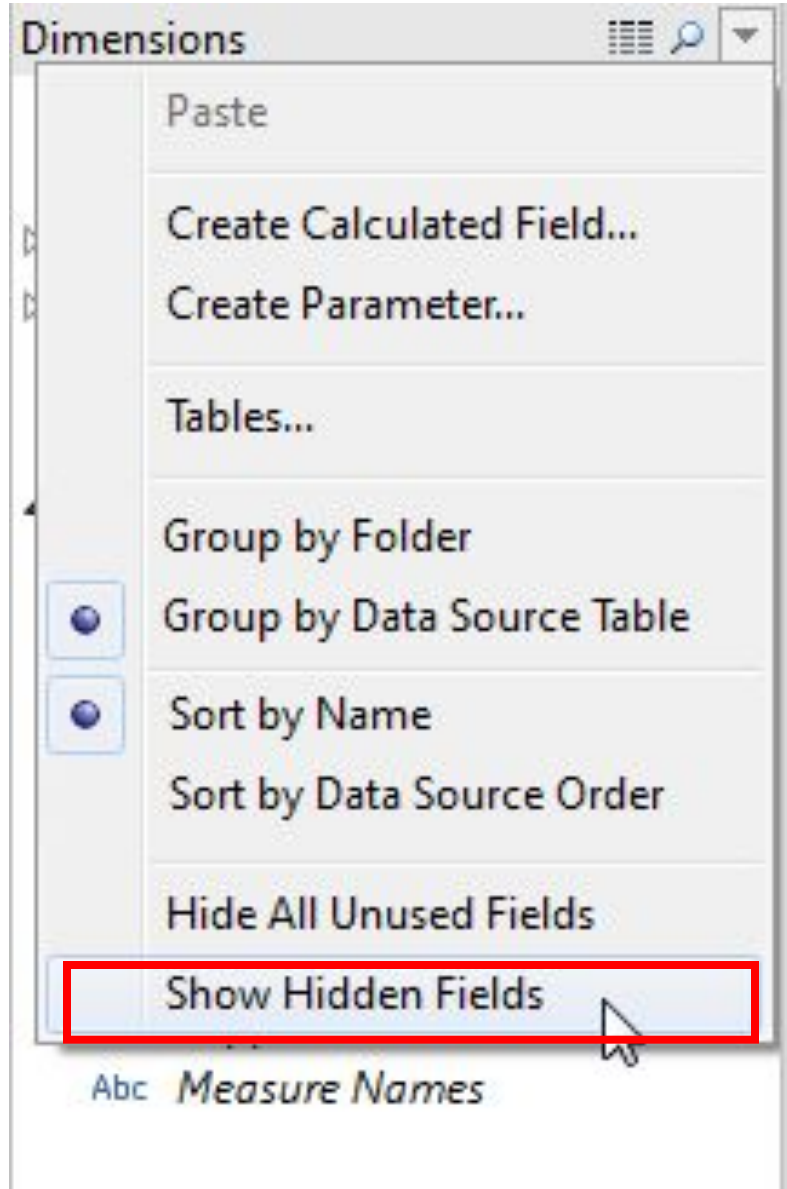# Organize the Data Pane
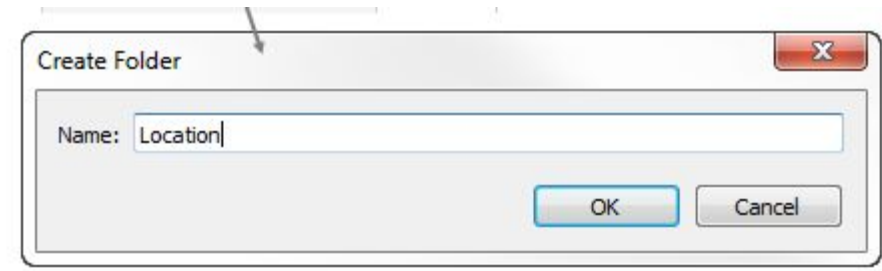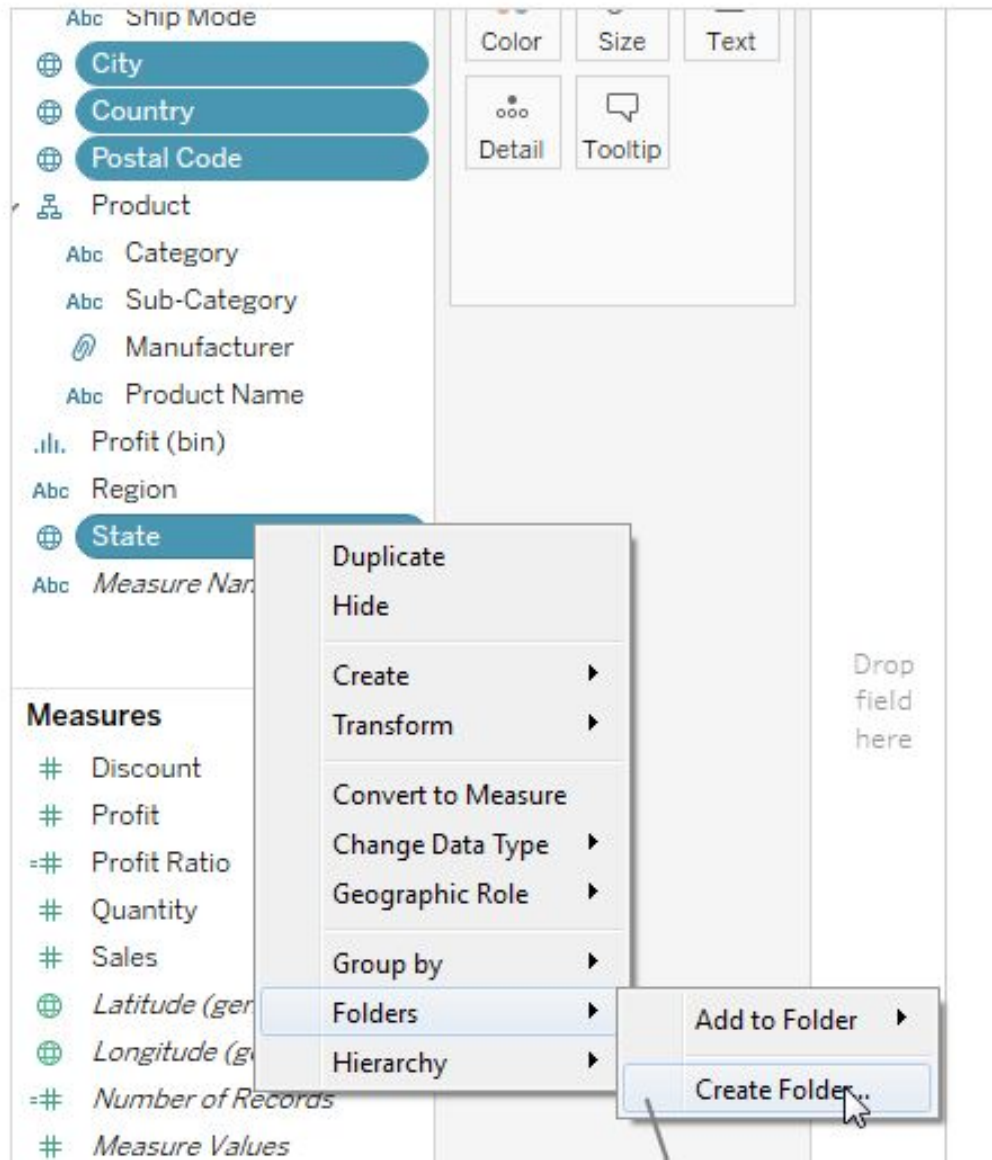
Find Fields

Rename a Field

Combine Fields
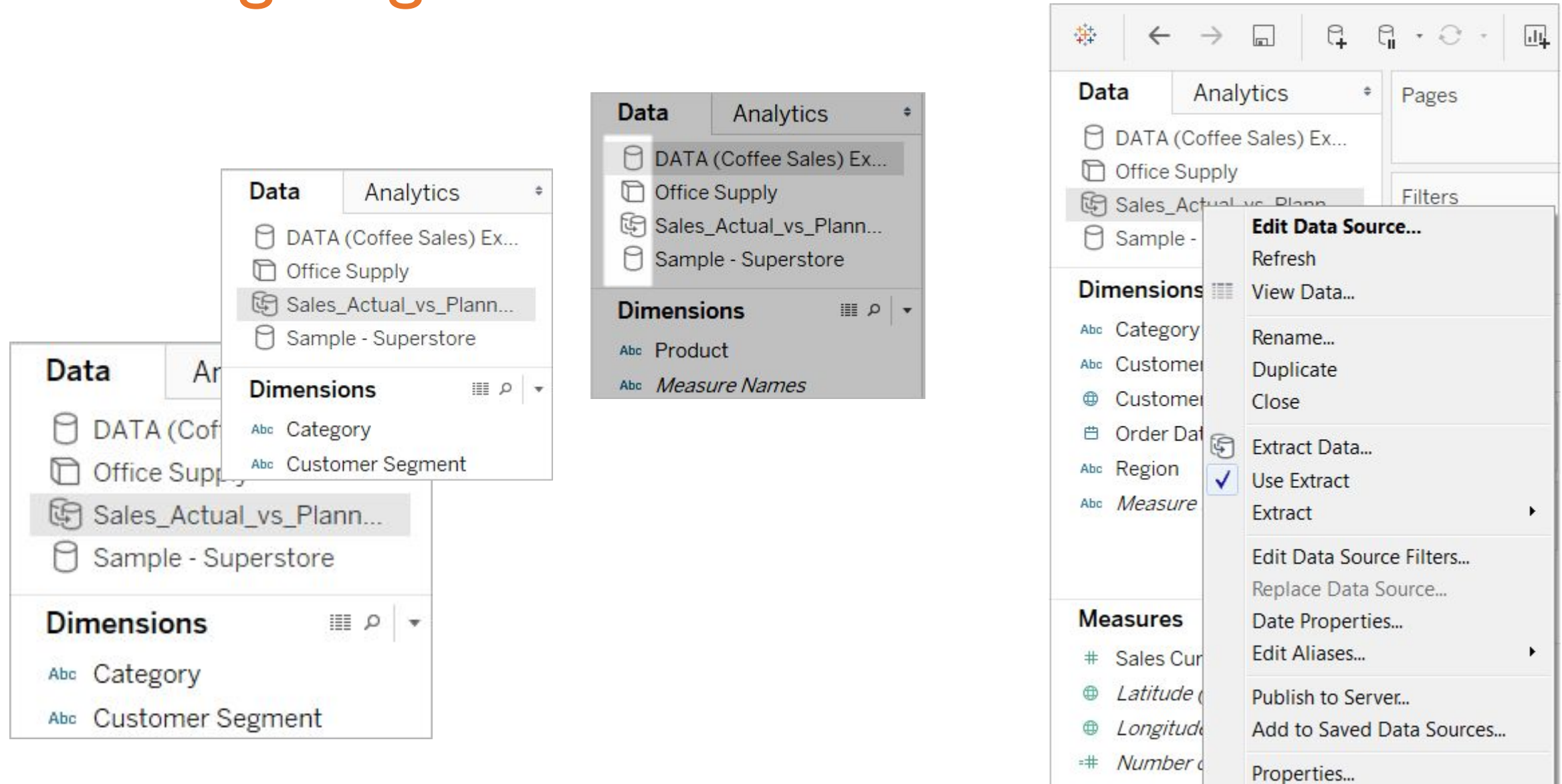
Hide or Unhide Fields

Add Calculated Fields to the Data Pane

- You can create calculated fields that appear in the Data pane. These new computed fields can be used like any other field. Select **Create Calculated Field** on the Data pane menu. Alternatively, select **Analysis** > **Create Calculated Field**.

Navigating Data Sources in the Data Pane

Editing Field Properties

- **Comments**
- **Aliases**
- **Colors**
- **Shapes**
- **Formats**
- **Sort**
- **Aggregation**
- **Measure Names**

Aggregations - default

Example – Scatter Plots and Aggregation