

Exploring Your Data



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2018 TABLEAU ZEN MASTER

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Overview



Exploring Your Data

- Generated Fields
- Exploring Dimensions and Measures
- Creating Bins
- Exploring Distributions



A photograph of a person standing on a rocky mountain peak, looking out over a vast, cloudy landscape. The sky is filled with large, billowing clouds, and the mountains in the distance are partially obscured by mist. The person is wearing a light-colored jacket and blue pants, and is holding a trekking pole. A horizontal teal bar is overlaid across the middle of the image, containing the text.

Data Pitfalls

Generated Fields





What are generated fields?

- ✓ Created automatically by Tableau
- ✓ Not from your original data source

Generated Fields in Tableau

Measure Values

Measure Names

Number of
Records

Latitude
(generated)

Longitude
(generated)



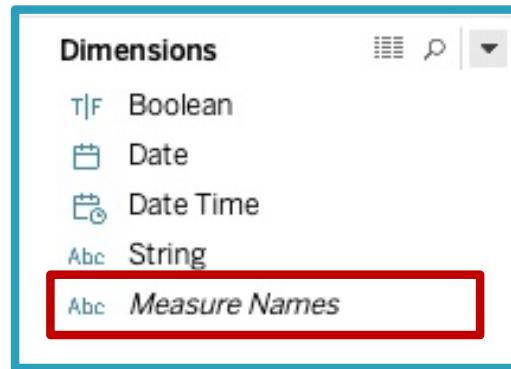
Measures

- > Calculated Fields
- ✓ Data Source Measures
 - # Discount
 - # Profit
 - # Quantity
 - # Sales
 - # *Latitude (generated)*
 - # *Longitude (generated)*
 - =# *Number of Records*
 - # **Measure Values**

Measure Values

- ✓ Contains all measures in your data
- ✓ Combined in a single field
- ✓ Continuous values





Measure Names

- ✓ Contains the names of all measures in your data source
- ✓ Combined in a single field
- ✓ Discrete values



Measures

- > Calculated Fields
- ✓ Data Source Measures
 - # Discount
 - # Profit
 - # Quantity
 - # Sales
 - Latitude (generated)
 - Longitude (generated)
 - =# Number of Records
 - # Measure Values

Number of Records

- ✓ Calculated field
- ✓ Adds 1 to every row of your data
- ✓ Can be aggregated



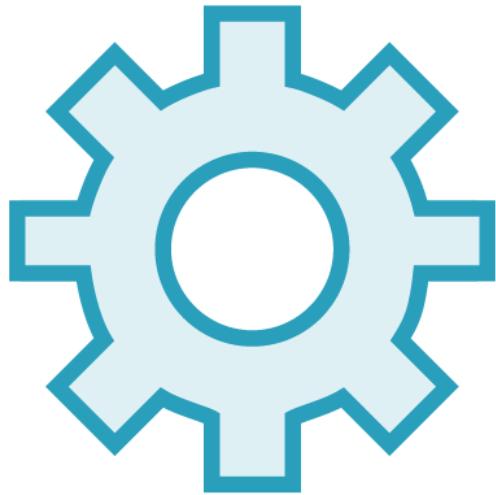
Measures

- > Calculated Fields
- ✓ Data Source Measures
 - # Discount
 - # Profit
 - # Quantity
 - # Sales
 - Latitude (generated)*
 - Longitude (generated)*
- =# Number of Records
- # Measure Values

Latitude (generated) and Longitude (generated)

- ✓ Appears when fields have geographic roles or when connected to a spatial file
- ✓ Tableau automatically geocodes the data for use on a map





Generated fields in action



Exploring Dimensions and Measures



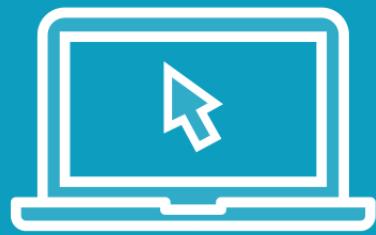


Build throw-away views

- ✓ Ad-hoc data exploration
- ✓ Quick insights into record counts,
distributions and granularity



Demo

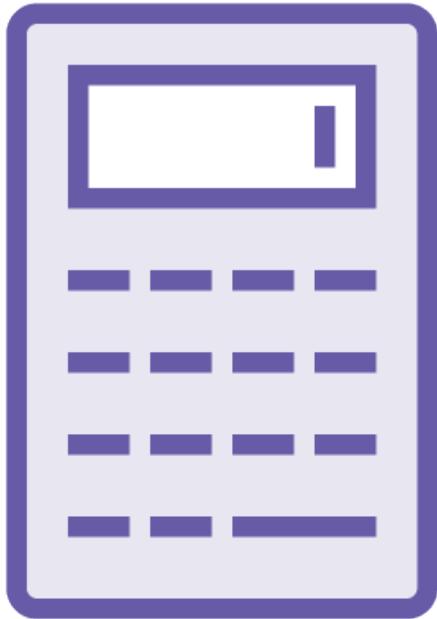


Exploring Dimensions and Measures



Creating Bins





What is a bin?

- Dimension created from a measure
- Each discrete value has a limited set of possibilities





To analyze a distribution

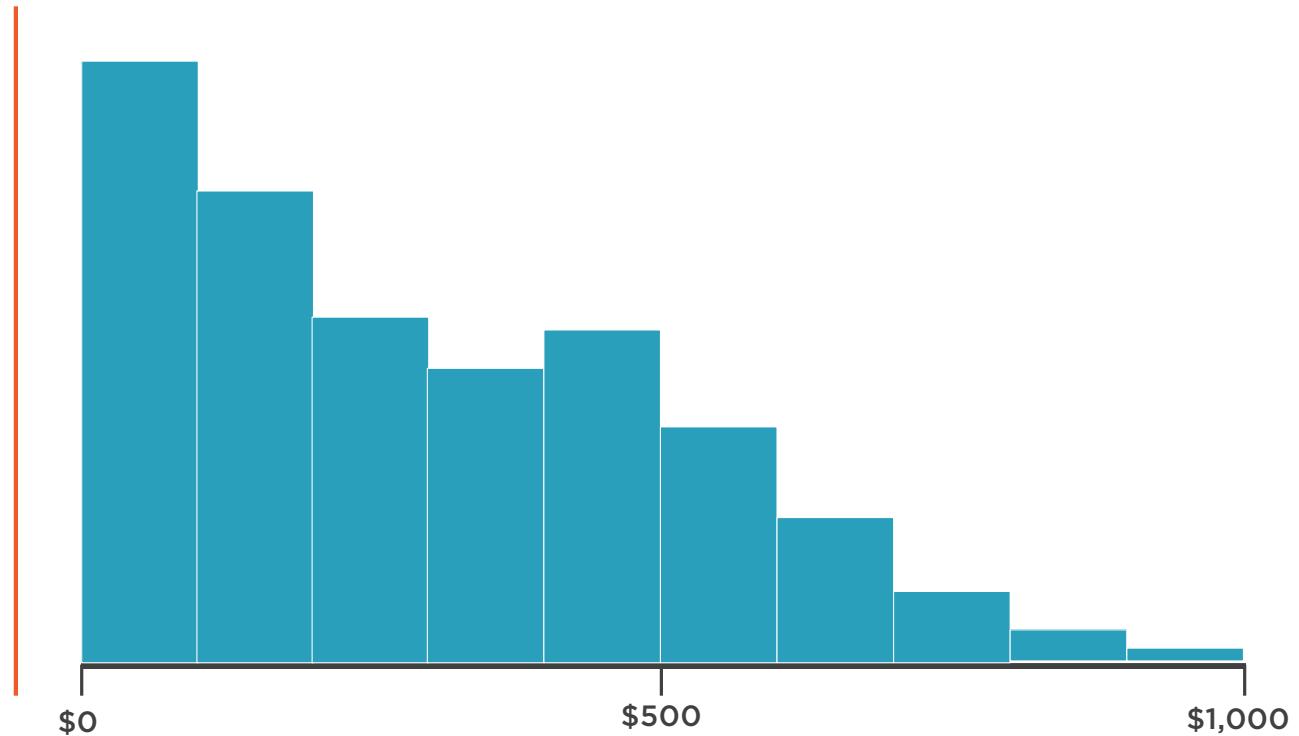
- Visualize the shape and spread
- Look for missing values
- Look for outliers



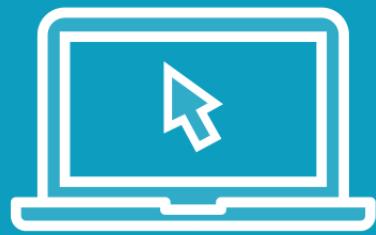
Example

- ✓ CntD: 1,000 orders
- ✓ Max: \$1,000
- ✓ Min: \$10
- ✓ Bin Size: \$100

Histogram
Number of Sales Orders by Sales Bins of \$100



Demo



Creating Bins in Tableau Desktop



Exploring Distributions



Demo



Exploring Distributions Using Bins and Histograms



Summary



Exploring Your Data

- Generated Fields
- Exploring Dimensions and Measures
- Creating Bins
- Exploring Distributions



Things to Remember

Generated fields come in handy when exploring your data set granularity

Explore your data before you build a finished product

Bins are used to chunk the values of a continuous measure into discrete buckets

Know and understand the distributions of measures in your data set

