



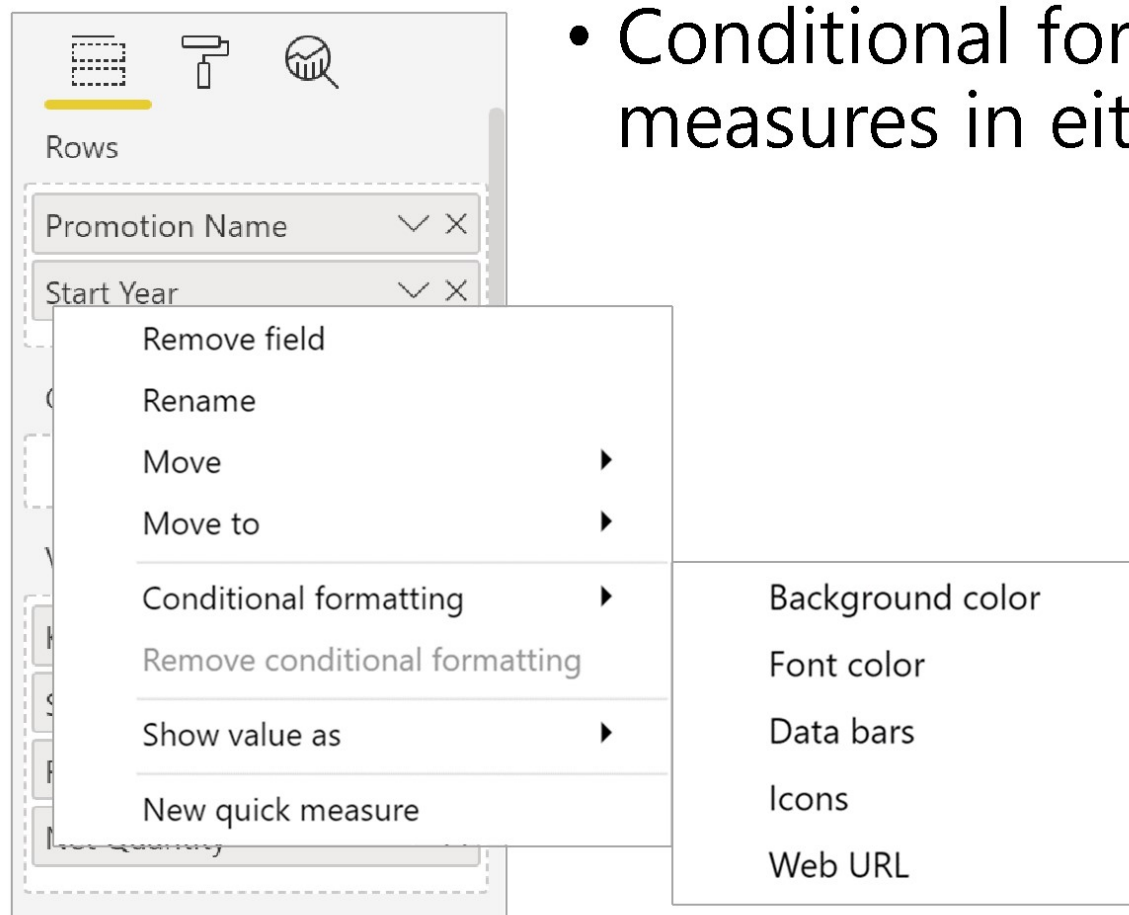
# Designing Advanced Reports

- Conditional Formatting
- Drillthrough Filters
- Visual Interactions
- Sync Slicers
- Report Tooltips
- Bookmarks
- Custom Visuals
- Recommended Practices

# Designing Advanced Reports

## Conditional Formatting

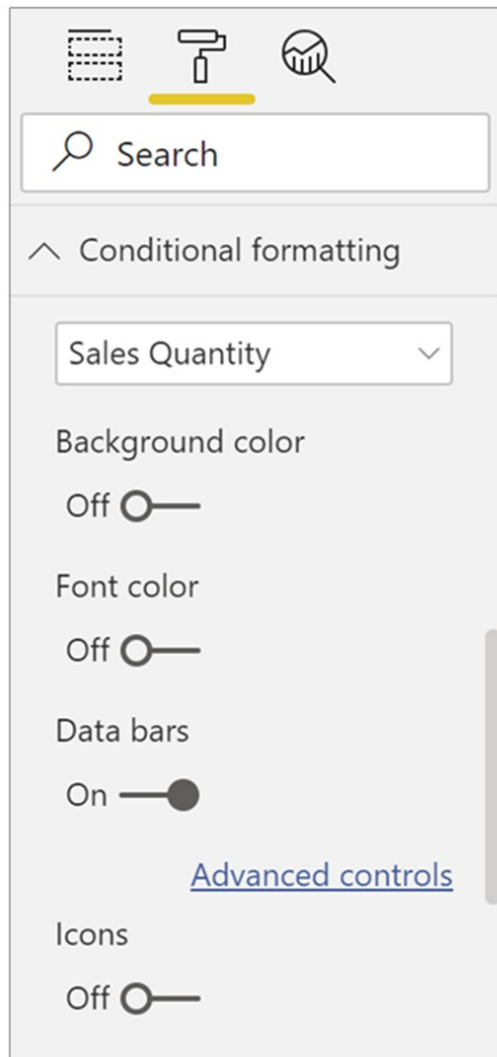
- Conditional formatting can be applied to calculated measures in either the *table* or *matrix* visuals



Page Title & Geo	Page Views	Unique Views	Searches	Bounce Rate
Havens Consulting	4,326	3,587	546	47.6%
Files & Templates — Hav...	4,270	3,424	225	72.8%
Blog / Media — Havens ...	3,464	2,921	35	73.2%
Blog Posts — Havens Co...	2,695	2,050	33	63.6%
Power BI Vs. Excel — Hav...	2,367	2,202	1,540	91.2%
Havens Consulting — Se...	1,403	1,034	0	37.9%
About Us — Havens Con...	1,226	1,049	455	47.1%
What Is Power BI? — Hav...	855	723	241	57.5%
Creating a Slicer Pop-Out...	800	679	9	80.1%
Google Analytics Report	786	710	20	80.8%
<b>Total</b>	<b>29,936</b>	<b>24,836</b>	<b>4,512</b>	<b>70.0%</b>

# Designing Advanced Reports

## Conditional Formatting



- Conditional formatting can be applied to calculated measures in either the *table* or *matrix* visuals
- Settings can be accessed:
  - In the **Fields** well of the **Visualizations** pane<sup>1</sup>
  - From the sub-menu under the Formatting pane

# Designing Advanced Reports

## Conditional Formatting ► Background and Font Colors

- **Background** and **font color** share the same *format by* settings
- Formatting logic can be based on:
  - **Color scale**
    - Applies a gradient between *min* and *max*
    - Min/Max can be set to *lowest value* or *fixed absolute value*
    - *Diverging* enables a third middle color

Background color - Sales

Format by: Color scale ▼ Apply to: Values only ▼


Based on field: Sales ▼

Default formatting ⓘ: As zero ▼

Minimum: Lowest value ▼ [Red] ▼ Enter a value

Maximum: Highest value ▼ [Green] ▼ Enter a value

☐ Diverging



[Learn more](#) OK Cancel

# Designing Advanced Reports

## Conditional Formatting ► Background and Font Colors

- **Background** and **font color** share the same *format by* settings
- Formatting logic can be based on:
  - **Rules**
    - Applies colors based on one or more value ranges, each with a set color
    - Each value range starts with:
      - An **If** value condition
      - An **and** value condition
      - And a **color**

Font color - Sales

Format by: Rules Apply to: Values only

Based on field: Sales

Rules

1. Reverse color order + New rule

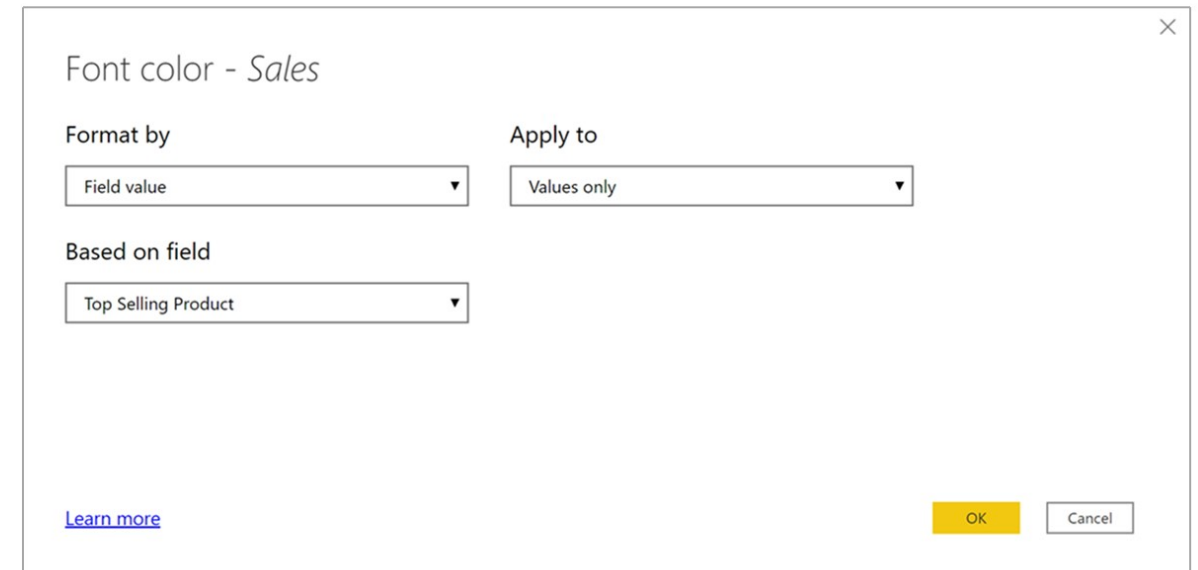
If value	is greater than or equal to	0	Percent	and	is less than	33	Percent	then	Red	↑ ↓ ×
If value	is greater than or equal to	33	Percent	and	is less than	66	Percent	then	Yellow	↑ ↓ ×
If value	is greater than or equal to	66	Percent	and	is less than	100	Percent	then	Green	↑ ↓ ×

[Learn more](#) OK Cancel

# Designing Advanced Reports

## Conditional Formatting ► Background and Font Colors

- **Background** and **font color** share the same *format by* settings
- Formatting logic can be based on:
  - **Field value**
    - Applies colors by using a *calculated measure* or a *column* that specifies a color – either using a *text value* or a *hex code*
    - Custom logic can be created inside a calculated measure to apply the desired color



Font color - Sales

Format by: Field value

Apply to: Values only

Based on field: Top Selling Product

[Learn more](#)

OK Cancel

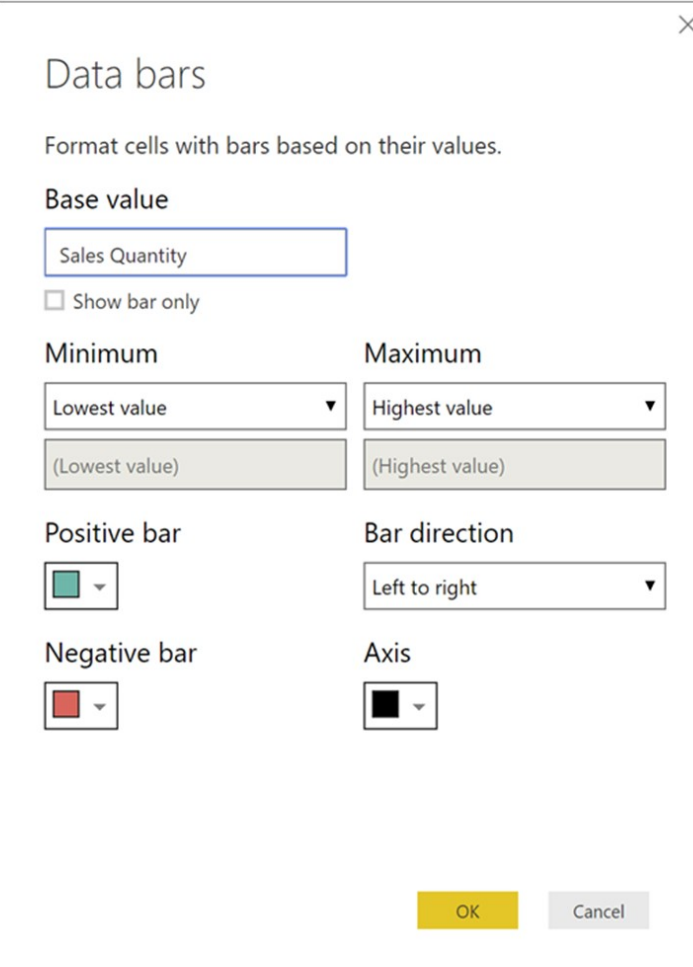
Field value formatting will be outside the scope of this training



# Designing Advanced Reports

## Conditional Formatting ► Data Bars

- **Data bars** can be set to *lowest value* or *fixed absolute value*
- **Other data Bar properties:**
  - Positive/negative bar (*color*)
  - Axis (*color*)
  - Bar direction
  - Show bar only – *hides the value*



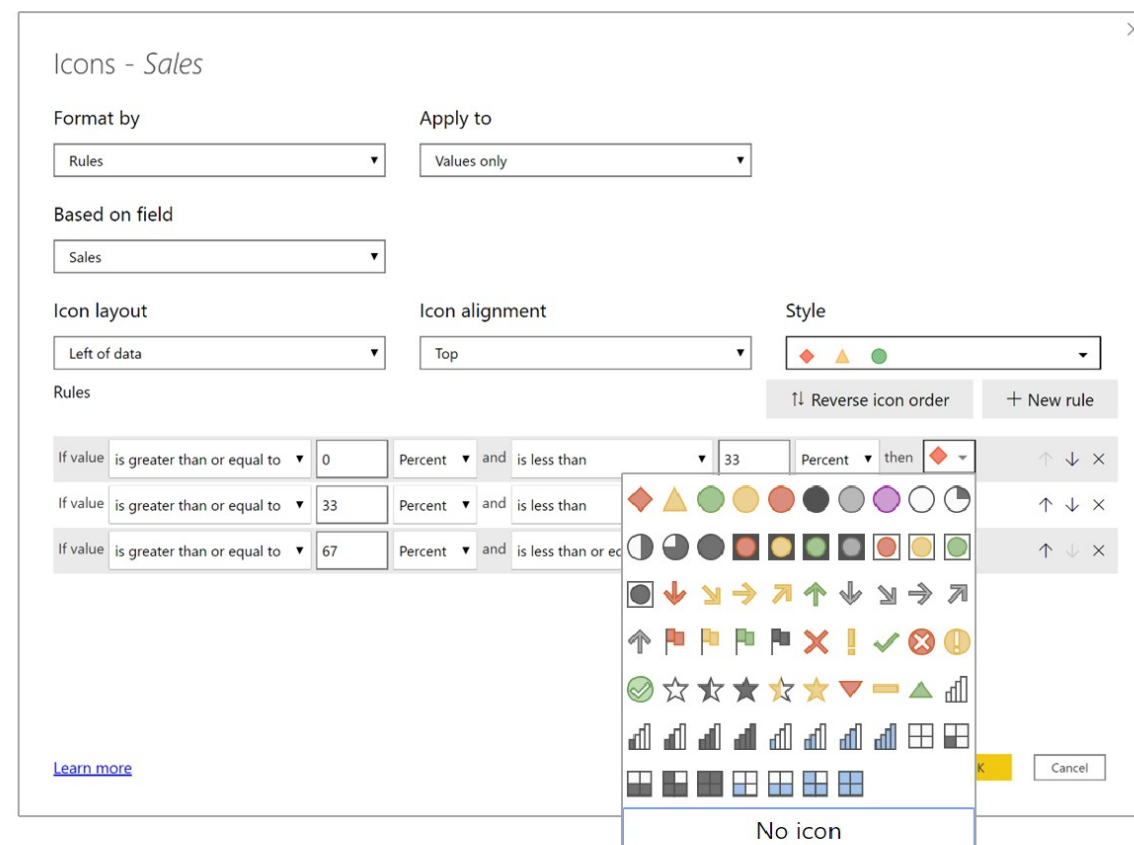
The screenshot shows the 'Data bars' dialog box with the following settings:

- Base value:** Sales Quantity
- ☐ Show bar only
- Minimum:** Lowest value (dropdown), (Lowest value) (text box)
- Maximum:** Highest value (dropdown), (Highest value) (text box)
- Positive bar:** Teal color (dropdown)
- Negative bar:** Red color (dropdown)
- Bar direction:** Left to right (dropdown)
- Axis:** Black color (dropdown)
- Buttons:** OK (yellow), Cancel (grey)

# Designing Advanced Reports

## Conditional Formatting ► Icons

- **Icon sets** in Power BI are *very similar* to the ones found in *Excel*
- Formatting logic can be based on **Rules** or **Field Value**
- By default, icon rules will apply:
  - Red diamond to the *lower 33%*
  - Yellow triangle to the *middle 33%*
  - Green circle to the *upper 33%*
- *Custom* icon sets can be imported in Power BI Desktop





# Designing Advanced Reports

## Conditional Formatting ► Web URL

- **Web URLs** can be applied to fields as **active links** if there is a *column* or *measure* that contains a website URL
- Formatting logic is based on **Field value**
- When this formatting is applied to a field – *each row* is an active link to a website

Web URL - Sales

Format by: Field value

Apply to: Values only

Based on field: Selected Page

Sales Details				
Country	Sales	YoY Sales	YoY Sales %	Top Selling Product
United States	\$21,814,465	\$5,470,851	33%	<a href="#">A. Datum Slim Di...</a>
Regular	\$11,932,740	\$2,911,538	↓ 32%	<a href="#">NT Wireless Transm...</a>
Deluxe	\$7,598,807	\$1,981,601	↓ 35%	<a href="#">A. Datum Super-zo...</a>
Economy	\$2,282,918	\$577,712	↓ 34%	<a href="#">A. Datum Slim Digit...</a>
Canada	\$5,313,337	\$1,196,486	29%	<a href="#">Contoso Wireless ...</a>
Regular	\$2,985,745	\$700,125	↓ 31%	<a href="#">A. Datum Bridge Di...</a>
Deluxe	\$1,710,997	\$358,646	↓ 27%	<a href="#">Contoso Wireless N...</a>

# Designing Advanced Reports

## Conditional Formatting ► Subtotals and Totals

- Conditional formatting can also be applied to the *subtotals* and *totals* in *matrix tables*
- **Thresholds** and **ranges** must be set manually when applied<sup>1</sup>

Font color - Sales

Format by: Rules Apply to: Values and totals

Based on field: Sales

Rules

1! Reverse color order + New rule

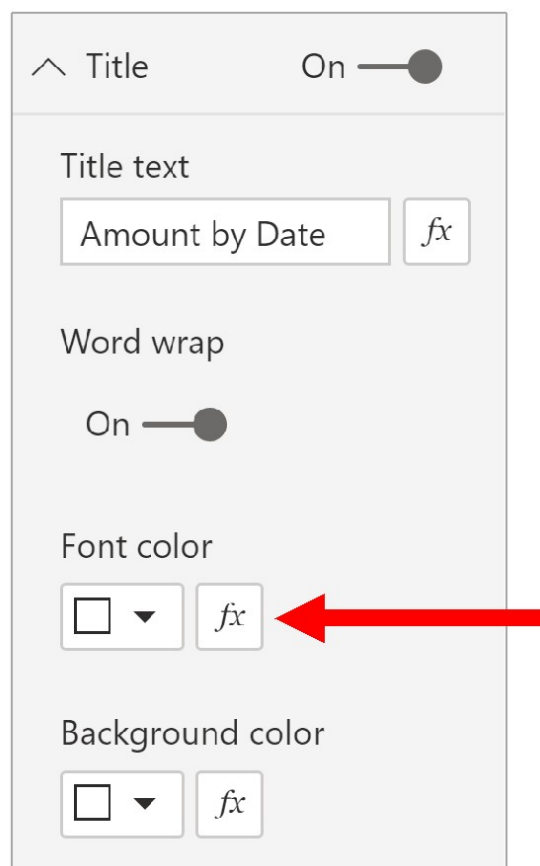
If value is greater than or equal to	0	Number	and is less than	500	Number	then	Red	↑ ↓ ×
If value is greater than or equal to	500	Number	and is less than	5000	Number	then	Yellow	↑ ↓ ×

Sales Details				
Country	Sales	YoY Sales	YoY Sales %	Top Selling Product
United States	\$21,814,465	\$5,470,851	→ 33%	A. Datum Slim Di...
Regular	\$11,932,740	\$2,911,538	↓ 32%	NT Wireless Transm...
Deluxe	\$7,598,807	\$1,981,601	→ 35%	A. Datum Super-zo...
Economy	\$2,282,918	\$577,712	→ 34%	A. Datum Slim Digit...
Canada	\$5,313,337	\$1,196,486	↓ 29%	Contoso Wireless ...
Regular	\$2,985,745	\$700,125	↓ 31%	A. Datum Bridge Di...
Deluxe	\$1,710,997	\$358,646	↓ 27%	Contoso Wireless N...

**1:** Only numbers can be applied – not percentages

# Designing Advanced Reports

## Conditional Formatting ► Other Applications



The image shows a configuration panel for a report title. At the top, there is a toggle switch labeled 'Title' which is currently 'On'. Below this, there are four sections: 'Title text' with a text box containing 'Amount by Date' and an 'fx' button; 'Word wrap' with a toggle switch that is 'On'; 'Font color' with a color selection box and an 'fx' button; and 'Background color' with a color selection box and an 'fx' button. A red arrow points to the 'fx' button next to the 'Font color' selection box.

- **Measure Based Formatting** can also be applied to other visual and object **attributes**
  - Attributes where this formatting can be applied are *indicated* with an *fx* button next to it
- Two *primary types* of formatting are available:
  - **Color** – Logic is based on: *Color scale, Rules, or Field value*
  - **Text** – Logic is based on: *Field value*<sup>1</sup>

**1:** Creates a dynamic text string that can be changed during refresh or filter selection