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Quick BI

Data analysis

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Document conventions

Style	Description	Example
Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	**Danger:** Resetting will result in the loss of user configuration data.
Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	**Warning:** Restarting will cause business interruption. About 10 minutes are required to restart an instance.
Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	**Notice:** If the weight is set to 0, the server no longer receives new requests.
Note	A note indicates supplemental instructions, best practices, tips, and other content.	**Note:** You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings**> **Network**> **Set network type**.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click **OK**.
`Courier font`	Courier font is used for commands	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig [-all|-t]`
{} or {a|b}	This format is used for a required value, where only one item can be selected.	`switch {active|stand}`

Table of Contents

1.Data analysis overview

Data analysis is the last mile of data-assisted decision-making. It is used to visualize data and explore data value. An appropriate data display mode can help analysts improve their analysis efficiency.

- **Dashboards**: provides nearly 40 types of charts and allows you to easily perform operations on the charts. If you subscribe to Quick BI Enterprise Standard, you can configure metrics in group workspaces to monitor exceptions. **Dashboards are suitable for all users who require visualized data analysis.**
- **Workbooks**: provides more than 400 EXCEL functions. You can use the workbooks feature to analyze various types of EXCEL reports. **Workbooks are suitable for users who are familiar with EXCEL operations.**

  > **Note** The workbooks feature is supported in group workspaces of Quick BI Pro and Quick BI Enterprise Standard.

- **BI portals**: provides a set of menus used for thematic analysis. A BI portal incorporates analysis data of a specified topic so that users can quickly locate the required analysis data.

Data analysis flowchart

- Create a dashboard
- Manage dashboards
- Workbooks
- BI portals

2.Create dashboards

2.1. Dashboard overview

This topic describes the basic concepts of a dashboard, including the chart types, scenarios, and chart elements.

For more information about the basic operations on a dashboard, see Dashboard basic operations.

For more information about creating charts, see Create a chart.

The dashboard provides a flexible tile view to show the interaction between data. It visualizes data and supports filtering and querying a variety of data types. It displays data in various ways and highlights the keyword segments in the data.

In terms of data visualization, the dashboard guides you through dragging or double-clicking a field to display data explicitly. In terms of data analysis, the dashboard utilizes user-friendly notifications to improve user interaction.

Data visualization performance has improved significantly. On the editing page of the dashboard, you can filter dynamic data.

Chart types and scenarios

You need to use the corresponding charts to display different types of data. Quick BI currently supports 35 types of charts, including line charts, vertical bar charts, bubble maps, and funnel charts.

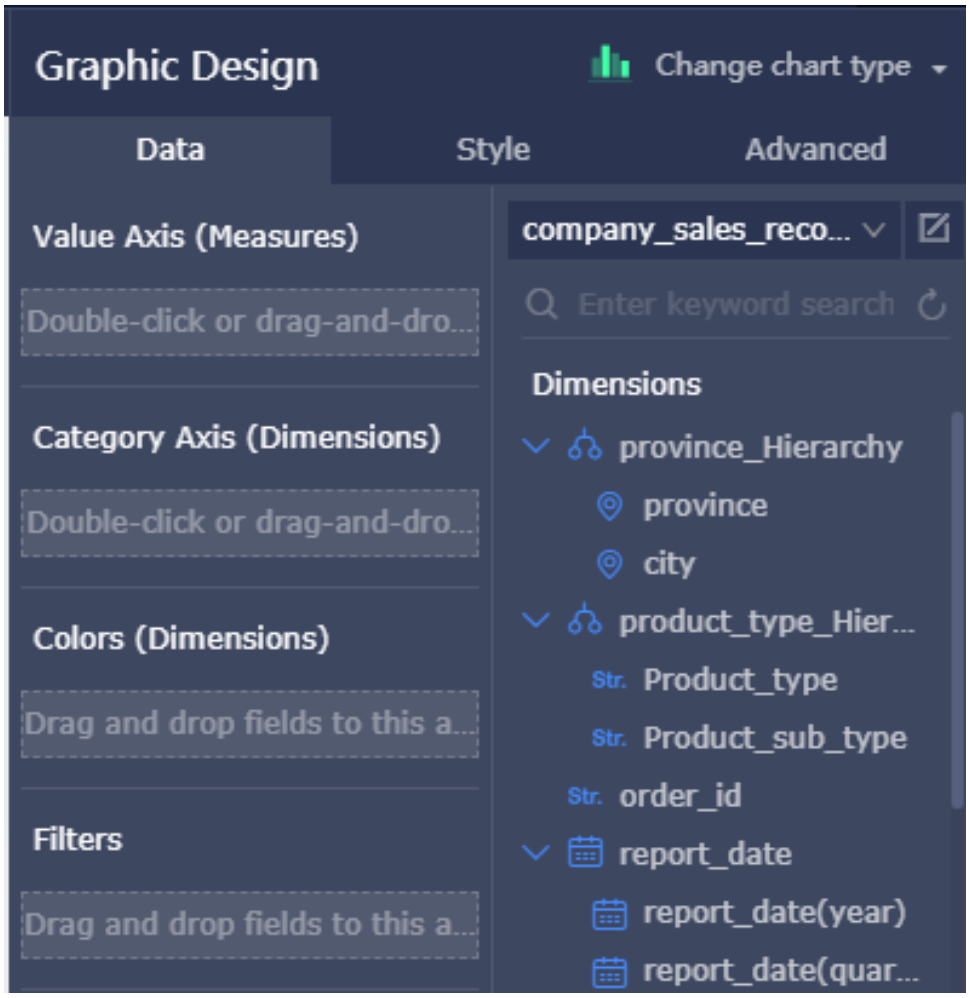
The following table describes the analysis types and scenarios for each chart.

Analysis type	Description	Scenarios	Applicable charts
Comparison	Compares the differences between values, or compares the measures based on the dimensions.	Compares the sales/income differences between different countries or regions.	Vertical bar chart, combination chart, horizontal bar chart, radar chart, funnel chart, cross table, pivot table, polar diagram, tornado-leaned funnel chart, and word cloud.
Proportion	Displays the percentage of a portion of the whole, or the proportion of a certain value compared to the whole.	Displays the sales of the salesperson who has the greatest percentage of total sales.	Pie chart, funnel chart, gauge, and treemap.
Relationship	Displays the relationship between values, or between measures.	You can view the relationship between two measures and learn the influence the first measure has on the second measure.	Scatter chart, treemap, kanban, hierarchy chart, flow analysis chart, and progress bar.

Analysis type	Description	Scenarios	Applicable charts
Trend	Displays data trends (especially trends based on the date such as the year/month/day), or the progress of a data indicator and other possible patterns.	You can view trends in sales or revenue for a product over a period of time.	Line chart and area chart.
Geographic map	Displays the relevant data and distribution range for a country or region on the map. The datasets used must include geographic data.	You can view the income for each region in a country.	Bubble map, colored map, and LBS bubble map.

The elements of a chart

Each chart has three tabs, which are Data, Style, and Advanced, as shown in the following figure.



- Settings in the Data tab determine the data shown on the chart.
- Settings in the Style tab determine the appearance of the chart and the details to be displayed.

- Settings in the Advanced tab determine whether the data and multiple charts can be linked, and dynamically display the interaction and comparison of the data as needed.

The charts provided by Quick BI present distinct perspectives and data elements for different visualization scenarios. Take the geographic chart as an example. A core data element is latitude. Otherwise, the map cannot display data.

The following table describes the elements of each chart.

Chart Type	Elements	Chart Configuration
Line chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Area chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Stacked area chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
100% stacked area chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Vertical bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Stacked vertical bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
100% stacked vertical bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Circular bar	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Combination chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.

Chart Type	Elements	Chart Configuration
Horizontal bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Stacked horizontal bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
100% stacked horizontal bar chart	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Pie chart	Labels and central angle	The label contains only one dimension, and the value of the dimension must be less than or equal to 12. The central angle has only one measure.
Bubble map	Location and the bubble size	The location contains only one dimension, which is the geographic dimension. The bubble size element can have 1-5 measures.
Colored map	Location and colorscale	The location contains only one dimension, which is the geographic dimension. The colorscale element can have 1-5 measures.
Geo bubble map	Location and the bubble size	The location contains only one dimension, which is the geographic dimension. The bubble size element can have 1-5 measures.
Geo map	Location and colorscale	The location has only one dimension, which is geographic data. The color saturation has only one measure.
LBS bubble map	Geographical area and LBS bubble size	The geographical area has only one dimension, which is the latitude. The LBS bubble size element can have at least one and at most five measures.

Chart Type	Elements	Chart Configuration
LBS heat map	Location and LBS heat metric	The geographical area has only one dimension, which is the latitude. The LBS bubble size element can have at least one and at most five measures.
LBS flying line map	Geo location (from), Geo location (to), and routes (measures).	You can select a maximum of two dimensions for the geo locations. You can select a minimum of one and a maximum of five measures for the routes.
Cross table	Row and column	The row has unlimited dimensions. The column has unlimited measures.
Gauge	Indicator angle and tooltip	The indicator angle has only one measure.
Radar chart	Radius label and radius	You can select a minimum of one and a maximum of two dimensions for the labels. You can select a minimum of one measure for the lengths.
Scatter chart	Colors, X-axis, and Y-axis	You can select a minimum and maximum of one dimension for the color legend. The number of the dimension's values is up to 1,000. You can select a minimum of one and a maximum of three measures for the x-axis. You can select a minimum and maximum of one dimension for the y-axis.
Bubble chart	X-axis, Y-axis, and bubble size	The X-axis has only one dimension. The Y-axis has only one measure. The bubble size has only one measure.
Funnel chart	Tier labels and tier area	The tier labels element has only one dimension. The tier area element has only one measure.
Kanban	Labels and metrics	You can select a maximum of one dimension for the labels. You can select a minimum of one and a maximum of 10 measures for the metrics.

Chart Type	Elements	Chart Configuration
Treemap	Rectangle label and rectangle size	The rectangle size element has only one dimension, with a value less than or equal to 12. The rectangle size element has only one measure.
Polar diagram	Slice label and arc radius	The slice label element has only one dimension, with a value greater than or equal to three and less than or equal to 12. The arc radius element has only one measure.
Word cloud	Word size and word	The word size element has only one dimension. The word element has only one measure.
Tornado-leaned funnel chart	Comparison and contrast indicator	The comparison element has only one dimension. The contrast indicator has at least one measure.
Hierarchy chart	Node label and node metric	The node label has at least two dimensions. The node metric has at least one dimension.
Flow analysis	Previous Page, Current Page, and Next Page. Previous Page PV, Previous Page UV, Current PV, Current UV, Next Page PV, Next Page UV, Conversion Rate, and Bounce Rate	Each data element has only one dimension and one measure.
Progress bar	Progress Indicator	The progress indicator has a minimum of one and a maximum of five measures.
Pivot chart	Row and value	The row has unlimited dimensions. The value has unlimited measures.

2.2. Dashboard basic operations

2.2.1. Basic dashboard operations

This topic describes how to go to the Dashboards page and perform basic dashboard operations.

For more information about dashboards, see Dashboard overview.

To learn how to create charts, see Create a dashboard.

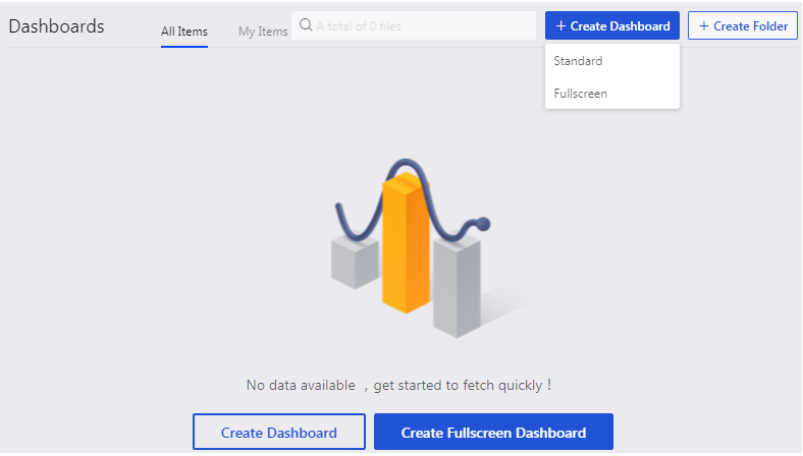
Go to the Dashboards page

Quick BI Quick BI Pro

1. Log on to the Quick BI console.
2. Click **Workspace > Dashboards** to go to the Dashboards page.
3. Click **Create Dashboard > Standard** to go to the dashboard editing page.

Quick BI Professional edition

1. Log on to the Quick BI console.
2. Click **Workspace > Dashboards** to go to the Dashboards page.
3. Hover your mouse cursor over **Create Dashboard** button and select a display mode. Click the display mode, as shown in the following figure.



For more information about how to **create standard dashboards**, see Standard dashboards.

For more information about how to **create full-screen dashboards**, see Full-screen dashboards.

Areas of a dashboard

You can perform basic dashboard operations in the following three areas.

- Dataset selection area
- Dashboard configuration area
- Dashboard display area

Dataset selection area

In the dataset selection area, you can switch from an existing dataset to another dataset. Based on the preset data types, the fields of the new dataset are displayed in the dimension list and the measure list. You can select dimension and measure fields based on the data elements in the chart.

Dashboard configuration area

In the dashboard configuration area, you can select a chart type, and edit the title, layout, and legend pattern of the chart. In Advanced Settings, you can relate multiple charts and display analysis results from multiple perspectives. You can filter data using Filters. You can also insert a filter bar to search any key metric in a chart.

Dashboard display area

In the dashboard display area, you can drag and drop a chart to change its position as you like. You can also change the chart type based on your needs. For example, you can change a column chart to a geo bubble map. The system will display the missing or error elements based on the basic components of different charts. The dashboard provides a guide feature to help you learn how to create a dashboard.

2.2.2. Create a dashboard

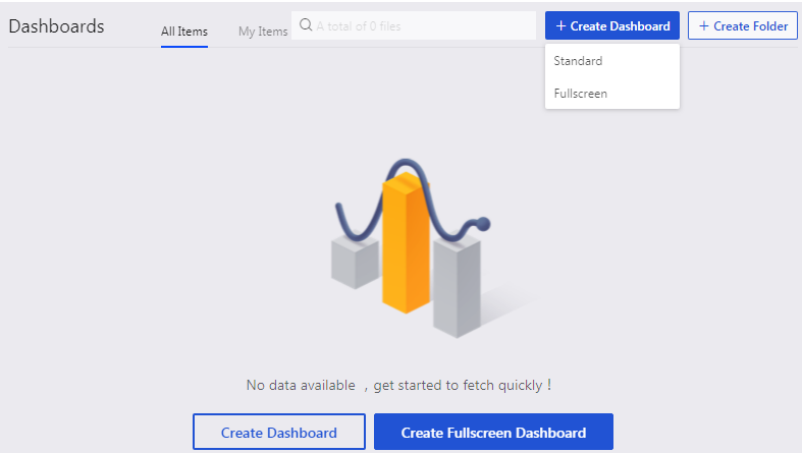
This topic describes how to create a dashboard.

Quick BI Pro

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
3. On the Dashboards page, choose **Create Dashboard > Standard**.

Quick BI Enterprise Standard

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
3. On the Dashboards page, click **Create Dashboard** and select the display mode for the dashboard.
   - Standard: For more information, see Standard dashboards.
   - Full Screen: For more information, see Full-screen dashboards.



2.2.3. Standard mode

All Quick BI editions support the standard dashboard type. We recommend that you select the standard mode when you create a dashboard. This topic describes the operations that you can perform in standard mode.

In standard mode, you can perform the following operations in the dashboard display section:

- Change the position of a chart.
- View the data of a chart.
- Delete a chart.
- Change the type of a chart.
- Add a dashboard to favorites.

- Configure global variables.

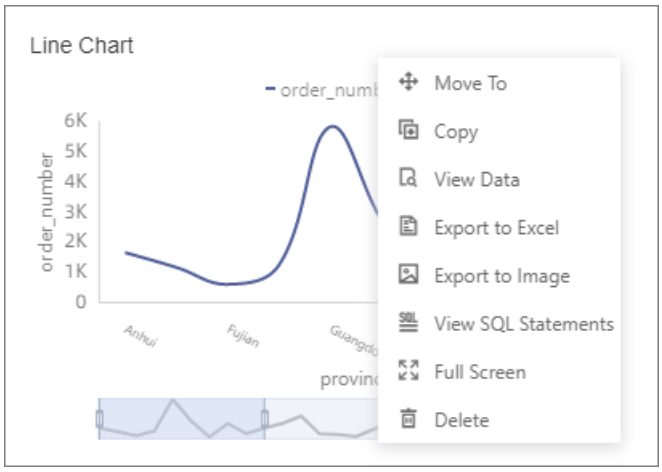
  > **Notice**
  > - In Quick BI Basic, you cannot configure global variables.
  > - In Quick BI Pro and Quick BI Enterprise Standard, you can configure global variables only in group workspaces.

If it is the first time that you use a Quick BI dashboard, a wizard appears in the display area to guide you through the dashboard features. You can follow the instructions in the wizard to create a dashboard.

More operations

You can click the **More** icon in the upper-right corner of a chart to perform the following operations:

- Move To: Move the chart to a tab container.
- View Data: View the data of the chart.
- Export to Excel: Export the data of the chart to an XLS or XLSX file.
- Export to Image: .Export the data of the chart in an image.
- View SQL Statements: View the SQL statements of the chart.
- Copy: Copy the chart.
- Full Screen: Display the chart in a full screen. In full-screen mode, you can click **Exit Full Screen** to exit.
- Delete: Delete the chart.



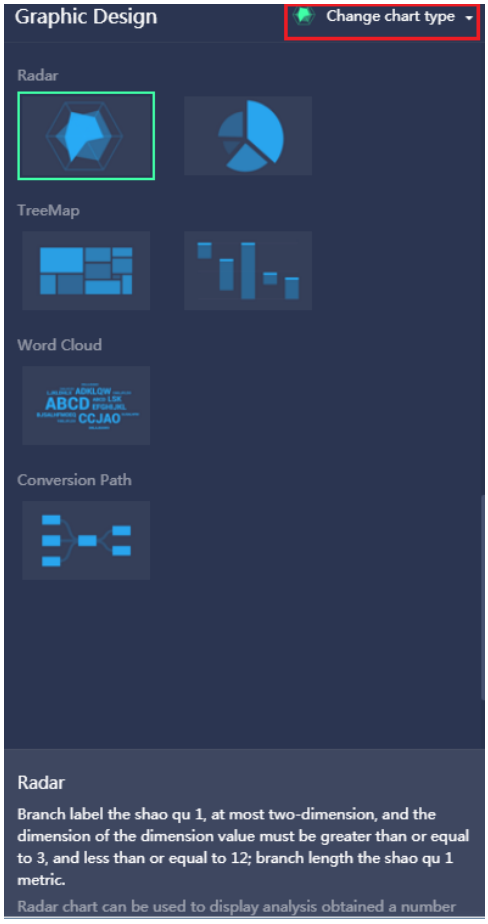
Change the type of a chart

You can change the type of a chart in the dashboard display section.

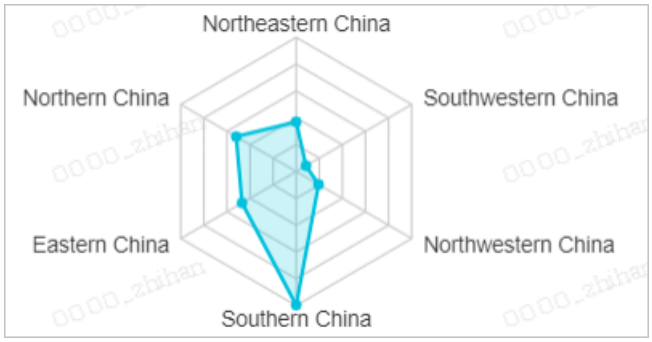
The following example describes how to change a pie chart to a radar chart.

1. Select the required pie chart in the dashboard display section.
2. In the upper-right corner of the page, click **Change Chart Type**.

   Click the **Radar Chart** icon.



3. The pie chart changes to a radar chart.



If the fields of the current chart do not match those of the target chart, the chart type cannot be changed. You must manually adjust fields before you change the chart type.

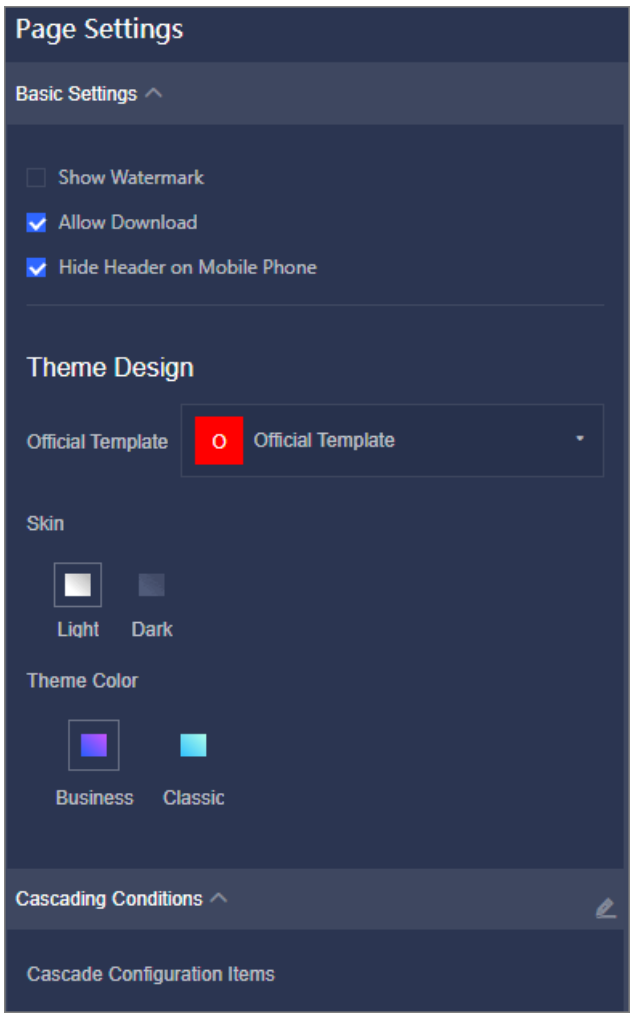
The system provides instructions for you to adjust fields based on the current and target chart types. Follow the instructions to add appropriate dimensions or measures to the correct fields.

Add a dashboard to favorites

Click the icon at the top of the display area of the dashboard.

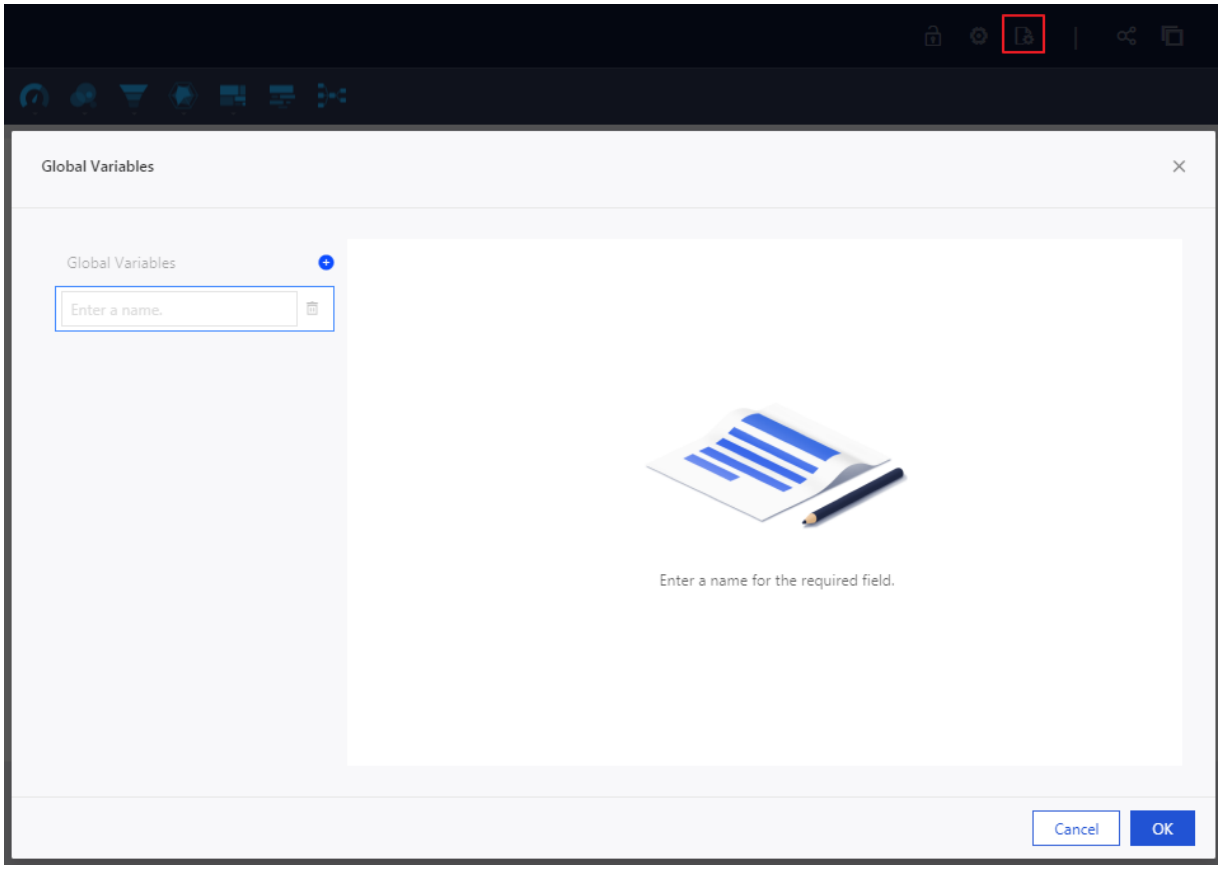
Configure page settings

Click the icon. On the Page Settings tab, specify whether to show the watermark and whether the dashboard can be downloaded.



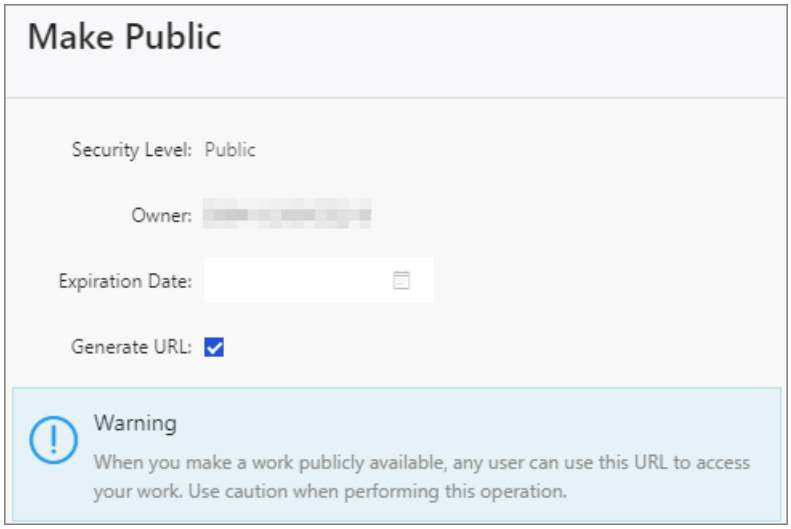
Configure global variables

After you create a dashboard and click **Save**, you can configure global variables. Global variables are used in the Hyperlink feature. For more information, see Drilling, filter interaction, and hyperlink.



Make a dashboard public

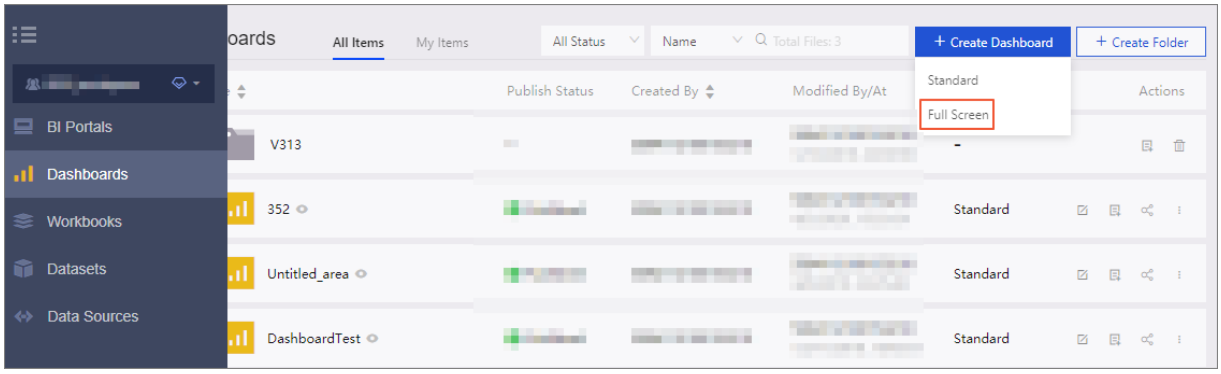
1. Click the icon. The **Make Public** pane appears.



2. Specify **Expiration Date**.
3. Select **Generate URL** as required.
4. Click **Make Public**.

2.2.4. Full-screen mode

On the Workspace page, move your pointer over **Create Dashboard** and select **Full Screen**. In full-screen mode, you can perform the following operations in the display area of a dashboard.

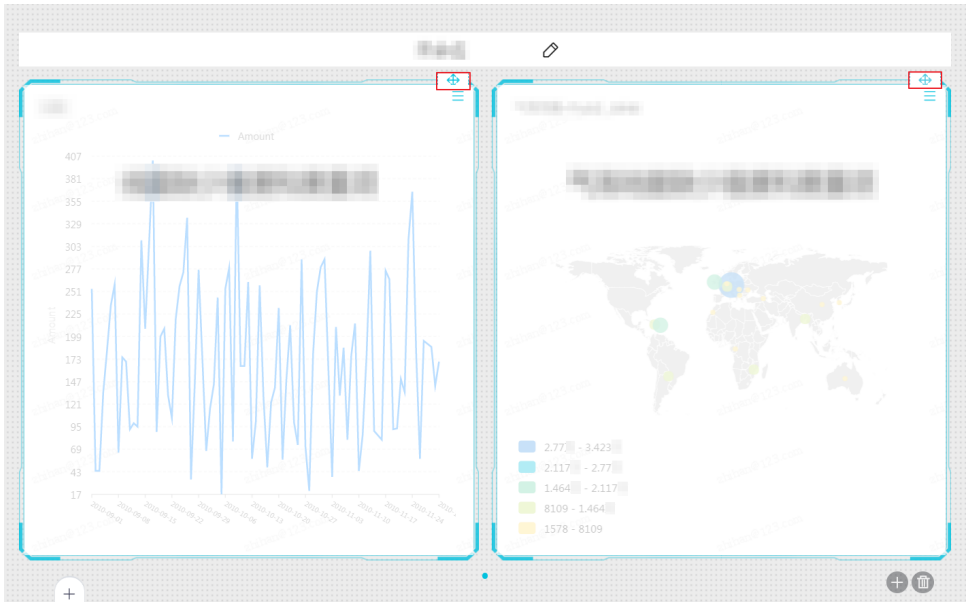


- Adjust chart positions.
- Add a subscreen.
- View chart data.
- Delete a chart.
- Change chart types.
- Configure page settings.

> **Note** The full-screen mode is available only in workspaces of Quick BI Enterprise Standard. Personal workspaces only support the standard mode.

Adjust chart positions

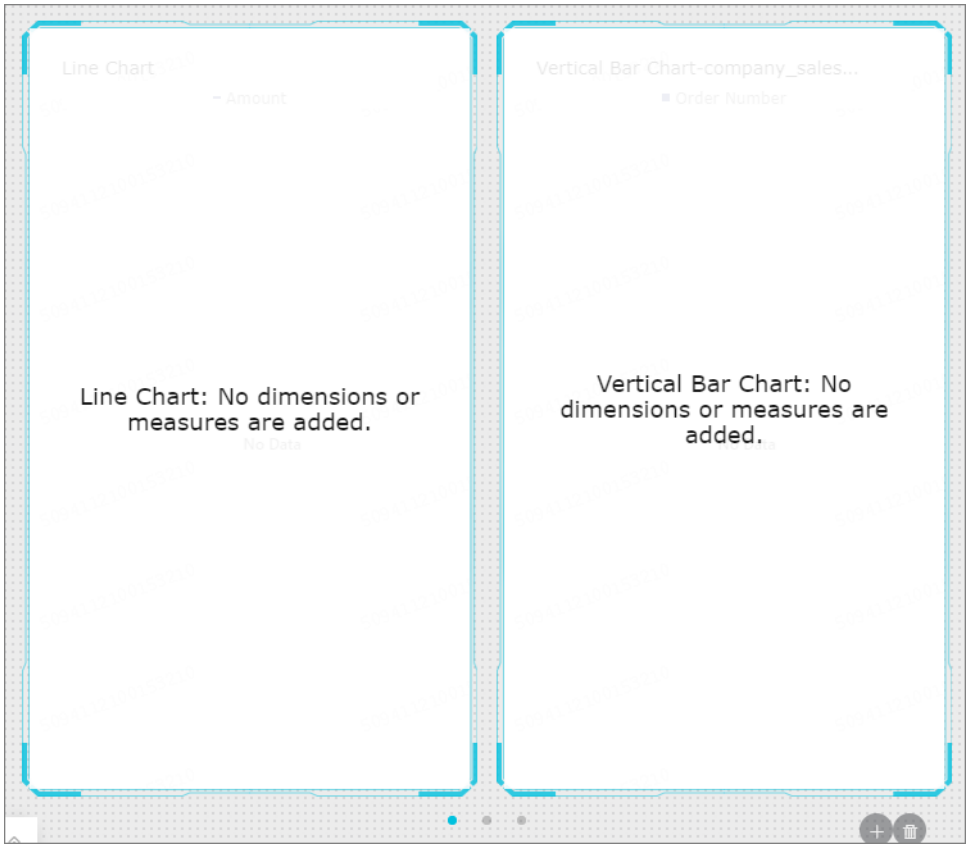
In full-screen mode, a chart will be scaled to its maximum extent in the display area of a dashboard. If multiple charts exist in a dashboard, click the arrow cross and hold down the left button, and drag charts to change the arrangement, as shown in the following figure.



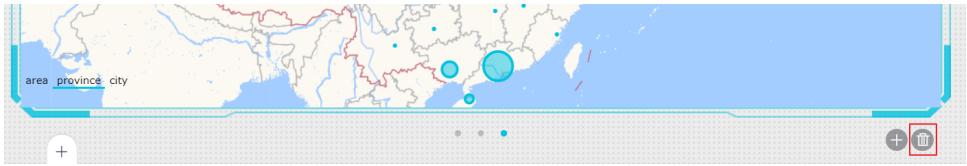
Add a subscreen

1. Click the plus sign (+) in the lower-right corner, as shown in the following figure.

2. Add a chart to the subscreen.
3. Click the **Switch Subscreen** icon to switch between subscreens, as shown in the following figure.

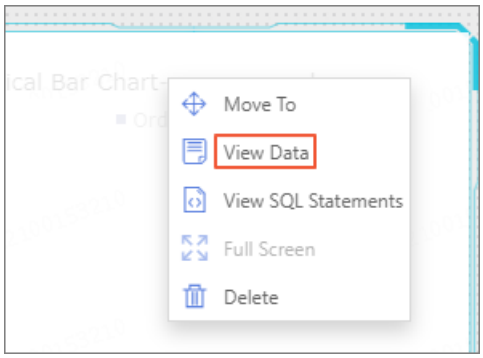


4. Click the **Delete** icon to delete a subscreen, as shown in the following figure.



View chart data

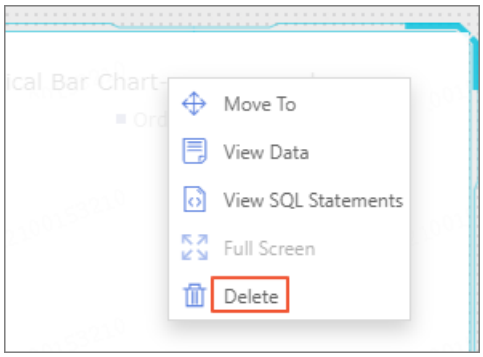
1. Select a chart.
2. Click the **More** icon in the upper-right corner of the chart.
3. Select **View Data**, as shown in the following figure.



Delete a chart

1. Select a chart.
2. Click the **More** icon in the upper-right corner of the chart.

3. Select **Delete**, as shown in the following figure.



Change chart types

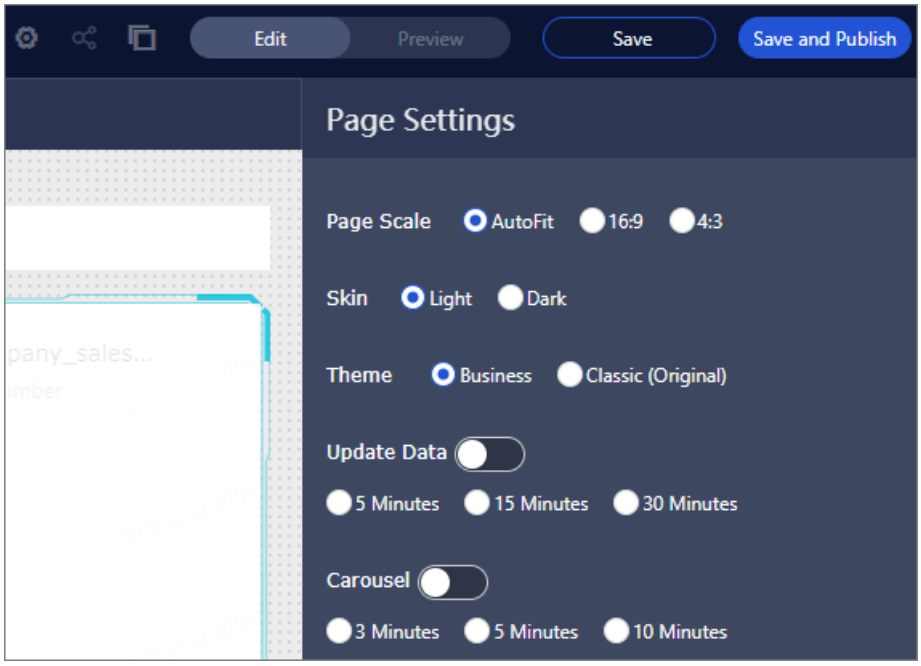
1. Select a chart.
2. In the Graphic Design area, click **Change Chart Type**.
3. Select the target chart type.

If the chart type fails to change, the fields of the current chart do not match those of the target chart. You must manually adjust fields before you change the chart type.

The system provides instructions to help you adjust fields based on the current and target chart types. To change the chart type, follow the instructions to adjust the dimensions and measures.

Configure page settings

Click to configure page settings, such as page scale.



2.2.5. Switch datasets

In the dataset selection area, you can select or switch datasets, and search for datasets by dimension and measure fields.

1. Click the **Dataset Switch** icon.
2. In the drop-down list, select or search for the datasets that need to be analyzed, such as company_sales_record.

If you cannot find the required dataset from the drop-down list, go back to the dataset management page and ensure that the dataset has been successfully created.

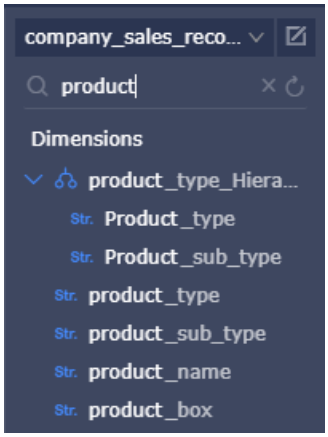
For more information about how to create datasets, see Create a dataset Create datasets.

2.2.6. Search for the dimensions field and the measures field

After you have selected the datasets, the system automatically separates fields into the dimension and measure areas.

You can enter a keyword in the search bar, and click the search icon. The system automatically searches for the fields that contain the keyword.

1. For example, enter a keyword called product in the search bar.
2. The fields that contain the keyword automatically appear in the list, as shown in the following figure.



2.2.7. Configure a chart

You can select a chart from the dashboard display section and configure it in the configuration section.

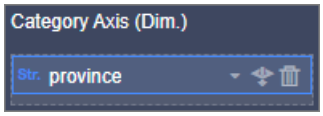
Before you configure a chart, make sure that you have selected a dataset and have edited dimensions and measures as required.

For more information, see Edit dimensions and measures.

1. Click a chart icon. The chart indicated by the icon appears in the dashboard display section.

   If you want to switch to another chart type, click **Change Chart Type** in the upper-right corner of the **Graphic Design** pane and select the required chart.

2. On the **Data** tab, select the required measures and dimensions.
   - Move the pointer over a dimension field. The **More**, **Drill Down**, and **Delete** icons appear.

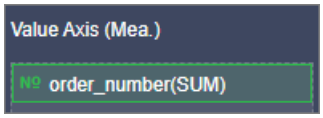


- **More**: You can click the **More** icon to sort the values of the dimension. Four options are supported: Unsort, Ascend, Descend, and Custom. Custom sorting is applicable only to non-DATE-type dimensions.

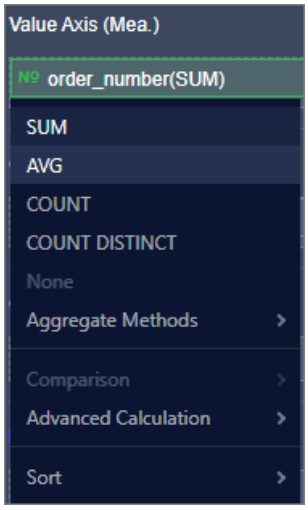
  > **Note** If the number of dimension values exceeds 200, custom sorting is not supported.

- **Drill Down**: You can click the **Drill Down** icon to perform drilldown analysis. For more information, see Drilling, filter interaction, and hyperlink.
- **Delete**: You can click the **Delete** icon to delete the dimension.

- Move the pointer over a measure field. The **More** and **Delete** icons appear.



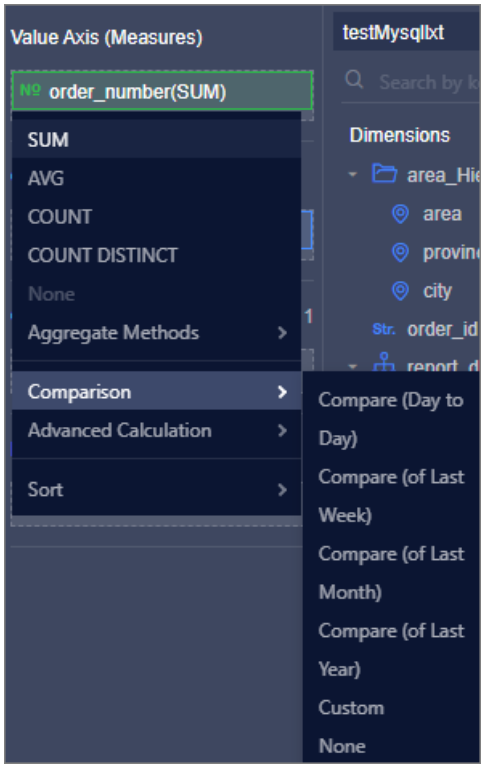
- **More**: You can click the **More** icon to perform the following operations on the measure.



> **Note** The Cumulative function in Advanced Calculation is available only when the dimension is of the DATE type and at the day granularity. If the Advanced Calculation function is enabled for a measure, the Comparison function is unavailable. If the Comparison function is enabled for a measure, the Advanced Calculation function is unavailable.

Note the following items when you enable the Comparison function:

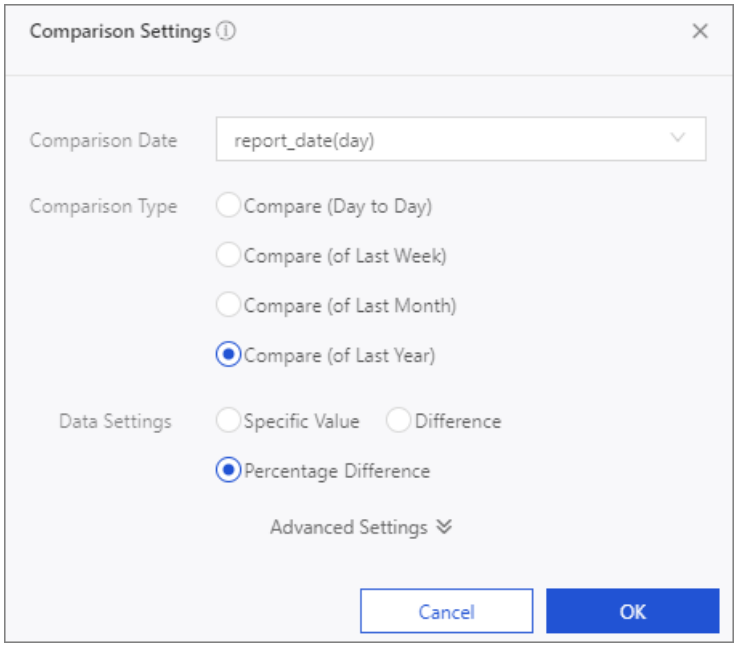
- If dimensions include only one DATE field, configure the comparison granularity for measures to the granularity of this field.



- If dimensions include multiple DATE fields, configure the comparison granularity to the smallest granularity of these fields by choosing **Comparison > Custom**. When **Data Settings** is set to **Percentage Difference**, you can select a calculation formula in Advanced Settings. The selected formula takes effect only when the value of the previous period is less than 0. The following values are provided:
  - Value 1 and the default value: (Value of Current Period/Value of Previous Period - 1) × 100%
  - Value 2: (1 - Value of Current Period/Value of Previous Period) × 100%
  - Value 3 that indicates no calculation: Display As -
- If dimensions do not include DATE fields, select a DATE field from an associated query control. Then, choose **More > Comparison > Custom** next to a measure, and set the comparison granularity to the granularity of the selected date field.

> **Note** If the associated query control has more than one DATE field and the comparison function is enabled for more than one measure, the comparison function takes effect only for the first measure.

- If no date field is included in the dimension fields, choose **Comparison > Custom**, retain the preceding configurations, and set **Comparison Type** to **Dynamic Comparison**.



When **Data Settings** is set to **Percentage Difference**, you can select a calculation formula in Advanced Settings. The selected formula takes effect only when the value of the previous period is less than 0. The following values are provided:

- Value 1 and the default value: (Value of Current Period/Value of Previous Period - 1) × 100%
- Value 2: (1 - Value of Current Period/Value of Previous Period) × 100%
- Value 3 that indicates no calculation: Display As -

When **Comparison Type** is set to **Dynamic Comparison**, the comparison value is dynamically calculated based on the specified date range. Examples:

- If the specified date is January 10, 2020, the date used for comparison is January 9, 2020.
- If the specified date range is January 1, 2020 to January 10, 2020, the date range used for comparison is from December 22, 2019 to December 31, 2019.

You can click **View SQL Statements** to view the settings of dynamic comparison.

If the associated query control has more than one DATE field and the comparison function is enabled for more than one measure, the comparison function takes effect only for the first measure.

> **Note** If the comparison result cannot be obtained, a hyphen (-) is displayed.

- Sort: Supported options include Unsort, Ascend, and Descend.

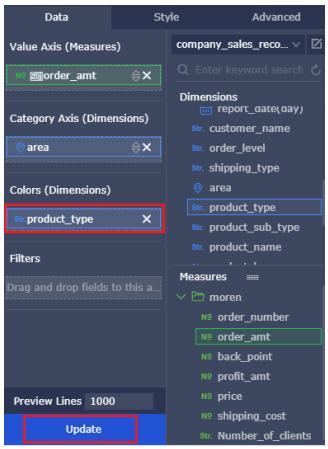
- **Delete**: You can click the **Delete** icon to delete the measure.

3. Select a dimension and drag it to the Color Legend (Dim.) field.

The selected dimension appears in the specified color in a chart. If you cannot drag a dimension or measure, an error occurs. You can follow the on-screen tips to add or remove dimensions and measures.

Take **product_type** as an example.

i. Drag **product_type** to the **Color Legend (Dim.)** area, and then click **Update**.



ii. Click the **Style** tab and configure colors in the **Series Settings** section.

4. Click the **Style** tab, configure parameters in the Basic Information, Chart Type, Axes, Functionality, and Series Settings sections.
5. On the **Advanced** tab, click **Auto Refresh**. You can select the time interval for automatic data refresh. You can also associate the current chart with other charts for interaction analysis. Before you enable interaction analysis, make sure that at least two charts are available in the display area of the dashboard.

2.2.8. Filter field data

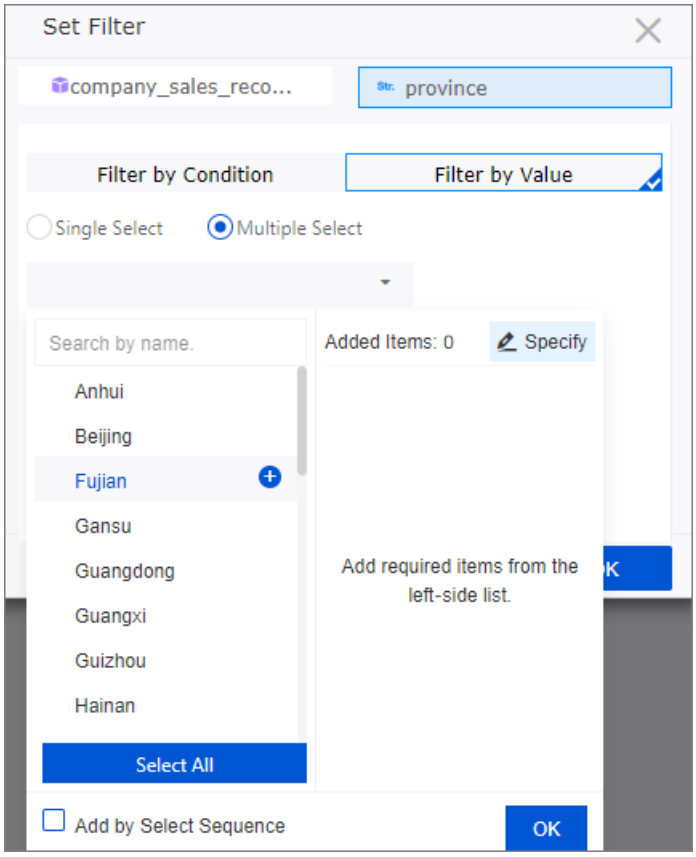
When you work with a large dataset, you can use the filter feature to filter specific types of data from the dataset.

You can filter data of the STRING, NUMERIC, or DATE type.

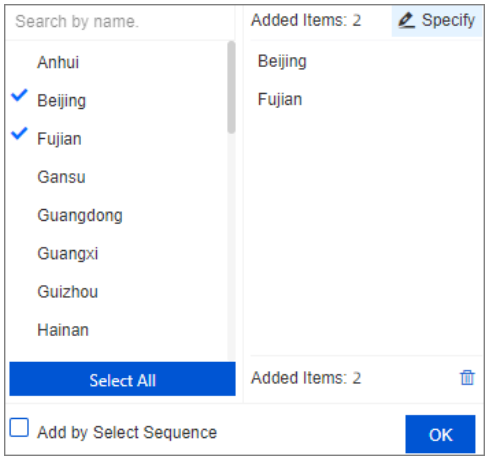
Filter data of the STRING type

This example demonstrates how to filter municipalities from values of the province field.

1. Drag **province** to the **Filters** field.
2. Click the **Filter** icon. In the Set Filter dialog box, configure a filter condition.
3. Click the Filter by Condition tab or the Filter by Value tab as required. In this example, click the **Filter by Value** tab.



4. Select Multiple Select, enter city names or select city names from the drop-down list, as shown in the following figure.



5. Click **OK**.
6. Click **Update**. The chart is updated based on the filter settings.

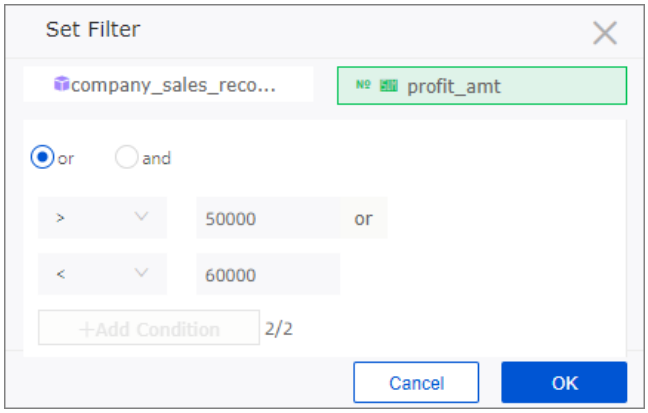
Filter data of the NUMERIC type

You can specify a value range in the filter. For example, you can specify an order quantity range of 50,000 to 100,000. The chart displays data based on your specified range.

The following example demonstrates how to filter data within a specified profit range.

1. Drag **profit_amt** to the **Filters** field.
2. Click the **Filter** icon.

3. In the Set Filter dialog box, configure a filter condition. For example, you can select Greater Than, Less Than, or Equal To and set the condition, as shown in the following figure.



4. Click **OK**.
5. Click **Update**. The chart is updated based on the filter settings.

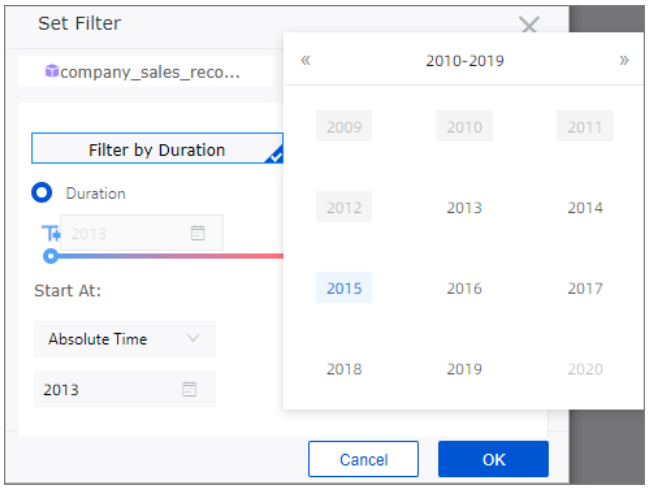
Filter data of the DATE type

You can use the filter feature to filter data that is generated within a specified time range. The following example demonstrates how to filter the order amount data of all regions from year 2013 to year 2015.

> **Note** The filter condition that you specified can be accurate to second.

The order_date (year) is used in this example.

1. Drag **order_date (year)** to the **Filters** field. Click the **Filter** icon.
2. In the Set Filter dialog box, click the Filter by Duration tab, select **Absolute Time** for Start At and End At, and then select 2013 and 2015 in the drop-down lists.



3. Click **OK**.
4. Click **Update**. The chart is updated based on the filter settings.

2.2.9. Configure the comparison feature

This topic describes how to configure the comparison feature for a measure.

Prerequisites

- A dashboard is created. For more information, see Create a dashboard.
- A dataset is selected and the types of dimensions and measures are edited as required. For more information, see Edit dimensions and measures.
- A query control is added. For more information, see Create a query control.

Context

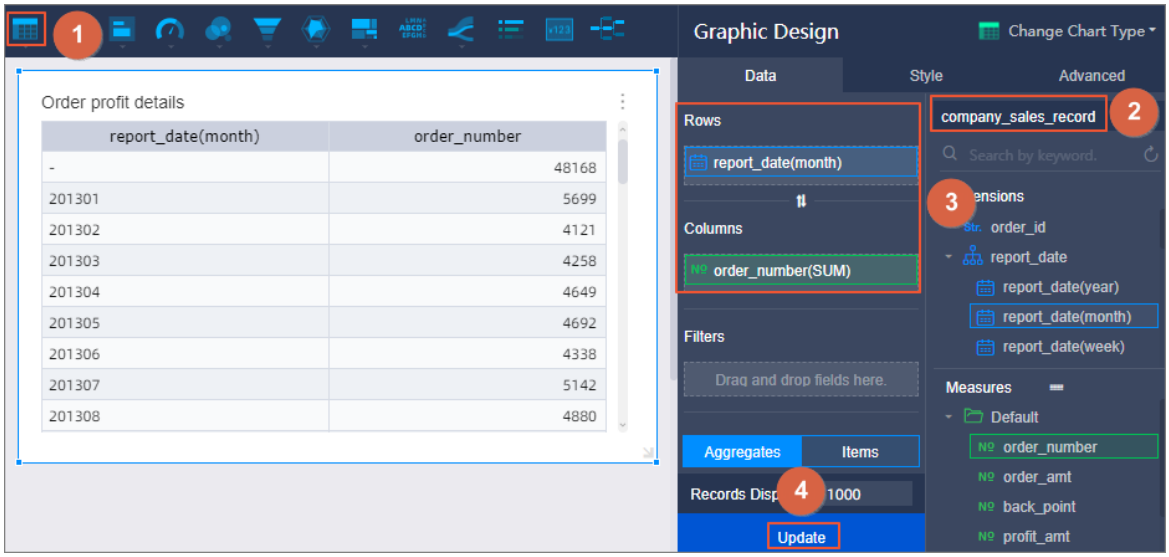
- If **Advanced Calculation** is configured for a measure, Comparison is unavailable.
- If **Comparison** is configured for a measure, Advanced Calculation is unavailable.

One DATE field in dimensions

If dimensions contain only one DATE field, set the granularity for the comparison feature to the granularity of this field.

The following example demonstrates how to configure the comparison feature for a measure. A cross table is used in this example.

1. On the dashboard edit page, add a cross table and configure it, as shown in the following figure.In this example, the DATE field order_date(month) is added to the Rows field.

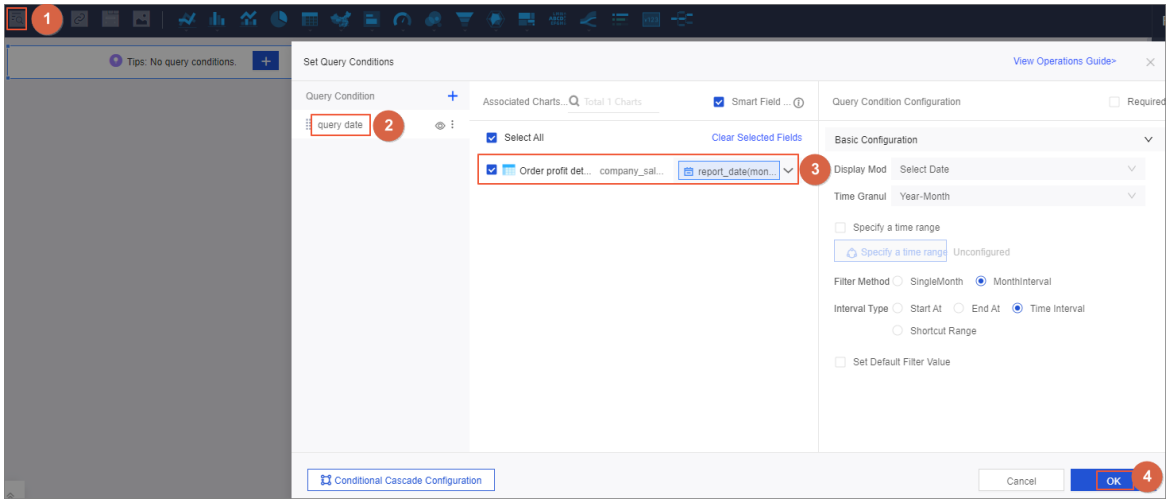


2. Move the pointer over the required measure in the Columns field and click the icon next to the measure.
3. Choose **Comparison > Compare (Month to Month)**.The following table describes the mapping between DATE field types and options under Comparison.

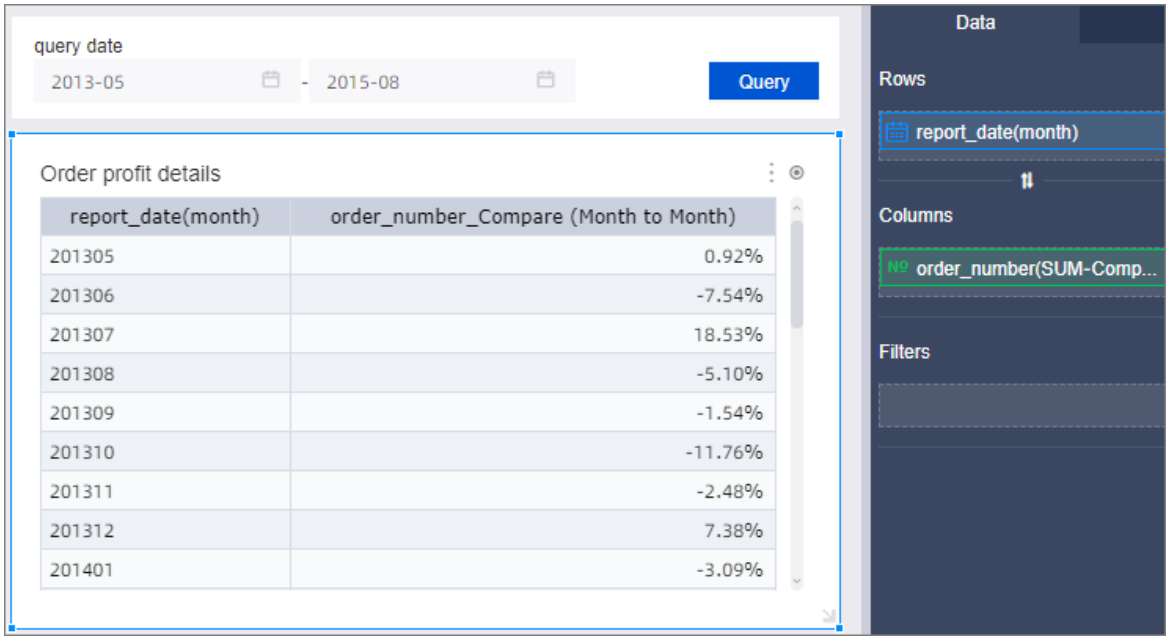
DATE field type	Sample field	Option under Comparison
Year	order_date(year)	○ Compare (Year to Year) ○ Custom ○ None

DATE field type	Sample field	Option under Comparison
Quarter	order_date(quarter)	○ Compare (Quarter to Quarter) ○ Compare (of Last Year) ○ Custom ○ None
Month	order_date(month)	○ Compare (Month to Month) ○ Compare (of Last Year) ○ Custom ○ None
Day	order_date(day)	○ Compare (Day to Day) ○ Compare (of Last Week) ○ Compare (of Last Month) ○ Compare (of Last Year) ○ Custom ○ None
Hour, minute, or second	order_date(hour), order_date(minute), or order_date(second)	The comparison feature is not supported.
YYYY/MM/DD HH:mm:ss	order_date(ymdhms)	○ Custom ○ None

4. Add a query control and configure it, as shown in the following figure.



5. In the query control, specify a time range and click **Query**.

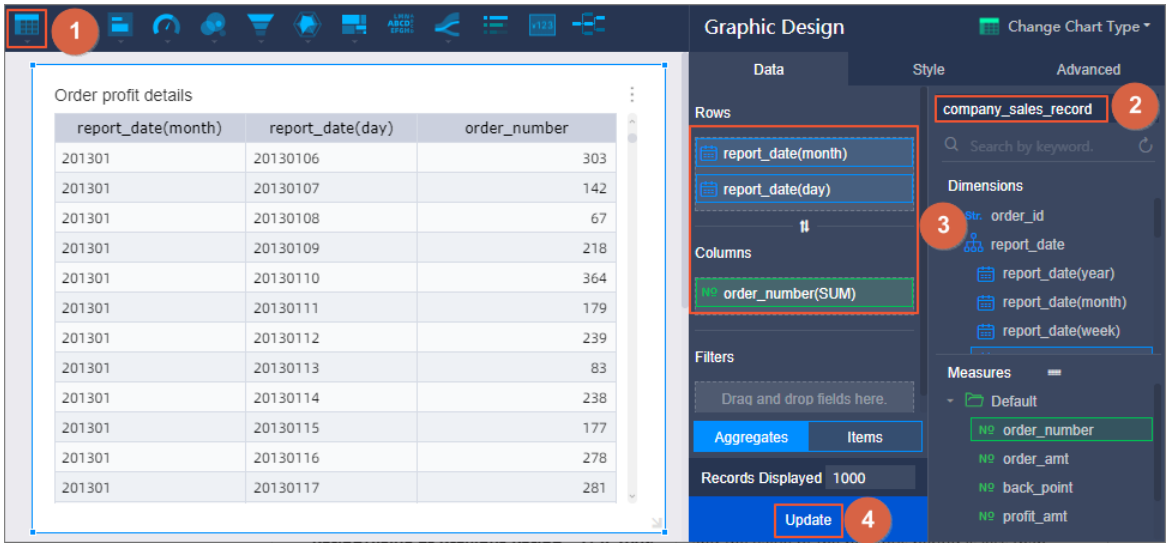


Multiple DATE fields in dimensions

If dimensions contain multiple DATE fields, the field with the smallest granularity is used to configure the comparison feature.

The following example demonstrates how to configure the comparison feature for a measure. A cross table is used in this example.

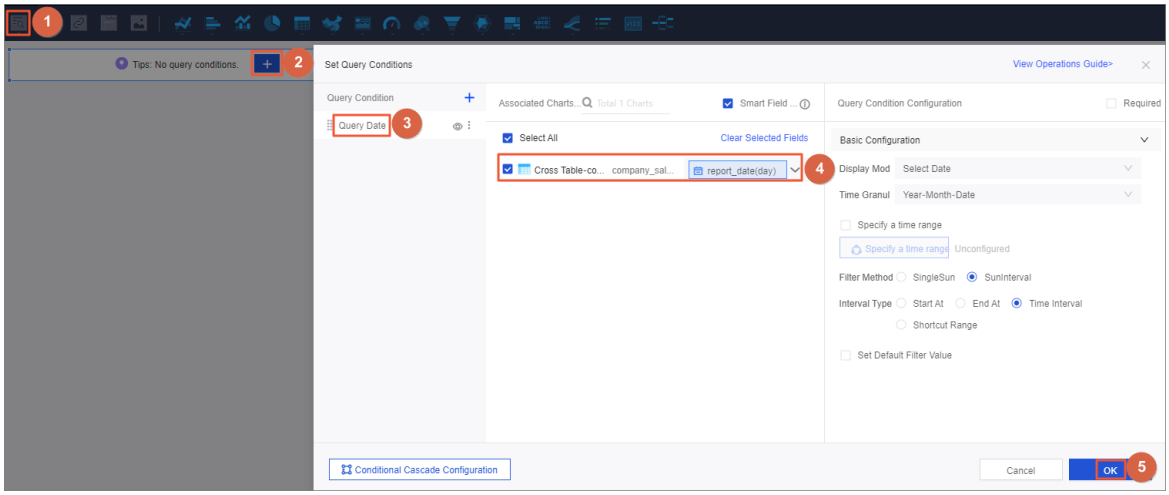
1. On the dashboard edit page, add a cross table and configure it, as shown in the following figure.In this example, DATE fields order_date(day) and order_date(month) are added to the Rows column.



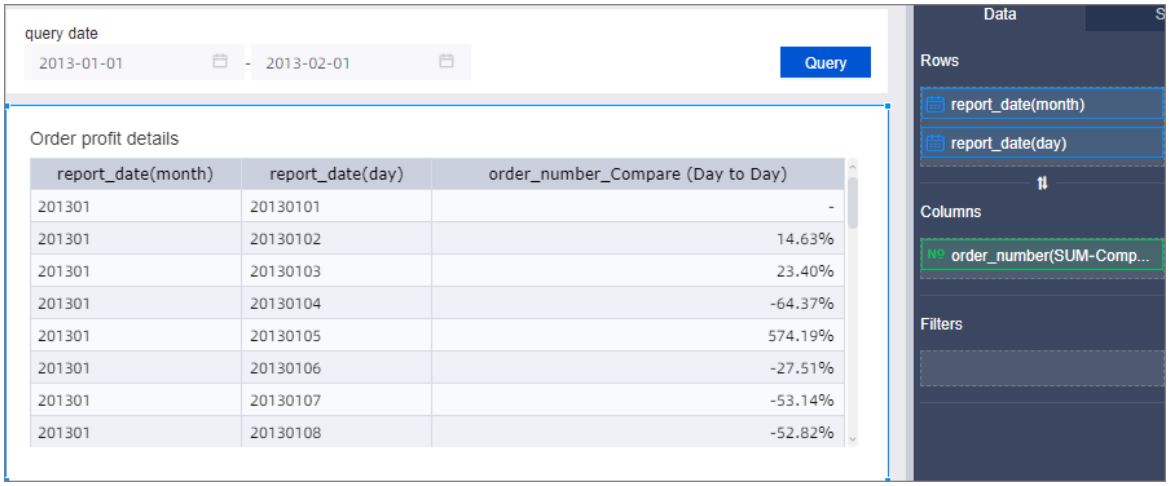
2. Move the pointer over the required measure in the Columns field and click the icon next to the measure.
3. Choose **Comparison > Custom**.
4. In the **Comparison Settings** dialog box, configure the parameters listed in the following table.

Parameter	Valid value	Description
Comparison Date	**order_date(day)**	If dimensions contain multiple DATE fields, the field with the smallest granularity is used and cannot be modified. In this example, the value is **order_date(day)**
Comparison Type	○ **Compare (Day to Day)** ○ **Compare (of Last Week)** ○ **Compare (of Last Month)** ○ **Compare (of Last Year)**	The valid values of **Comparison Type** vary based on the setting of **Comparison Date**. In this example, set the value to **Compare (Day to Day)**.
Data Settings	○ **Specific Value** ○ **Difference** ○ **Percentage Difference**	If you set the value to **Percentage Difference**, you must click **Advanced Settings** and select a formula.
Formula	○ **(Value of Current Period/Value of Previous Period - 1) × 100%** (default value) ○ **1 - (Value of Current Period/Value of Previous Period) × 100%** ○ **Displayed As -**	The formula takes effect only if **Data Settings** is set to **Percentage Difference** and the value of the previous period is less than 0.

5. Click **OK**.
6. Add a query control and configure it, as shown in the following figure.



7. In the query control, specify a time range and click **Query**.

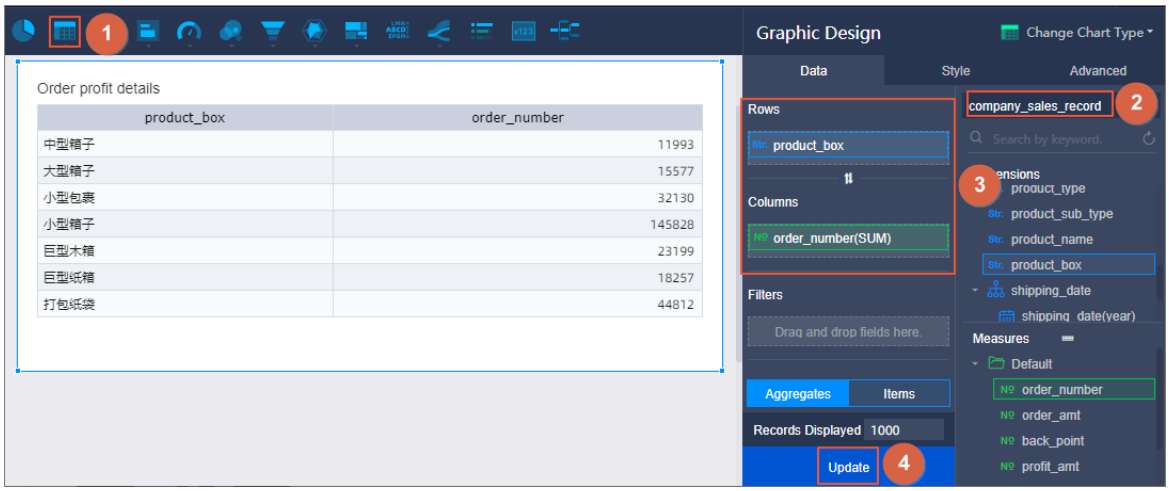


No DATE field in dimensions (year-to-year comparison)

If dimensions do not contain DATE fields and you want to configure the comparison feature for the chart, select a DATE field in a query control that is associated with the chart. Then, set Comparison Date to a field with the same granularity as this DATE field in the **Comparison Settings** dialog box.

The following example demonstrates how to configure year-to-year comparison for a measure. A cross table is used in this example.

1. On the dashboard edit page, add a cross table and configure it, as shown in the following figure.

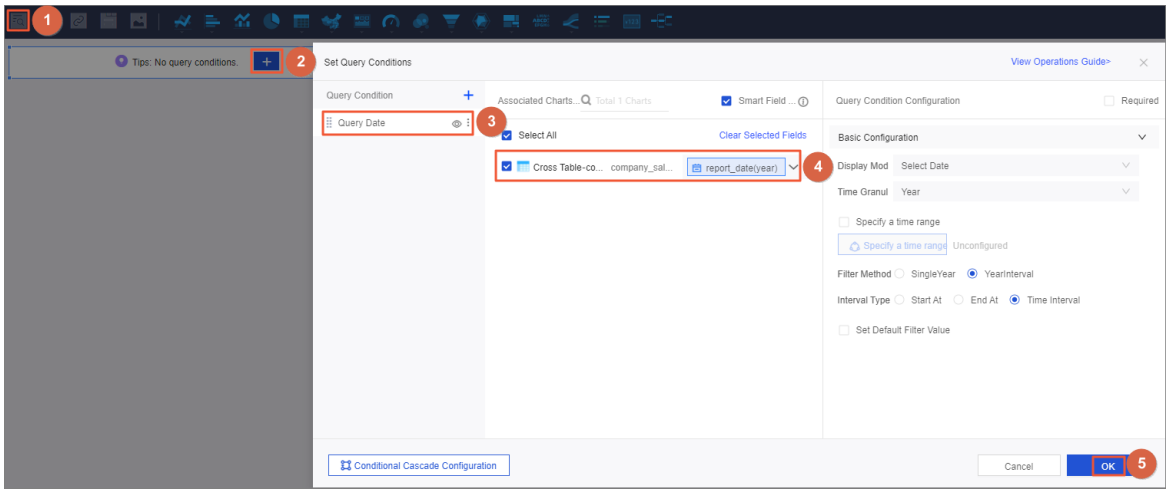


2. Move the pointer over the required measure in the Columns field and click the icon next to the measure.
3. Choose **Comparison > Custom**.
4. In the **Comparison Settings** dialog box, configure the parameters listed in the following table.

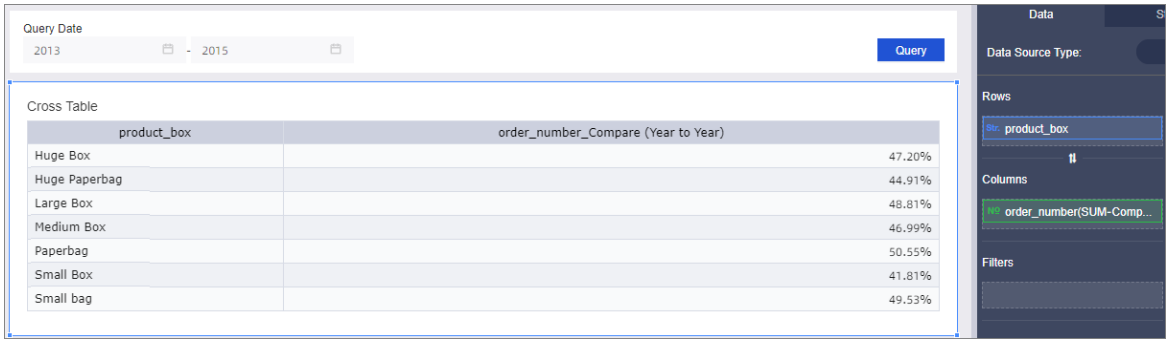
Parameter	Valid value	Description
Comparison Date	**order_date(year)**	Configure this parameter as required. In this example, set the value to **order_date(year)**.

Parameter	Valid value	Description
Comparison Type	○ **Compare (Day to Day)** ○ **Compare (of Last Week)** ○ **Compare (of Last Month)** ○ **Compare (of Last Year)** ○ **Dynamic Comparison**	The valid values of **Comparison Type** vary based on the setting of **Comparison Date**. In this example, set the value to **Compare (Year to Year)**.
Data Settings	○ **Specific Value** ○ **Difference** ○ **Percentage Difference**	If you set the value to **Percentage Difference**, you must click **Advanced Settings** and select a formula. In this example, set the value to **Percentage Difference**.
Formula	○ **(Value of Current Period/Value of Previous Period - 1) × 100%** (default value) ○ **1 - (Value of Current Period/Value of Previous Period) × 100%** ○ **Displayed As -**	The formula takes effect only if **Data Settings** is set to **Percentage Difference** and the value of the previous period is less than 0.

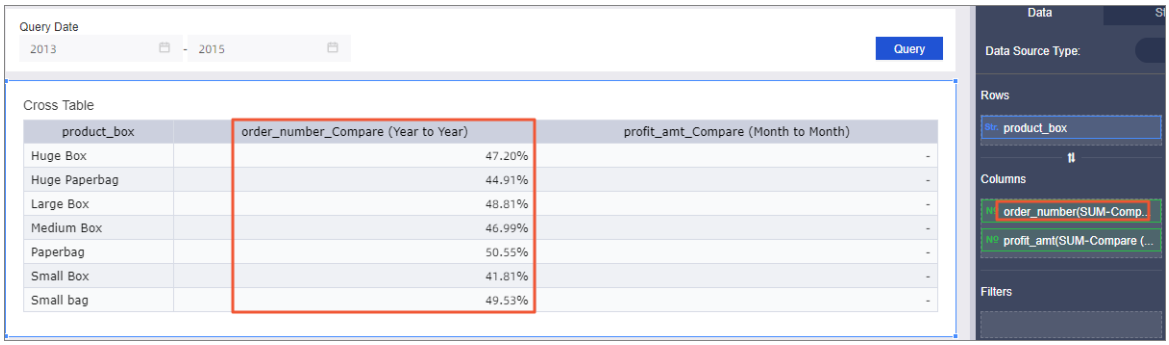
5. Click **OK**.
6. Add a query control and configure it, as shown in the following figure.



7. In the query control, specify a time range and click **Query**.



If the query conditions in a query control contain multiple DATE fields and the comparison feature is configured for multiple measures, the comparison feature takes effect only for the first measure.



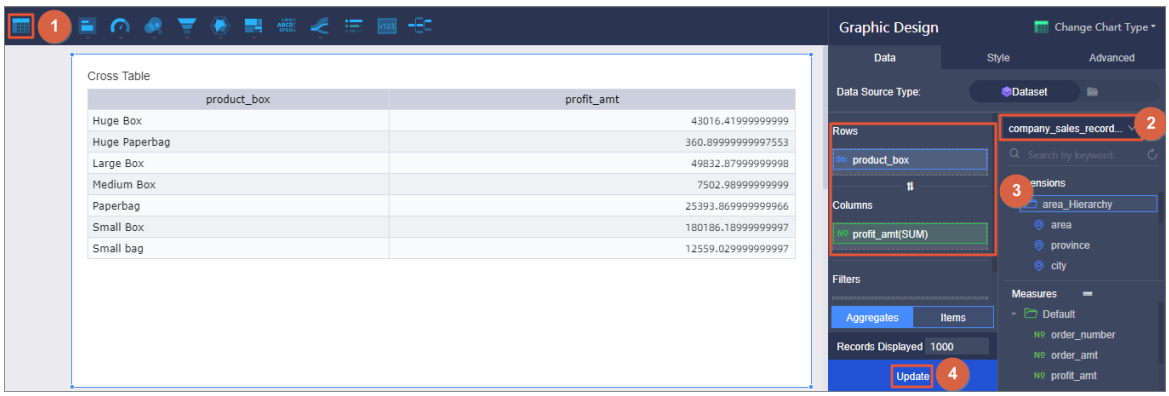
> **Note** If the comparison result cannot be calculated, a hyphen (-) is displayed.

No DATE field in dimensions (dynamic comparison)

If dimensions do not contain DATE fields, you must select a DATE field in the **Comparison Settings** dialog box to configure the comparison feature, which is similar to Multiple DATE fields in dimensions.

You can also select **Dynamic Comparison**. The following example demonstrates how to configure dynamic comparison. A cross table is used in this example.

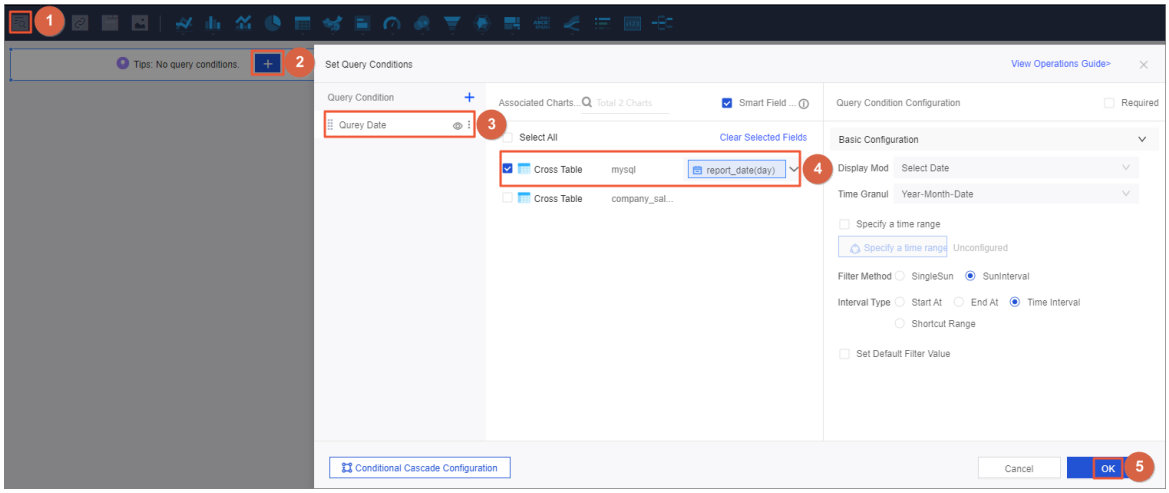
1. On the dashboard edit page, add a cross table and configure it, as shown in the following figure.



2. Move the pointer over the required measure in the Columns field and click the icon next to the measure.
3. Choose **Comparison > Custom**.
4. In the **Comparison Settings** dialog box, configure the parameters listed in the following table.

Parameter	Valid value	Description
Comparison Date	**order_date(day)**	Configure the parameter as required. In this example, set the value to **order_date(day)**.
Comparison Type	○ **Compare (Day to Day)** ○ **Compare (of Last Week)** ○ **Compare (of Last Month)** ○ **Compare (of Last Year)** ○ **Dynamic Comparison**	The valid values of **Comparison Type** vary based on the setting of **Comparison Date** . In this example, set the value to **Dynamic Comparison**.
Data Settings	○ **Specific Value** ○ **Difference** ○ **Percentage Difference**	If you set the value to **Percentage Difference**, you must click **Advanced Settings** and select a formula. In this example, set the value to **Percentage Difference**.
Formula	○ **(Value of Current Period/Value of Previous Period - 1) × 100%** (default value) ○ **1 - (Value of Current Period/Value of Previous Period) × 100%** ○ **Displayed As -**	The formula takes effect only if **Data Settings** is set to **Percentage Difference** and the value of the previous period is less than 0.

5. Click **OK**.
6. Add a query control and configure it, as shown in the following figure.



7. In the query control, specify a time range and click **Query**.

8. View SQL statements.If **Comparison Type** is set to **Dynamic Comparison**, the comparison results are dynamically calculated based on the specified time range. For example:
   - If the specified date is January 10, 2020, the date for comparison is January 9, 2020.
   - If the specified time range is January 1, 2020 to January 10, 2020, the time range for comparison is December 22, 2019 to December 31, 2019.

     i. Click the ⋮ icon in the upper-right corner of the cross table.

     ii. Select **View SQL Statements**.You can view the time ranges for comparison.

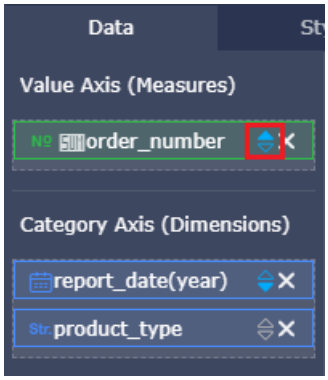
2.2.10. Sort data

In the **Data** tab, you can sort the data based on the selected measures and dimensions. The chart displays the data trend based on the sorted result.

Procedure

1. Select **order_number**, click the triangle icon next to the field, as shown in the following figure.

   The upward triangle indicates ascending order, and the downward triangle indicates descending order.



2. Click **Update**.

2.2.11. Theme design

You can use the theme design feature to change the template, skin, and theme color for a dashboard.

Prerequisites

You have logged on to the Quick BI console and opened the dashboard edit page. For more information, see Create a dashboard.

Procedure

1. Click the icon in the top navigation bar.
2. In the **Basic Settings** section of the **Page Settings** page, configure **Official Template**, **Skin**, and **Theme Color** under Theme Design.

Parameter	Description
Official Template	The official template is selected by default. You can change it to a custom template. **Note** After you change the theme, the custom settings of the original theme cannot be restored. We recommend that you save a copy of a theme before you change it.
Skin	The options are provided: **Light** and **Dark**. ○ If you select **Light**, the background color of the dashboard is white. The default value is **Light**. ○ If you select **Dark**, the background color of the dashboard is black.
Theme Color	The options are provided: **Business** and **Classic**. **Note** After you change the theme color, the custom settings of the original theme cannot be restored. We recommend that you save a copy of a theme before you change it.

2.3. Create charts

2.3.1. Create a dashboard

This topic describes how to create a chart.

See Dashboard overview and Dashboard basic operations before reading this topic. You must create and edit a dataset before creating a chart. For example, you must switch the dimension field type to Location.

For more information about how to create and edit a dataset, see Create a dataset.

For more information about how to switch the dimension type, see Change the dimension type.

Line charts

Line charts display the trends of data at equal intervals or over time.

Area charts

Similar to a line chart, an area chart displays the data trend and proportions.

Stacked area charts

A stacked area chart is an extension of an area chart. The values of each measure are displayed on top of each other. A stacked area chart displays the data trend and proportions.

100% stacked area charts

A 100% stacked area chart is a stacked area chart that shows percentages rather than absolute numbers.

Vertical bar charts

Vertical bar charts display the differences between data of different categories and the trends of data.

Stacked vertical bar charts

Each bar in a stacked vertical bar chart represents a whole, and segments in the bar represent different parts or categories of that whole.

100% stacked vertical bar charts

Each segment in a bar shows percentages rather than absolute numbers. Each bar in the chart represents a whole, and segments in the bar represent different parts or categories of that whole.

Circular bars

A circular bar chart displays the differences between data of different categories and the trends of data.

Combination charts

A combination chart can display data of different magnitudes by using dual Y-axis.

Horizontal bar charts

Similar to a vertical bar chart, a horizontal bar chart displays the differences between data of different categories.

Stacked horizontal bar charts

Splits each entry to display the data size of each entry of the same type. Each bar in a chart represents a whole, and segments in the bar represent different parts or categories of that whole.

100% stacked horizontal bar charts

Each segment in a bar shows percentages rather than absolute numbers. Each bar in a chart represents a whole, and segments in the bar represent different parts or categories of that whole.

Pie charts

Pie chart display the size and proportion of each data category.

Bubble maps

Bubble maps display the size and distribution scope of metrics by region or country.

Colored maps

Colored maps show the size and distribution of data by using shades of color.

LBS bubble maps

LBS bubble maps use bubbles on a map to reflect the data size.

LBS heat maps

LBS heat maps use different colors to show the data values and ranges.

LBS flying line maps

LBS flying line maps use dynamic flying lines on a map to reflect the data size between two or more locations. It also shows data indicators and the distribution of data for a country or region.

Cross tables

Cross tables show the aggregated value of a field in the table, including the sum, average, count, maximum, and minimum.

Gauges

Gauge show the range of a specific indicator.

Radar charts

Radar charts show analyzed numbers or ratios.

Scatter charts

Scatter chart show the correlation and distribution of data.

Bubble charts

A bubble chart displays the data distribution and aggregation information by placing proportionally sized bubbles in corresponding locations.

Funnel charts

Funnel chart show values across multiple stages in a process.

Kanbans

Kanbans show the data changes in each stage.

Treemaps

Treemap display hierarchical data as a set of nested rectangles.

Polar diagrams

Polar diagrams compare multiple data values.

Word clouds

Word cloud can be used in user profiles and user labels.

Tornado-leaned funnel charts

Butterfly chart compare two objects under different indicators or analyzes a process that has complicated steps.

Hierarchy charts

Hierarchy charts analyze an organizational structure.

Flow analysis charts

Flow analysis chart illustrate the conversion rate of a webpage by comparing page views (PVs) and the number of unique visitors (UVs).

Progress bars

Similar to a gauge, a progress bar shows the progress of completing a task.

Pivot tables

Similar to a cross table, a pivot table shows the aggregated value of a field in the table, including the sum, average, count, maximum, and minimum.

2.3.2. Line charts

This topic introduces line charts, including an overview and an application example. It also describes how to configure the style of a line chart and how to delete a line chart.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Line charts present data trends by using broken lines. The charts can show data that continuously changes over time. Line charts are best suited to show data trends at regular intervals. Line charts can also be used to analyze the interactions among multiple groups of data that change over time. For example, you can use a line chart to analyze the sales volume of a specific product and related products and forecast future sales.

A line chart consists of a category axis and a value axis. The category axis is the horizontal axis. You can specify only dimensions, such as date, province, and product type, for the category axis. The value axis is the vertical axis. You can specify only measures, such as a performance indicator or order quantity for the value axis.

Quick BI has configured the mapping between dimensions and the category axis, as well as measures and the value axis in dashboards. You only need to select fields from the Dimensions and Measures lists. The fields are automatically added to the Value Axis (Mea.) and Category Axis (Dim.) fields.

> **Notice** You must specify at least one dimension for the category axis and at least one measure for the value axis. You can specify only one dimension for the color legend if required. The color legend is applicable only when the value axis has one measure.

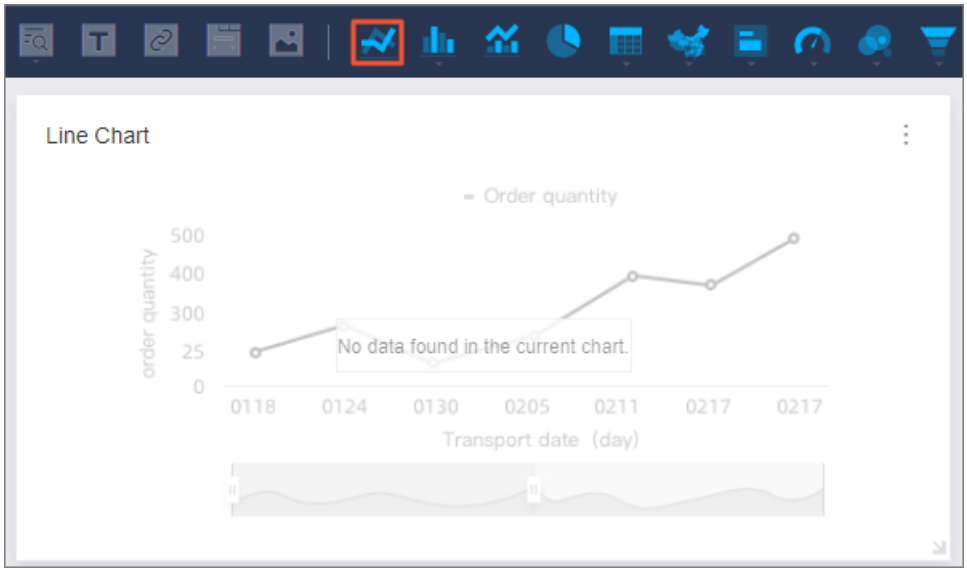
Application example

The following example describes how to use a line chart to display order quantities and unit prices of multiple products. The *company_sales_record* dataset is used in the example.

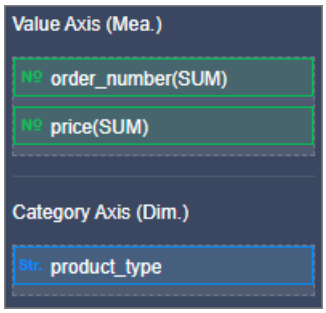
1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

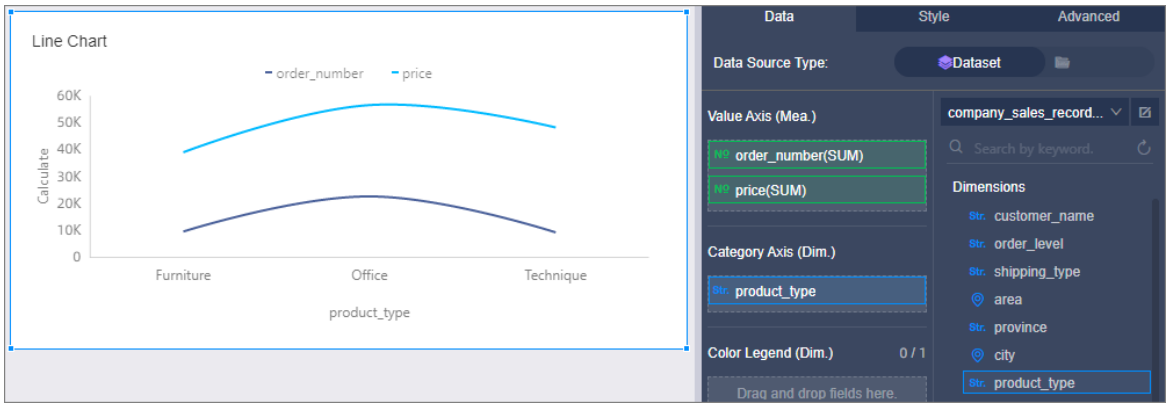
4. Click the  icon.A line chart appears in the display section of the dashboard.



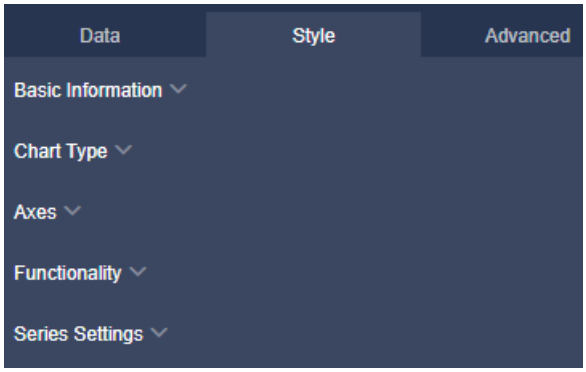
5. Select required dimensions and measures.
   - In the **Dimensions** list, find product_type and add it to the **Category Axis (Dim.)** field.
   - In the **Measures** list, find order_number and price, and add them to the **Value Axis (Mea.)** field.



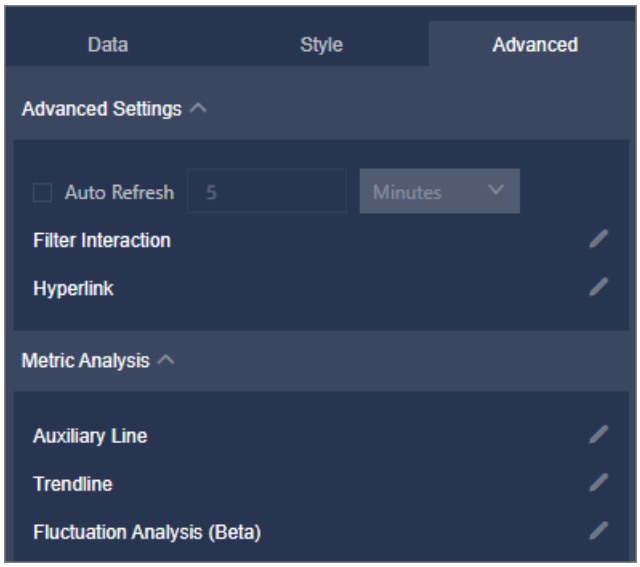
6. Click **Update**. The chart is updated.



7. On the **Style** tab, configure the parameters in the Basic Information, Chart Type, Axes, Functionality, and Series Settings sections.For more information, see Configure the parameters on the Style tab.



8. On the **Advanced** tab, configure the parameters in the Advanced Settings and Metric Analysis sections.



Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.
	Hyperlink	After you configure a hyperlink for a field in a chart and click the field, the linked report is displayed. You can select Parameter or External Link for this feature. If you select Parameter, you must configure global variables. For more information, see Configure the hyperlink feature.

Section	Parameter	Description
Metric Analysis	Auxiliary Line	You can use this feature to view the difference between the value of a measure and the value indicated by the auxiliary line. The value shown by an auxiliary line is a fixed or aggregate value. Supported aggregate functions include AVG, MAX, MIN, and Median. For more information, see Auxiliary line.
	Trendline	A trendline displays the trend of the current data. Supported trendline types include Intelligent, Linear, Logarithmic, Exponential, Polynomial, and Power. For more information, see Metric analysis.
	Fluctuation Analysis	Fluctuation analysis uses machine learning algorithms to analyze the impact of dimensions on measures. You can view the contributions of dimensions to measure fluctuation and specific changes. Note Fluctuation Analysis is in Beta testing.

9. Click Save in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard and click OK.

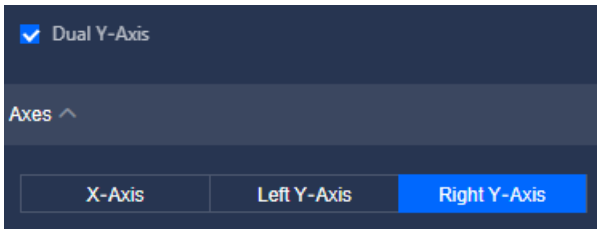
Configure the parameters on the Style tab

- In the **Basic Information** section, configure Show Title and Description, **Show Link**, and **Chart Type**.

Parameter	Description
Show Title and Description	○ Title: You can customize the title of a chart. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
Chart Type	The following options are supported: line chart, area chart, stacked area chart, and 100% stacked area chart.

- In the **Chart Type** section, configure the chart style.

Parameter	Description
Show Labels	The following options are supported: Smart Display and Full Display.

Parameter	Description
Line style	The following options are supported: Smooth and Straight.
Show Legend	The following display modes are supported. 
Dual Y-Axis	Specifies whether to show two Y axes in the line chart. **Note** If you select this option, **Right Y-Axis** appears in the **Axes** section. 

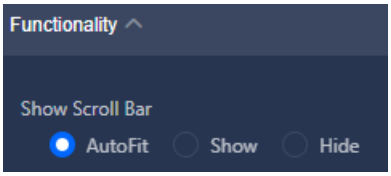
- In the **Axes** section, configure the axis style.

Tab	Parameter	Description
X-Axis	**Axis Title**	The title of the x-axis.
	Unit	The unit of the x-axis.
	Show Title and Unit	Specifies whether to show the title and unit of the x-axis.
	Show Axis	Specifies whether to show the x-axis. If you select this option, configure the width and color of the axis.
	Gridlines	Specifies whether to show gridlines on the x-axis. If you select this option, configure the width and color of the gridlines.
	Show Scale	Specifies whether to show scales on the x-axis.
	Axis Title	The title of the left y-axis.

Tab	Parameter	Description
Left Y-Axis	**Unit**	The unit of the left y-axis.
	Minimum and **Maximum**	Maximum and minimum values of the left y-axis. **Note** If you select **Default**, the maximum and minimum values are automatically displayed. If you clear **Default**, you must manually configure the maximum and minimum values.
	Show Title and Unit	Specifies whether to show the title and unit of the left y-axis.
	Show Axis	Specifies whether to show the left y-axis. If you select this option, configure the width and color of the left y-axis.
	Y-axis Label Settings	The display format of the axis label. The following options are supported: **AutoFit**, **Custom**, and **Manual**.
	Show Value	Specifies whether to show values on the left y-axis.
	Gridlines	Specifies whether to show gridlines on the left y-axis. If you select this option, configure the width and color of the gridlines.
	Show Scale	Specifies whether to show scales on the left y-axis.

Note If you select **Dual Y-Axis** in the **Chart Type** section, the **Right Y-Axis** tab appears. For information about how to configure the parameters on this tab, see the description of the **Left Y-Axis**.

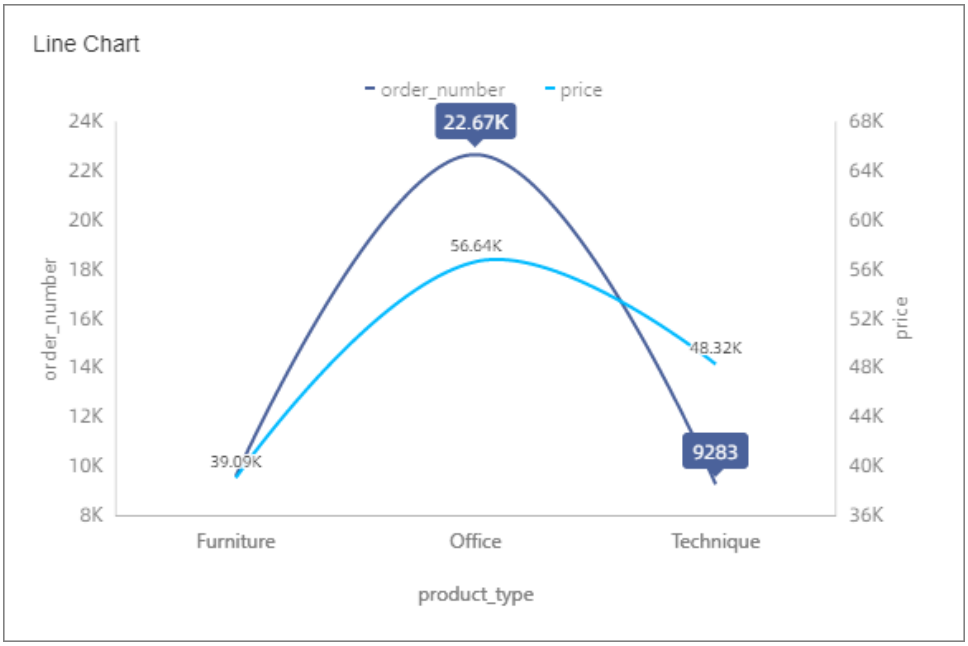
- In the **Functionality** section, specify whether to show the scroll bar.



- In the **Series Settings** section, configure the parameters described in the following table.

Parameter	Description
Series Name	Select a measure that has been added to the **Value Axis (Mea.)** field.
Alias	The alias of the measure displayed in a line chart.
Axes	The following options are supported: Default, Primary Axis, and Secondary Axis.
Show Labels	Specifies whether to show labels. If you select this option, configure the label color.
Label Shape	Specifies the label shape. The following options are supported: Circle, Hollow Circle, Diamond, and Hollow Diamond.
Show Boundary Values	Specifies whether to show the maximum and minimum values of the current measure. If you select this option, configure the background color of the maximum and minimum values and the line style of the measure.
Data Display Format	The display format of numbers. The following options are supported: AutoFit, Custom, and Manual.

The following figure shows an updated line chart.



For information about the parameters on the **Style** tab, see Configure a chart.

Delete a chart

To delete a chart, perform the following steps:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.3. Area charts

This topic introduces area charts, including an overview and an application example. This topic also describes how to configure the style of an area chart and how to delete an area chart.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Similar to a line chart, an area chart displays the data trend and proportions within a specific period of time.

An area chart consists of a category axis and a value axis. The category axis is the horizontal axis and represents a dimension, such as date, province, or product type. The value axis is the vertical axis and represents a measure, such as a performance indicator or order quantity.

The system automatically matches dimensions with the category axis and measures with the value category. Follow the instructions to add fields.

> **Notice** You must specify at least one dimension for the category axis and at least one measure for the value axis. You can specify only one dimension for the color legend. The color legend is applicable only when the value axis has one measure.

Application example

The following example demonstrates how to visualize the number of orders of different product types in different provinces. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

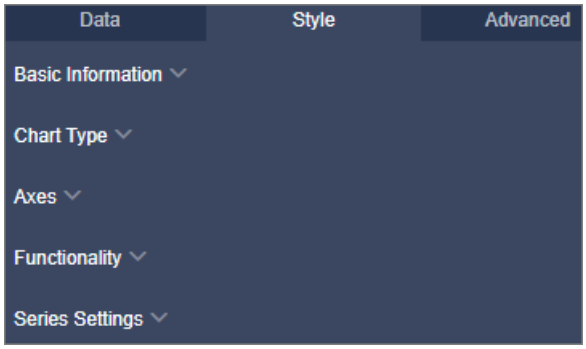
   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon.An area chart appears in the display area of the dashboard.
5. Select required dimensions and measures.
   - In the **Dimensions** list, find province and add it to the **Category Axis (Dim.)** field.
   - In the **Dimensions** list, find product_type and add it to the **Color Legend (Dim.)** field.

     > **Note** The color legend is applicable only when the value axis has one measure.

   - In the **Measures** list, find order_number and add it to the **Value Axis (Mea.)** field.

6. Click **Update**.
7. Click the **Style** tab and configure the basic information, chart type, axes, functionality, and series settings of the chart.For more information, see Configure parameters on the Style tab.



8. Click the **Advanced** tab, configure advanced settings and metric analysis.

Section	Parameter	Description
Advanced	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you configure filter interaction, if you click an area or a field in a chart, other charts that are related to the chart in the same dashboard change accordingly. For more information, see Configure the filter interaction feature.
	Hyperlink	After you configure the hyperlink and click a field in a chart on the dashboard, a report that shows information about this field is displayed. You can select Parameter or External Link for this feature. If you select Parameter, you must configure global variables. For more information, see Configure the hyperlink feature.

Section	Parameter	Description
Metric Analysis	Auxiliary Lines	You can use this feature to view the difference between the value of a measure and the value indicated by the auxiliary line. The value shown by an auxiliary line is a fixed or aggregate value. Supported aggregate functions include AVG, MAX, MIN, and Median. For more information, see Auxiliary line.
	Trendline	A trendline displays the trend of current data. Supported trendline types include Intelligent, Linear, Logarithmic, Exponential, Polynomial, and Power. For more information, see Metric analysis. Note Stacked and 100% stacked area charts do not support this feature.
	Fluctuation Analysis	Fluctuation analysis uses machine learning algorithms to analyze the impact of dimensions on measures. You can view the contribution of the dimension to measure fluctuation and the specific changes. Note **Fluctuation Analysis** is in Beta testing. Stacked and 100% stacked area charts do not support this feature.

9. Click **Save** in the upper-right corner. In the Save Dashboard dialog box, specify the name and save directory for the dashboard and click OK.

Configure parameters on the Style tab

- In the **Basic Information** section, configure **Show Title and Description**, **Show Link**, **Custom Background**, and **Chart Type**.

  Dark Color is selected as the background color in this example.

  Note
  - If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
  - You can configure the chart type, such as line chart, stacked area chart, and 100% stacked area chart.

- In the **Chart Type** section, configure **Show Labels**, **Show Legend**, **Dual Y-Axis**, **Stacked** and **100% Stacked**.

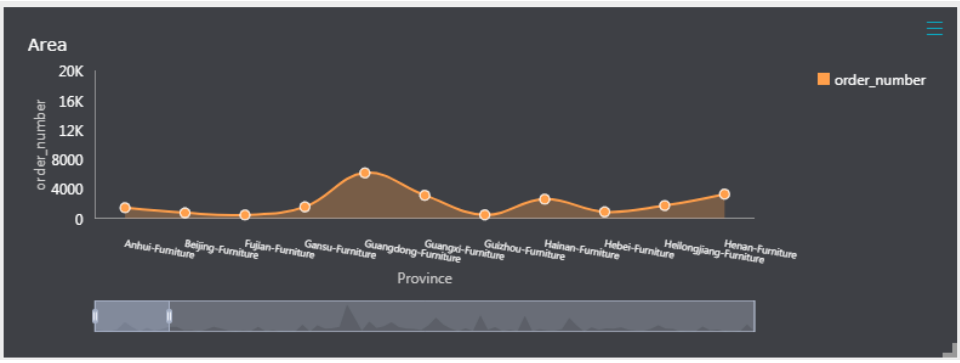
  100% Stacked is selected in this example.

> **Note** You can select **Show Labels** to show all measure labels. Labels support Smart Display and Full Display modes. Assume that a chart involves many dimension values and the scroll bar is not shown in the chart. In Smart Display mode, some labels are displayed. In Full Display mode, all labels are displayed.

- In the **Axes** section, configure **Axis Title** and **Unit**.

  In this example, **province** is used as the title of the x-axis.
- In the **Functionality** section, set **Show Scroll Bar**.
- In the **Series Settings** section, configure **Alias** and **Data Display Format** for a measure. In this example, the data color of the **Office** field is set to orange.

  Click Update. The following figure shows an updated area chart.



> **Note** For more information about the parameters on the **Style** tab, see Configure a chart.

Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.4. Vertical bar charts

This topic introduces vertical bar charts, including an overview and an application example. It also describes how to configure the style of a vertical bar chart and how to delete a vertical bar chart.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A vertical bar chart can be used to visualize data changes over a period of time or comparisons among discrete categories. For example, you can use a vertical bar chart to show the traffic volume at a crossing over different periods of time.

Similar to a line chart, a vertical bar chart consists of a category axis and a value axis.

> **Notice** You can specify at least one dimension for the category axis, such as province or product type. You can specify at least one measure for the value axis, such as order quantity or profit. You can specify only one dimension for the color legend. The color legend is applicable only when the value axis has one measure.

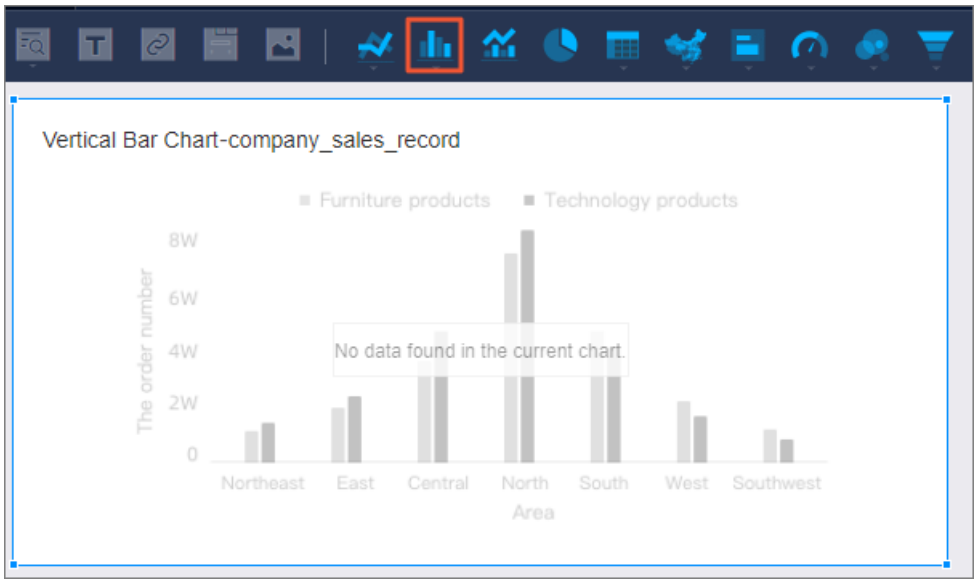
Application example

The following example describes how to use a vertical bar chart to compare the shipping costs of different products in different provinces of East China. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. On the dashboard edit page, click the icon.A vertical bar chart appears in the display section of the dashboard.



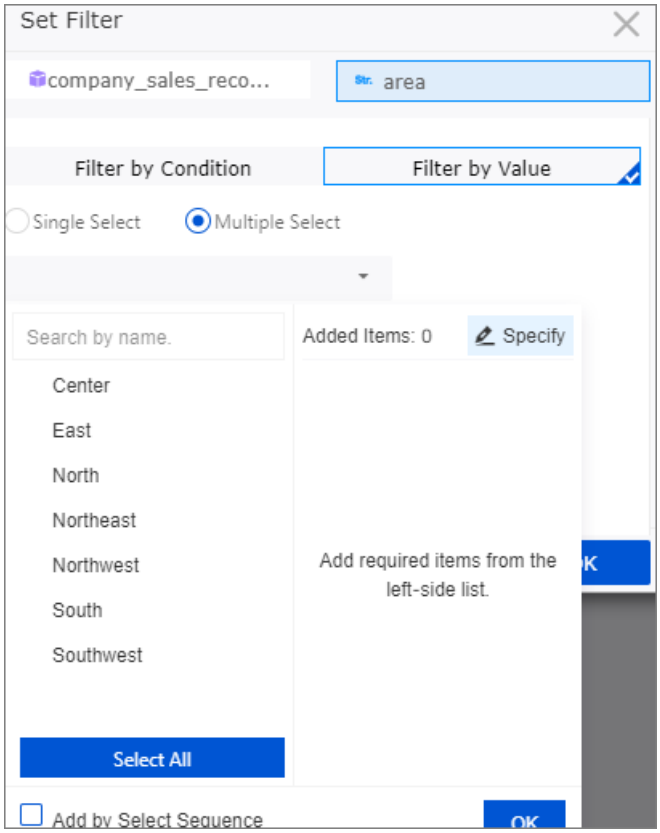
5. On the **Data** tab in the **Graphic Design** section, configure the vertical bar chart.

i. Select required dimensions and measures.

- In the **Dimensions** list, find **province** and add it to the **Category Axis (Dim.)** field.
- In the **Dimensions** list, find **product_type** and add it to the **Color Legend (Dim.)** field.
- In the **Dimensions** list, find **area** and add it to the **Filters** field.
- In the **Measures** list, find **shipping_cost** and add it to the **Value Axis (Mea.)** field.

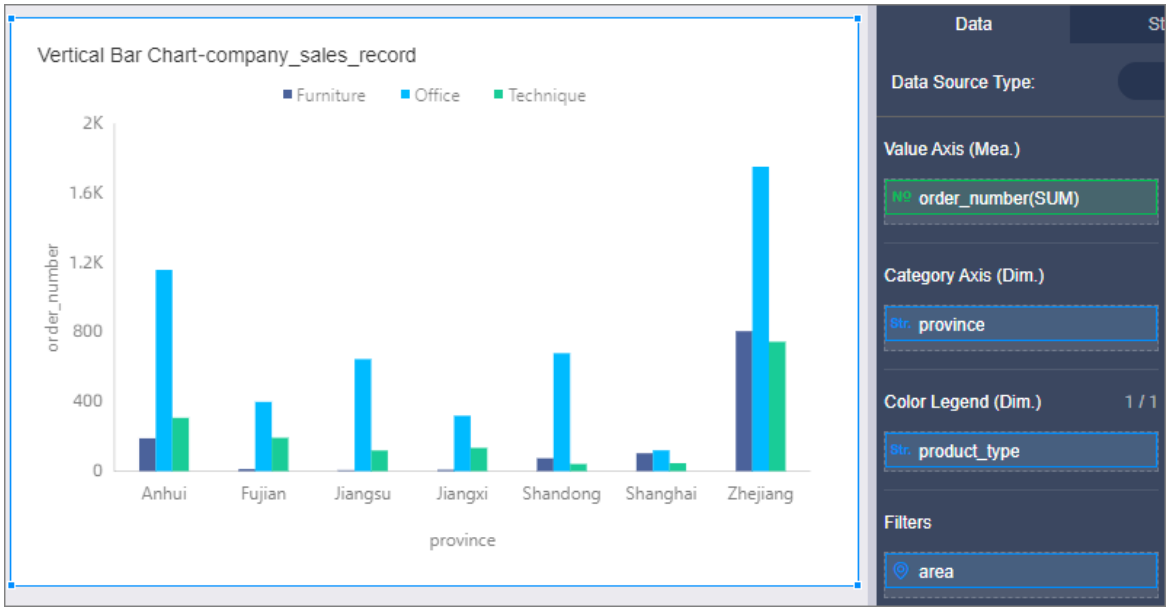
> **Note**
>
> - Make sure that you have converted the data type of the province and area dimensions from String to Geo. For information about how to change the data type of a dimension, see Edit a GEO dimension.
> - The color legend is applicable only when the value axis has one measure.

ii. Configure a filter.In this example, select **Filter by Value** and **Multiple Select**, and then select **East** from the drop-down list.

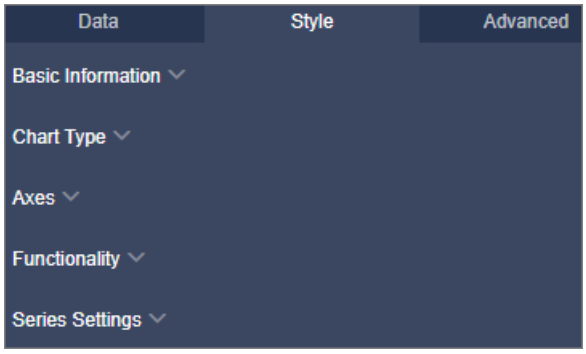


iii. Click **OK**.

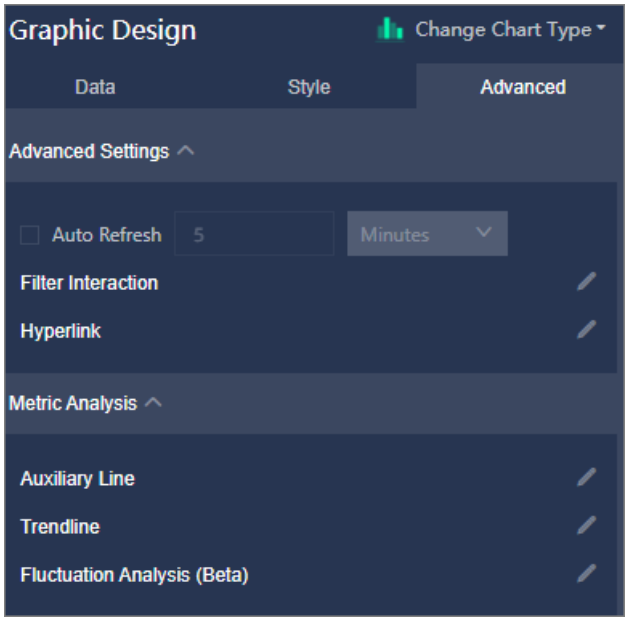
6. Click **Update**. The chart is updated.



7. On the **Style** tab, configure the parameters in the Basic Information, Chart Type, Axes, Functionality, and Series Settings sections.For more information, see Configure the parameters on the Style tab.



8. On the **Advanced** tab, configure the parameters in the Advanced Settings and Metric Analysis sections.



Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.
	Hyperlink	Vertical bar charts do not support this feature.
	Auxiliary Line	You can use this feature to view the difference between the value of a measure and the value indicated by the auxiliary line. The value shown by an auxiliary line is a fixed or aggregate value. Supported aggregate functions include AVG, MAX, MIN, and Median. For more information, see Auxiliary line.

Section	Parameter	Description
Metric Analysis	**Trendline**	A trendline displays the trend of current data. Supported trendline types include Intelligent, Linear, Logarithmic, Exponential, Polynomial, and Power.
	Fluctuation Analysis	Fluctuation analysis uses machine learning algorithms to analyze the impact of dimensions on measures. You can view the contributions of dimensions to measure fluctuation and specific changes. **Note** **Fluctuation Analysis** is in Beta testing.

9. Click **Save** in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard, and click OK.

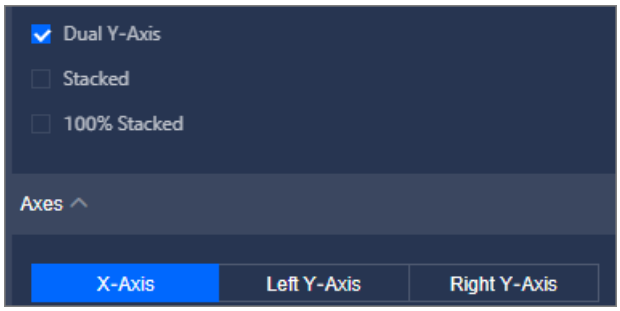
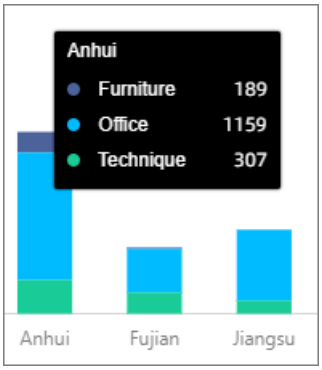
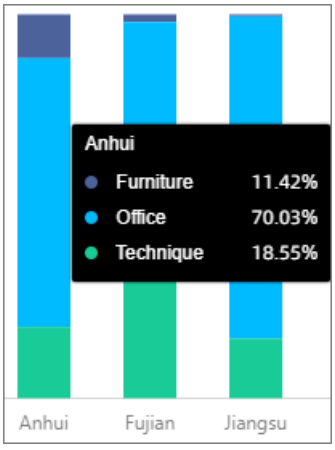
Configure the parameters on the Style tab

- In the **Basic Information** section, configure the parameters described in the following table.

Parameter	Description
Show Title and Description	○ Title: You can customize the title of a chart. We recommend that you name the chart in the format of *Chart type-Chart name*. ○  : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
Chart Type	The following chart types are supported: vertical bar chart, stacked vertical bar chart, and 100% stacked vertical bar chart.

- In the **Chart Type** section, configure the chart style.

Parameter	Description
Show Labels	The following options are supported: Smart Display and Full Display.
Show Legend	The following five display modes are supported. 

Parameter	Description
Dual Y-Axis	Specifies whether to show two Y axes in the vertical bar chart. **Note** If you select this option, the **Right Y-Axis** tab appears in the **Axes** section. 
Stacked and **100% Stacked**	Specifies the style of a vertical bar chart. Stacked  100% Stacked 

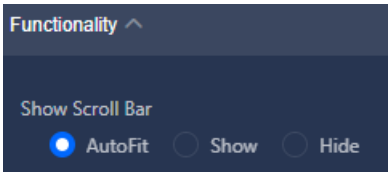
- In the **Axes** section, configure the axis style.

Tab	Parameter	Description
X-Axis	**Axis Title**	The title of the x-axis.
	Unit	The unit of the x-axis.
	Show Title and Unit	Specifies whether to show the title and unit of the x-axis.
	Show Axis	Specifies whether to show the x-axis. If you select this option, configure the width and color of the x-axis.
	Show Value	Specifies whether to show the label on the axis.
	Gridlines	Specifies whether to show gridlines on the x-axis. If you select this option, configure the width and color of the gridlines.
	Show Scale	Specifies whether to show scales on the x-axis.
	Axis Title	The title of the left y-axis.
	Unit	The unit of the left y-axis.
	Minimum and **Maximum**	Maximum and minimum values of the left y-axis. **Note** If you select **Default**, the maximum and minimum values are automatically displayed. If you clear **Default**, you must manually configure the maximum and minimum values.

Tab	Parameter	Description
Left Y-Axis	**Auto Magnify Value Differences**	Specifies whether to magnify the value differences on the left y-axis. **Note** If you select this option, the maximum and minimum values of the axis use the actual maximum and minimum values.
	Show Title and Unit	Specifies whether to show the title and unit of the left y-axis.
	Show Axis	Specifies whether to show the left y-axis. If you select this option, configure the width and color of the left y-axis.
	Y-axis Label Settings	The display format of the labels on the left y-axis. The following options are supported: **AutoFit**, **Custom**, and **Manual**.
	Show Value	Specifies whether to show labels on the left-y axis.
	Gridlines	Specifies whether to show gridlines on the left y-axis. If you select this option, configure the width and color of the gridlines.
	Show Scale	Specifies whether to show scales on the left y-axis.

Note If you select **Dual Y-Axis** in the **Chart Type** section, the **Right Y-Axis** tab appears. For information about how to configure the parameters on this tab, see the description of the **Left Y-Axis**.

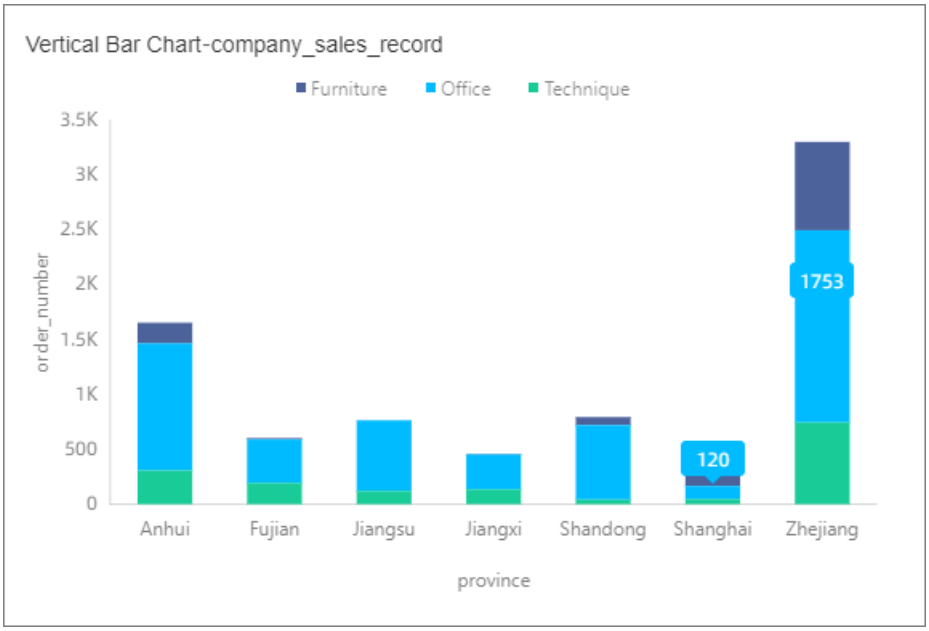
- In the **Functionality** section, specify whether to show the scroll bar.



- In the **Series Settings** section, configure the following parameter for a measure.

Parameter	Description
Series Name	Select a measure that you have added to the **Value Axis (Mea.)** field.
Alias	The measure alias that is displayed on the chart.
Axes	The following options are supported: Default, Primary Axis, and Secondary Axis.
Show Labels	Specifies whether to show labels. If you select this option, you can configure the label color.
Show Boundary Values	If this option is selected, the maximum and minimum values in the vertical bar chart are highlighted in a specified color.
Data Display Format	The display format of numbers. The following options are supported: AutoFit, Custom, and Manual.

The following figure shows the updated vertical bar chart.



Note For information about the parameters on the **Style** tab, see Configure a chart.

Delete a chart

To delete a chart, perform the following steps:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.5. Horizontal bar charts

This topic introduces horizontal bar charts, including an overview and an application example. This topic also describes how to configure the style of a horizontal bar chart and how to delete a horizontal bar chart.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

- A horizontal bar chart shows the comparison between categories and data changes over a period of time. For example, you can use a horizontal bar chart to show the working progress of employees in a project group.
- Similar to a line chart, a horizontal bar chart consists of a category axis and a value axis.

> **Note** You must specify at least one dimension for the category axis, such as province and product type. You must specify at least one measure for the value axis, such as order quantity and profit. You can specify only one dimension for the color legend.

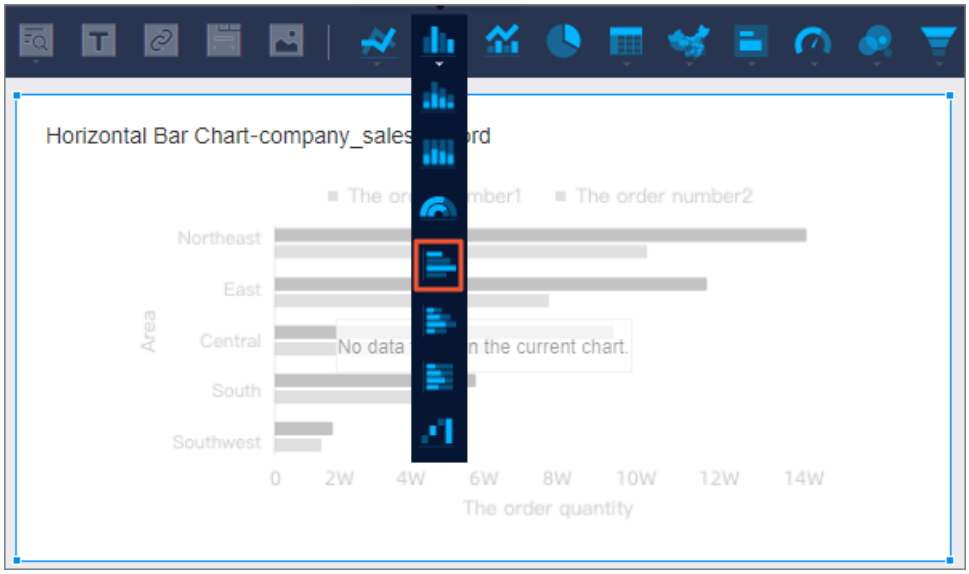
Sample horizontal bar chart

The following example demonstrates how to use a horizontal bar chart to compare the shipping costs of different products in different cities.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon. A horizontal bar chart appears in the display section of the dashboard.

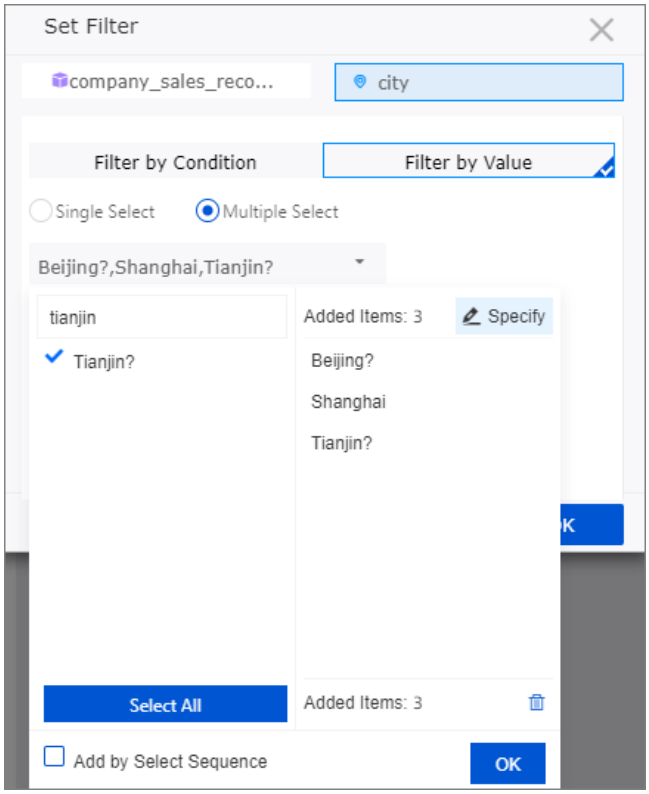


5. On the **Data** tab, select the required measures and dimensions.
   i. Select dimensions and measures and set the filter as required.
      - In the **Dimensions** list, find city and add it to the **Category Axis (Dim.)** field.
      - In the **Dimensions** list, find product_type and add it to the **Color Legend (Dim.)** field.
      - In the **Dimensions** list, find city and add it to the **Filters** field.
      - In the **Measures** list, find shipping_cost and add it to the **Value Axis (Mea.)** field.

      > **Note**
      > - Make sure that you have converted the data type of city from String to Geo. For information about how to convert the data type of a dimension, see Edit a GEO dimension.
      > - The color legend is applicable only when the value axis has one measure.

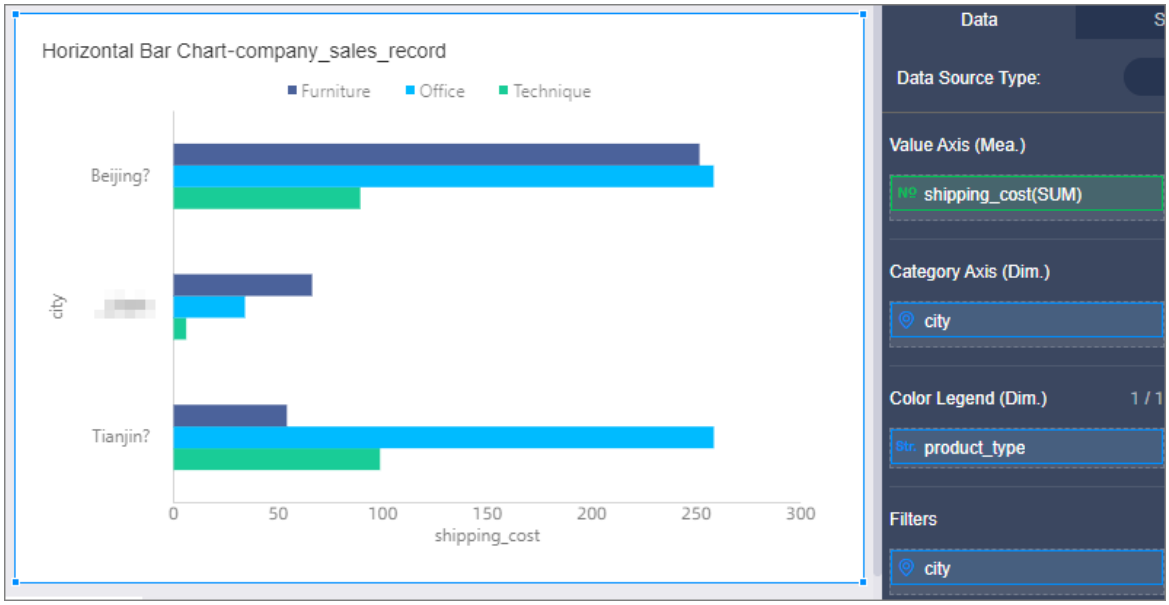
ii. Configure a filter.

In this example, select **Filter by Value** and **Multiple Select**. Click the downward arrow. In the drop-down list that appears, select **Beijing**, **Shanghai**, and **Tianjin**, and click **OK**.



iii. In the Set Filter dialog box, click **OK**.

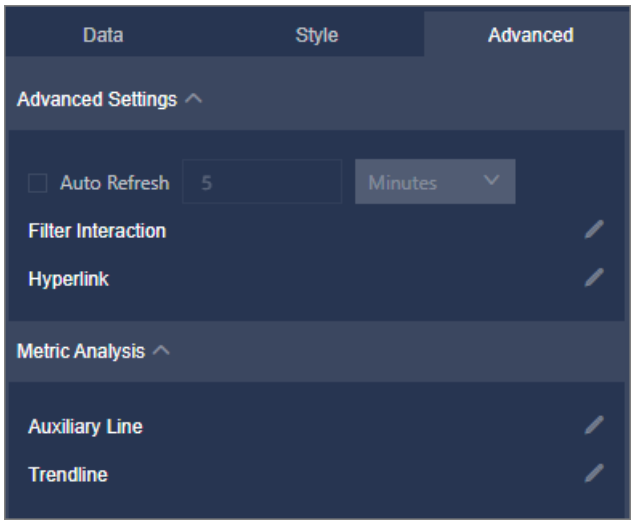
6. Click **Update**. The chart is updated.



7. On the **Style** tab, configure the parameters in the Basic Information, Chart Type, Axes, Functionality, and Series Settings sections. For more information, see Configure the parameters on the Style tab.

8. On the **Advanced** tab, configure the parameters in the Advanced Settings and Metric Analysis

sections.



Section	Parameter	Description
Advanced Settings	Auto Refresh	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.
	Hyperlink	After you configure a hyperlink for a field in a chart and click the field, the linked report is displayed. You can select Parameter or External Link for this feature. If you select Parameter, you must configure global variables. For more information, see Configure the hyperlink feature.
Metric Analysis	Auxiliary Line	You can use this feature to view the difference between the value of a measure and the value indicated by the auxiliary line. The value shown by an auxiliary line is a fixed or aggregate value. Supported aggregate functions include AVG, MAX, MIN, and Median. For more information, see Auxiliary line.
	Trendline	A trendline displays the trend of current data. Supported trendline types include Intelligent, Linear, Logarithmic, Exponential, Polynomial, and Power. For more information, see Metric analysis.

9. Click **Save** in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard, and click OK.

Configure the parameters on the Style tab

- In the **Basic Information** section, configure Show Title and Description, Show Link, and Chart Type.

  > Note
  > - If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
  > - In the Basic Information section, you can change the chart type to a stacked horizontal bar chart or a 100% stacked horizontal bar chart.

- In the **Chart Type** section, configure Show Labels, Alignment, Show Legend, Dual Y-Axis, Stacked, and 100% Stacked.

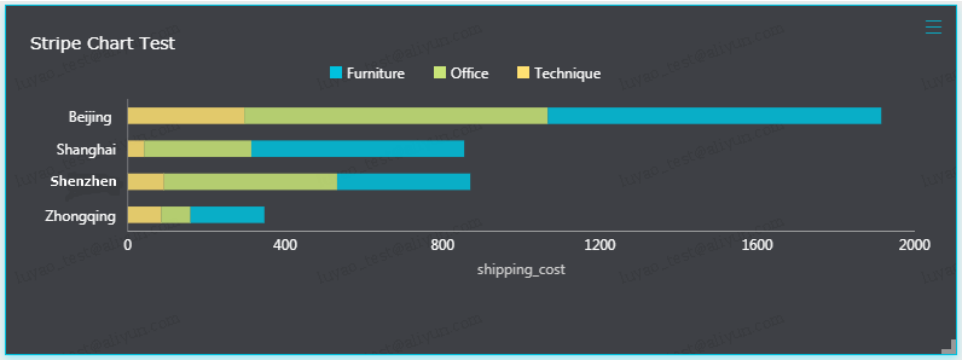
  Stacked is selected in the example.

- In the **Axes** section, configure Axis Title and Unit.

  In this example, Show Scale is selected on the Bottom Axis tab.

- In the **Functionality** section, configure Show Scroll Bar.
- In the **Series Settings** section, configure Alias, Style, and Data Display Format for the measure.

  Click Update. The chart is updated, as shown in the following figure.



> Note For more information about the parameters on the **Style** tab, see Configure a chart.

Delete a chart

To delete a chart, perform the following steps:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.6. Waterfall chart

This topic describes a waterfall chart, including its overview, application example, and configuration style as well as how to delete a waterfall chart.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and

Basic dashboard operations.

- For information about how to create a dataset, see Create a dataset.

Overview

A waterfall chart reflects the data changes and data at different time periods or under the impact of different factors. It uses a combination of absolute and relative values and is suitable for business analysis and financial analysis.

> **Notice** For a waterfall chart, you must specify at least one dimension for the category axis such as province and product type and at most one measure for the value axis such as order quantity and profit.

Application example of a waterfall chart

The following scenario uses the *company_sales_record* dataset to compare the shipping costs for different products in different provinces of East China.

1. In the left-side navigation pane of the Workspace page, click **Datasets** to go to the Datasets page.
2. Find the *company_sales_record* dataset, and click the icon in the Actions column corresponding to the dataset.

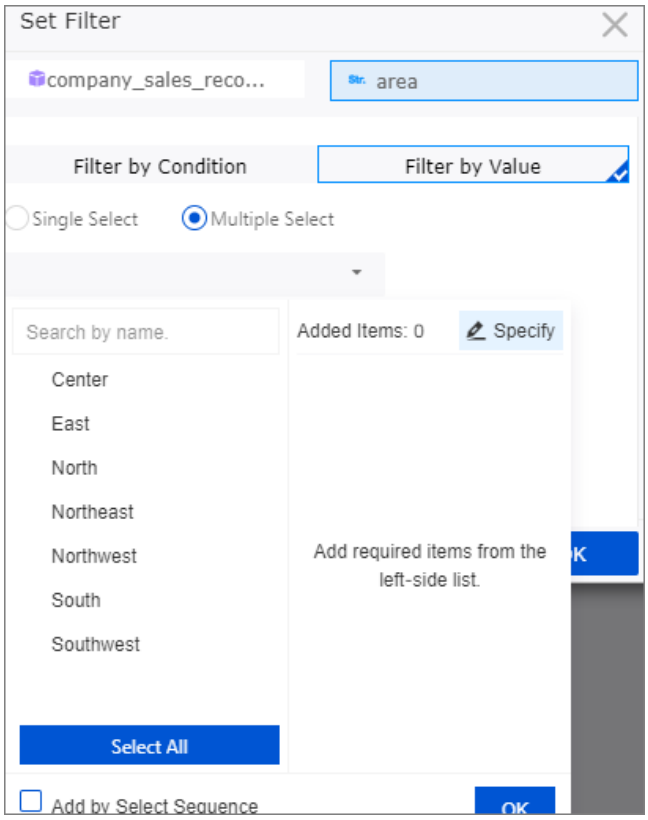
   > **Note** If you use **Quick BI Enterprise Standard**, you need to choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click the Vertical Bar Chart icon and then click the icon. A waterfall chart appears in the display area of the dashboard.

4. In the Dimensions list, find and add the **area** field to the Filters area.

   You need to filter data of East China by using the area filter, as shown in the following figure.

5. Click the icon. In the Set Filter dialog box, select **Filter by Value** for Filter by Condition, as shown in the following figure.



6. Select East and click **OK**.
7. Find and add the province field to Category Axis (Dim.). In the Measures list, find and add the shipping_cost field to Value Axis (Mea.).
8. Click **Update**. The system updates the chart.
9. On the **Style** tab, configure Basic Information, Parameter Settings, Chart Type, Axes, and Series Settings.
10. Click **Save** to save the dashboard.

Configure settings on the Style tab

- In the **Basic Information** section, set Show Title and Description, Show Link, and Custom background.

  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Parameter Settings** section, set Show Initial Value, Show Cumulative Value, and Show Initial Value/Cumulative Value Labels.
- In the **Chart Type** section, set Show Labels, Show Legend, and Color Settings.

  In this example, **Show Labels** is selected and the legend is displayed on the top.

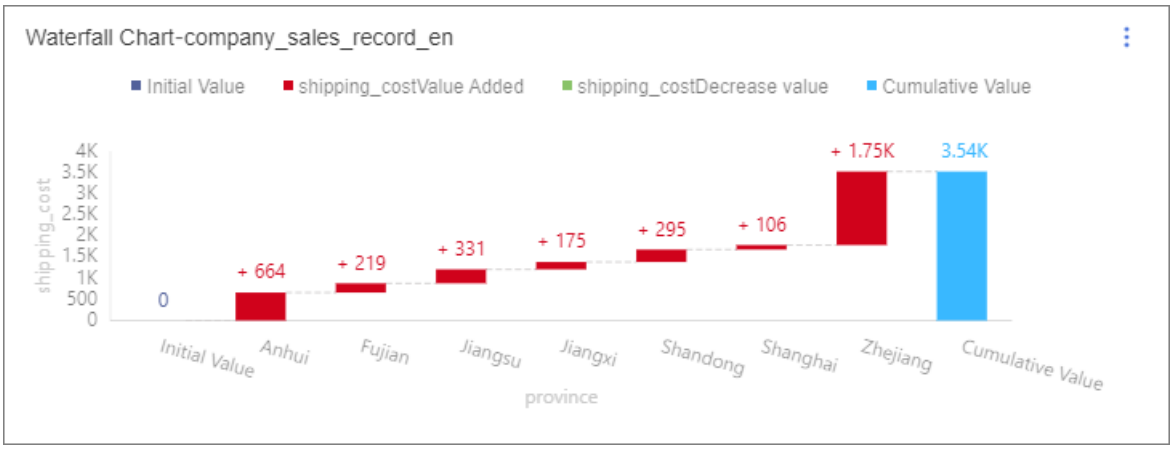
> **Note** If multiple measures are specified for the chart, all measure labels are displayed after you select Show Labels. Labels can be displayed in either Smart Display or Full Display mode. Assume that a chart involves many dimension values and the scroll bar is not shown in the chart. In Smart Display mode, only partial labels are displayed. In Full Display mode, all labels are displayed.

- In the **Axes** section, set Axis Title and Unit.

  In this example, **Show Scale** is selected on the X-Axis tab.
- In the **Series Settings** section, set Display Name and Number Formatting for a measure.

  In this example, the default data display format **AutoFit** is used.

  Click Update. The following figure shows the updated chart.



Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.7. Combination chart

This topic describes a combination chart, including its overview, application example, and configuration style, as well as how to delete a combination chart.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A combination chart displays data of different magnitudes by using dual y-axis. A combination chart can display multiple chart types, such as line chart, vertical bar chart, and area chart in stacked or 100% stacked mode. For example, you can use a combination chart to display the change trends of different projects.

A combination chart consists of a category axis, a primary value axis, and a secondary value axis.

> **Notice** You can specify at least one dimension for the category axis, such as the order_date(year). You can specify at least one measure each for the primary and secondary value axes, such as order price or profit. You can specify only one dimension for the color legend. The legend is applicable only when one measure is specified for the primary or secondary value axis.

Application example: compare the order price and profits of multiple years

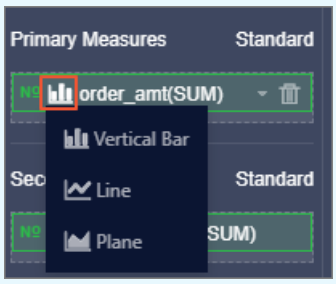
The following example uses the *company_sales_record* dataset to describe the application of a combination chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset and click in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click  . A combination chart appears in the display area of the dashboard.
4. In the Dimensions list, find and add order_date(year) to the Category Axis (Dim.) field. In the Measures list, find and add order_amt to the Primary Measures field and profit_amt to the Secondary Measures field.

Note You can click chart type icon for the primary or secondary value axis to switch the chart type, such as vertical bar chart, line chart, or area chart.



You can click the stacked icon to change the stacked mode.

5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure the basic information, chart type, axes, functionality, and series settings of the chart.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Parameters on the Style tab

- In the **Basic Information** section, specify Show Title and Description, Show Link, and Custom Background.

  Note If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Chart Type** section, specify Show Labels, Direction, and Show Legend.

  Note You can select **Show Labels** to show all measure labels. Labels support Smart Display and Full Display modes. Assume that a chart involves many dimension values and the scroll bar is not shown in the chart. In Smart Display mode, some labels are displayed. In Full Display mode, all labels are displayed.

- In the **Axes** section, specify Axis Title and Unit. In this example, **Show Scale** is selected for the x-axis.
- In the **Functionality** section, configure whether to show the scroll bar.
- In the **Series Settings** section, specify Alias, Show Boundary Values, and Data Display Format.

  Note For more information about parameters on the **Style** tab, see Configure a chart.

Delete a chart

Perform the following steps to delete a chart:

1. Click the icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.8. Pie chart

This topic introduces pie charts, including an overview and an application example. This topic also describes how to configure the style of a pie chart and how to delete a pie chart.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A pie chart shows a series of data with different colors or patterns. If a pie chart has more than 12 slices, the colors of the slices are repeated. A pie chart is used to show the ratio of multiple values in proportion to their total amount, for example, the ratio of the income tax to the total personal income, or the ratio of the sales volume of a car brand to the total sales volume.

A pie chart consists of slices. The slice labels are determined by a dimension, such as area or product_type. The slice angles are determined by a measure, such as order quantity or profit.

> **Note** You can specify only one dimension for slice labels and only one measure for slice angles.

Sample pie chart

Scenario: Compare the shipping costs of different regions. The following example uses the *company_sales_record* dataset to describe the application of a pie chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column. If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.
3. Click the icon. A pie chart appears in the display area of the dashboard.
4. Click the **Data** tab and select the required dimensions and measure.
   - In the Dimensions list, find and add area to the Labels (Dim.) field.
   - In the Measures list, find and add shipping_cost to the Central Angle (Mea.) field.
   - If you want to display a large volume of data in the pie chart, you can specify the Filters field to

display specific types of data. For example, you can use the Filters field to specify an order quantity range from 50,000 to 100,000. The pie chart then displays only the cities whose order quantities are within this specific range.

5. Click **Update**. The chart is updated.
6. Click the **Style** tab, and configure parameters in the Basic Information, Chart Type, and Series Settings sections.
7. Click the **Advanced** tab, and configure Auto Refresh, Filter Interaction Hyperlink for the pie chart.
8. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

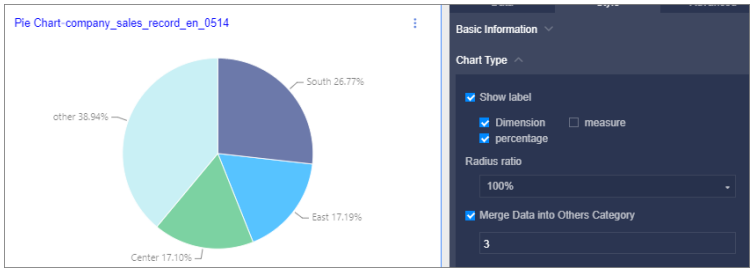
Configure parameters on the Style tab

- In the **Basic Information** section, configure **Show Title and Description**, **Show Link**, and **Visual Style**.

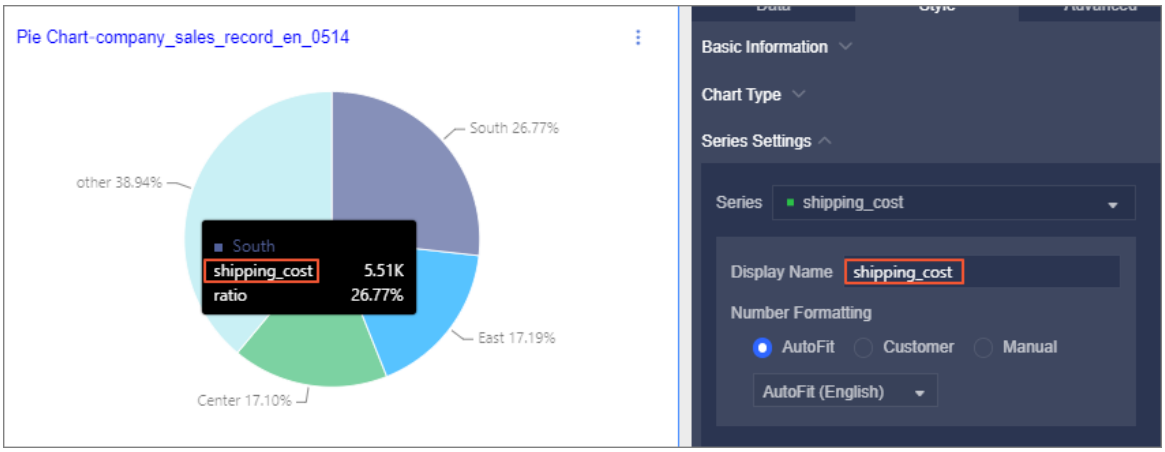
Parameter	Description
Show Title and Description	○ Title: You can customize the title of the pie chart. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
Visual Style	The supported visual styles are Pie and Ring.

- In the **Chart Type** section, configure the following parameters for the pie chart: **Show label**, **Radius ratio**, **Merge Data into Others Category**, and **Show Legend**.

Parameter	Description
Show label	The supported labels are **Dimension**, **measure**, and **percentage**. You can select one or more labels at the same time.
Radius ratio	You can set the radius ratio of the pie chart.

Parameter	Description
Merge Data into Others Category	If you select this option and specify the number of slices that you want to retain, the pie chart displays other slices as one part named "other."  **Note** The retained slices are arranged clockwise from the first quadrant based on their weights. For example, if the number of slices that you want to retain is set to 3, the top three slices are separately displayed and other slices are merged to form the fourth slice. The label name of the fourth slice is "other". The color of the fourth slice is the color of the data that accounts for the largest proportion in the slice.
Show Legend	The following figure shows the supported legend positions. 

- In the **Series Settings** section:
  - Set **Display Name** for the measure.



  - If **Number Formatting** is set to **Customer**, you can specify the display mode for the measure. The supported display modes are Number and Percentage. You can also set the Decimal parameter.

> **Note** Number Formatting is set to **AutoFit** by default.

Delete the pie chart

To delete the pie chart, follow these steps:

1. Click the icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.9. Cross tables

This topic introduces cross tables, including an overview and an application example. This topic also describes how to configure the style of a cross table and how to delete a cross table.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A cross table displays aggregates and sub-aggregates of columns and group columns. Aggregates include sums, averages, maximums, and minimums.

A cross table consists of rows and columns. Rows are horizontal and determined by dimensions such as province and product type. Columns are vertical and determined by measures such as order quantity and profit.

Precautions

Dimensions and measures are unlimited for each cross table.

Application example of a cross table

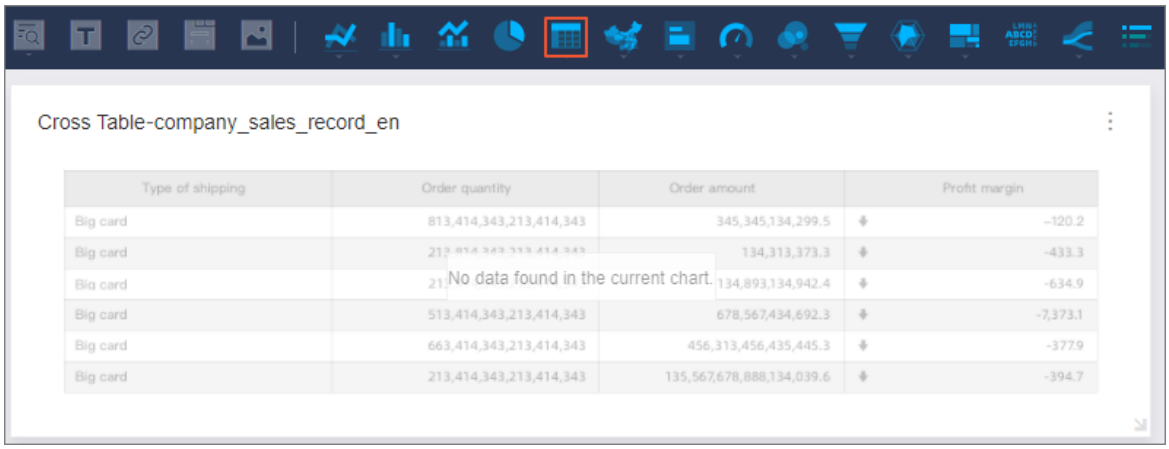
The following example compare the package designs, shipping costs, order quantities, and profits of different products in different provinces. The company_sales_record dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset, and click the icon in the Actions column.

   > **Note** If you are using Quick BI Enterprise Standard, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon.

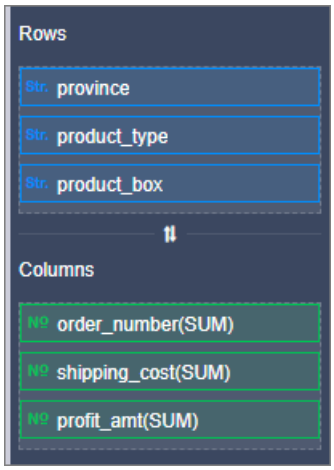
A cross table appears in the display area of the dashboard.



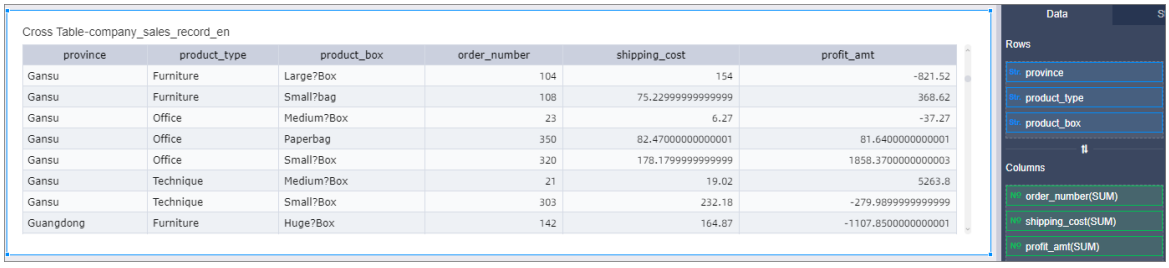
5. On the **Data** tab, select dimensions and measures.

   In the Dimensions list, find **province**, **product_type**, and **product_box** and add them to the Rows field in sequence. In the Measures list, find **order_number**, **shipping_cost**, and **profit_amt** and add them to the Columns field in sequence, as shown in the following figure.

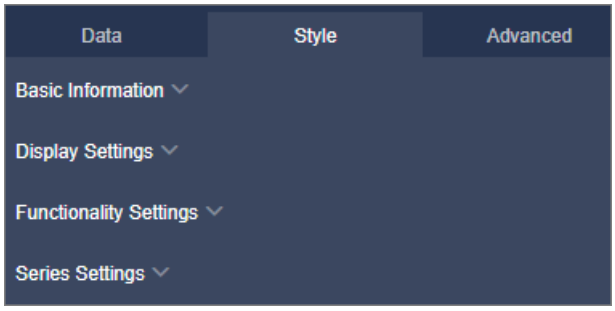
   > **Note** Make sure that you have converted the data type of the province dimension from String to Geo. For information about how to change the data type of a dimension, see Edit a GEO dimension.



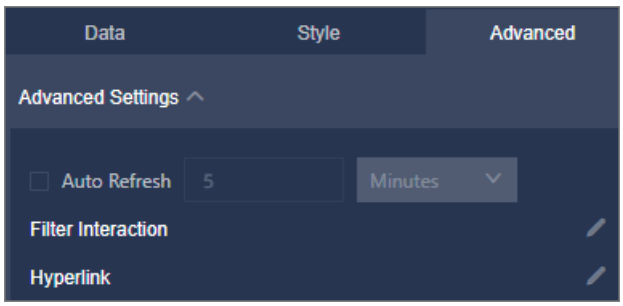
6. Click **Update**. The chart is updated.



7. On the **Style** tab, configure the chart title, layout, format, and rules.



8. On the **Advanced** tab, configure the auto refresh interval, filter interaction, and hyperlink.

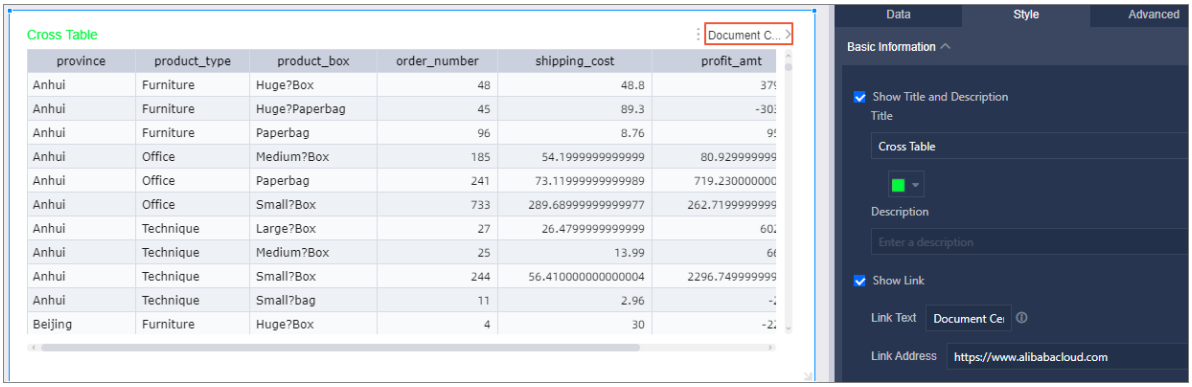


Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you configure filter interaction, when you click an area or field in a chart on the dashboard, other charts that are associated with this chart on the dashboard are changed accordingly. For more information, see Configure the filter interaction feature.
	Hyperlink	After you configure the hyperlink, if you click a field in a chart on the dashboard, a report that shows information about this field is displayed. You can select Parameter or External Link for this feature. If you select Parameter, configure global variables. For more information, see Configure the hyperlink feature.

9. Click **Save** in the upper-right corner. In the Save Dashboard dialog box, enter a name for the dashboard, specify a save path, and then click OK.

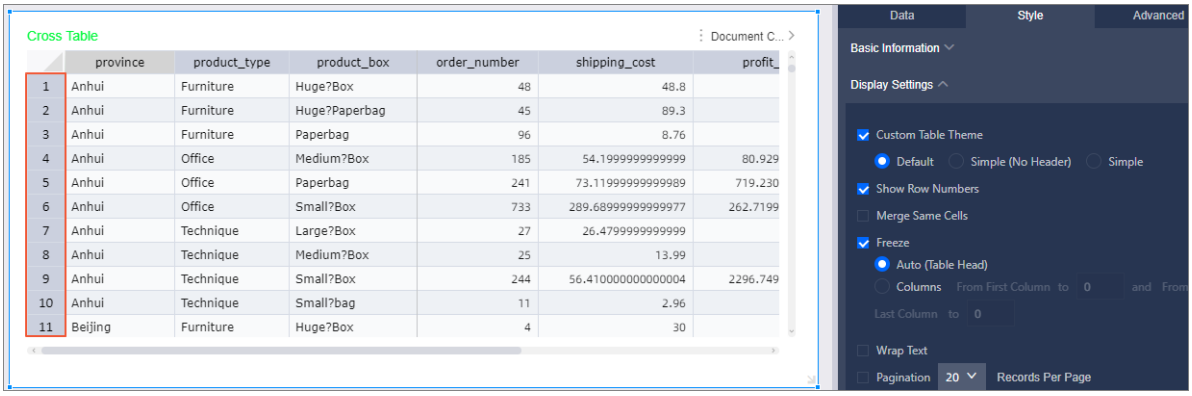
Configure parameters on the Style tab

- In the **Basic Information** section, configure whether to show the title and link.



Note If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Display Settings** section, you can configure the table theme, choose whether to show row numbers and whether to merge duplicate cells, configure freezing rules, and set pagination.

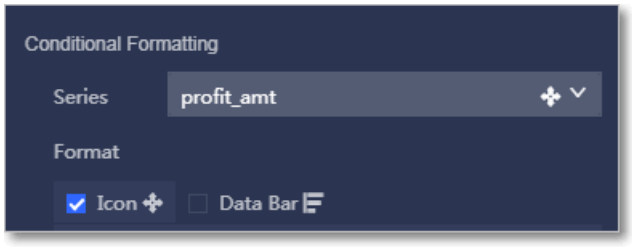


Note **Pagination** is unavailable if you select **Merge Same Cells**.

- In the **Functionality Settings** section, configure Conditional Formatting and specify the columns you want to display. The conditional format can be set to **Icon** or **Data Bar**.

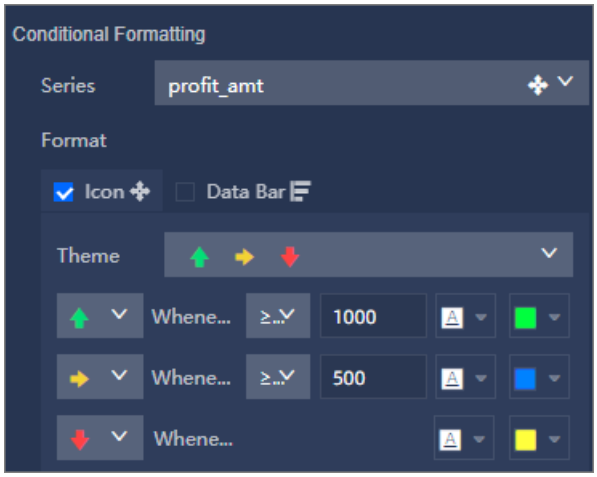
  Icon

  i. Select a field and set Format to **Icon**.

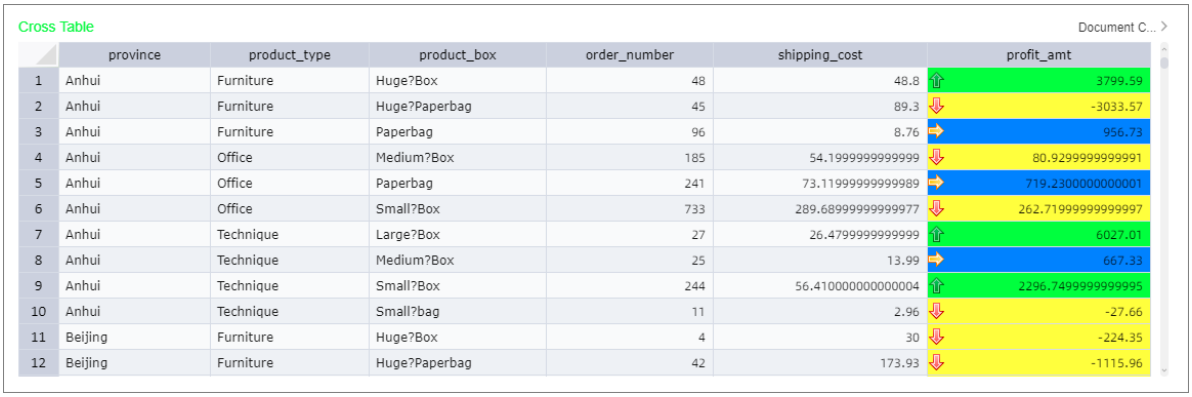
  

  ii. Click Icon, click the drop-down arrow, and then select an icon type.

iii. Specify values that you want to highlight, click the drop-down arrows next to the Font Color and Fill Color icons, and then specify the font and background for the values.



Use the **profit_amt** column as an example. The following rules are set for different data values. The updated table is shown in the following figure:



	province	product_type	product_box	order_number	shipping_cost	profit_amt
1	Anhui	Furniture	Huge?Box	48	48.8	3799.59
2	Anhui	Furniture	Huge?Paperbag	45	89.3	-3033.57
3	Anhui	Furniture	Paperbag	96	8.76	956.73
4	Anhui	Office	Medium?Box	185	54.1999999999999	80.9299999999991
5	Anhui	Office	Paperbag	241	73.1199999999989	719.2300000000001
6	Anhui	Office	Small?Box	733	289.689999999977	262.719999999997
7	Anhui	Technique	Large?Box	27	26.4799999999999	6027.01
8	Anhui	Technique	Medium?Box	25	13.99	667.33
9	Anhui	Technique	Small?Box	244	56.410000000000004	2296.7499999999995
10	Anhui	Technique	Small?bag	11	2.96	-27.66
11	Beijing	Furniture	Huge?Box	4	30	-224.35
12	Beijing	Furniture	Huge?Paperbag	42	173.93	-1115.96

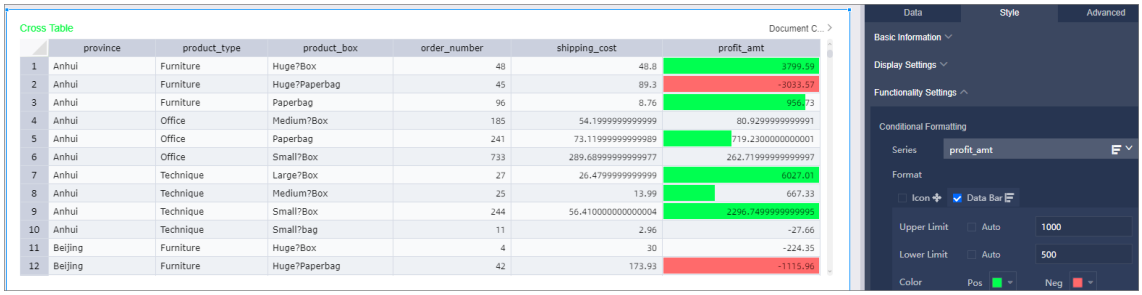
- If a data value is greater than 1000, the cell of the value is highlighted in green and a green upward arrow appears next to the value.
- If a data value falls on or between 500 and 1000, the cell of the value is highlighted in blue and an orange horizontal line appears next to the value.
- If a data value is less than 500, the cell of the value is highlighted in yellow and a red downward arrow appears next to the value.

Data bar

i. Select a field and set Format to **Data Bar**.

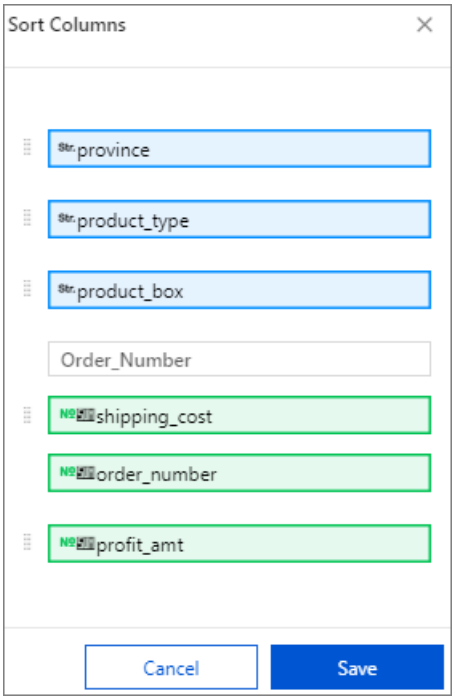
ii. Set the upper limit, lower limit, and fill color.

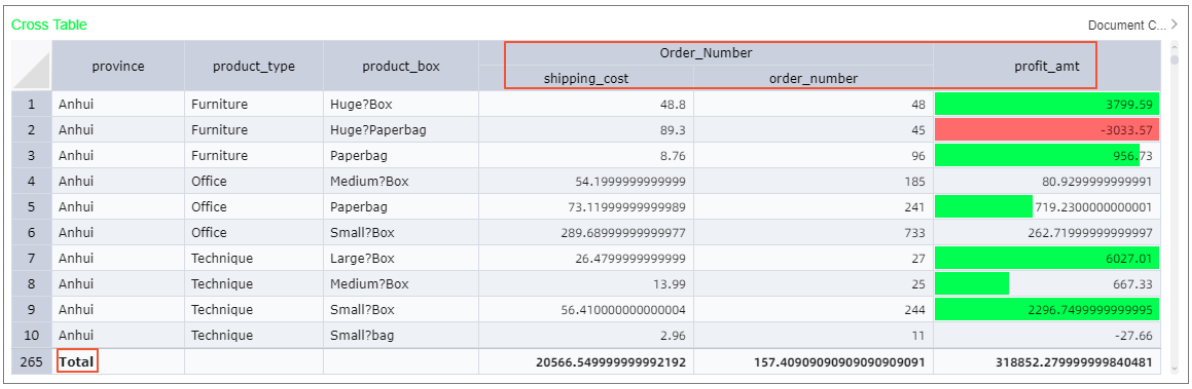
> **Note** Upper and lower limits can be configured automatically or manually.



Sort columns

You can sort columns or group columns. When you group columns, set the group names as shown in the following figure.

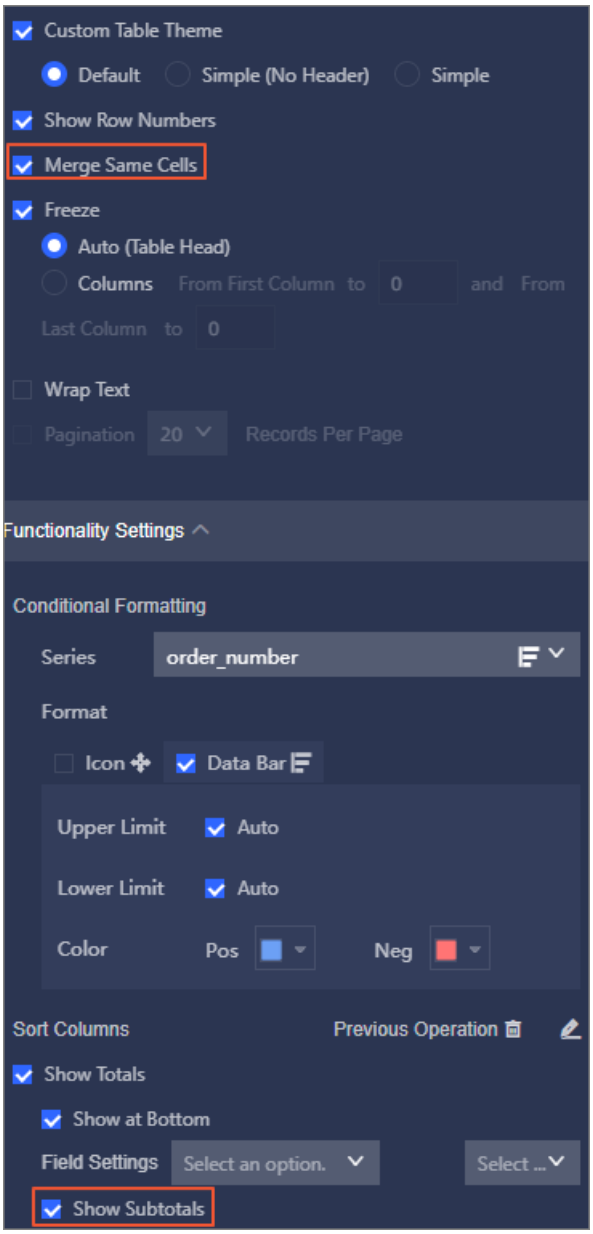




Show totals

After you select Show Totals, you can configure aggregates, sub-aggregates, and aggregate functions such as SUM, AVG, and MAX. You can also create an expression on which to perform the aggregation as shown in the following figure.

> **Note** Before you configure sub-aggregates, select **Merge Same Cells** in the **Display Settings** section.



- In the **Series Settings** section, set field names, alignment mode, and number format.

Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

Create a data download task

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Create Download**. The **Download Tasks** dialog box appears.

   You can check Start Time, Status, and Actions of tasks.

> **Note** Status includes Running, Successful, and Error. If an error occurs, handle it as prompted.

Data download task

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Create Download**. The **Download Tasks** dialog box appears.
   - Check Start Time, Status, and Actions of tasks.
   - Click the icon in the Actions column to obtain the historical data download tasks.

> **Note** The number of entries for offline downloads and previews cannot exceed one million.

2.3.10. Pivot table

This topic describes a pivot table, including its overview, application example, and configuration style as well as how to delete a pivot table.

> **Note** Pivot tables are available only in **Quick BI Enterprise Standard**.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A pivot table can be used to display the aggregates of variables and allows you to drill into data in a tree structure. One variable defines the values in the header row while the other variable defines the values in the header column. Aggregation methods include SUM, AVG, COUNT, MAX, and MIN.

Similar to a Cross tables, a pivot table consists of rows and columns. Rows are horizontal and determined by dimensions such as province and product type. Columns are vertical and determined by measures such as order quantity and profit.

> **Notice** For each pivot table, the numbers of dimensions and measures are unlimited.

Application example

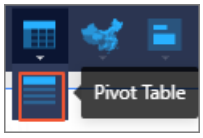
Scenario: Compare multiple types of products with different package designs, order quantities, and order prices across multiple provinces. The following example uses the *company_sales_record* dataset to describe the application of a pivot table.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.

2. In the Datasets page that appears, find the *company_sales_record* dataset and click in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. On the dashboard edit page, click . A pivot table appears in the display area of the dashboard.

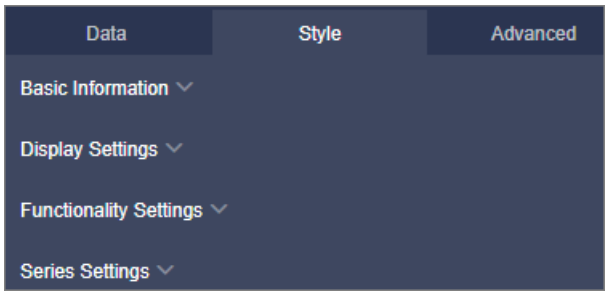


4. Click the **Data** tab and select dimensions and measures for the pivot table.

   In the Dimensions list, find and add province, product_type, and product_box to the Rows (Dim.) field, and find and add order_number and order_amt to the Values (Mea.) field, as shown in the following figure.

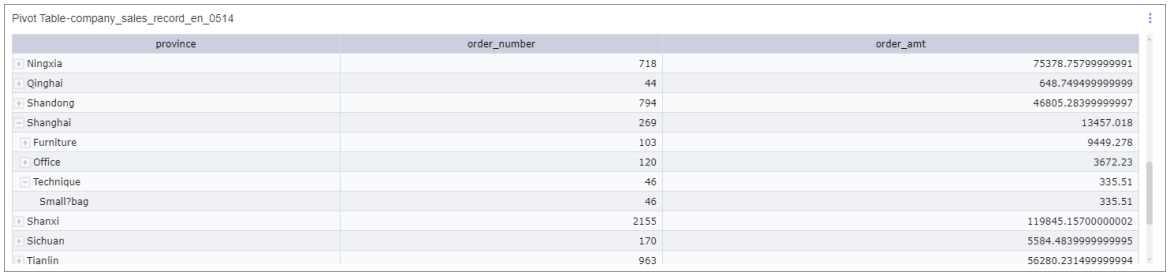
   > **Note** Ensure that you have converted the dimension type of province from String to Geo. For information about how to convert the dimension type, see Change field types.

5. Click **Update**. The chart is updated.
6. Click the **Style** tab to configure the basic information, display settings, and functionality settings of the chart.



7. Click the plus sign (+) next to the value to drill into the data in a tree structure.

   For example, when you click the plus sign (+) next to **Shanghai**, data about product types and product boxes is displayed in a tree structure.



province	order_number	order_amt
Ningxia	718	75378.75799999991
Qinghai	44	648.749499999999
Shandong	794	46805.28399999997
Shanghai	269	13457.018
Furniture	103	9449.278
Office	120	3672.23
Technique	46	335.51
Small?bag	46	335.51
Shanxi	2155	119845.15700000002
Sichuan	170	5584.4839999999995
Tianlin	963	56280.231499999994

8. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Parameters on the Style tab

- In the **Basic Information** section, set Show Title and Description and Show Link.

  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Display Settings** section, set Show Row Numbers, Freeze, and Wrap Text.

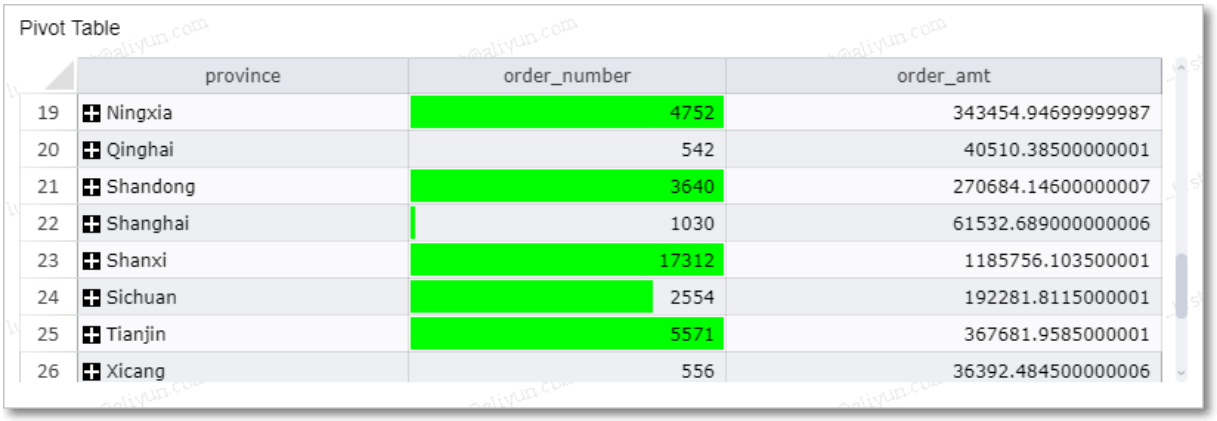
  In this example, Show Row Numbers is selected.

- In the **Functionality Settings** section, configure conditional formatting and whether to show totals. For more information, see Functionality settings.

  In this example, conditional formatting is enabled and Show Totals is selected.

- In the **Series Settings** section, specify Name, Description, Align, and Number Formatting.

The updated chart is shown as follows.



	province	order_number	order_amt
19	Ningxia	4752	343454.94699999987
20	Qinghai	542	40510.38500000001
21	Shandong	3640	270684.14600000007
22	Shanghai	1030	61532.689000000006
23	Shanxi	17312	1185756.103500001
24	Sichuan	2554	192281.8115000001
25	Tianjin	5571	367681.9585000001
26	Xicang	556	36392.484500000006

Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.11. Colored maps

This topic describes colored maps, including an overview and an application example. This topic also describes how to configure the style of a colored map and how to delete a colored map.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Similar to a bubble map, a colored map displays data in a single hue with different saturation levels.

A colored map consists of colorscales and geographic locations. Geographic locations are determined by a dimension, such as province. Colorscales are determined by measures, such as order price and profit.

> **Notice**
>
> You can specify only one dimension for geographic locations. The dimension type must be Geo. You can specify one to five measures for colorscales.

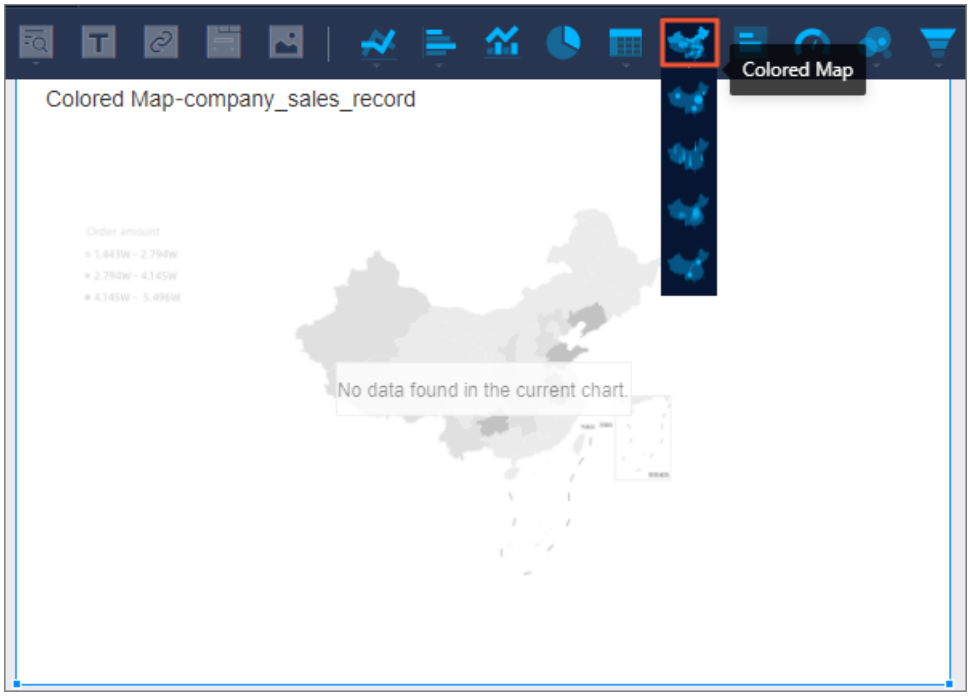
Application example

The following example demonstrates how to use a colored map to compare the shipping costs, order prices, and profits in different regions. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon. A colored map appears in the display section of the dashboard.



5. On the **Data** tab, select the required dimension and measures.
   - In the **Dimensions** list, find area and add it to the **Geo Location (Dim.)** field.
   - In the **Measures** list, find order_amt, profit_amt, and shipping_cost, and add them to the **Colorscale (Mea.)** field.

   > **Note** Make sure that you have converted the data type of the area field from String to Geo. For information about how to convert the data type of a dimension, see Edit a GEO dimension.

6. Click **Update**. The chart is updated.
7. On the **Style** tab, configure the title, display style, color, display range, and series settings of the colored map.
8. On the **Advanced** tab, configure the parameters described in the following table.

Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.

Section	Parameter	Description
	Hyperlink	After you configure a hyperlink for a field in a chart and click the field, the linked report is displayed. You can select Parameter or External Link for this feature. If you select Parameter, you must configure global variables. For more information, see Configure the hyperlink feature.

9. Click **Save** in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard, and click OK.

Configure the parameters on the Style tab

- In the **Basic Information** section, configure Show Title and Description, Show Link, and Style Template.

  > **Note** If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

  You can set Style Template to configure the map color. Three templates are provided.
- In the **Chart Style** section, configure Display Place Names, Map Color, and Legend Configuration.
  - Display Place Names: You can select Smart or All. If a large number of place names exist, we recommended that you select Smart.

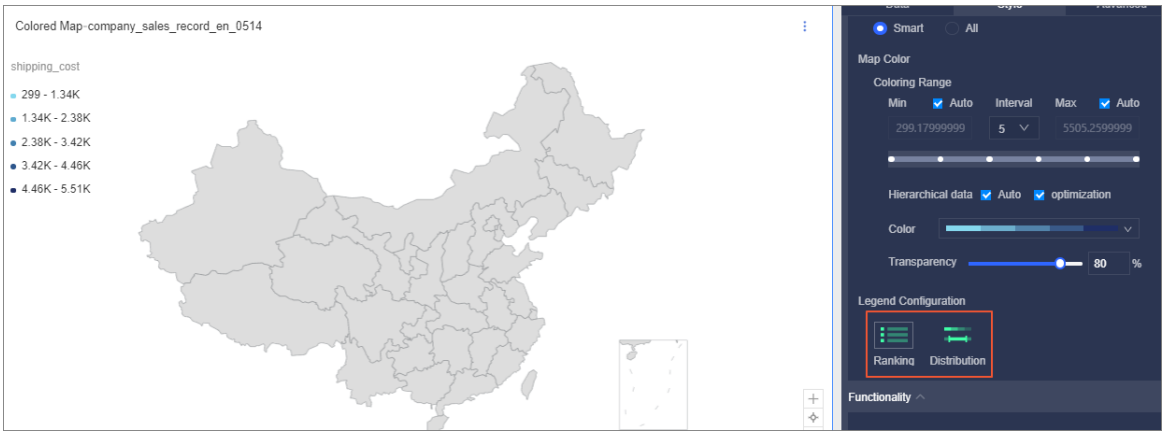
    Smart display mode

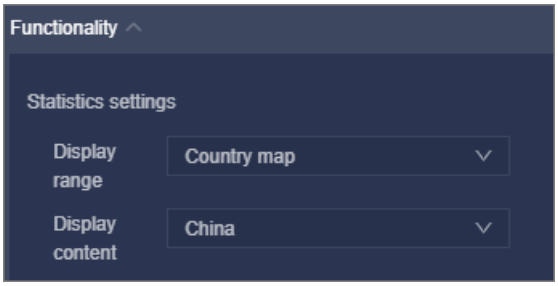
    All display mode

    
  - Map Color: You can configure the color range, transparency, and colors for maximum and minimum values.

    
  - Legend Configuration: You can select Ranking or Distribution.

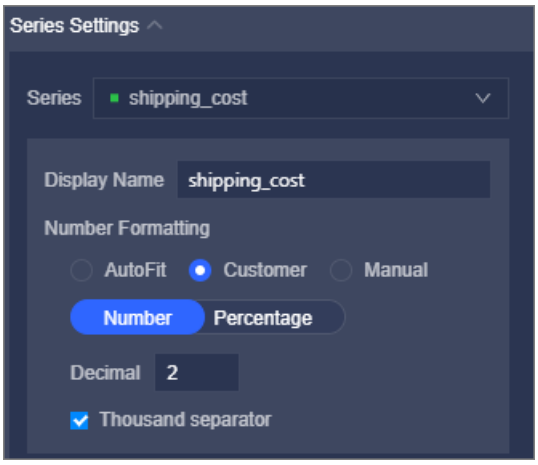
    

- In the **Functionality** section, configure **Statistics Settings**, which includes **Display Range** and **Display Content**.



Note If you select Country Map for Display Range, six countries appear in the Display Content drop-down list: China, Singapore, Germany, Mexico, Japan, and United States.

- In the **Series Settings** section, configure Display Name and Number Formatting for a measure.



Delete a chart

To delete a chart, perform the following steps:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.12. Bubble maps

This topic introduces bubble maps, including an overview and an application example. This topic also describes how to configure the style of a bubble map and how to delete a bubble map.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A bubble map uses a map profile as its background and shows the distribution of data metrics in a country or region by using bubbles of different sizes. For example, you can use a bubble map to display tourist arrivals of different destinations or the average incomes in different regions.

A bubble map consists of geographic locations and bubbles of different sizes.

- Geographic locations are determined by a dimension, such as province.
- The bubble size is determined by a measure, such as the shipping cost or order quantity.

Notice

Application example

The following example describes how to use a bubble map to compare the order quantities and profits in different provinces. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   Note If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. On the dashboard edit page, click the icon.

5. Click the **Data** tab and select the required measures and dimension.

   - In the **Dimensions** list, find **province** and add it to the **Geo Location (Dim.)** field.
   - In the **Measures** list, find **order_number** and add it to the **Bubble Size (Mea.)** field.
   - In the **Measures** list, find **profit_amt** and add it to the **Bubble Color/Measures** field.

> **Note** Make sure that you have converted the data type of the province dimension from String to Geo. For information about how to change the data type of a dimension, see Change field types.

6. Click **Update**. The chart is updated.
7. On the **Style** tab, configure the title and display style of the bubble chart, the bubble size and color, the display range, and the series settings.

   For more information, see Configure parameters on the Style tab.
8. On the **Advanced** tab, configure the following parameters.

Section	Parameter	Description
Advanced Settings	Auto Refresh	If you select this option, the system refreshes the chart at the specified interval. For example, if you select this option and select **5Minutes** from the drop-down list, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you configure filter interaction, if you click an area or field in a chart, charts that are associated with this chart in the same dashboard accordingly change. For more information, see Configure the filter interaction feature.
	Hyperlink	After you configure the hyperlink, if you click a field in a chart on the dashboard, a report that shows information about this field is displayed. You can select **Parameter** and **External Link** for this feature. Global parameters are used if you select Parameter. For more information, see Configure the hyperlink feature.

9. Click **Save** in the upper-right corner. In the Save Dashboard dialog box, enter a name for the dashboard, specify the save path, and then click OK.

Configure parameters on the Style tab

- In the **Basic Information** section, configure **Show Title and Description**, **Show Link**, and **Style Template**.

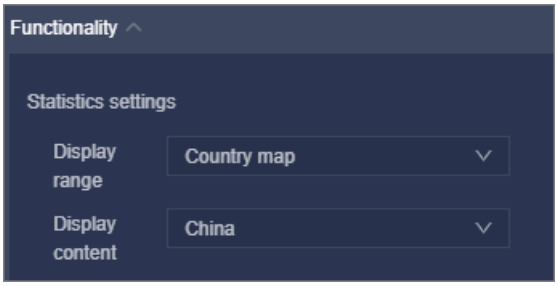
  > **Note** If you want users to be redirected to a report or an external page, select **Show Link** and specify **Link Text** and **Link Address**. If you click a field in the chart, you are redirected to the linked report or an external link.

  You can set **Style Template** to configure the map color. Three templates are provided.
- In the **Chart Style** section, configure **Display Place Names**, **Map Configuration**, **Shape**, **Bubble Color**, **Bubble Size**, and **Legend Configuration**.
  - Display Place Names: You can select **Smart** or **All**. We recommend that you select Smart if a large number of place names exists.
  - Under Map Configuration, you can configure Color, **Transparency** and **Border**.

- Supported bubble shapes are shown in the following figure.

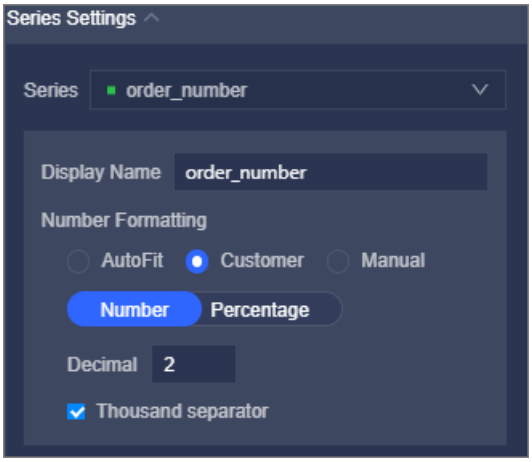
- You can configure **Color**, **Transparency**, and **colors for maximum and minimum values**.
- Bubble Size: You can specify the bubble size.
- You can select **Ranking** or **Distribution** for Legend Configuration.

- In the **Functionality** section, configure **Statistics Settings**, which includes **Display Range** and **Display Content**.



> **Note** If you select Country Map for Display Range, six countries appear in the Display Content drop-down list: China, Singapore, Germany, Mexico, Japan, and United States.

- In the **Series Settings** section, configure **Alias** and **Data Display Format** for a measure.



Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.13. Gauge

This topic introduces gauges, including an overview and an application example. This topic also describes how to configure the style of a gauge and how to delete a gauge.

Prerequisites

- You have logged on to the Quick BI console.

- You are familiar with dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Similar to a dashboard on a car, a gauge shows the value range of a specific metric. You can view the progress of a current task or determine whether a metric exceeds its value range in a gauge. For example, you can use a gauge to obtain the inventory status of a commodity, so you can replenish the inventory in a timely manner.

The pointer angle of a gauge is determined by a measure, such as the discount or profit.

> **Notice** You can specify only one measure for the pointer angle.

Application example

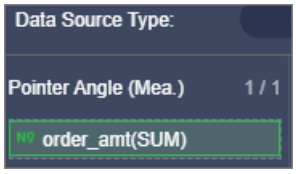
Scenario: Display the order price. The following example uses the *company_sales_record* dataset to describe the application of a gauge.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

3. Click the icon. A gauge appears in the display area of the dashboard.
4. Click the **Data** tab and select the required measure.

   In the Measures list, find and add order_amt to the Pointer Angle (Mea.) field.

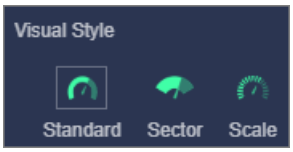
   

5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure parameters in the Basic Information, Functionality, Style Settings, and Series Settings sections.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

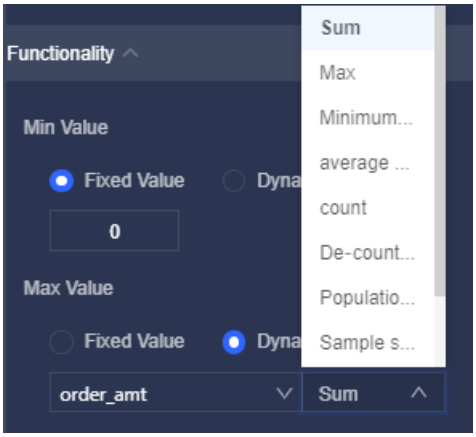
Configure parameters on the Style tab

- In the **Basic Information** section, specify Show Title and Description, Show Link, and Visual Style. Quick BI supports three styles: Standard, Sector, and Scale.

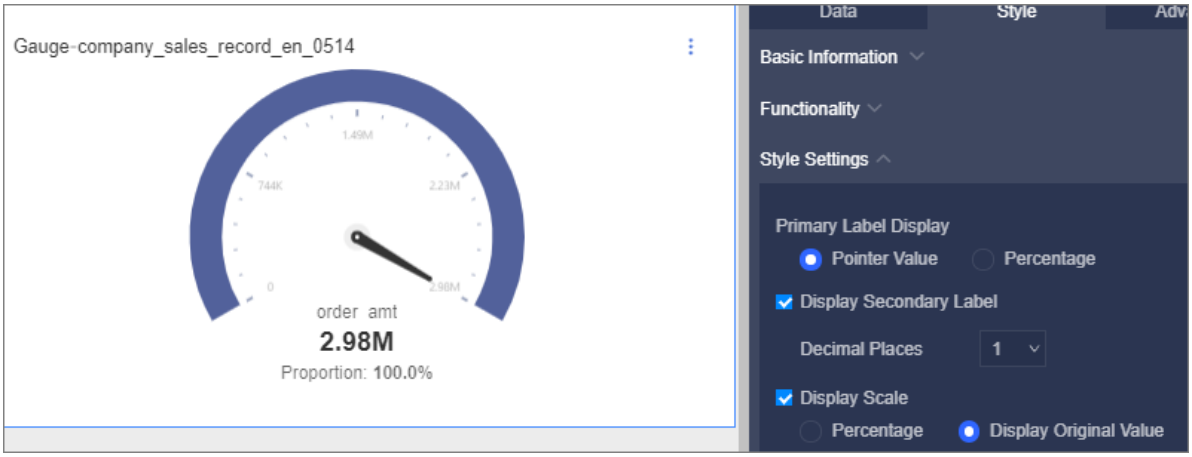
> **Note** If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.



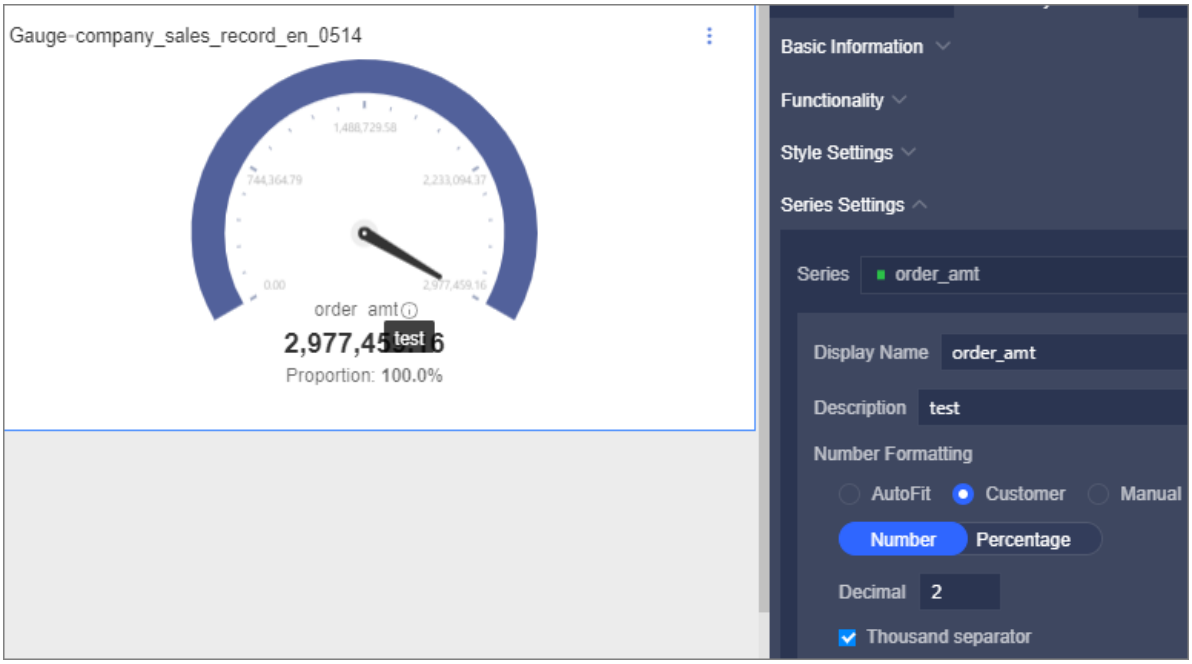
- In the **Functionality** section, specify the minimum and maximum values for the metric in the gauge. You can specify fixed or dynamic minimum and maximum values. The dynamic values are calculated by using aggregate functions.



- In the **Style Settings** section, specify the label display mode and ranges for the gauge. You can configure the number of ranges, step for defining ranges, and range colors in the Display Ranges area.



- In the **Series Settings** section, specify Display Name, Description, and Number Formatting for the measure.



Delete a chart

Perform the following steps to delete a chart:

1. Click the icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.14. Radar charts

This topic describes the overview, examples, and deletion of a radar chart.

Make sure that you have read Dashboard overview and Dashboard basic operations before reading this topic. For more information about how to create a dataset, see Create a dataset.

Overview

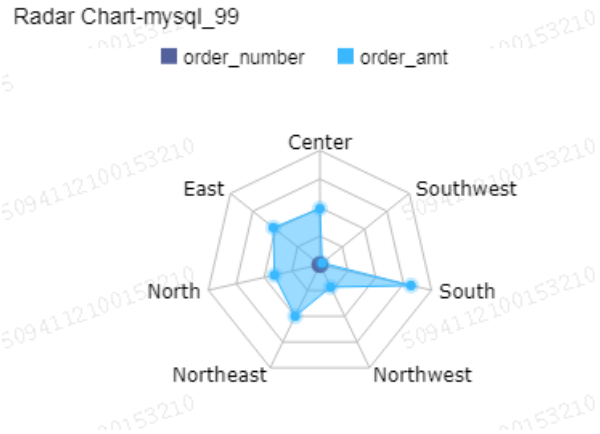
Radar charts display numbers and ratios obtained from data analysis. You can view the changing trends of indicators by using radar charts. For example, sales of all areas are represented by numbers and ratios in radar charts.

A radar chart is based on labels and lengths. Labels are based on dimensions such as product types. Lengths are based on measures such as shipping costs.

Notes

You can select a minimum of one and a maximum of two dimensions for the labels of a radar chart. The number of dimension values must be greater than or equal to three and less than or equal to 12. You need to select a minimum of one dimension for the length.

Samples



Examples

The following example uses the company_sales_record dataset.

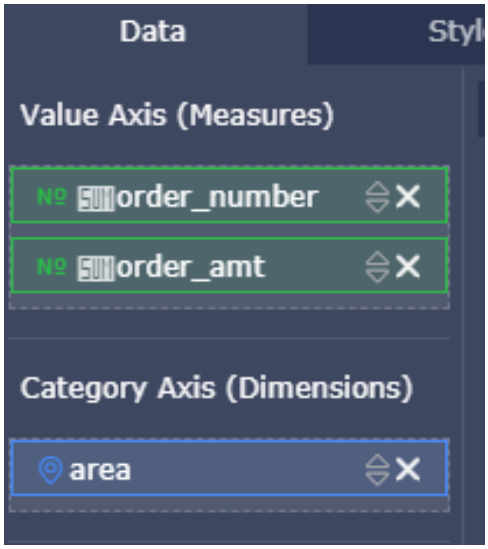
1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select the company_sales_record dataset and click the **Create Dashboard** icon in the Actions column.

   > **Note** If you use **Quick BI Enterprise Standard**, you need to select **Standard** or **Full Screen** as the dashboard display mode. The following example uses **Standard**.

4. Click the Radar Chart icon and an empty chart appears on the dashboard.
5. On the **Data** tab page, select dimensions and measures.

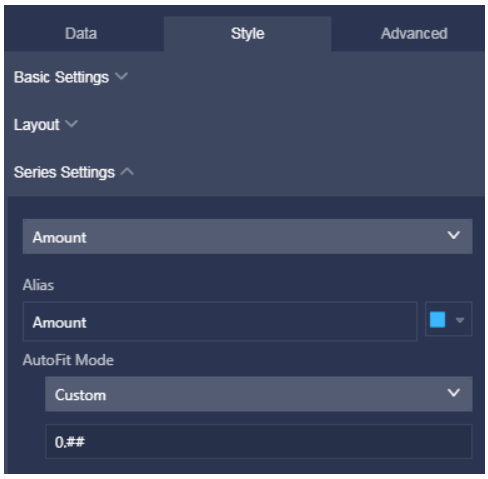
   In the Dimensions list, locate the **area** field and add it to Labels (Dimensions). In the Measures list, locate the **order_number** and **order_amt** fields and add them sequentially to Length (Measures).

   > **Note** Make sure that you have converted the dimension type of the area field from String to Geo.

6. Click **Update** and the chart is updated.

7. On the **Style** tab page, you can configure the title name, layout, and legend.



8. Click **Save** to save the dashboard.

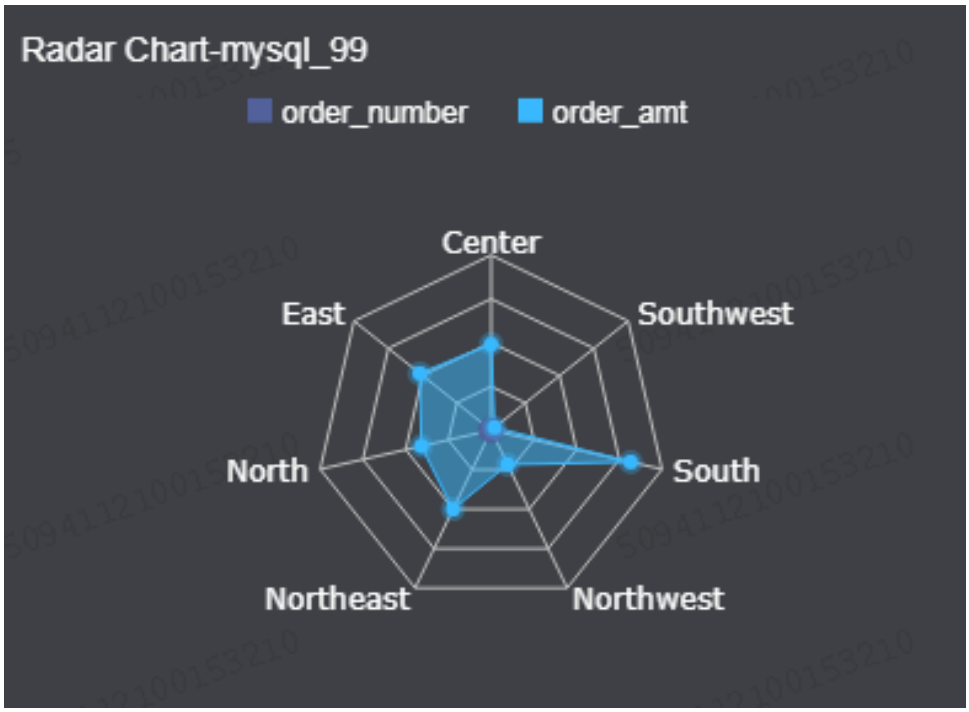
Configure the style

- In the Basic Information section, you can configure the title name, hyperlink, and background color. This example uses **Domestic data** as the title name and uses **Dark** as the background color.

  > **Note** For jumping to a report or an external page, select **Show Hyperlink** and enter a name and an address.

- In the Layout section, you can configure the legend position and whether to show tooltips, areas, and labels.
- In the Series Settings section, you can configure aliases for dimensions, data formats, and numbers of decimal places. This example uses red as the line color for the **order_number** field.

Click Update and the chart is updated as shown in the following figure.



Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.15. Facet scatter chart

This topic describes a facet scatter chart, including its overview, application example, and configuration style, as well as how to delete a facet scatter chart.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- If you want to edit a dataset or create a dataset, see Create a dataset.

Overview

A facet scatter chart shows data correlation and distribution.

A facet scatter chart consists of one or more x-axes and a y-axis. You can specify a maximum of three measures for the x-axes, only one measure for the y-axis, and only one dimension, such as product type, for the color legend.

> **Notice** The Dimensions list can have a maximum of 1,000 values.

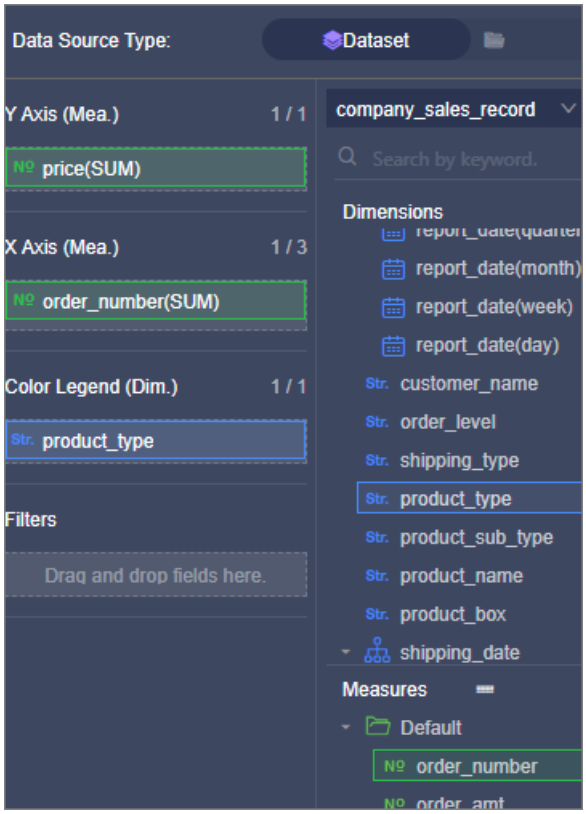
Application example

Scenario: Compare the unit prices and order quantities of different products. The following example uses the *company_sales_record* dataset to describe the application of a facet scatter chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click  . A facet scatter chart appears in the display area of the dashboard.
4. Click the **Data** tab and select the required dimensions and measures.



5. Click **Update**. The chart is updated.
6. Click the **style** tab and configure the basic information, design, and layout of the chart.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Parameters on the Style tab

- In the **Basic Information** section, specify Show Title and Description, Show Link, and Custom Background.

  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Design** section, you can select Axis Title to display axis titles.

  In this example, Axis Title is selected.

- In the **Layout** section, specify Show Legend and Show Tooltip.

Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.16. Bubble chart

This topic introduces bubble charts, including an overview and an application example. This topic also describes how to configure the style of a bubble chart and how to delete a bubble chart.

Prerequisites

- You have logged on to the Quick BI console.
- A dashboard is created. For more information, see Dashboard overview.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A bubble chart is similar to a scatter chart. The only difference is that the bubble chart allows you to specify a measure to indicate the bubble size.

A bubble chart consists of an x-axis, a y-axis, a category, bubble colors, and bubble sizes. The x-axis is determined by a dimension or measure. The y-axis is determined by a measure. The category is determined by a dimension. Bubble colors are determined by a dimension or measure. Bubble sizes are determined by a measure.

> Notice
> - You can specify only one dimension or measure for the x-axis and only one measure for the y-axis.
> - You can specify the same dimension or measure for bubble colors as that for the x-axis, y-axis, or category.
> - You can specify the same measure for sizes as that for the x-axis or y-axis.

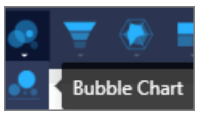
Application example

Scenario: Compare the unit prices and order quantities of different products in different regions. The following example uses the *company_sales_record* dataset to describe the application of a bubble chart.

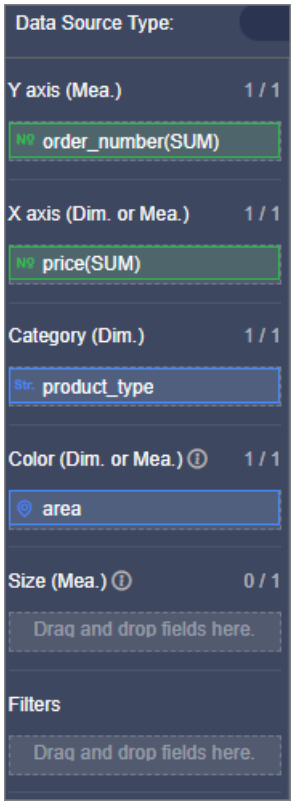
1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column.

   > Note If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

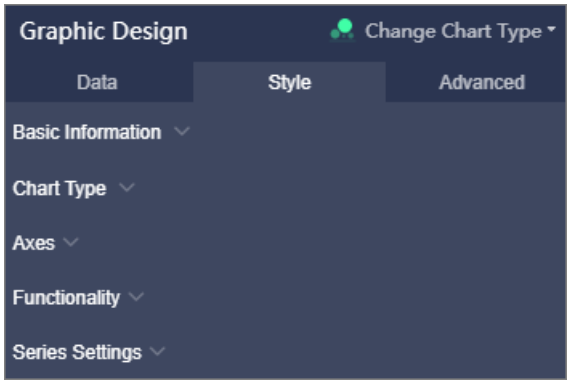
3. Click the icon. A bubble chart appears in the display area of the dashboard.

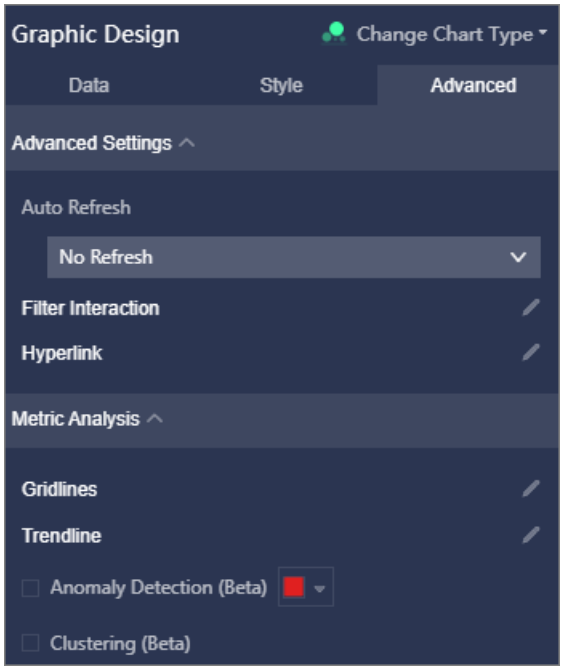
4. Click the **Data** tab, select the required dimensions and measures, and add them to the relevant fields.



5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure parameters in the Basic Information, Chart Style, Axes, Functionality, and Series Settings sections.



7. Click the **Advanced** tab and configure parameters in the **Advanced Settings** and **Metric Analysis** sections. You can configure the trendline and cluster analysis only if a measure is specified for the x-axis. For more information, see Drilling, filter interaction, and hyperlink and Metric analysis.



> **Note** After Clustering is selected on the Advanced tab, the value of the Color (Dim. or Mea.) field becomes Clustering, and similar measure values are displayed as a cluster.

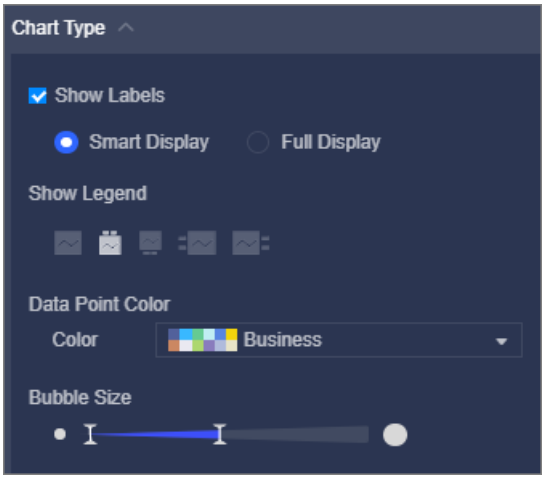
8. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

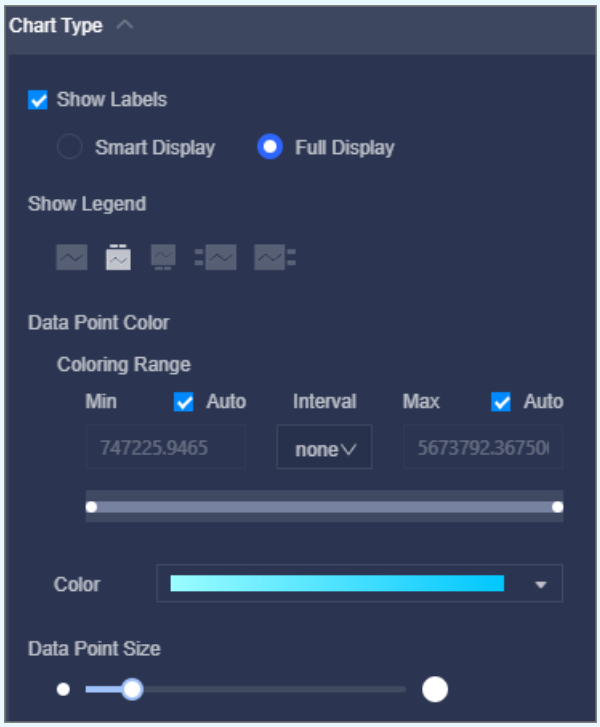
- In the **Basic Information** section, configure Show Title and Description, Show Link, and Custom Background.

  > **Note** If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

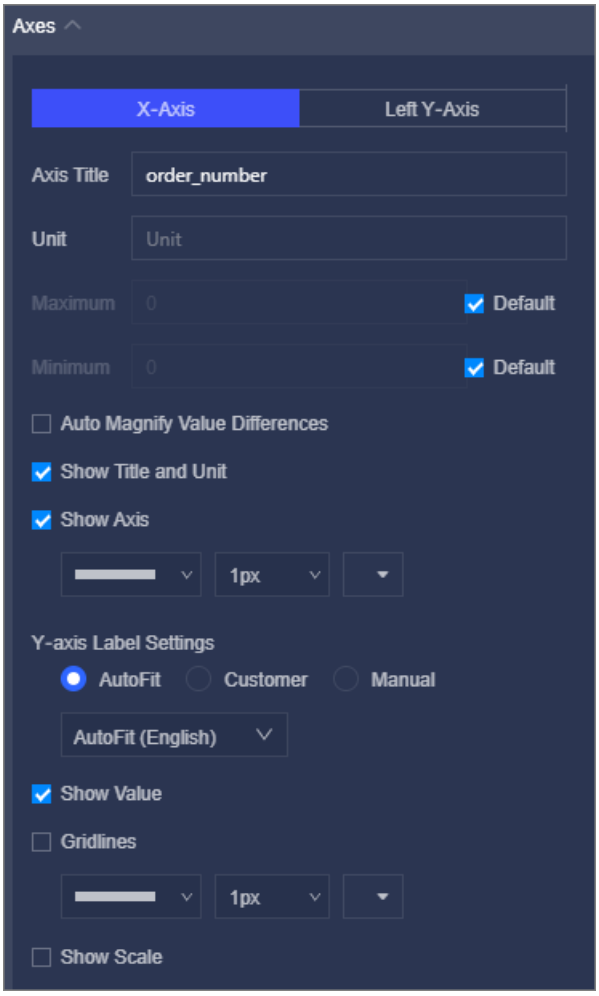
- In the **Chart Type** section, specify Show Labels, Show Legend, Data Point Color, and Bubble Size.



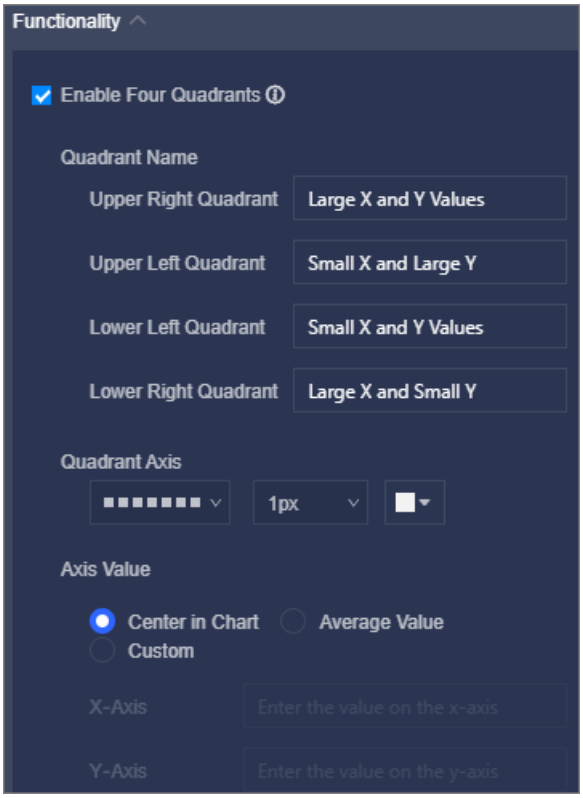
Note The Data Point Color field is available only when the Color (Dim. or Mea.) field is specified. If the Color (Dim. or Mea.) field is set to a dimension, you can select a hue for the dimension or specify a color for each value of the dimension. If the Color (Dim. or Mea.) field is set to a measure, you must specify the value range and the number of intervals, and then specify a color for each interval.



- In the **Axes** section, configure the basic information about the x-axis and the y-axis.



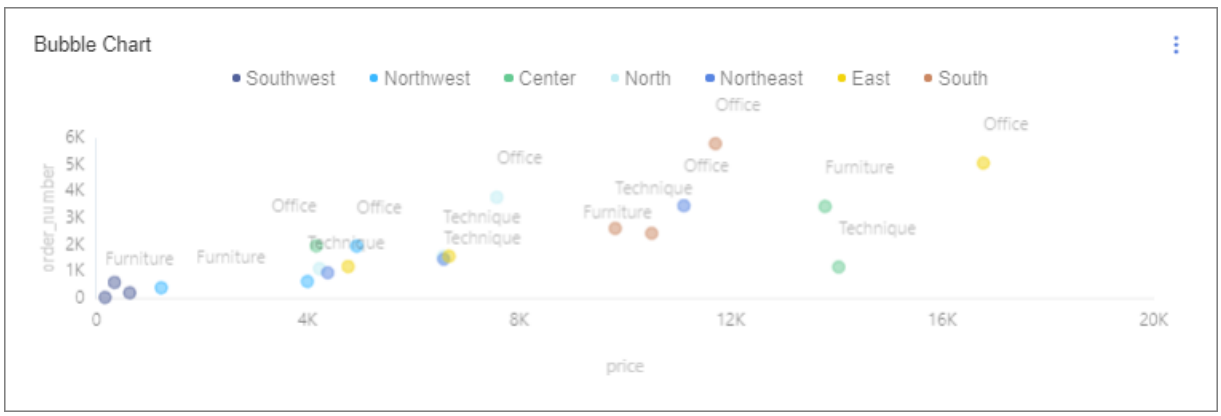
- In the **Functionality** section, enable the four-quadrant feature.



> **Note** This feature can be enabled only when measures are specified for the x and y axes.

- In the **Series Settings** section, specify Display Name and Number Formatting for each measure. If Number Formatting is set to Customer, specify the data format (Number of Percentage) and set Decimal.

Click Update. The following figure shows the updated bubble chart.



Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.17. Scatter chart

This topic introduces scatter charts, including an overview and an application example. This topic also describes how to configure the style of a scatter chart and how to delete a scatter chart.

Prerequisites

- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Scatter charts show data correlation and distribution. A scatter chart takes one variable as the x-axis and the other variable as the y-axis, and represents the general trend of the dependent variable (y) that changes in respect to the independent variable (x). Scatter charts can also show data distribution from category and color.

A scatter chart consists of a y-axis, an x-axis, a category, and colors. The y-axis is determined by a measure. The x-axis is determined by a dimension or measure. The category is determined by a dimension. Colors are determined by a dimension or measure.

> Notice
> - You can specify only one dimension or measure for the y-axis, x-axis, category, and colors.
> - You can specify the same dimension or measure for colors as that for the x-axis, y-axis, or category.

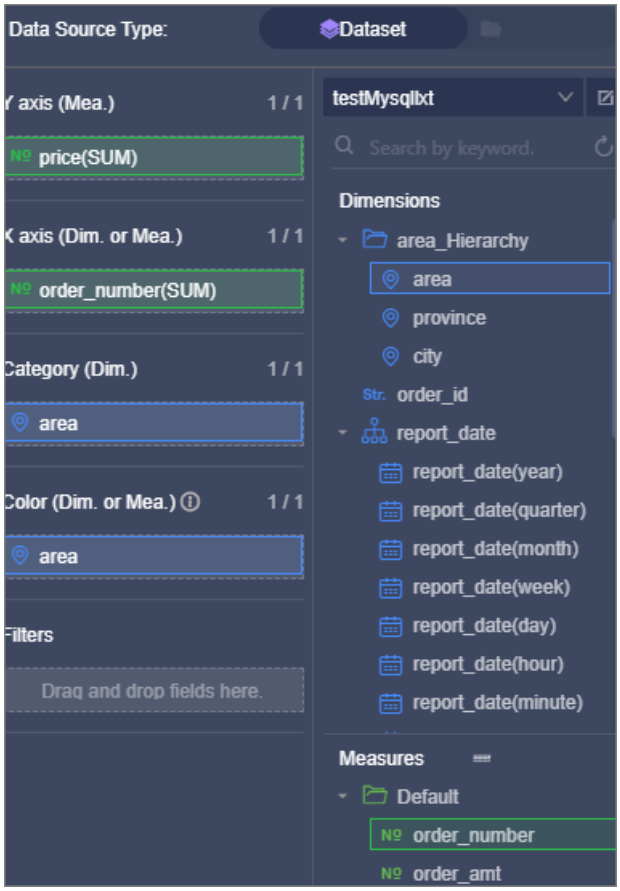
Application example

Scenario: Compare the unit prices and order quantities of different products in different regions. The following example uses the *company_sales_record* dataset to describe the application of a scatter chart.

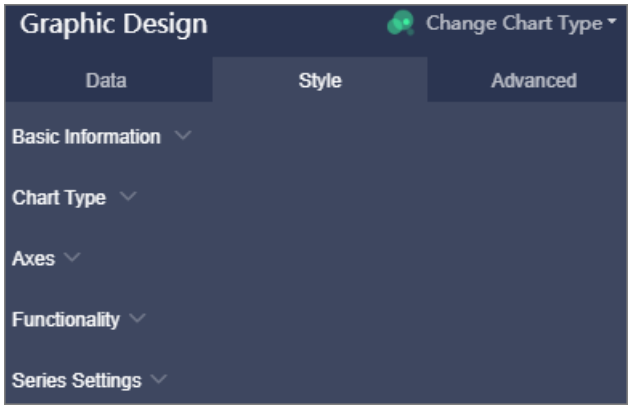
1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page that appears, find the *company_sales_record* dataset and click the icon in the Actions column.

   > Note If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

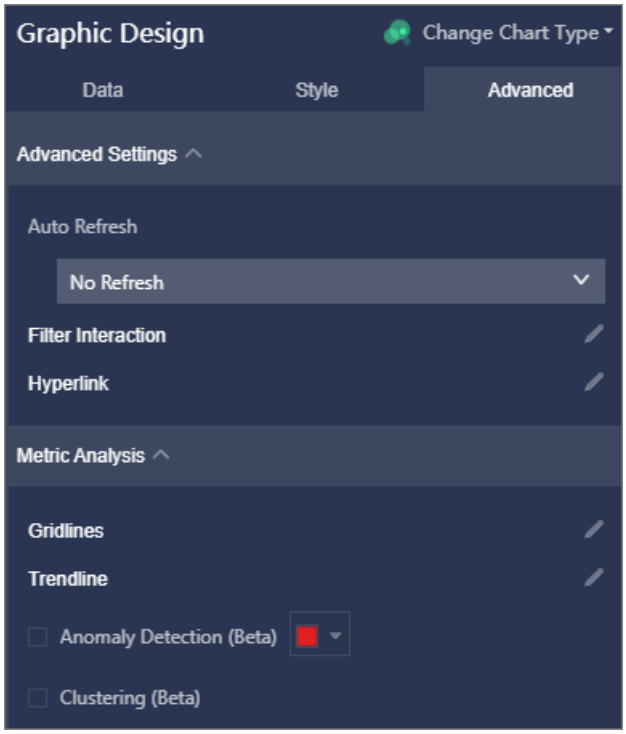
4. Click the  icon. A scatter chart appears in the display area of the dashboard.
5. Click the **Data** tab and select the required measures and dimensions.



6. Click **Update**. The chart is updated.
7. Click the **Style** tab, and configure parameters in the Basic Information, Chart Type, Axes, Functionality, and Series Settings sections.



8. Click the **Advanced** tab, and configure parameters in the **Advanced Settings** and **Metric Analysis** sections. The Trendline and Clustering functions are available only when a measure is specified for the x-axis.



For more information, see Drilling, filter interaction, and hyperlink and Metric analysis.

> **Note** After the Clustering function is enabled, the value of the Color field changes to Clustering, and data points with similar x values and y values are displayed in a cluster.

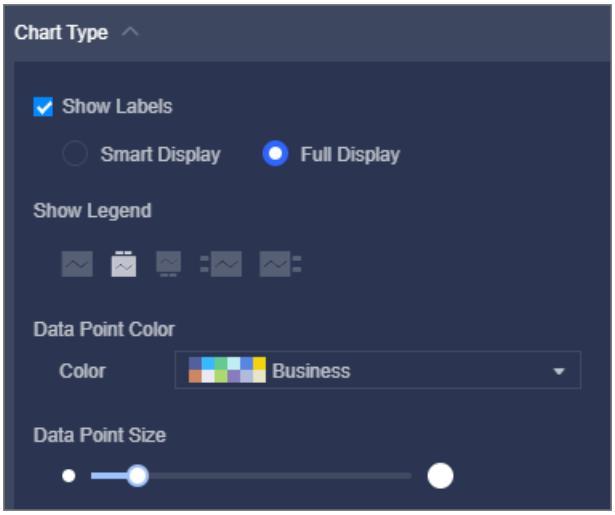
9. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

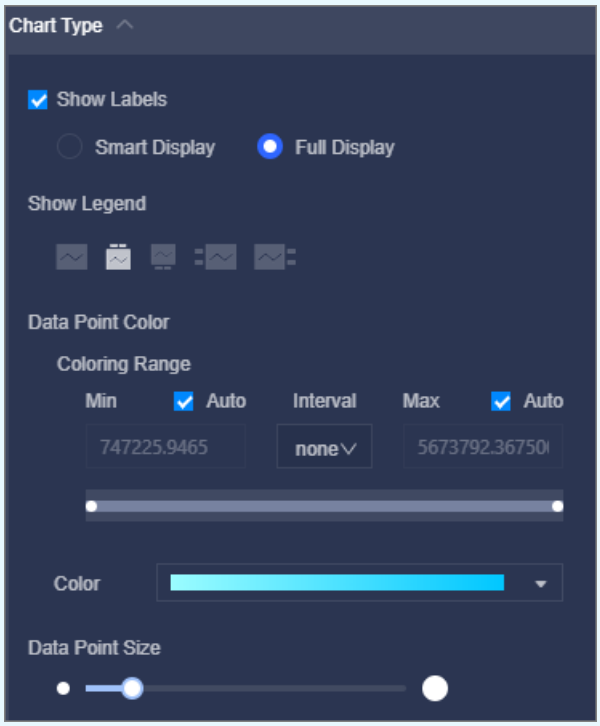
- In the **Basic Information** section, configure Show Title and Description, Show Link, and Custom Background.

  > **Note** If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

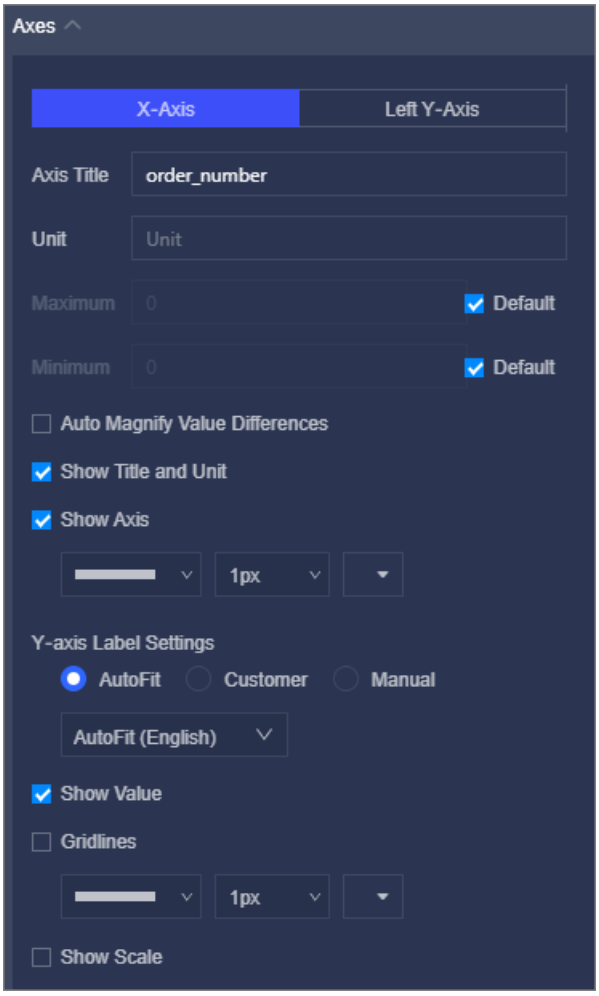
- In the **Chart Type** section, configure Show Labels, Show Legend, and Data Point Color.



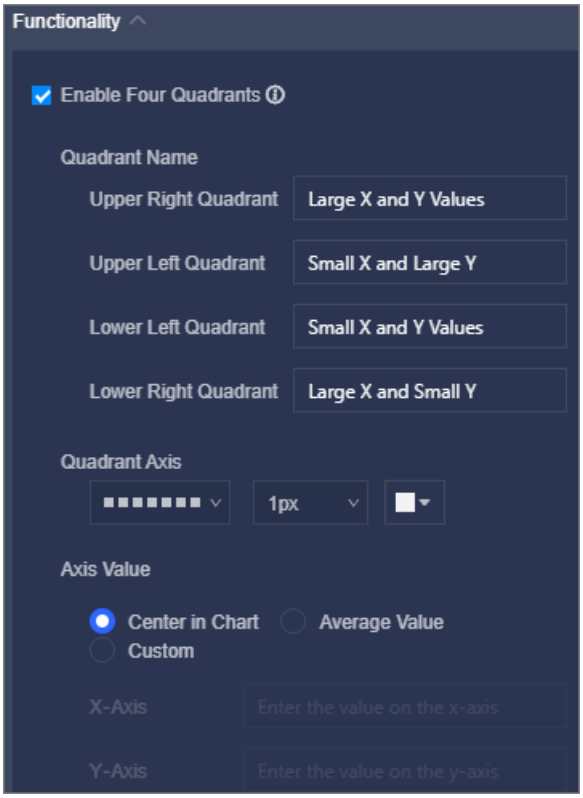
Note The colors of data points vary based on the data type of the Color field. If the Color field is not specified, the Data Point Color field does not appear. When the Color field is set to a dimension, you can select a color palette or specify a color for each field. When the Color field is set to a measure, you must specify the value range of the measure and the number of intervals, and then specify colors for the intervals.



- In the **Axes** section, configure basic information about the x-axis and y-axis.



- In the **Functionality** section, enable the four-quadrant function as required.



> **Note** This function can be enabled only when measures are specified for the x-axis and y-axis.

- In the **Series Settings** section, configure Display Name and Number Formatting for each measure. When Number Formatting is set to Customer, configure the data format (Number or Percentage) and the number of decimal places.

The following figure shows an updated scatter chart.

Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.18. Decomposition trees

Decomposition trees visualize the percentage of each part to the total in multiple dimensions. You can use a decomposition tree to split the values of a measure into multiple groups based on dimensions and view the data in each dimension. The data in each dimension is automatically sorted. This topic introduces decomposition trees, including an overview and an application example. This topic also describes how to configure the style of a decomposition tree and how to delete a decomposition tree.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

Decomposition trees can be used in many scenarios, such as channel analysis and contribution analysis. You can use a decomposition tree to analyze a measure and identify the key factors that affect the measure.

A decomposition tree consists of an analysis object and splitting bases. The analysis object is determined by a measure, such as the sales volume or order quantity. Splitting bases are determined by dimensions, such as area, province, city, and product name.

> **Notice** You can specify only one measure for the analysis object. You can specify one to five dimensions for the splitting bases.
>
> A decomposition tree can visualize data in up to 5 columns and 50 rows.

Application example

The following example describes how to use a decomposition tree. The *company_sales_record* dataset is used in the example.

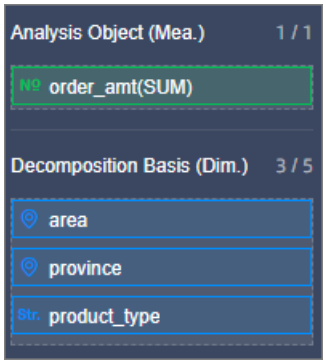
1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. On the dashboard edit page, click the icon.

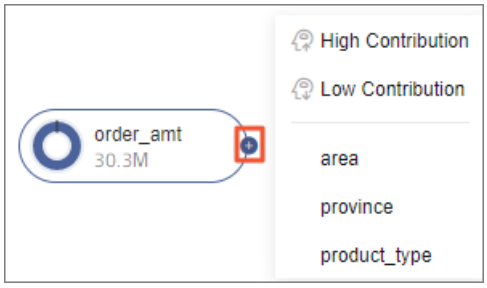
A decomposition tree appears in the dashboard display section.

5. On the **Data** tab, select the required measure and dimensions.
   - In the Dimensions list, find area, province, and product_type, and add them to the **Decomposition Basis (Dim.)** field.
   - In the Measures list, find order_amt and add it to the **Analysis Object (Mea.)** field.



> **Note** Make sure that you have converted the data type of area and province from String to Geo. For information about how to change the data type of a dimension, see Change field types.

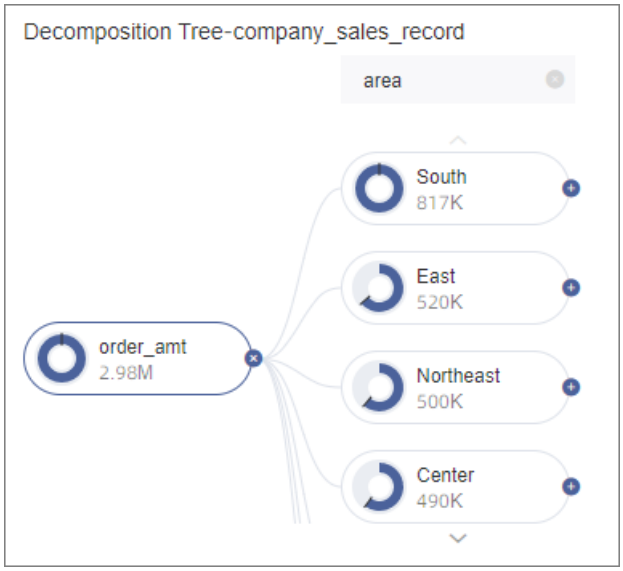
6. Click **Update**. The chart is updated.
7. Specify the dimensions to split the values of the measure.
   i. In the decomposition tree, click the icon next to the measure.



ii. Select a split method.

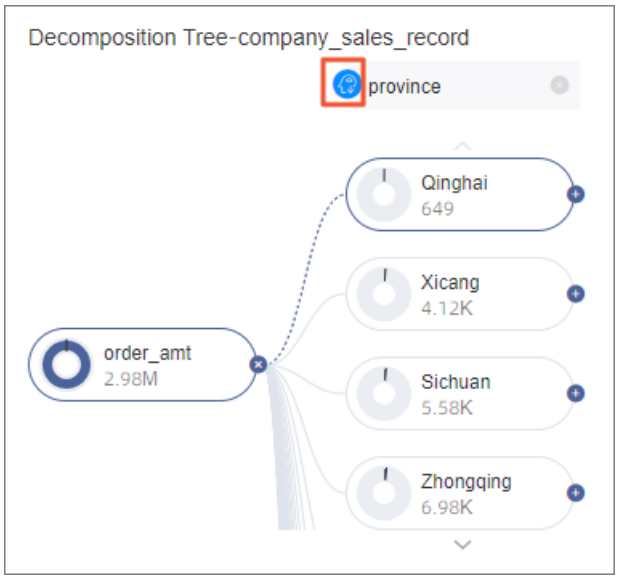
- Custom splitting: The options for custom splitting are dimensions that you added to the **Decomposition Basis (Dim.)** field. You can determine the dimension by which you want to split data first based on your business requirements. In this example, the values of the measure are split by area, province, and product_type in sequence.

  The following figure shows custom splitting.



- Smart splitting: The supported options are **High Contribution** and **Low Contribution**. They are artificial intelligence (AI) options. Data is split based on the selected option.

  The following figure shows smart splitting.

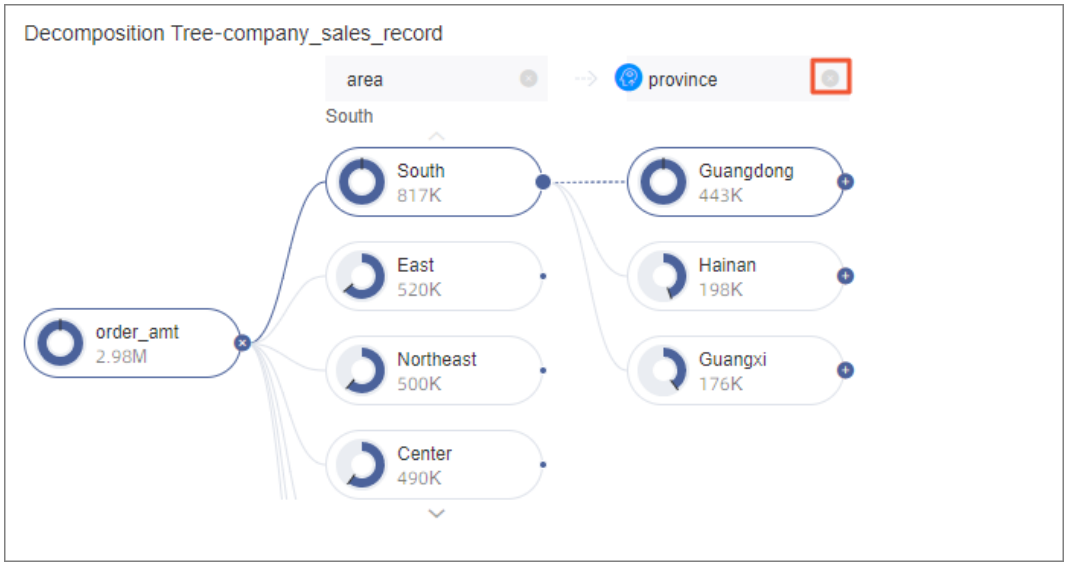


> **Note** If you use smart splitting and save the dashboard, the splitting path, for example, product_type > province, is also saved. After you close the dashboard and open it again, the splitting path of the decomposition tree is still product_type > province. You can continue to edit the decomposition tree as required.

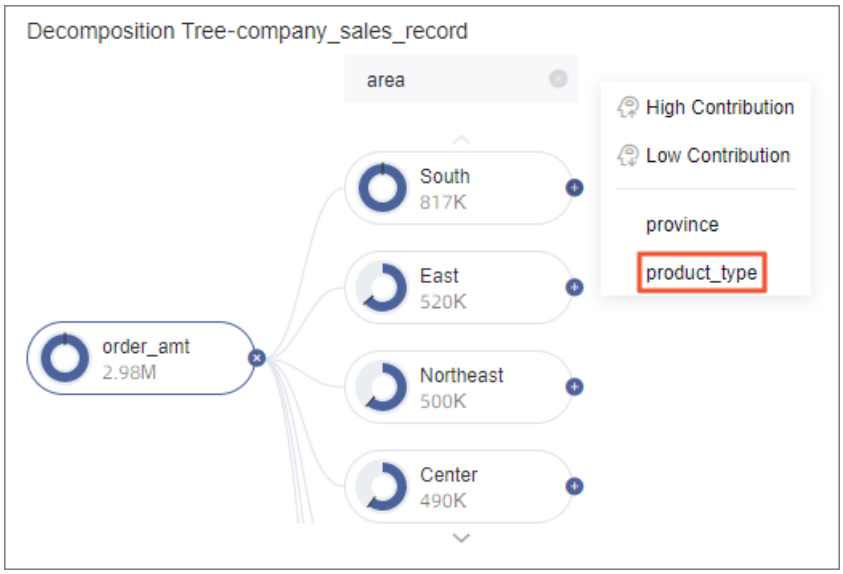
iii. Change a dimension.

In this example, change **province** used for smart splitting to **product_type** used for custom splitting.

a. Click the icon next to province.

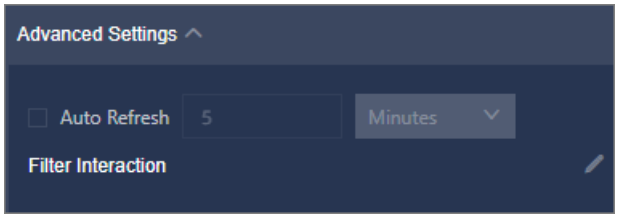


b. Move the pointer over the plus sign next to the required area and select **product_type**.



If you want to hide a dimension, click the icon next to its parent node. If you want to show the dimension, click the icon again.

8. On the **Style** tab, configure the style of the decomposition tree. For more information, see Configure the parameters on the Style tab.
9. On the **Advanced** tab, configure the parameters in the Advanced Settings section.



Section	Parameter	Description
Advanced Settings	Auto Refresh	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.

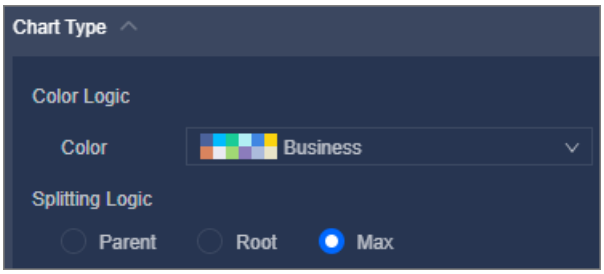
10. Click Save in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard, and click OK.

Configure the parameters on the Style tab

- In the **Basic Information** section, configure Show Title and Description and Show Link.

Parameter	Description
Show Title and Description	○ Title: You can customize the title of a chart. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Chart Type** section, configure the style of the decomposition tree.

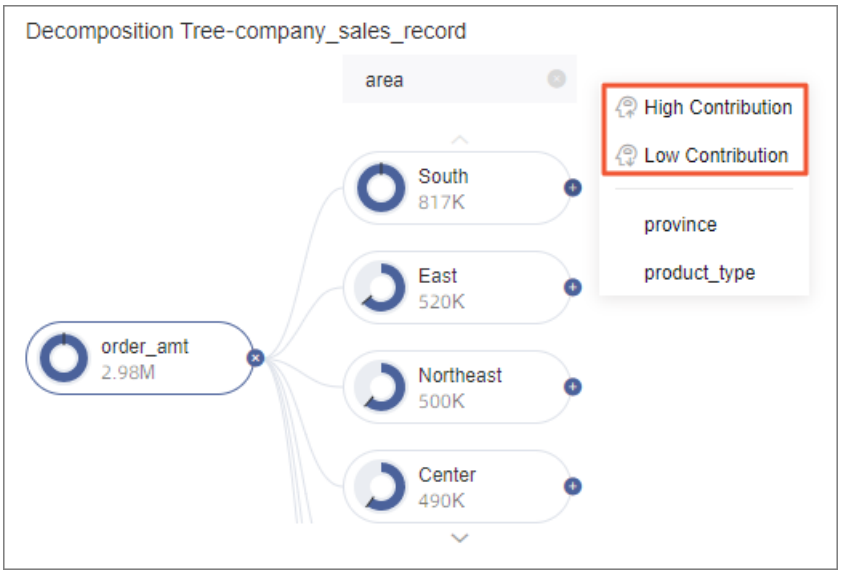


Parameter	Description

Parameter	Description
Color Logic	Specifies colors for the values of the measure that you added to the **Analysis Object (Mea.)** field. ○ Positive Color: the color of positive values for the measure. ○ Negative color: the color of negative values for the measure.
Splitting Logic	Specifies the method of using ring charts to show the percentages of different values. Supported options include **Parent**, **Root**, and **Max**. ○ **Parent**: A node that has child nodes is a parent node. If you select this option, the ring chart of a node shows the percentage calculated based on the value of its parent node. ○ **Root**: A node that does not have a parent node is a root node. If you select this option, the ring chart of a node shows the percentage calculated based on the value of the root node. In this example, the root node is order_amt. ○ **Max**: The node that is ranked first in each column is a max node. If you select this option, the ring chart of a node shows the percentage calculated based on the value of its max node.

- In the **Functionality** section, determine whether to select **Enable AI Splitting** based on your business requirements.

  If you select Enable AI Splitting, **Absolute Analysis** is also selected. The following figure shows the decomposition tree after you select Enable AI Splitting.

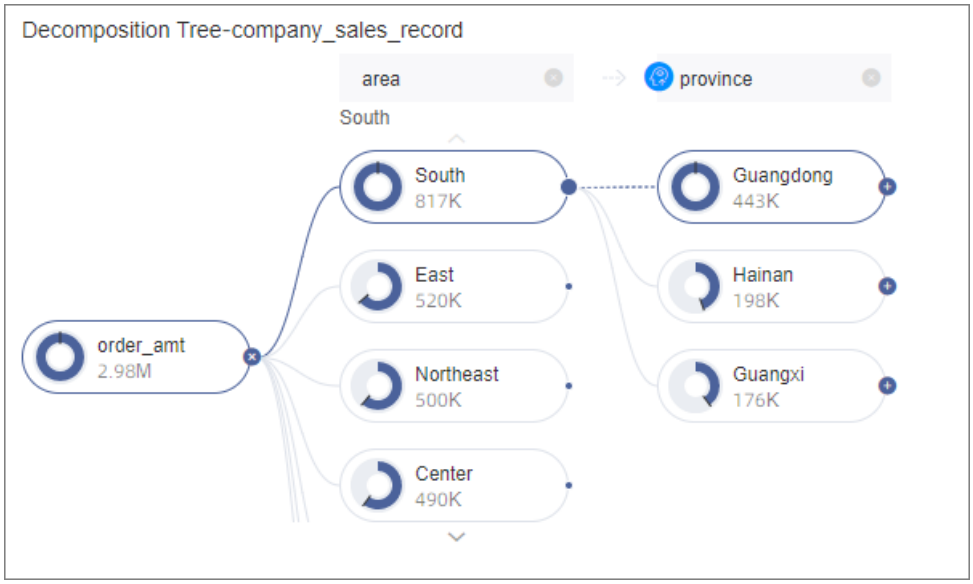


> **Note** After **Absolute Analysis** is selected, absolute values are analyzed.
>
> - In this example, the values of **order_amt** are split by province (Yunnan, Tibet, and Guizhou) and product_type (Technique, Furniture, and Office).
> - If you select **High Contribution**, the values are split by **product_type**. You can identify the type of product with the largest order quantity. In this example, technical products have the largest order quantity.
> - If you select **Low Contribution**, the values are split by **province**. You can identify the province with the smallest order quantity. In this example, Guangdong has the smallest order quantity.

- In the **Series Settings** section, configure the parameters described in the following table.

Parameter	Description
Series	Select a dimension that you added to the **Decomposition Basis (Dim.)** field or the measure that you added to the **Analysis Object (Mea.)** field. In this example, select **order_amt**.
Display Name	The name of the selected measure or dimension displayed in the decomposition tree.
Number Formatting	The display format of numbers. The following options are supported: Adaptive, Custom, and Manual Input. In this example: ○ Select Custom. ○ Select % Show Percentage. ○ Set Decimal Place to 2. ○ Select **Use Thousands Separator**.

The following figure shows an updated decomposition tree.



Delete a chart

To delete a chart, perform the following steps:

1. Click the icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.19. Funnel chart

This topic introduces funnel charts, including an overview and an application example. This topic also describes how to configure the style of a funnel chart and how to delete a funnel chart.

funnel chart chart making on a dashboard

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A funnel chart is best suited to analyze standard, long-term, multi-stage business processes. It allows you to compare business data from different stages and identify issues. You can also use a funnel chart to show the conversion rate at each stage of a business process, for example, the percentage of visitors that become paying customers for a shopping website.

A funnel chart consists of funnel layering and tier areas. Funnel layering is determined by a dimension, such as area. Tier areas are determined by a measure, such as order price.

> **Notice** You must specify one dimension for funnel layering and one measure for tier areas. Otherwise, you do not need to specify any dimension for funnel layering but must specify one to ten measures for tier areas.

Application example

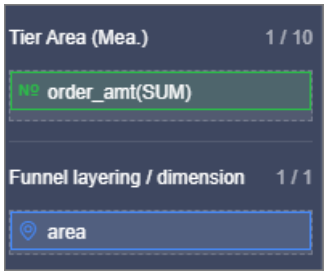
Scenario: Compare the order prices of multiple regions or compare the order prices, profits, and shipping costs of multiple regions. The following example uses the *company_sales_record* dataset to describe the application of a funnel chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column.

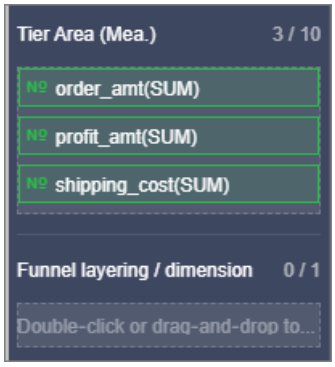
   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

3. Click the icon. A funnel chart appears in the display area of the dashboard.
4. Click the **Data** tab and select the required dimension and measures.
   - If you want to compare order prices of different regions, find **area** in the Dimensions list and add

it to the Funnel layering / dimension field, then find **order_amt** in the Measures list and add it to the Tier Area (Mea.) field.



- If you want to compare order prices, profits, and shipping costs of different regions, find **order_amt**, **profit_amt**, and **shipping_cost** in the Measures list and add them to the Tier Area (Mea.) field in sequence.



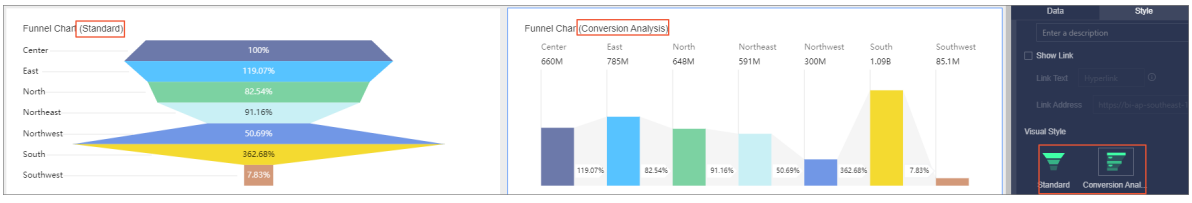
5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure parameters in the Basic Information, Chart Type, and Series Settings sections.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

- In the **Basic Information** section, configure **Show Title and Description**, **Show Link**, and **Visual Style**.

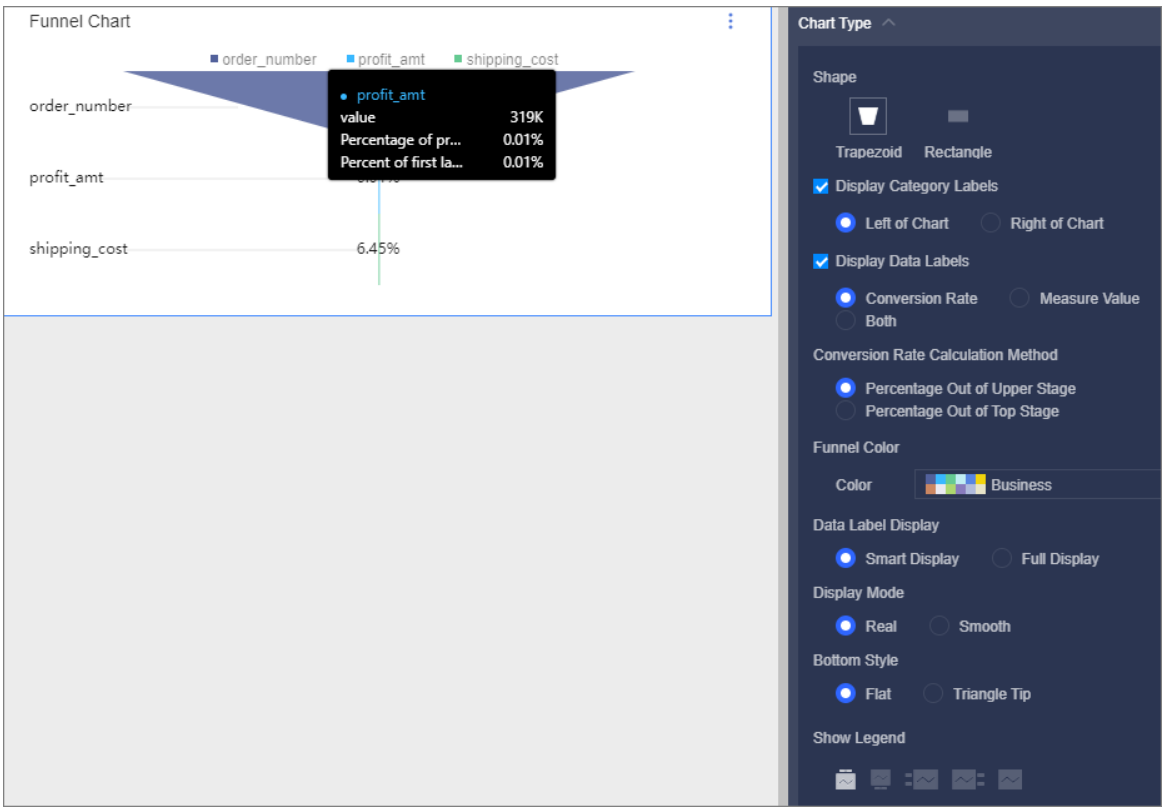
  > **Note** If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

  You can set Visual Style to Standard or Conversion Analysis.



- Chart Type

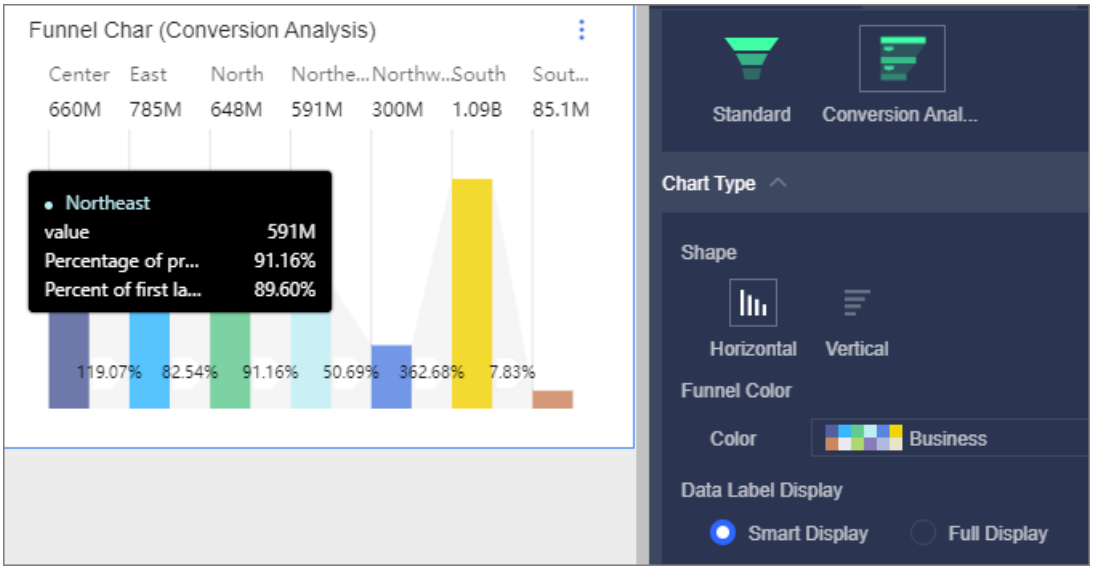
- If **Visual Style** is set to **Standard**, you can configure the following parameters in the **Chart Type** section: **Shape**, **Display Category Labels**, **Display Data Labels**, **Conversion Rate Calculation Method**, **Funnel Color**, **Data Label Display**, **Display Mode**, **Bottom Style**, and **Show Legend**.



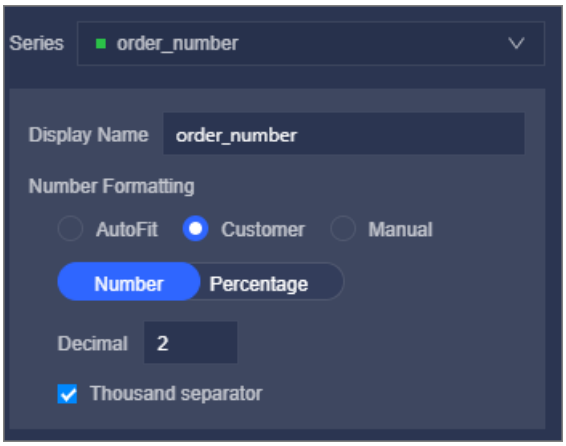
Note The conversion rate is calculated by using the following formulas:

- Conversion rate from the upper adjacent layer = Measure value at the current layer/Measure value at the upper adjacent layer × 100%
- Conversion rate from the first layer = Measure value at the current layer/Measure value at the first layer × 100%

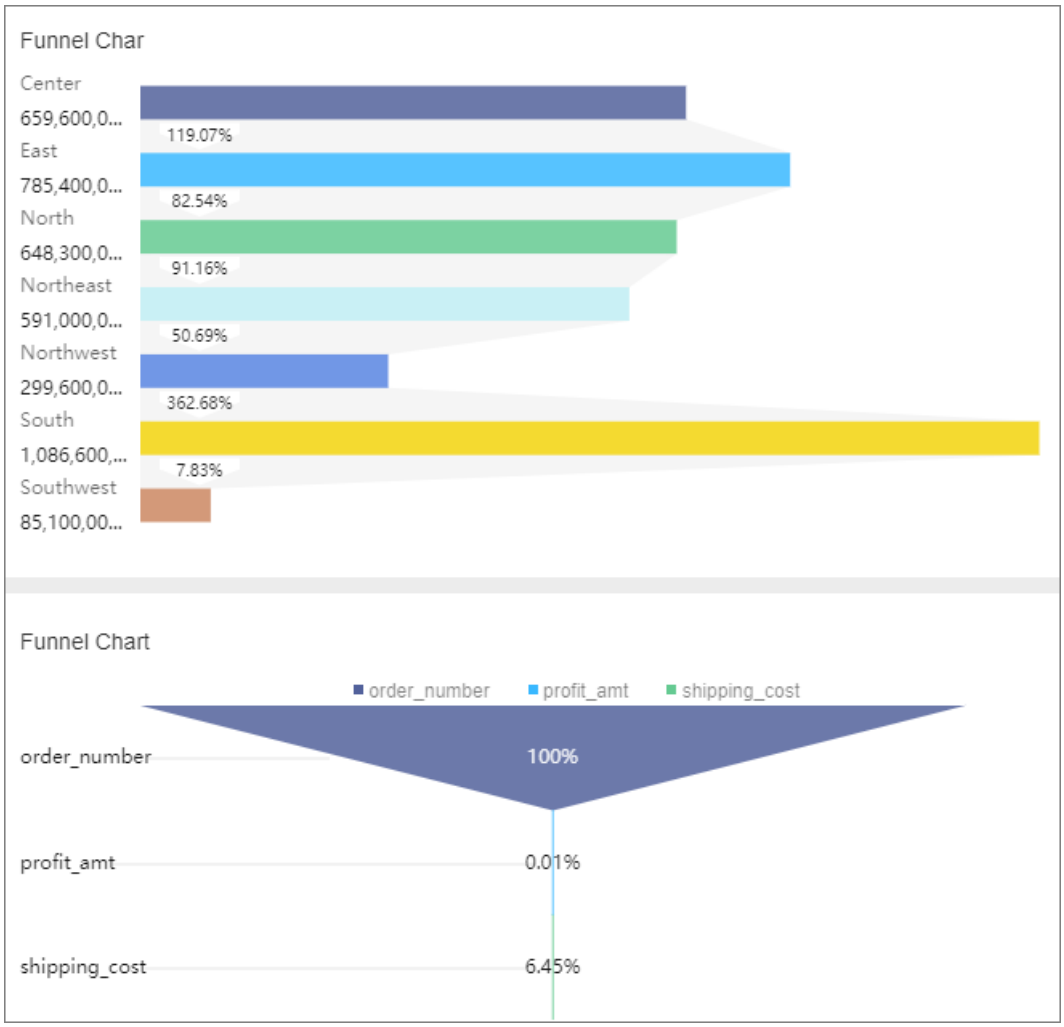
- If **Visual Style** is set to **Conversion Analysis**, you can specify **Shape**, **Funnel Color**, and **Data Label Display** in the **Chart Type** section.



- In the **Series Settings** section, specify Display Name and Number Formatting for each measure.



The following figure shows an updated funnel chart.



Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.20. Kanbans

This topic introduces kanbans, including an overview and an application example. This topic also describes how to configure the style of a kanban and how to delete a kanban.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A kanban provides an overview of data such as sales performance. Kanbans allow you to rapidly respond to sales status and management situations. Kanbans help you identify and troubleshoot issues.

A kanban consists of metrics and labels. Labels are determined by a dimension, such as area. Metrics are determined by measures, such as order quantity and order price.

> **Notice** You can specify only one dimension for labels and one to ten measures for metrics.

Application example

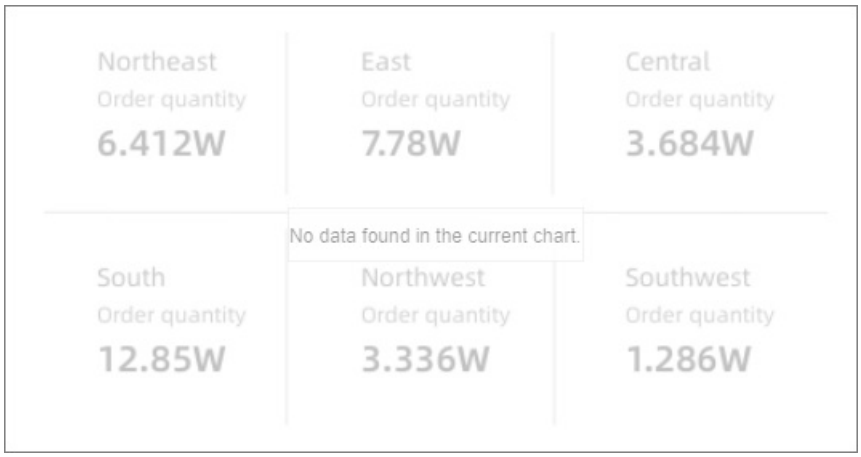
The following example describes how to use a kanban. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

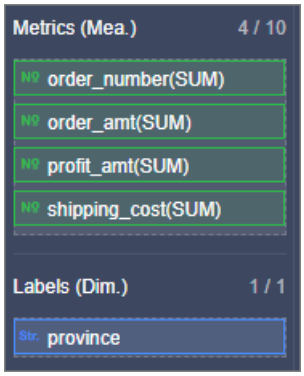
   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. On the dashboard edit page, click the icon.

   A kanban appears in the dashboard display section.

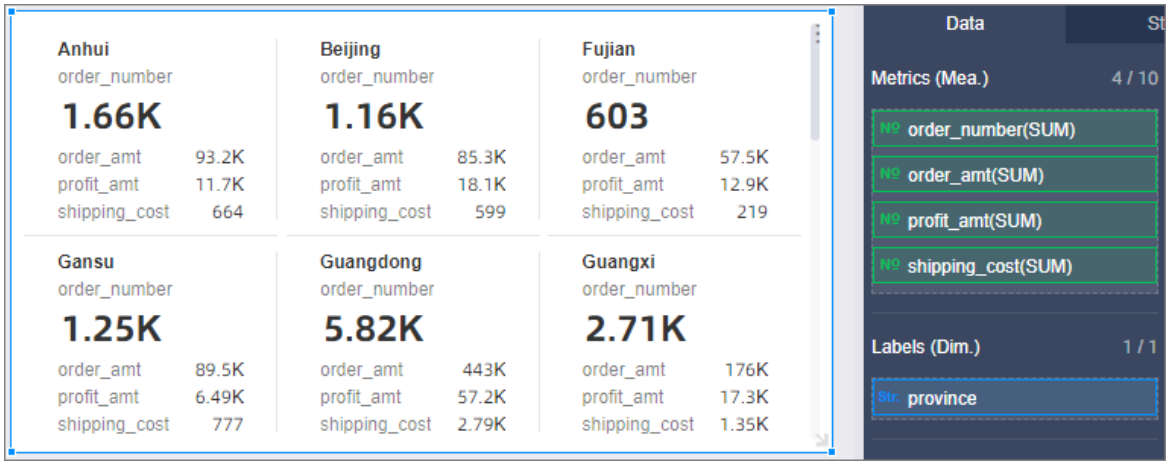


5. On the **Data** tab, select the required dimension and measures.
   - In the Dimensions list, find province and add it to the Labels (Dim.) field.
   - In the Measures list, find order_number, order_amt, shipping_cost, and profit_amt, and add them to the Metrics (Mea.) field.

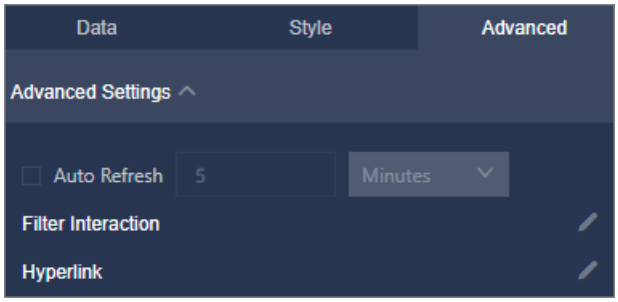


> **Note** Make sure that you have converted the data type of the province dimension from String to Geo. For information about how to change the data type of a dimension, see Edit a GEO dimension.
>
> The first measure under **Metrics (Mea.)** is the primary metric. You can drag and drop the measures under **Metrics (Mea.)** to change the primary metric.

6. Click **Update**. The chart is updated.



7. On the **Style** tab, configure the style of the chart. For more information, see Configure parameters on the Style tab.
8. On the **Advanced** tab, configure parameters in the Advanced Settings section.



Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you configure filter interaction, if you click an area or field in a chart, charts that are associated with this chart in the same dashboard accordingly change. For more information, see Configure the filter interaction feature.

Section	Parameter	Description
	Hyperlink	After you configure the hyperlink, if you click a field in a chart on the dashboard, a report that shows information about this field is displayed. You can select Parameter or External Link for this feature. If you select Parameter, you must configure global variables. For more information, see Configure the hyperlink feature.

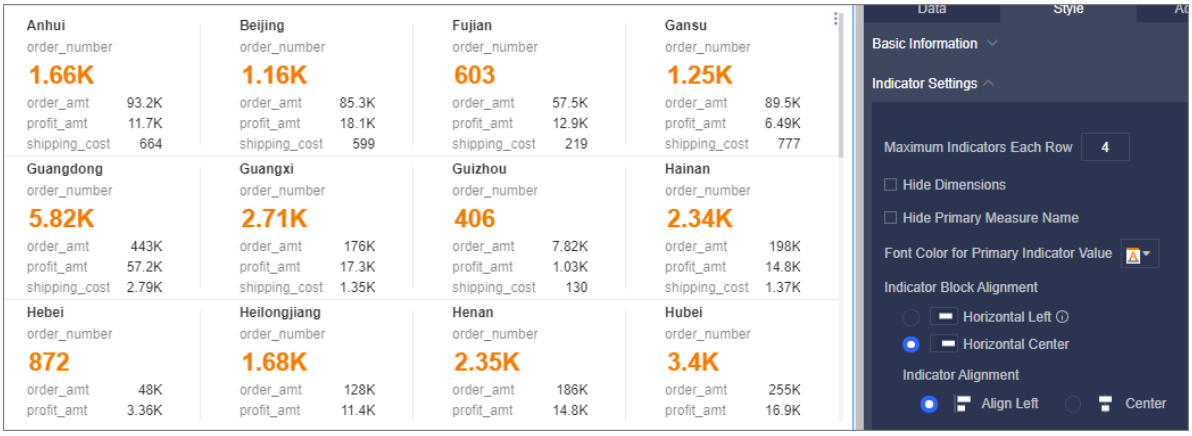
9. Click **Save** in the upper-right corner. In the Save Dashboard dialog box, enter a name for the dashboard, specify the save path, and then click OK.

Configure parameters on the Style tab

- In the **Basic Information** section, configure Show Title and Description, **Show Link**, and **Custom Background**.

Parameter	Description
Show Title and Description	○ Title: You can customize the chart title. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.
Custom Background	Light color and dark color are supported. The light color is used by default.

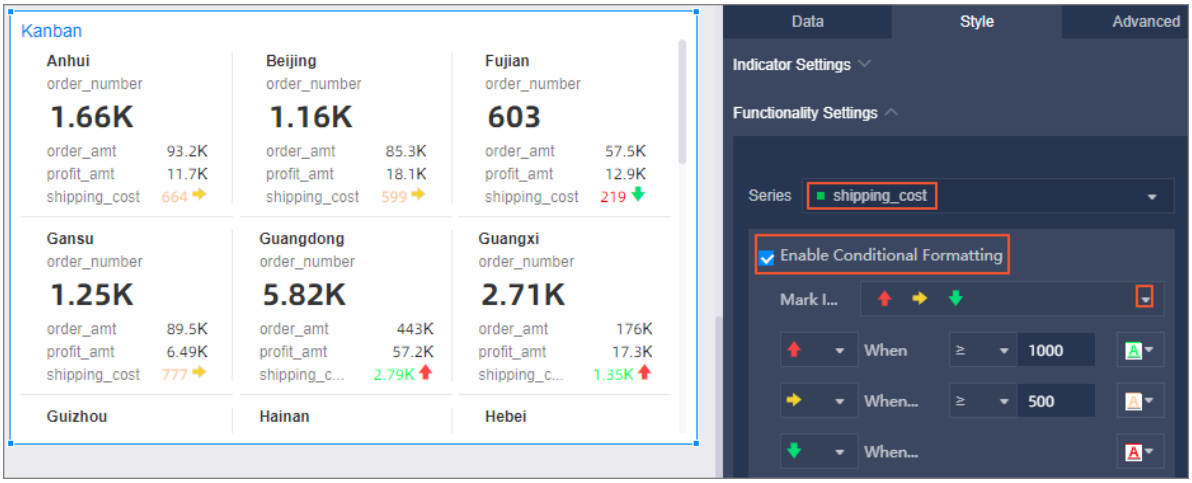
- In the **Indicator Settings** section, set the metric block style.



Parameter	Description
Maximum Indicators Each Row	The maximum number of metrics that can be displayed in each row.

Parameter	Description
Hide Dimensions	Specifies whether to show dimensions on the kanban.
Hide Primary Measure Name	Specifies whether to show the name of the primary metric on the kanban.
Font Color for Primary Indicator Value	The font color for the primary metric. **Note** The first measure under **Metrics (Mea.)** is the primary metric. All other measures are secondary metrics.
Main Font Size	The font for the primary metric.
Sub-Font Size	The font for secondary metrics.
Indicator Block Alignment	The supported positions of the metric blocks.
Indicator Alignment	Supported alignment modes include left alignment and center alignment.

- In the **Functionality Settings** section, configure conditional formatting.



Parameter	Description
Series	You can select any measure that has been added to the **Metrics (Mea.)** field.
Enable conditional formatting	Specify tag icons, ranges, and font colors.

- In the **Series Settings** section, specify Display Name, Description, Prefix and Suffix for Data Value, and Number Formatting for a measure.

Parameter	Description

Parameter	Description
Series	You can select any measure that has been added to the **Metrics (Mea.)** field.
Display Name	The measure name that is displayed on the kanban.
Description	The description of the display name.
Prefix and Suffix for Data Value	The prefix and suffix of the metric values.
Number Formatting	The display format of numbers. The following options are supported: AutoFit, Custom, and Manual. In this example, ○ Custom is selected, ○ Number is selected, ○ and Decimal is set to 2.

Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.21. Trend indicator charts

This topic introduces trend indicator charts, including an overview and an application example. This topic also describes how to configure the style of a trend indicator chart and how to delete a trend indicator chart.

Prerequisites

- A dashboard is created. For more information, see Dashboard overview and Create a dashboard.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A trend indicator chart displays multiple indicators and their changes over a period of time. By default, the latest data record of each indicator is displayed.

> **Notice** You can specify only one date dimension for Date (Dimensions) and must specify at least one measure for Indicator (Measures).

Application example

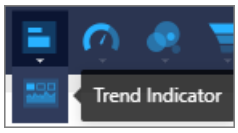
The following example describes how to use a trend indicator chart. The *company_sales_record* dataset is used in the example.

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions

column.

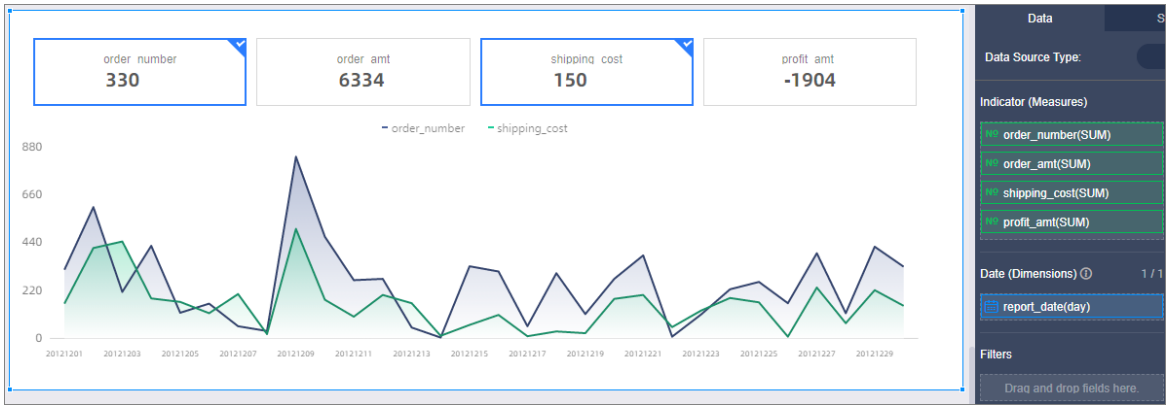
> **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon. A trend indicator chart appears in the display section of the dashboard.



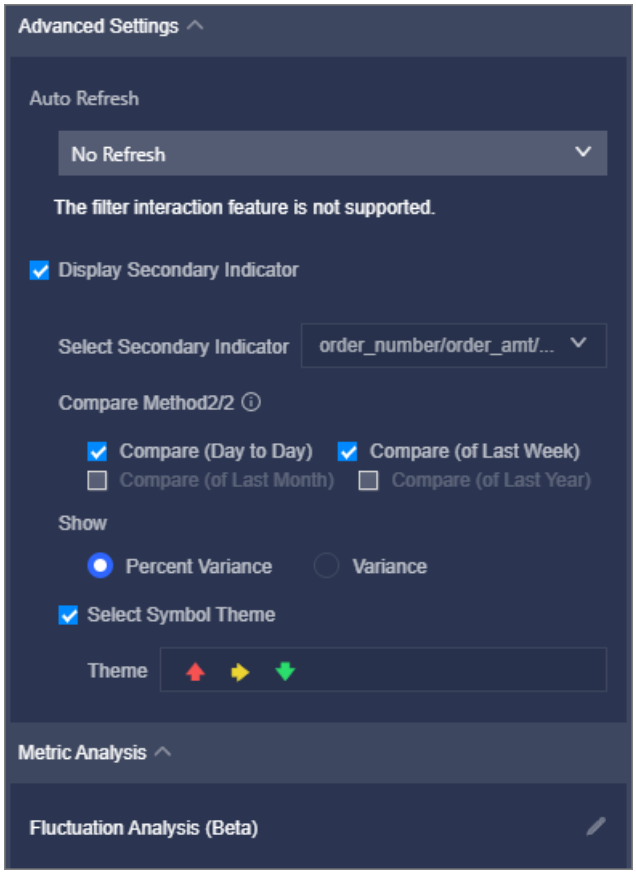
5. On the **Data** tab, select the required dimension and measures.
   - In the Dimensions list, find report_date(day) and add it to the **Date (Dimensions)** field.
   - In the Measures list, find order_number, order_amt, shipping_cost, and profit_amt, and add them to the **Indicator (Measures)** field.

6. Click **Update**. The chart is updated.

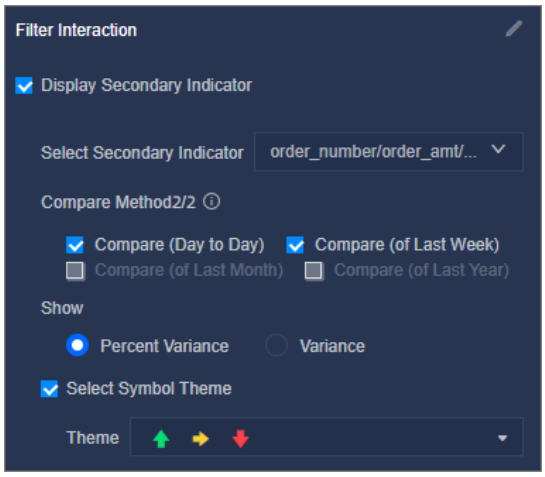


7. On the **Style** tab, configure the parameters on the Basic Information, Chart Settings, Indicator Settings, Functionality Settings, and Series Settings sections.
8. On the **Advanced** tab, configure the parameters in the Advanced Settings and Metric Analysis sections.

   Select the measures from the **Select Secondary Indicator** drop-down list, and set the comparison method, displayed content, and symbol theme.



Section	Parameter	Description
Advanced Settings	**Auto Refresh**	You can select this option and set the refresh interval. If you set this parameter to 5 Minutes, the system refreshes the chart every 5 minutes.
	Filter Interaction	After you associate multiple charts by using this feature, if you click an area or field in a chart, associated charts in the same dashboard change as expected. For more information, see Configure the filter interaction feature.

Section	Parameter	Description
	Display Secondary Indicator	If you select this option, you can select the display mode of the secondary indicator. 
Metric Analysis	**Fluctuation Analysis**	Fluctuation analysis uses machine learning algorithms to analyze the impact of dimensions on measures. You can view the contribution of dimensions to measure fluctuation and specific changes. For more information. **Note** **Fluctuation Analysis** is in Beta testing.

9. Click **Save** in the upper-right corner of the page. In the Save Dashboard dialog box, specify the name and save path for the dashboard, and click OK.

Configure the parameters on the Style tab

- In the **Basic Information** section, configure Title, Description, and Show Link.

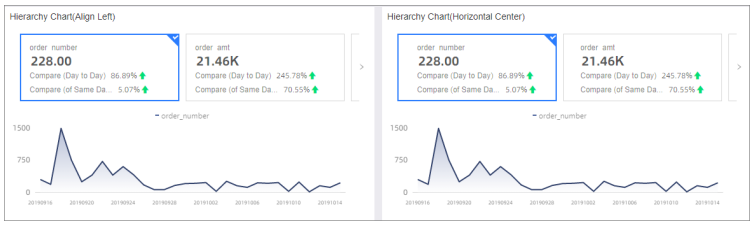
Parameter	Description
Show Title and Description	○ Title: You can customize the title of a chart. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want users to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Chart Settings** section, select **Show Trend by Date** and specify the chart type as required.

Parameter	Description
Show Trend by Date	After you select this option, you can select **Overall Trend** or **Detailed Trend**.
Date Duration	The default value is 30 days.
Select Preview Mode	Two options are supported: **Single Choice** and **Multiple Choice**. ○ **Single Choice**: The trend of only one measure is displayed in the chart. ○ **Multiple Choice**: The trends of multiple measures are displayed in the chart. **Note** This parameter appears only after you select **Overall Trend**.
Layout for Multiple Indicators	Two options are supported: **Displayed in One Line** and **Displayed in Multiple Lines**. When you select Displayed in One Line, a slide bar appears for you to view all indicators in one row. When you select Displayed in Multiple Lines, indicators are displayed in multiple rows. **Note** This parameter appears only after you select **Overall Trend**.
Detailed Trend Position	Two options are supported: **Bottom** and **Right**. **Note** This parameter appears only after you select **Detailed Trend**.

- In the **Indicator Settings** section, set Maximum Indicators Each Row.

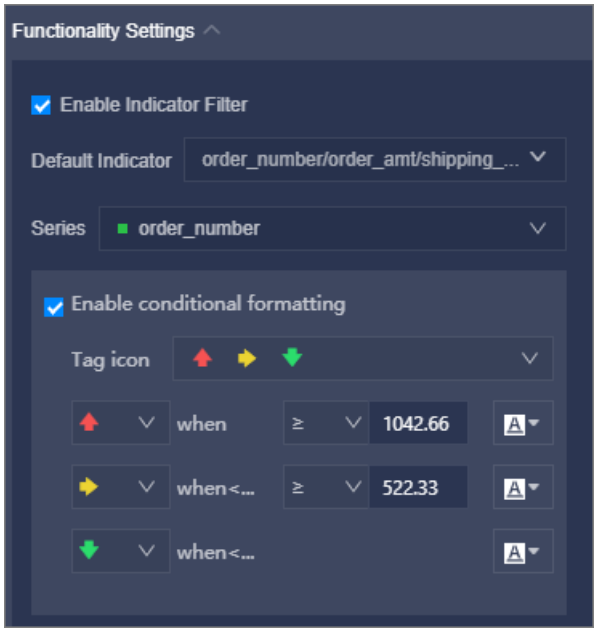
Parameter	Description
Maximum Indicators Each Row	The maximum number of indicators that can be displayed in each row. In this example, Maximum Indicators Each Row is set to 4.
Font Color for Primary Indicator Value	The font color for the primary indicator. **Note** In the **Indicator (Measures)** field, the first measure is the primary indicator. The rest indicators are secondary indicators.

Parameter	Description
Indicator Block Alignment	The following figure shows the positions of primary and secondary indicators in indicator blocks. 
Indicator Alignment	Two options are supported: **Align Left** and **Center**.

- In the **Functionality Settings** section, enable an indicator filter and configure conditional formatting as required.

  After you select **Enable Indicator Filter**, an indicator filter icon is displayed in the upper-right corner of the chart. You can click the icon and select the indicators that you want to display.

  i. Select the required measure from the Series drop-down list, select **Enable Conditional Formatting**, and then select an icon theme from the **Mark Icon** drop-down list.

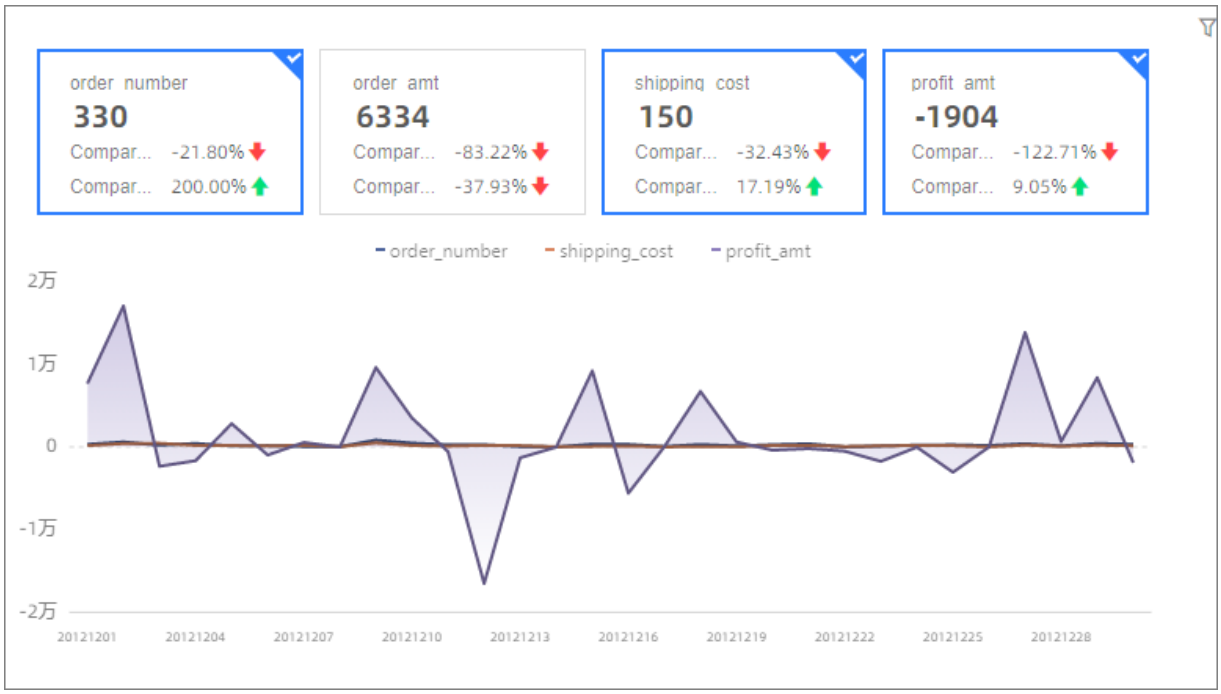


ii. Specify the rules for marking data, the icon style, and font color.

- In the **Series Settings** section, configure Display Name, Description, Prefix and Suffix for Indicator, and Data Display Format for a measure.

Parameter	Description
Series Name	Select a measure that you added to the **Indicator (Measures)** field.
Display Name	The measure name that is displayed on the trend indicator chart.
Description	The description of the displayed name.
Prefix and Suffix for Indicator	The prefix and suffix of indicator values.
Data Display Format	The display format of numbers. The following options are supported: AutoFit, Custom, and Manual.

The following figure shows an updated trend indicator chart.



Delete a chart

To delete a chart, perform the following steps:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.22. Treemap

This topic describes a treemap, including its overview, application example, and configuration style as well as how to delete a treemap.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A treemap can be used to compare the proportions of metric values of objects.

It displays rectangle labels in different sizes based on a measure. Rectangle labels are determined by a dimension, such as packaging. The size of each rectangle label is determined by a measure, such as shipping cost.

> **Notice** You can specify only one dimension for rectangle labels and only one measure for the rectangle size. The dimension has a maximum of 12 values.

Application example

Scenario: Compare the order quantities of different products. The following example uses the *company_sales_record* dataset to describe the application of a treemap.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset and click in the Actions column.

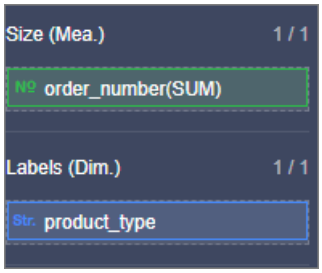
   > **Note** If you are using **Quick BI Enterprise Standard**, choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click . A treemap appears in the display area of the dashboard.

4. Click the **Data** tab and select the required measures and dimension.

   In the Dimensions list, find and add product_type to the Labels (Dim.) field. In the Measures list, find and add order_number to the Size (Mea.) field, as shown in the following figure.

5. Click **Update**. The chart is updated.
6. Click the **Style** tab and change the basic information and series settings of the chart.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

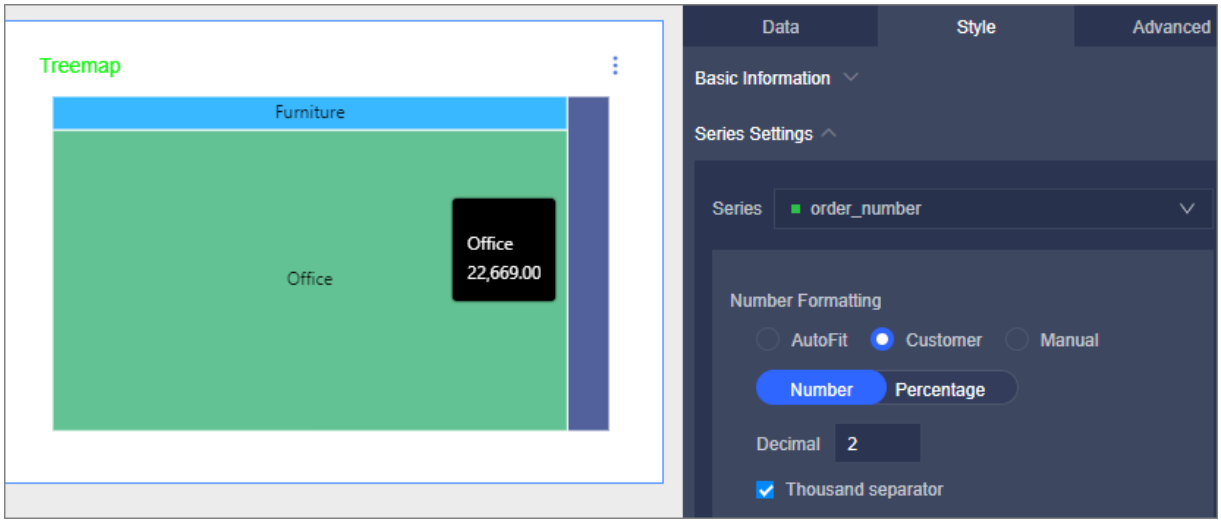
Configure parameters on the Style tab

- In the **Basic Information** section, set Show Title and Description and Show Link.

  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Series Settings** section, specify Number Formatting.

Click Update. The following figure shows the updated chart.



Delete a chart

Perform the following steps to delete a chart:

1. Click the icon in the upper-right corner of a chart.
2. Select **Delete**.

2.3.23. Polar diagrams

This topic describes the overview, examples, and deletion of a polar diagram.

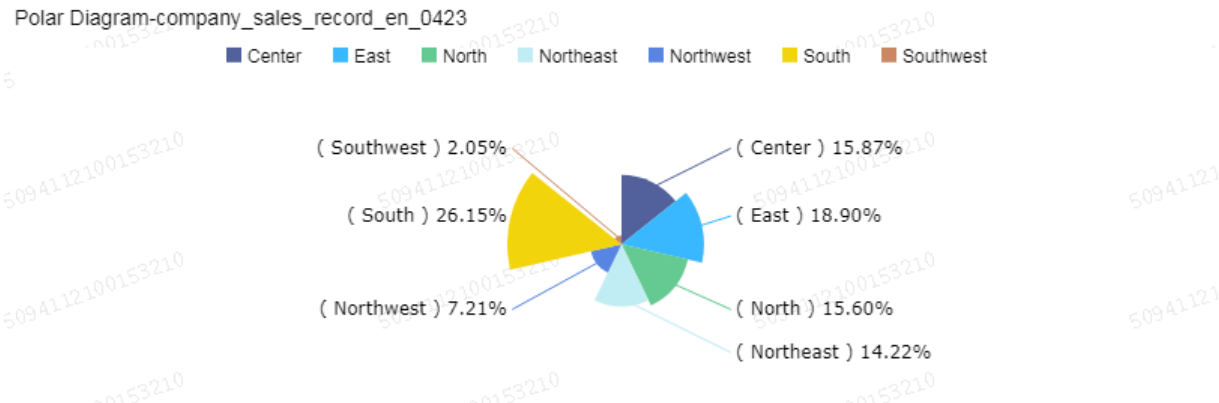
Make sure that you have read Dashboard overview and Dashboard basic operations before this topic. For more information about how to create a dataset, see Create a dataset.

Overview

A polar diagram compares multiple data values. It is used for comparing enumerated data, such as data based on multiple regions.

Similar to a pie chart, a polar diagram consists of slices. Labels of slices are determined by the dimension, such as the area and product type. Arc radiuses are determined by the measure, such as order numbers and order amounts.

Samples



Notes

You can select a maximum of one dimension for labels. The minimum number of dimension values is three. The maximum number of dimension values is 12. You can select a maximum of one measure for arc radiuses.

Examples

The following example uses the company_sales_record dataset.

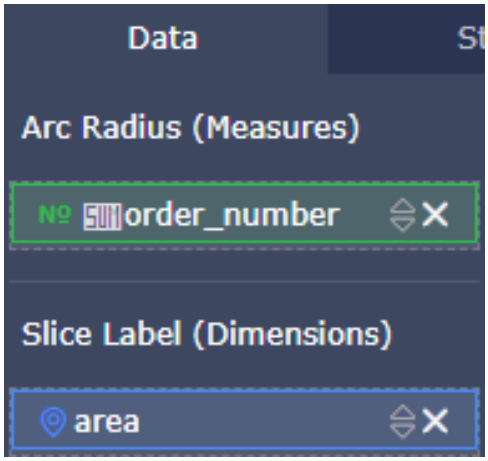
1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select the company_sales_record dataset and click **Create Dashboard**.

   > **Note** If you use **Quick BI Enterprise Standard**, you need to select **Standard** or **Full Screen** as the dashboard display mode. The following example uses **Standard**.

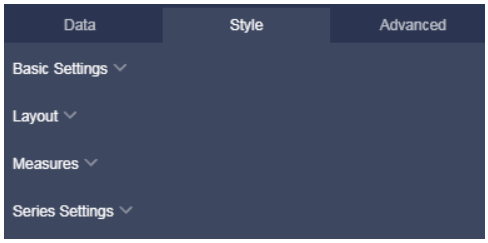
4. Click the Polar Diagram icon and an empty chart appears on the dashboard.
5. On the **Data** tab page, select a dimension and a measure.

   In the Dimensions list, locate the **area** field and add it to the Label (Dimensions) section. In the Measures list, locate the **order_number** field and add it to the Arc Radius (Measures) section, as shown in the following figure.

   > **Note** Make sure that you have converted the dimension type from String to Geo for the area dimension. For more information, see Change the dimension type.

6. Click **Update** and the chart is updated.
7. On the **Style** tab page, you can configure the title, layout, legend, measures, and series settings.

8. Click **Save** to save the dashboard.

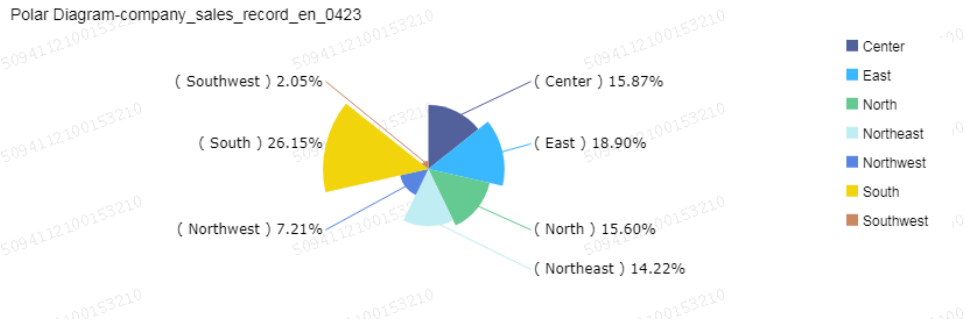
Configure the style

- In the Basic Information section, you can configure the title name, title color, description, hyperlink, and background color. This example uses **Dark** as the background color.

  > **Note** For jumping to a report or an external page, select **Show Hyperlink** and enter a name and an address.

- In the Layout section, you can configure the legend position, whether to show tooltips, label style, leaders, and radiuses. The example uses **Name, Value (Percentage)** as the label style and uses **Right** as the legend position.
- In the Measures section, you can configure the data format and the number of decimal places. This example uses 2 as the number of decimal places.
- In the Series Setting section, you can configure aliases for the dimensions and slice colors.

Click Update and the chart is shown as follows.



Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.24. Word cloud

This topic introduces word clouds, including an overview and an application example. This topic also describes how to configure the style of a word cloud and how to delete a word cloud.

word cloud dashboard charts

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A word cloud visualizes the frequency of words. It is best suited to create user personas and tags.

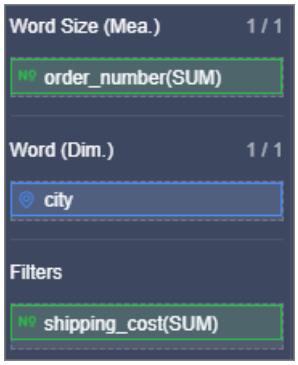
A word cloud consists of words of different sizes. Words are determined by a dimension, such as customer name or product name. Word sizes are determined by a measure, such as profit or unit price.

> **Notice** You can specify only one dimension for words and only one measure for word sizes.

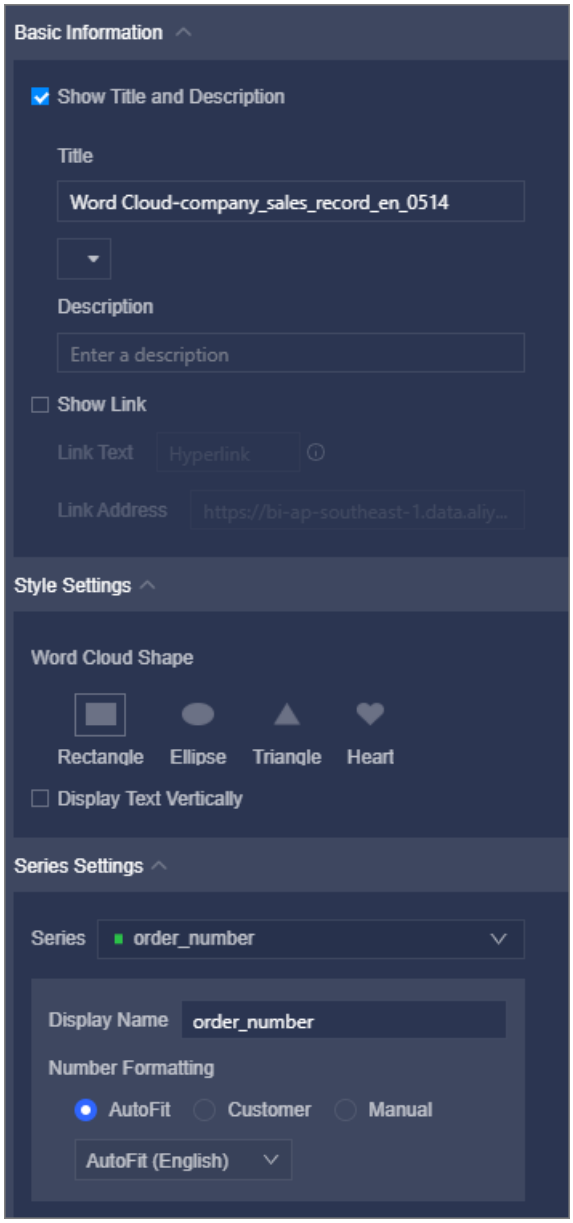
Application example

The following example uses the *company_sales_record* dataset to describe the application of a word cloud.

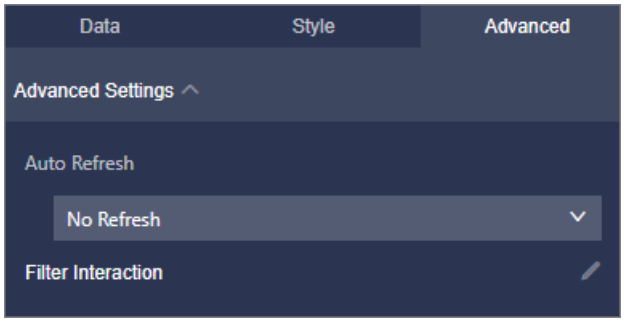
1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column. If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.
3. Click the icon. A word cloud appears in the display area of the dashboard.
4. Click the **Data** tab and select the required dimension and measure.
   - In the dimensions list, find and add city to the Word (Dim.) field.
   - In the measures list, find and add order_number to the Word Size (Mea.) field.
   - If you want to display a large volume of data in the word cloud, you can specify the Filters field to display specific types of data. For example, you can use the Filters field to specify an order cost range from 10,000 to 50,000. The word cloud then displays only orders whose costs are within this specific range.



5. Click **Update**. The chart is updated.
6. Click the **Style** tab, and change the chart name, font color, and word cloud shape, and specify whether to show the link.



7. Click the **Advanced** tab, and configure **Auto Refresh** and **Filter Interaction**.



8. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

- In the **Basic Information** section, configure **Show Title and Description** and **Show Link**.

Parameter	Description
Show Title and Description	○ Title: You can customize the title of the word cloud. We recommend that you name the chart in the format of *Chart type-Chart name*. ○ : You can set the font color of the title. ○ Description: You can enter a description for the title.
Show Link	If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Style Settings** section, configure **Word Cloud Shape** and **Display Text Vertically**.

Parameter	Description
Word Cloud Shape	The supported word cloud shapes include: ○ Rectangle ○ Ellipse ○ Triangle ○ Heart
Display Text Vertically	The text in the word cloud is displayed horizontally by default. After you select this option, the text is displayed vertically. 

- In the **Series Settings** section:
  - Change the display name of each measure.

- If **Number Formatting** is set to **Customer**, you can specify the display mode of each measure. The supported display modes are Number and Percentage. You can also set the Decimal parameter.

  > **Note** Number Formatting is set to **AutoFit** by default.

Delete the word cloud

To delete the word cloud, follow these steps:

1. Click the icon in the upper-right corner of the word cloud.
2. Select **Delete**.

2.3.25. Butterfly chart

This topic introduces butterfly charts, including an overview and an application example. This topic also describes how to configure the style of a butterfly chart and how to delete a butterfly chart.

butterfly chart chart making on a dashboard

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A butterfly chart is the combination of a comparison chart and a funnel chart. A comparison chart is used to compare metrics of two different objects, such as the income and education level differences between residents in two cities. A funnel chart shows the conversion rate at each stage of a business process, such as the percentage of visitors that become paying customers for a shopping website. Funnel charts are ideal for business process analysis.

A butterfly chart combines the features of a comparison chart and a funnel chart. If you want to compare the migration rate, employment rate, and commercial housing transactions between Beijing and Shanghai cities, and a conversion relationship exists between these metrics. You can use a butterfly chart to show the values of the metrics for the two cities and also the conversion rates between the metrics.

If no conversion relationship exists, the butterfly chart functions as a comparison chart. If a conversion relationship exists between the metrics but only one comparison object is defined, the chart functions as a funnel chart.

A butterfly chart consists of comparison objects and metrics. The objects that are compared are determined by a dimension, such as area or product type. Metrics are determined by measures, such as order quantity and order price.

> **Notice** You can specify only one dimension for comparison objects and up to ten measures for tier areas.

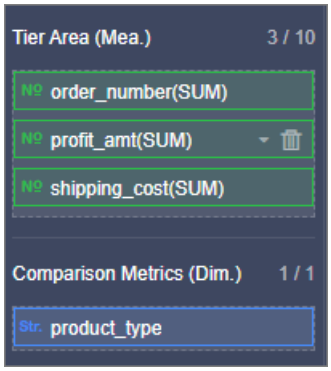
Application example

Scenario: Compare the order quantities, profits, and shipping costs of different types of products. The following example uses the *company_sales_record* dataset to describe the application of a butterfly chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

3. Click the icon. A butterfly chart appears in the display area of the dashboard.
4. Click the **Data** tab and select the required dimension and measures. In the Dimensions list, find and add **product_type** to the Comparison Metrics (Dim.) field. In the Measures list, find and add **order_number**, **profit_amt**, and **shipping cost** to the Tier Area (Mea.) field.

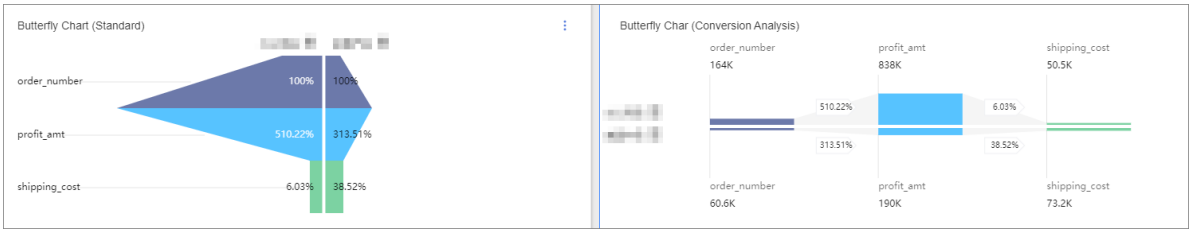
5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure parameters in the Basic Information, Visual Style, and Series Settings sections.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

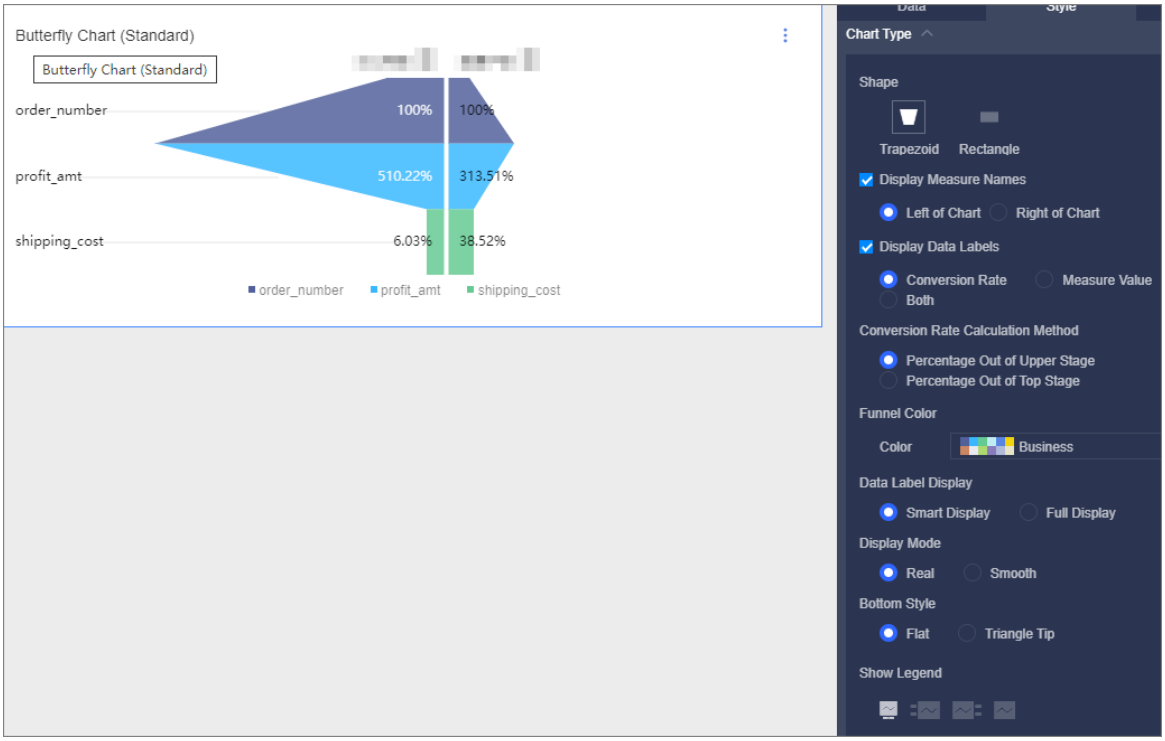
- In the **Basic Information** section, configure **Show Title and Description**, **Show Link**, and **Visual Style**.

  > **Note** If you want the user to be redirected to a report or an external page, select **Show Link** and specify Link Text and Link Address.

  Butterfly charts have two visual styles: standard and conversion analysis.

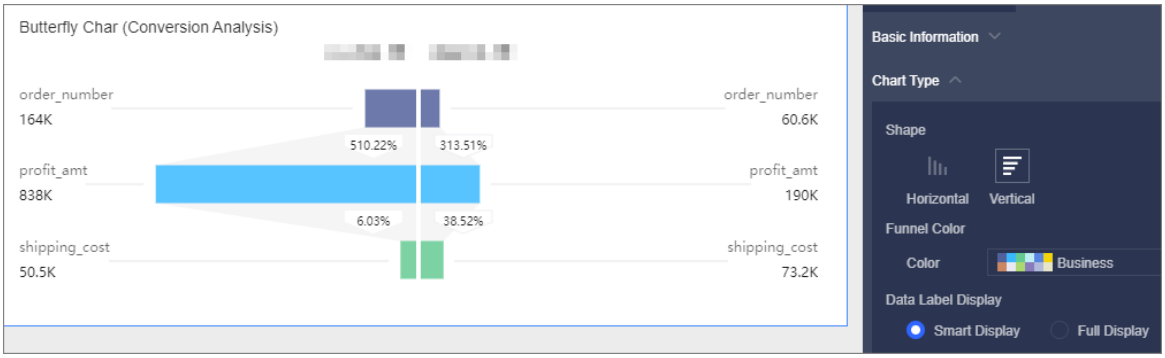


- In the Chart Type section, configure the following parameters:
  - When **Visual Style** is set to **Standard**, you can configure the following parameters in the **Chart Type** section: **Shape**, **Display Measure Names**, **Display Data Labels**, **Conversion Rate Calculation Method**, **Funnel Color**, **Data Label Display**, **Display Mode**, **Bottom Style**, and **Show Legend**.

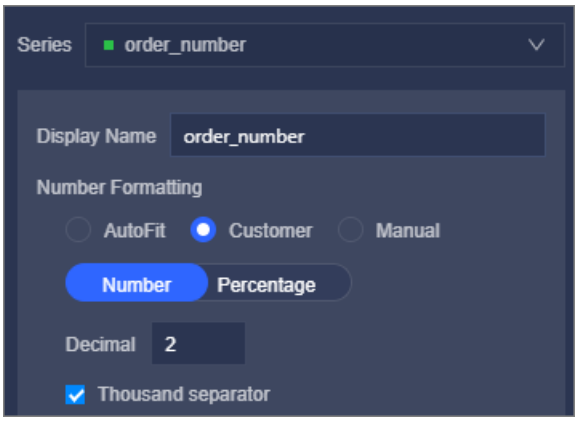


> **Note** The conversion rate is calculated by using the following formulas:
>
> - Conversion rate from the upper adjacent layer = Measure value at the current layer/Measure value at the upper adjacent layer × 100%
> - Conversion rate from the first layer = Measure value at the current layer/Measure value at the first layer × 100%

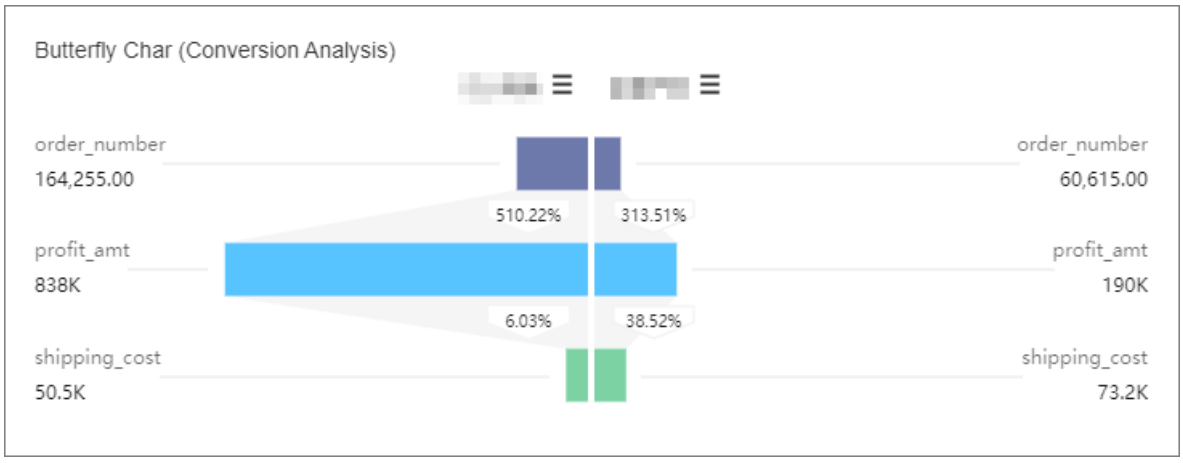
- When **Visual Style** is set to **Conversion Analysis**, you can configure **Shape**, **Funnel Color**, and **Data Label Display** in the **Chart Type** section.



- In the **Series Settings** section, specify Display Name and Number Formatting for each measure.



Click Update. The following figure shows an updated butterfly chart.



Click the ☰ icon next to a dimension value to switch to another dimension value.

Delete a chart

Click the **More Actions** icon in the upper-right corner of a chart and select **Delete** from the drop-down list to delete the chart.

2.3.26. Hierarchy charts

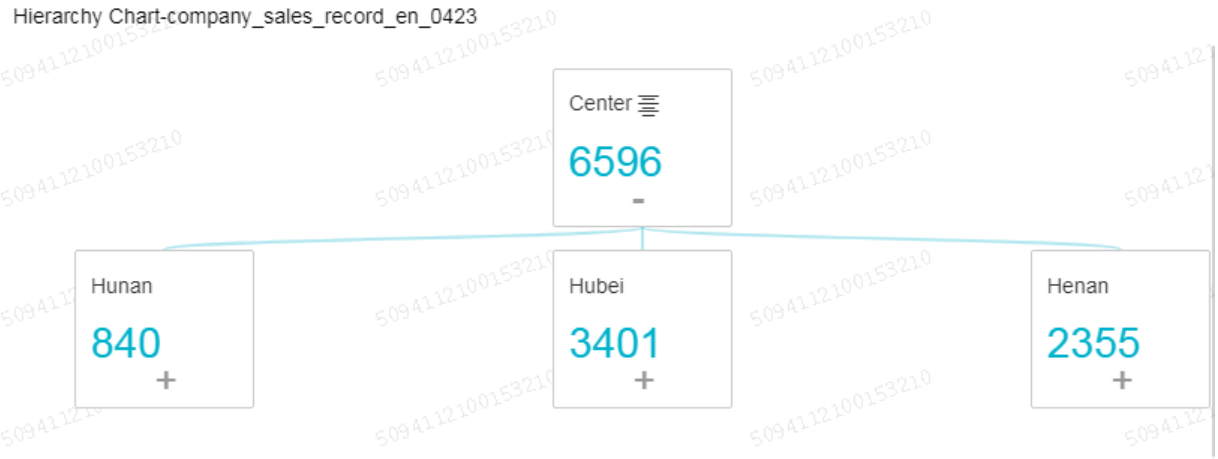
This topic describes how to create a hierarchy chart. We recommend that you read Dashboard overview and Basic dashboard operations before you create a hierarchy chart. You also can edit or create a dataset. For more information, see Create a dataset.

Overview

A hierarchy chart uses the tree structure to display and organize hierarchical data. It is an implementation of the enumeration method. For example, when you view the revenues of the prefecture-level cities within a province, the relationships between the province and prefecture-level cities can be displayed in parent-child structures. Hierarchy charts are used to analyze organizational structures, such as the staff structure of a company or the department structure of a hospital.

A hierarchy chart consists of node metrics and node labels. Each node label is determined by data dimensions, such as the area and product type. Each node metric is determined by data measures, such as the order quantity and order amount.

Example of a hierarchy chart



Precautions

At least two dimensions must be set for node labels. These two dimensions must have a parent-child relationship. At least one measure must be set for the node metric.

Scenario: Compare the order quantities of different products across provinces and areas

The following scenario is based on the company_sales_record dataset.

1. Log on to the Quick BI console.
2. On the homepage, click the Workspace tab. In the left-side navigation pane, enter a group workspace name in the text box, or click the triangle next to the text box and select a group workspace from the drop-down list. Click **Datasets** to go to the All Items tab.
3. Click the **Create Dashboard** icon in the Actions column corresponding to the company_sales_record dataset.

   > **Note** If you are using **Quick BI Enterprise Standard**, you must select **Standard** or **Full Screen**. The following scenario uses **Standard** as an example.

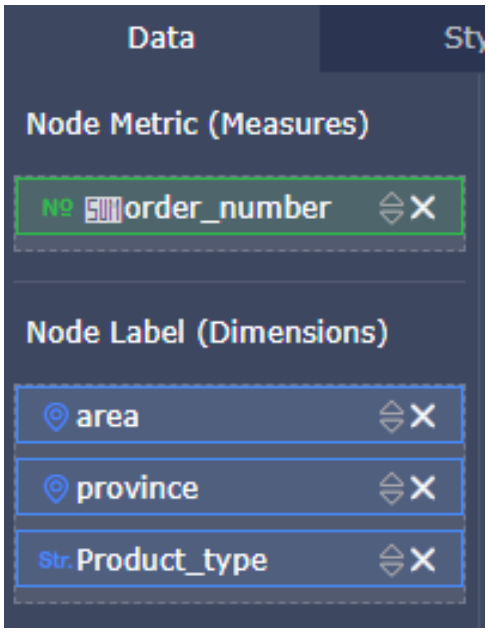
4. In the toolbar, click the Hierarchy Chart icon. The blank hierarchy chart is automatically displayed in

the display section.

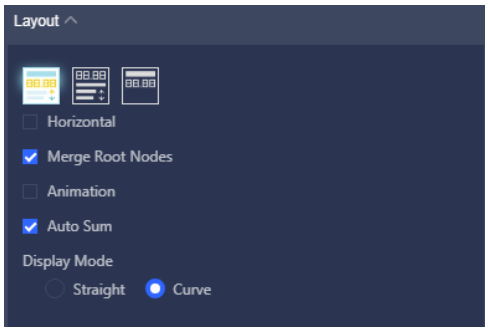
5. Click the **Data** tab and select the required measures and dimensions.

   In the Dimensions section, double-click **area**, **province**, and **product type**, or drag and drop them to the Node Labels (Dimensions) section in order. This order determines their hierarchical relationships in the chart. In the Measures section, double-click **order number**, or drag and drop it to the Node Metrics (Measures) section, as shown in the following figure.

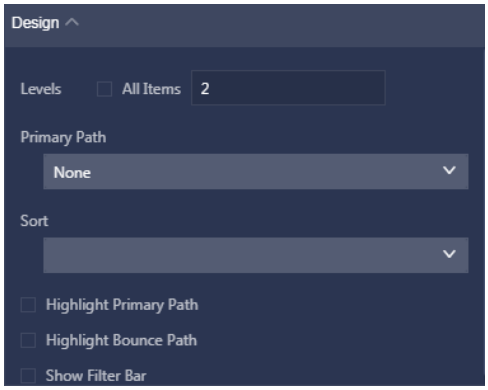
   > **Note** Make sure you have changed the data type of the province field value from String to Geo.



6. Click **Update**. The system automatically updates the chart.
7. On the **Style** tab, you can set Show Title, Layout, and Design.
   - Hierarchy charts support three layouts. You can select the expansion mode (root nodes are merged by default) and display mode of parent and child nodes as needed.



   - In the Design section, you can manually enter the number of hierarchy levels displayed in the chart. You can select a primary path from the corresponding drop down list. The primary path is displayed in a different color from other paths. You can load the filter bar to the chart so that you can edit the chart in the preview mode or on the dashboard, as shown in the following figure.



8. Click **Save** to save the dashboard.

Delete a chart

Move the pointer over the upper-right corner of the window. Click the More icon that appears and choose **More Actions** > **Delete** to delete the current chart.

2.3.27. Flow analysis chart

This topic describes a flow analysis chart, including its overview, application example, and configuration style as well as how to delete a flow analysis chart.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A flow analysis chart illustrates the conversion rate of a web page by comparing the source, center, and goal traffic for a web page.

A flow analysis chart supports these three-level dimensions, center nodes, node types, and node names. The measures of a flow analysis chart include node metrics.

- You can specify only one dimension for the center node, node name, and node type, respectively. The dimension fields must be hierarchical. You must set the node type field to **source**, **center**, or **goal**. The three dimension values correspond to the source traffic node, the center traffic node, and the traffic goal node. You can specify only one measure for each node metric. The source traffic data is the metric of the center node with its node type set to source. The traffic goal data is the metric of the center node with its node type set to goal. The conversion rate of a web page equals the ratio of the metric value of the source traffic data to the metric value of the center node.
- For more information about the examples of a flow analysis chart, see Flow Analysis-demo table.

> **Note** Data for node types other than **source**, **center**, and **goal** are filtered out. When the node name is left blank: If the node type is **source**, the value of the node name is **unknown source**. If the node type is **goal**, the value of the node name is **unknown goal**.

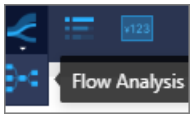
Application example of a flow analysis chart

The following example uses the *page_source_target_state* dataset to describe the application of a flow analysis chart.

1. In the left-side navigation pane of the Workspace page, click **Datasets** to go to the Datasets page.
2. Find the *page_source_target_state* dataset and click the icon in the Actions column corresponding to the dataset.

   > **Note** If you use **Quick BI Standard**, you need to select **Standard** or **Full Screen** in the dialog box that appears in the dashboard display mode. The following example uses **Standard** as the display mode.

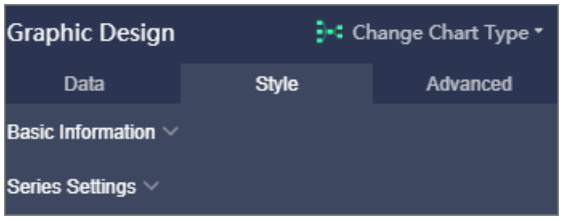
3. Click the icon. A flow analysis chart appears in the display area of the dashboard.



4. On the **Data** tab page, select the required measures and dimensions.

   In the Dimensions list, find and add center node, node type, and node name to the corresponding fields. In the Measures list, find and add node metrics to the corresponding fields. The following figure shows an example.

5. Click **Update**. The system updates the chart.
6. On the **Style** tab page, set Show Title and Layout.



7. Click **Save** to save the dashboard.

Configure settings on the Style tab

1. In the **Basic Information** section, configure Title, Description, Show Link, and Custom background.

   > **Note**
   > - This example uses Dark as the background.
   > - If you want to redirect to a report or an external page, select Show Link and specify Link Text and Link Address.

2. In the **Series Settings** section, set Alias and Data Display Format for a measure.

Delete a chart

Perform the following steps to delete a chart:

1. Click the icon in the upper-right corner of a chart.

2. Select **Delete**.

2.3.28. LBS heat maps

This topic describes the overview, examples, and deletion of an LBS heat map.

> **Note** LBS heat maps only apply to **Quick BI Enterprise Standard**.

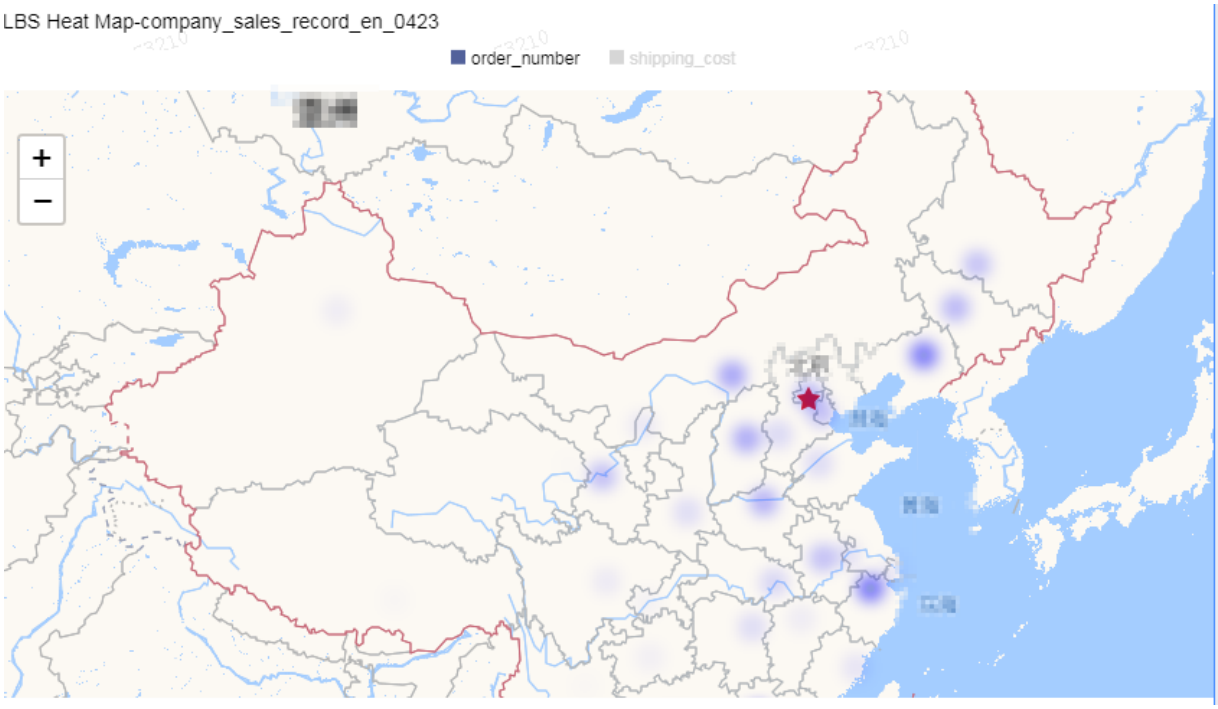
Make sure that you have read Dashboard overview and Dashboard basic operations before reading this topic. For more information about how to create a dataset, see Create a dataset.

Overview

Similar to a colored map, an LBS heat map represents the size and distribution of data by using different shades of location dots.

An LBS heat map is based on geographic locations and heat intensity. Geographic locations are determined by Geo type dimensions such as the province. Heat intensity is determined by measures such as the order amount and profit amount.

Samples



Notes

You can only select one dimension for the geographical locations and the dimension type must be Geo. You can select a minimum of one and a maximum of five measures for the heat intensity.

For more information, see Detailed information for regions.

Examples

The following example uses the company_sales_record dataset.

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select the company_sales_record dataset and click the **Create Dashboard** icon.

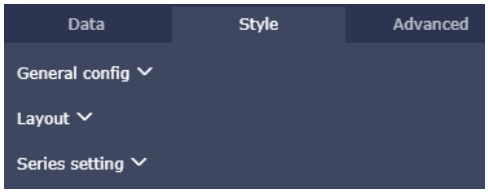
   > **Note** If you use **Quick BI Enterprise Standard**, you need to select **Standard** or **Full Screen** as the dashboard display mode. The following example uses the **Standard** display mode.

4. Click the **LBS Heat Map** icon and an empty chart appears.
5. On the **Data** tab page, select a dimension and measures.

   On the Dimensions list, locate the **province** field and add it to the Geo Location section. On the Measures list, locate the **order_number** and **shipping cost** fields and add them to the Heat Intensity (Measures) section respectively.

   > **Note** Make sure that you have converted the dimension type from String to Geo for the province dimension. For more information, see Change the dimension type.

6. Click **Update** and the chart is updated.
7. On the **Style** tab page, you can configure the title, layout, and measures' aliases.

8. Click **Save** to save the dashboard.

Configure the style

- In the Basic Information section, you can configure the title, hyperlink, and background color. This example uses Dark as the background color.

  > **Note** To configure a hyperlink used to jump to a report or an external page, select **Show Hyperlink** and enter a name and address.

- In the Layout section, you can configure the legend position, base map, zoom setting, and map center. This example uses Google Map as the base map.
- In the Series Settings section, you can configure measures' aliases and legend colors.

Click Update and the chart is updated.

Delete a chart

In the upper-right corner of the chart, choose **More Actions > Delete** to delete the chart.

2.3.29. LBS bubble maps

This topic describes the overview, examples, and deletion of an LBS bubble map.

> **Note** LBS bubble maps only apply to **Quick BI Enterprise Standard**.

Make sure that you have read Dashboard overview and Dashboard basic operations before reading this topic. For more information about how to create a dataset, see Create a dataset.

Overview

Similar to a bubble map, an LBS bubble map is a map that uses the sizes of bubbles distributed across the map to reflect data. It provides multiple base maps for you to choose from, such as AMAP, Google Maps, and GeoQ. LBS bubble maps allow you to understand the distribution and values of metrics across countries and regions in an easy and visual way. For example, LBS bubble maps can display the passenger numbers across tourist attractions or the per capita incomes across regions.

An LBS bubble map is based on bubble sizes and geographical locations. Geographical locations are determined by Geo type dimensions such as the province. Bubble sizes are determined by measures such as the shipping cost and order number.

Samples

Notes

You can only select one dimension for the geographical locations and the dimension type must be Geo. For example, the area, province, and city fields. You can select a minimum of one and a maximum of five measures for bubble sizes.

For more information, see Detailed information for regions.

Examples

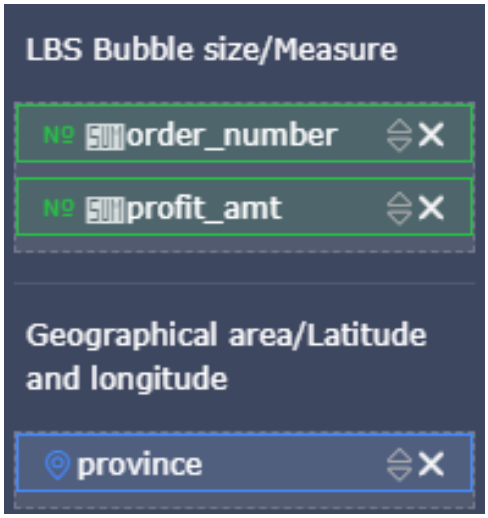
The following example uses the company_sales_record dataset.

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select the company_sales_record dataset and click **Create Dashboard**.

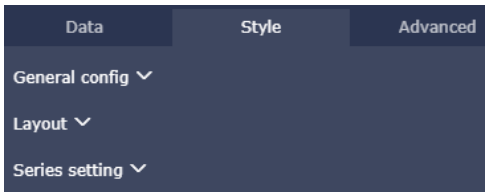
   > **Note** If you use **Quick BI Enterprise Standard**, you need to select **Standard** or **Full Screen** as the dashboard display mode. The following example uses the **Standard** display mode.

4. Click the **LBS Bubble Map** icon and an empty chart appears.
5. On the **Data** tab page, select dimensions and measures.

   On the Dimensions list, locate the **province** field to the Geo Location section. On the Measures list, locate the **order_amt** and **profit_amt** fields and add them to the Bubble Size (Measures) section respectively.



6. Click **Update** and the chart is updated.
7. On the **Style** tab page, you can configure the title, layout, and data display formats.



8. Click **Save** to save the dashboard.

   In the upper-right corner of the chart, choose **More Actions > Delete** to delete the chart.

Configure the style

- In the Basic Information section, you can configure the title, hyperlink, and background color. This example uses Dark as the background color.

  > **Note** To configure a hyperlink used to jump to a report or an external page, select **Show Hyperlink** and enter a name and address.

- In the Layout section, you can configure the legend position, base map, zoom settings, and map center. This example uses Google Map as the base map.
- In the Series Settings section, you can configure the measures' aliases, data display formats, and numbers of decimal places.

Click Update and the chart is updated.

Delete a chart

In the upper-right corner of the chart, choose **More Actions > Delete** to delete the chart.

2.3.30. LBS flying line maps

This topic describes the overview, examples, and deletion of an LBS flying line map.

> **Note** Only **Quick BI Enterprise Standard** supports LBS flying line maps.

Make sure that you have read Dashboard overview and Dashboard basic operations before reading this topic. For more information about how to create a dataset, see Create a dataset.

An LBS flying line map is a map that uses flying lines to display the relations between data across two or more locations.

An LBS flying line map consists of geographic locations and routes. Geographic locations are based on dimensions such as the province. Color scales are based on measures such as the order amount and order number.

Overview

An LBS flying line map is a map that uses flying lines to display the relations between data across two or more locations.

An LBS flying line map consists of geographic locations and routes. Geographic locations are based on dimensions such as the province. Color scales are based on measures such as the order amount and order number.

Samples

Notes

You can only select one dimension for each geographic location and the dimensions must be Geo type fields such as the area, province, and city. You can select a maximum of one measure for the routes.

For more information, see Detailed information for regions.

Examples

The following example uses the company_sales_record dataset.

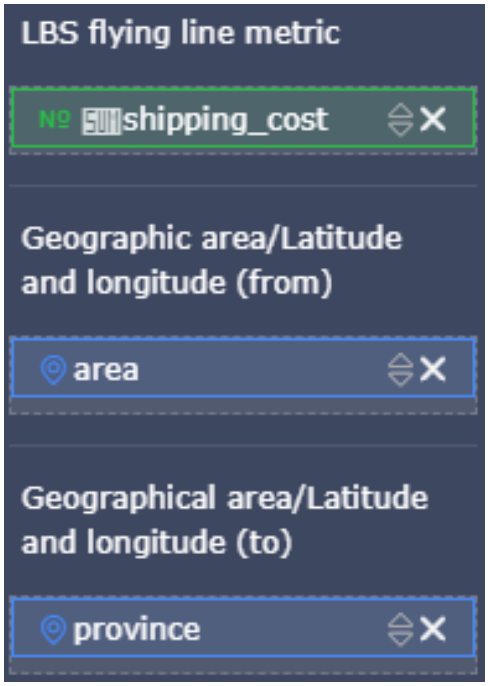
1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select the company_sales_record dataset and click **Create Dashboard**.

   > **Note** If you use **Quick BI Enterprise Standard**, you need to select **Standard** or **Full Screen** as the dashboard display mode. The following example uses the **Standard** display mode.

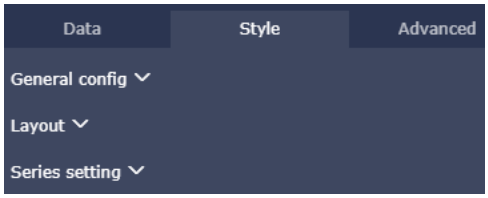
4. Click the **LBS Flying Line Map** icon and an empty chart appears on the dashboard.
5. On the **Data** tab page, select dimensions and a measure.

   On the Dimensions list, locate the **area** field and add it to the Geo Location (From) section. Locate the **province** field and add it to the Geo Location (To) section. On the Measures list, locate the **shipping_cost** field and add it to the Routes (Measures) section as shown in the following figure.

   > **Note** Make sure that you have converted the dimension type from String to Geo for the province and area fields. For more information, see Change the dimension type.



6. Click **Update** and the chart is updated.
7. On the **Style** tab page, you can configure the title, layout, and series setting as shown in the following figure.



8. Click **Save** to save the dashboard.

   In the upper-right corner of the chart, choose **More Actions > Delete** to delete the chart.

Configure the style

- In the Basic Information section, you can configure the title, hyperlink, and background color. This example uses Dark as the background color.
- In the Layout section, you can configure the legend position, base map, zoom settings, and map center. This example uses Google Map as the base map.

  > **Note** You can adjust the flying speed by moving the Flying Time slider. The bigger the slider value, the lower the flying speed.

- In the Series Setting section, you can configure the measure's alias and line color.

Click Update and the chart is updated.

Delete a chart

In the upper-right corner of the chart, choose **More Actions > Delete** to delete the chart.

2.3.31. Progress bar

This topic introduces progress bars, including an overview and an application example. This topic also describes how to configure the style of a progress bar and how to delete a progress bar.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- A dataset is created and edited based on your business requirements. For more information, see Create a dataset.

Overview

A progress bar displays the progress of a task.

A progress bar consists of multiple progress pointers. Pointers are determined by measures, such as order quantity.

> **Notice**
>
> - You can specify up to five measures for the pointers.
> - Before you use a progress bar, you must specify target values in the **Functionality** section on the **Style** tab.

Application example

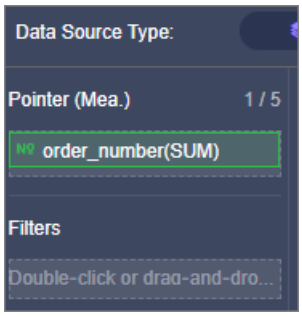
Scenario: Use a progress bar to display the order quantity. The following example uses the *company_sales_record* dataset to describe the application of a progress bar.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. On the Datasets page that appears, find the *company_sales_record* dataset, and click the icon in the Actions column.

   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

3. Click the icon. A progress bar appears in the display area of the dashboard.
4. Click the **Data** tab and select the required measures.

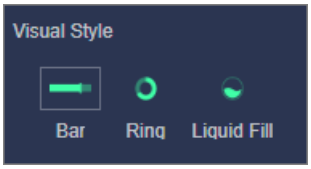
   In the Measures list, find and add order_number to the Pointer (Mea.) field.



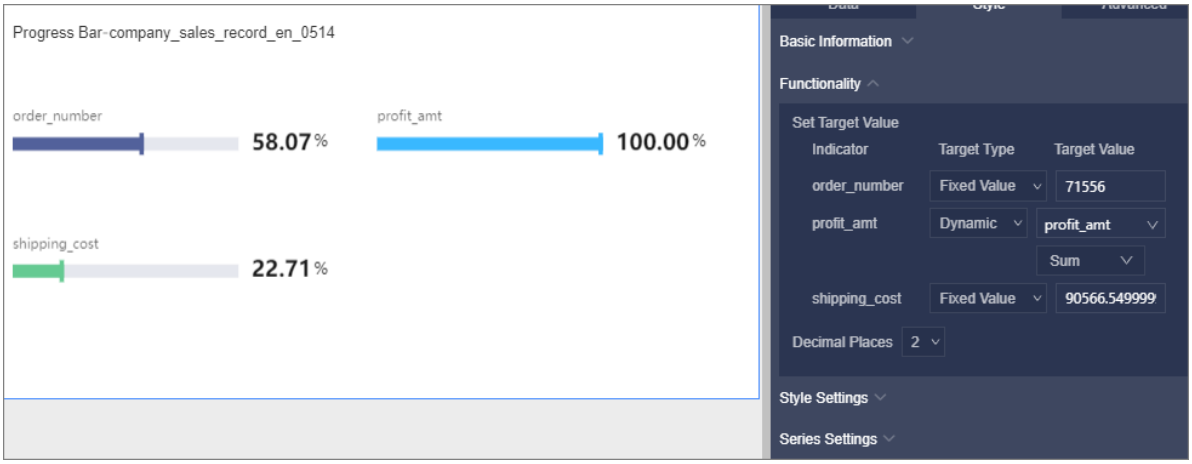
5. Click **Update**. The chart is updated.
6. Click the **Style** tab and configure parameters in the Basic Information, Functionality, Style Settings, and Series Settings sections.
7. Click **Save** in the upper-right corner. In the Save Dashboard dialog box that appears, enter a name for the dashboard and click OK.

Configure parameters on the Style tab

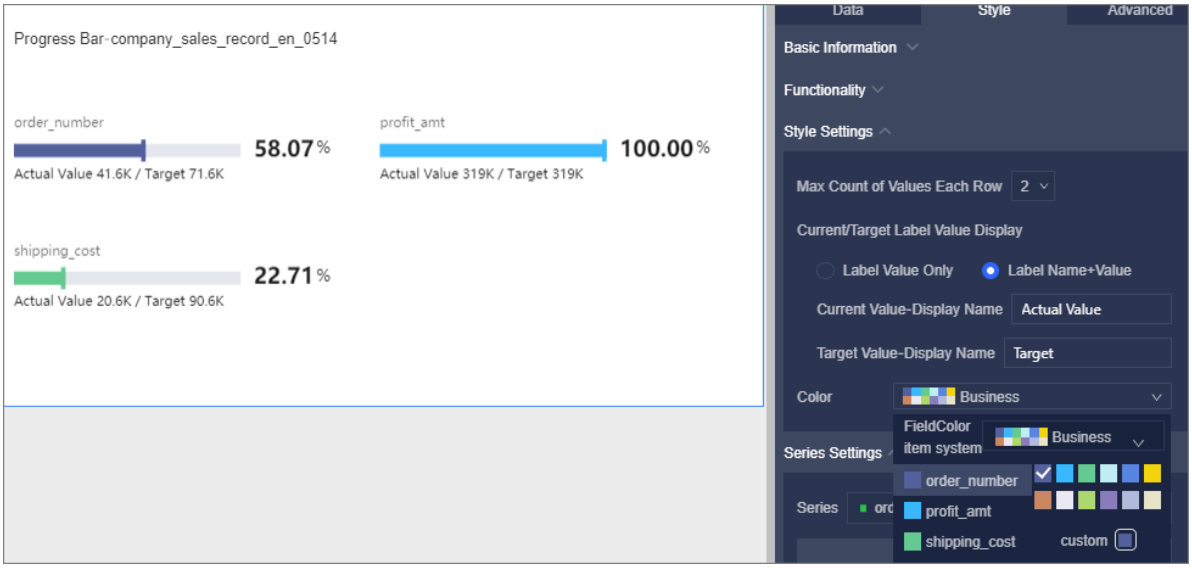
- In the **Basic Information** section, configure Show Title and Description, Show Link, and Visual Style. Quick BI supports three styles: Bar, Ring, Liquid Fill.



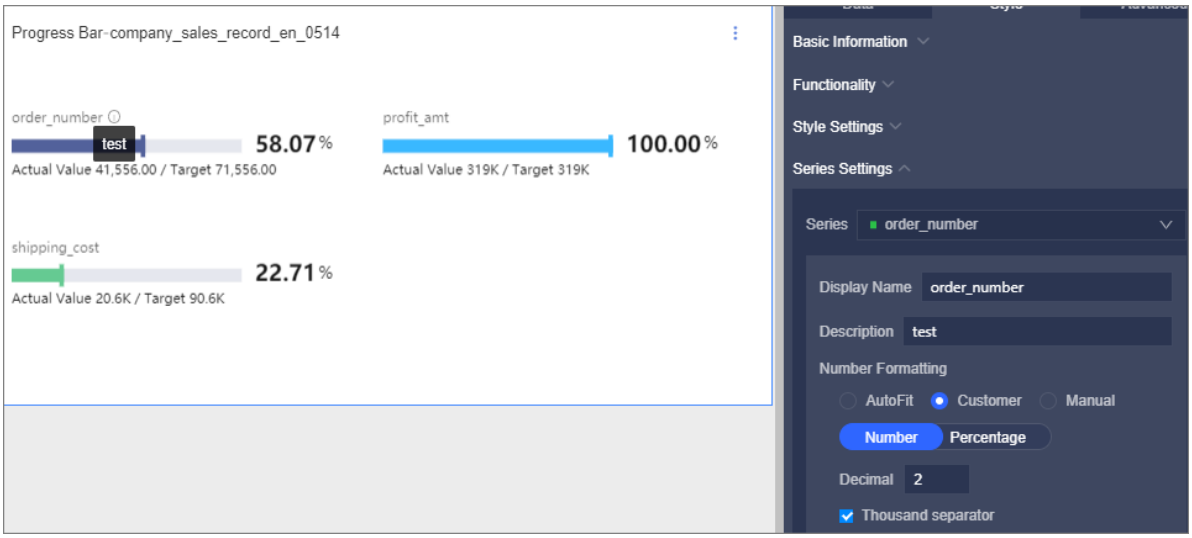
- In the **Functionality** section, set target values. You can specify fixed or dynamic target values. The dynamic values are calculated by using aggregate functions.



- In the Style Settings section, specify the number of progress bars displayed in each row, the display mode of the current or target value, and colors for the progress bars.



- In the **Series Settings** section, specify Display Name, Description, and Number Formatting for each measure.



Delete the progress bar

Follow these steps to delete a progress bar:

1. Click the icon in the upper-right corner of the progress bar.
2. Select **Delete**.

2.3.32. Sankey diagram

This topic describes a Sankey diagram, including its overview, application example, configuration style as well as how to delete a Sankey diagram.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A Sankey diagram is a flow diagram in which the branch width is proportional to the flow rate. It shows the data flow between two groups of values. It is ideal for visualization analysis of energy, material composition, and finance data.

> **Notice**
> - For a Sankey diagram, you can specify two to five dimensions for the node category (dimension) axis, such as province and product type. Whereas, you can specify up to one measure for the value axis, such as order quantity.
> - Sankey diagrams do not support advanced filter interaction.

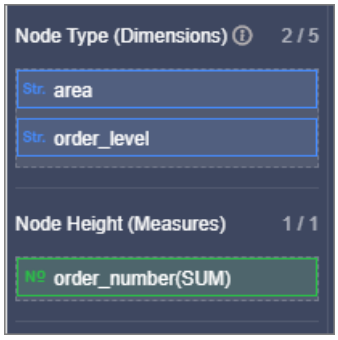
Application example of a Sankey diagram

This example uses the *company_sales_record* dataset to describe the flow of order quantities and order levels of different products in different regions.

1. In the left-side navigation pane of the Workspace page, click **Datasets** to go to the Datasets page.
2. Find the *company_sales_record* dataset, and click the icon in the Actions column corresponding to the dataset.

   > **Note** If you use **Quick BI Enterprise Standard**, you need to choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click the  icon. A Sankey diagram appears in the display area of the dashboard.
4. In the Dimensions list, find and add the area and order_level fields to Node Type (Dimensions).
5. In the Measures list, find and add the order_number field to Node Height (Measures).



6. Click **Update**. The system updates the chart.
7. On the **Style** tab, configure basic information, chart type, and series settings.
8. Click **Save** to save the dashboard.

Configure settings on the Style tab

- In the **Basic Information** section, configure the title, whether to show the link, and background color.

  This example uses **Light Color (Default)** as the background color.

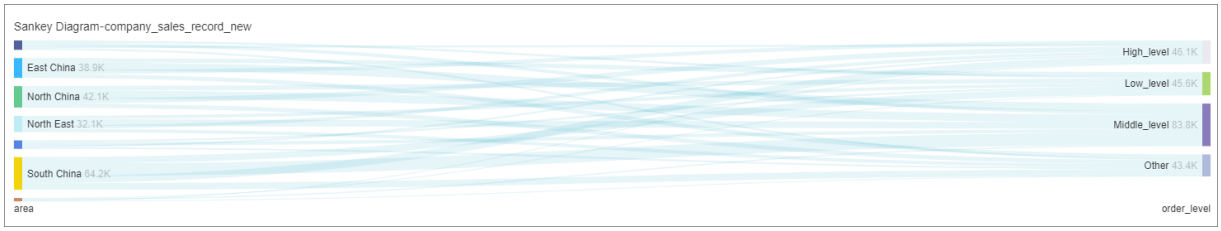
  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

- In the **Chart Type** section, set Show Labels and Line Style.

- In the **Series Settings** section, set Alias and Data Display Format for the measure.

  In this example, the default data display format **AutoFit** is used.

Click Update. The following figure shows an updated chart.



Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of the chart.

2. Select **Delete**.

2.3.33. Ranking board

This topic describes a ranking board, including its overview, application example, and configuration style as well as how to delete a ranking board.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A ranking board shows the ranking of the Top N objects in descending order of a specific measure. It objectively reflects the strength of objects of the same category.

> **Notice**
> - By default, the data of 20 rows can be previewed, and a maximum of 50 rows can be displayed.
> - For a ranking board, you can specify only one category axis (dimension) such as region or product type and only one measure such as order quantity or profit.

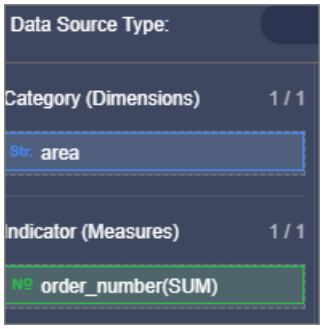
Application example of a ranking board

The following example uses the *company_sales_record* dataset to compare the order quantities in different regions.

1. In the left-side navigation pane of the Workspace page, click **Datasets** to go to the Datasets page.
2. Find the *company_sales_record* dataset, and click the icon in the Actions column corresponding to the dataset.

   > **Note** If you use **Quick BI Enterprise Standard**, you need to choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click the  icon. A ranking board appears in the display area of the dashboard.
4. In the Dimensions list, find and add the **area** field to Category (Dimensions).



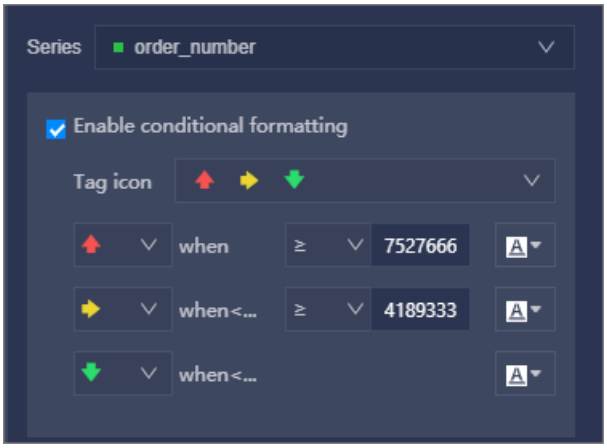
5. In the Measures list, find and add the **order_number** field to Indicator (Measures).
6. Click **Update**. The system updates the chart.
7. On the **Style** tab, configure basic information, chart type, and series settings.
8. Click **Save** to save the dashboard.

Configure settings on the Style tab

- In the **Basic information** section, configure the title, color, and whether to show the link.

  > **Note** If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.

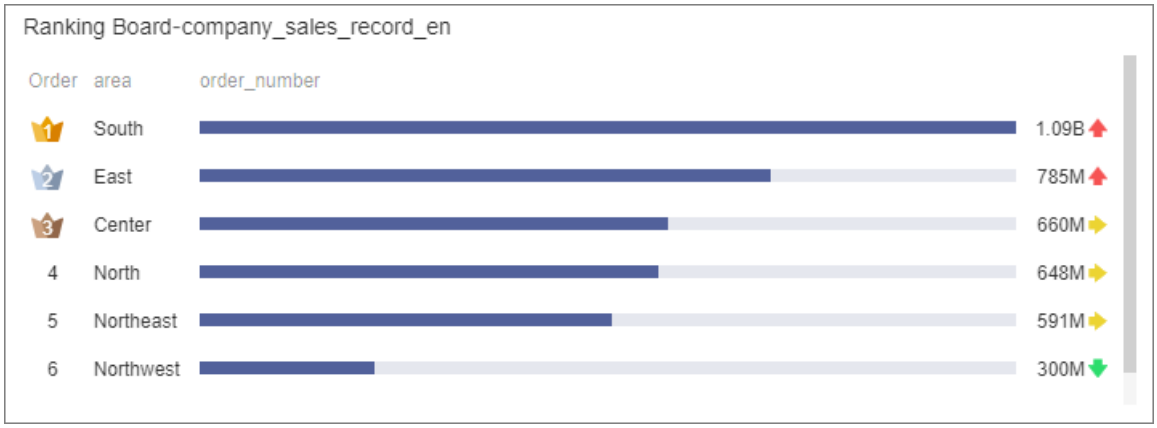
- In the **Style Settings** section, set Show Column Name, Theme for Top 3 Items, Data Display Format, Value Alignment, and Bar Color.
- In the **Functionality Settings** section, set conditional formatting.



  i. Select **Enable conditional formatting**, and select icon themes from the drop-down list of **Tag icon**.
  ii. You can specify the rules for data that you want to mark out, the icon style, and font color.

- In the **Series Settings** section, set the measure alias, alignment, and data display format.

Click Update. The following figure shows an updated figure.



Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of the chart.
2. Select **Delete**.

2.3.34. Ticker board

This topic describes a ticker board, including its overview, application example, and configuration style as well as how to delete a ticker board.

Prerequisites

- You have logged on to the Quick BI console.
- You are familiar with operations on dashboards. For more information, see Dashboard overview and Basic dashboard operations.
- For information about how to create a dataset, see Create a dataset.

Overview

A ticker board displays core KPI data and allows you to customize style settings such as the background color.

> **Notice** A ticker board can only display indicators (measures).

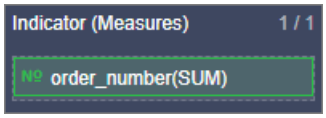
Application example of a ticker board

The following example uses the *company_sales_record* dataset to describe how to use a ticker board.

1. In the left-side navigation pane of the Workspace page, click **Datasets**.
2. Find the *company_sales_record* dataset, and click the icon in the Actions column corresponding to the dataset.

> **Note** If you use **Quick BI Enterprise Standard**, you need to choose **Standard** or **Full Screen** as the dashboard type. The following example uses **Standard** as the dashboard type.

3. Click the icon. A ticker board appears in the display area of the dashboard.
4. In the Measures list, find and add the *order_number* field to Indicator (Measures).

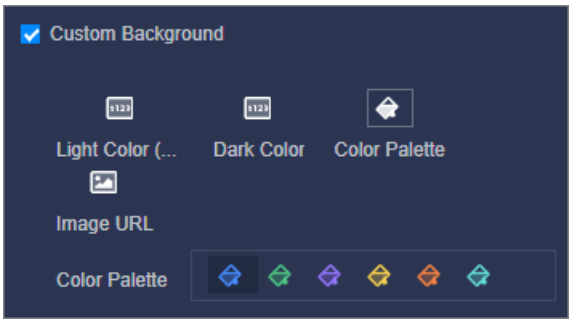


5. Click **Update**. The system updates the chart.
6. On the **Style** tab, configure basic information, chart type, functionality, and series settings.
7. Click **Save** to save the dashboard.

Configure settings on the Style tab

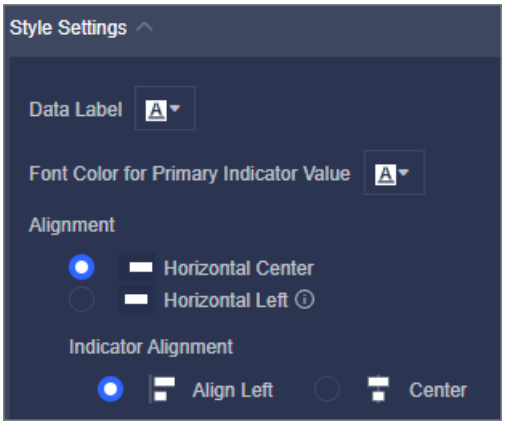
- In the **Basic Information** section, set Show Title and Description, Show Link, and Custom background.

  Custom background offers three options for the background: Light Color (Default),Dark Color, Color Palette, and Image URL.

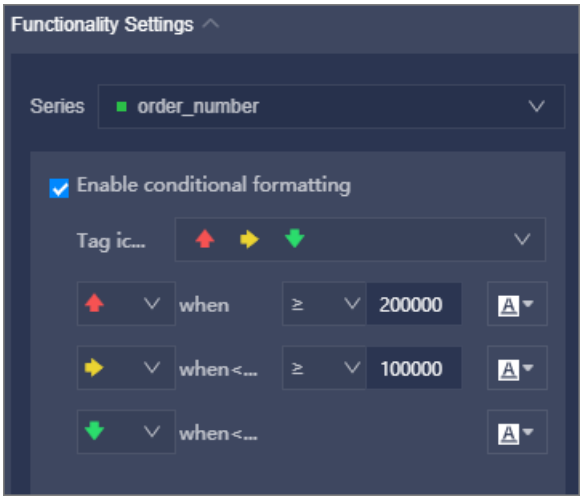


> **Note**
> - If you want to redirect to a report or an external page, select **Show Link** and specify Link Text and Link Address.
> - Six color templates are available for you to choose.

- In the **Style Settings** section, set Font Color for Primary Indicator Value and Indicator Alignment.



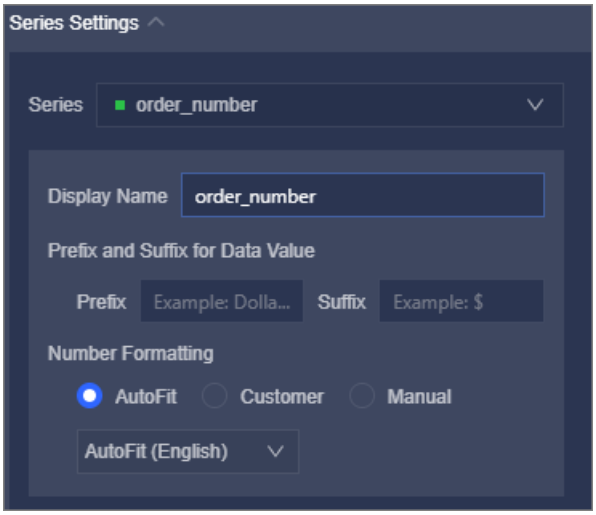
- In the **Functionality Settings** section, set conditional formatting.



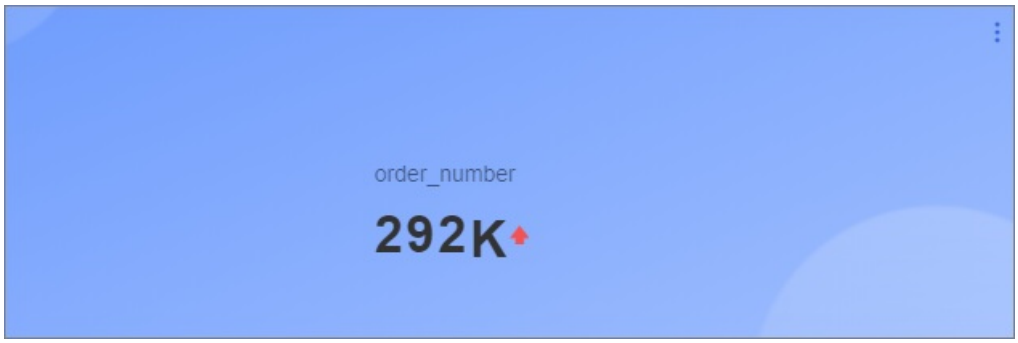
i. Select **Enable conditional formatting**, and select icon themes from the drop-down list of Tag icon.

ii. You can specify the rules for data that you want to mark out, the icon style, and font color.

- In the **Series Settings** section, set the measure alias, prefix, suffix, and data display format.



Click Update. The following figure shows an updated chart.



Delete a chart

Perform the following steps to delete a chart:

1. Click the ⋮ icon in the upper-right corner of a chart.

2. Select **Delete**.

2.4. Visualization analysis

2.4.1. Drilling, filter interaction, and hyperlink

Quick BI supports drilling, filter interaction, and hyperlinks for multi-dimensional data analysis. This topic provides the scenarios and instructions about these features.

Overview

- Drilling: When you click an area or a field on a dashboard, the dimension level changes and the analysis granularity also changes.
- Filter interaction: When you click an area or a field in a chart on a dashboard, the associated charts on the dashboards display data of the area or field.
- Hyperlink: When you click a field in a chart on a dashboard, you are redirected to the linked report. You can use global parameters or URLs for redirection.

> Note
>
> - Quick BI Basic does not support global parameters. We recommend that you use URLs in this edition.
> - When you use global parameters for redirection in Quick BI Pro and Quick BI Enterprise Standard, you can be redirected from a cross table in a personal workspace to a report in a group workspace, but cannot be redirected to other reports in the personal workspace.
> - Redirection by using global parameters applies to only group workspaces. For more information about group workspaces, see Concepts.

Scenarios

The following example describes how to perform filter interactions among charts, drill through a hierarchy to change the granularity of data analysis, and redirect to the Order information pages by using URLs in Quick BI.

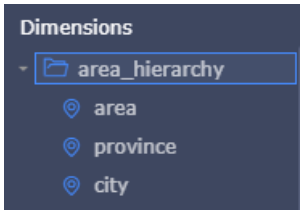
The company_sales_record dataset is used in this example. You can use the CSV file sample sales data to create a dataset.

Procedure:

1. Edit the dataset
2. Create dashboards
3. Configure the drilling feature
4. Configure the filter interaction feature
5. Configure the hyperlink feature

Edit the dataset

Before you use the *company_sales_record* dataset, make sure that the **area**, **province**, and **city** dimensions have been converted to the Geo type and have been added to the same hierarchy.



1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, click the *company_sales_record* dataset.
4. Edit the dataset.

i. (Optional)Change field names.Find the field for which you want to change the name, click the icon next to the field, and then click **Edit**. The following table lists fields in the dataset.

Field	Data Type	Description
order_id	varchar	The ID of the order
report_date	datetime	The date on which the order was generated
customer_name	varchar	The name of the customer
order_level	varchar	The level of an order
order_number	double	The number of orders
order_amt	double	The amount of an order
back_point	double	The discount
shipping_type	varchar	The transportation method
profit_amt	double	The profit amount
price	double	The unit price
shipping_cost	double	The cost of transportation
area	varchar	The area
province	varchar	The province
city	varchar	The city
product_type	varchar	The type of the product
product_sub_type	varchar	The subtype of the product
product_name	varchar	The name of the product
product_box	varchar	The packaging of the product
shipping_date	datetime	The date of transportation

ii. Create a hierarchy.In the Dimensions list, find **area**, click the

icon next to the field, and then select **Create Hierarchy**. In the Create Hierarchy dialog box, set Level Name and click **OK**.

iii. Move **province** and **city** to the new hierarchy *area_hierarchy*.In the Dimensions list, click the

icon next to **province** and **city**, choose **Move To > area_hierarchy**, and then click **Save**.

iv. Convert the fields to the Geo type.

- Click the

  icon next to **area**, and choose **Change Dimension Type > Geo > Region**.
- Click the

  icon next to **province**, and choose **Change Dimension Type > Geo > State/Province/Municipality**.
- Click the

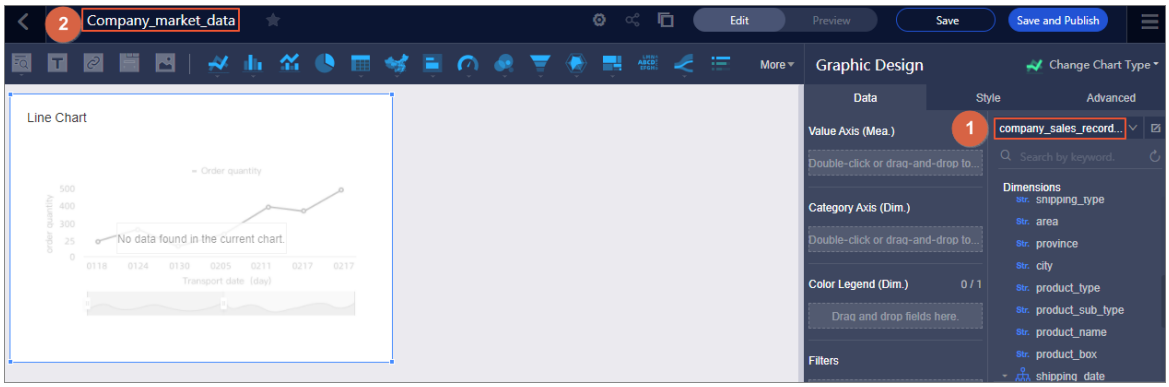
  icon next to **city**, and choose **Change Dimension Type > Geo > City**.

v. Click **Save**.

Create dashboards

You must create two dashboards. The following example demonstrates how to create a dashboard named **Company_market _data**.

1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
2. On the Dashboards page, choose **Create Dashboard > Standard**.You can also choose **Create Dashboard > Full Screen** as required.
3. On the **Data** tab, select the *company_sales_record* dataset and name the dashboard **Company_market_data**.



4. Create a pie chart and name it **Regional order proportion analysis**.

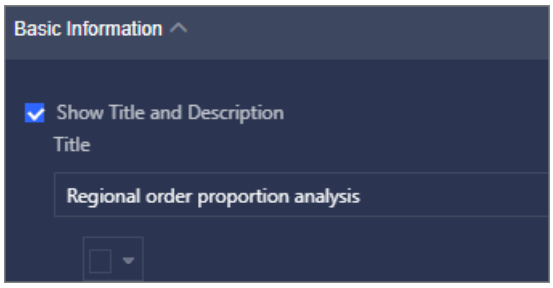
   i. Click the icon. A pie chart appears in the display area of the dashboard.

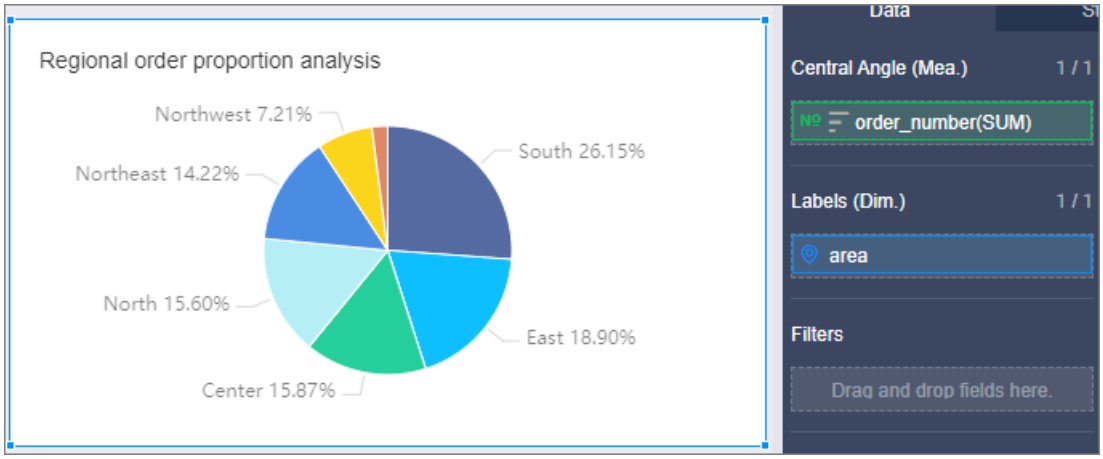
   ii. On the **Data** tab, select the required dimension and measure.

   - In the **Dimensions** list, find **area** and add it to the **Labels (Dim.)** field.
   - In the **Measures** list, find **order_number** and add it to the **Central Angle (Mea.)** field.

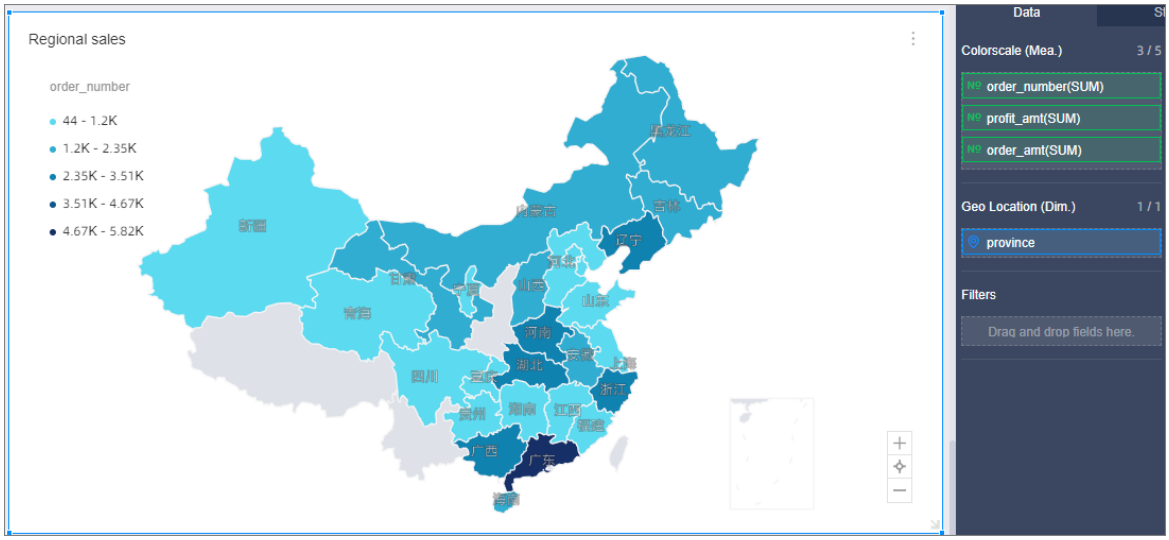
   iii. Click **Update**.

iv. On the **Style** tab, change the title to **Regional order proportion analysis**.

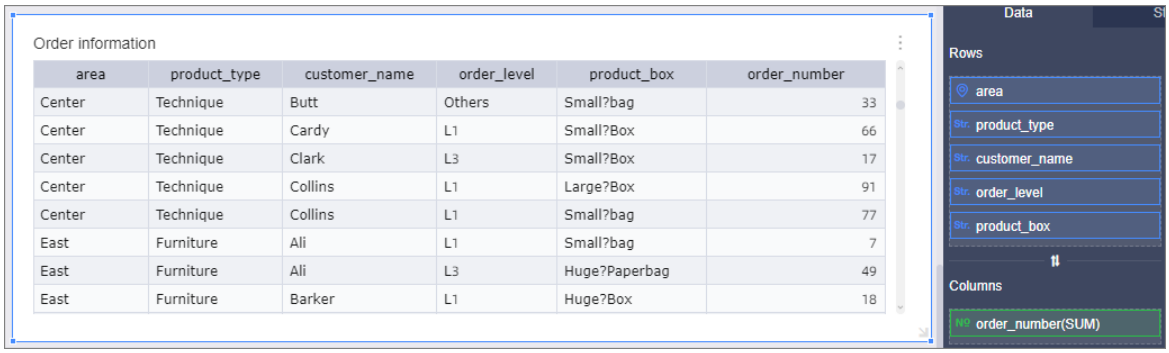




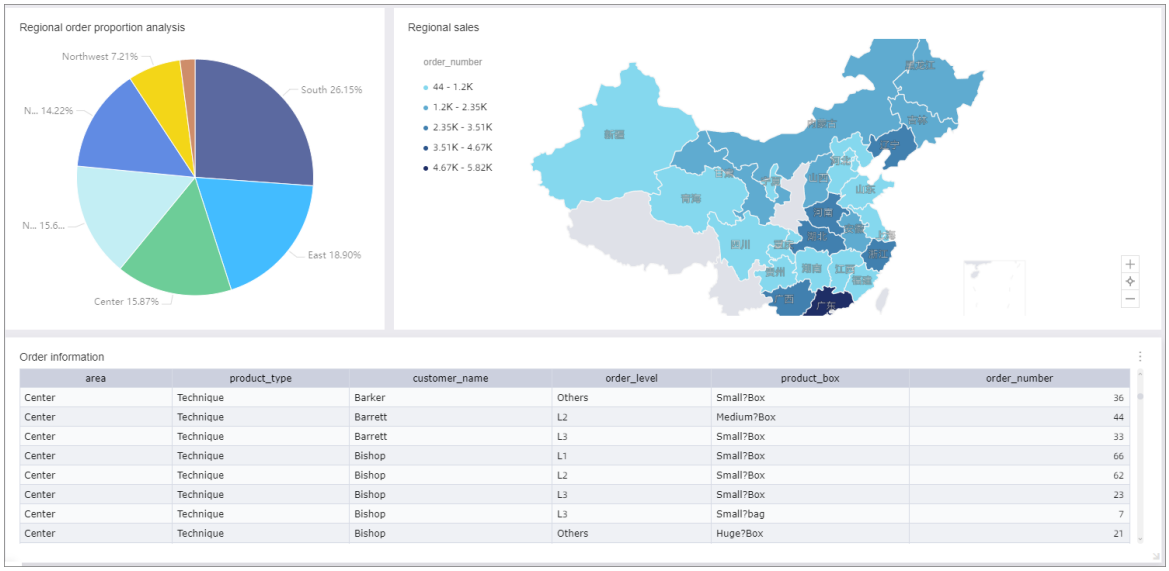
5. Create a colored map and name it **Regional sales**.



6. Create a cross table and name it **Order information**.

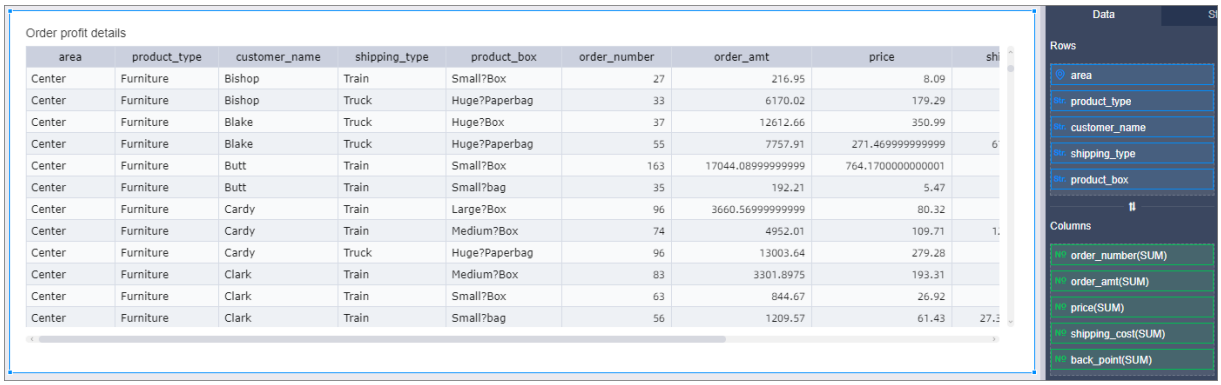


The following figure shows the newly created dashboard **Company market data**.



Follow the preceding steps to create another dashboard named **Order_profit_details**.

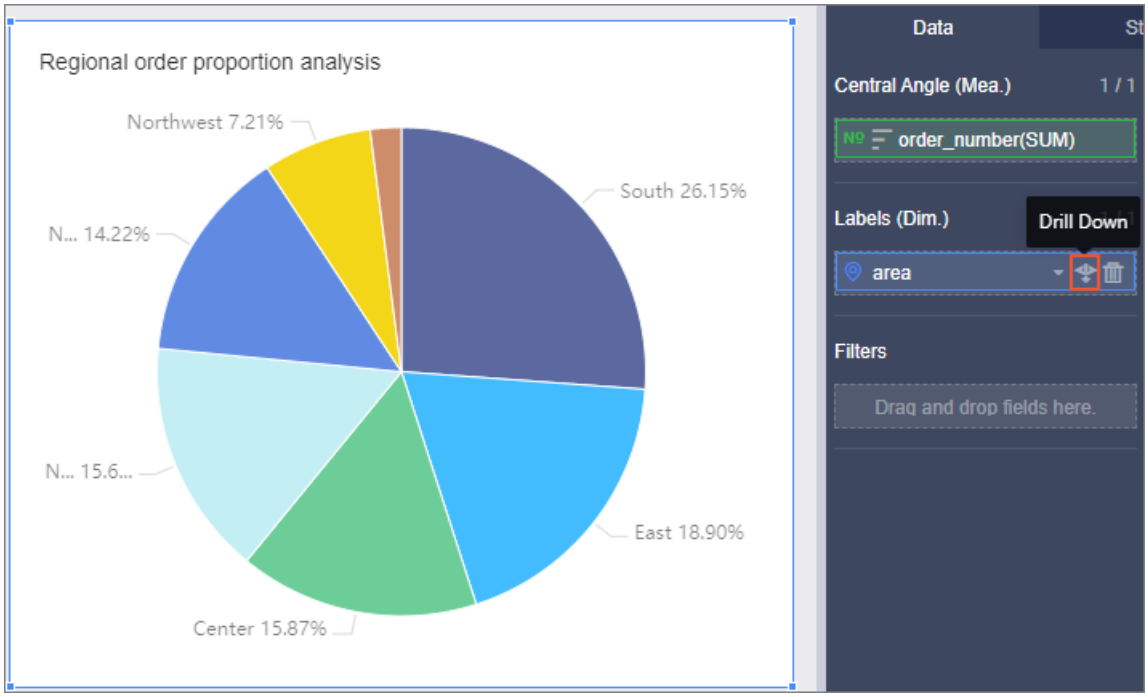
Create a dashboard and name it **Order_profit_details**. Create a cross table in the dashboard and name it **Order profit details**, as shown in the following figure.



Configure the drilling feature

You must manually configure the drilling feature. The following example demonstrates how to configure the drilling feature. A pie chart is used in this example.

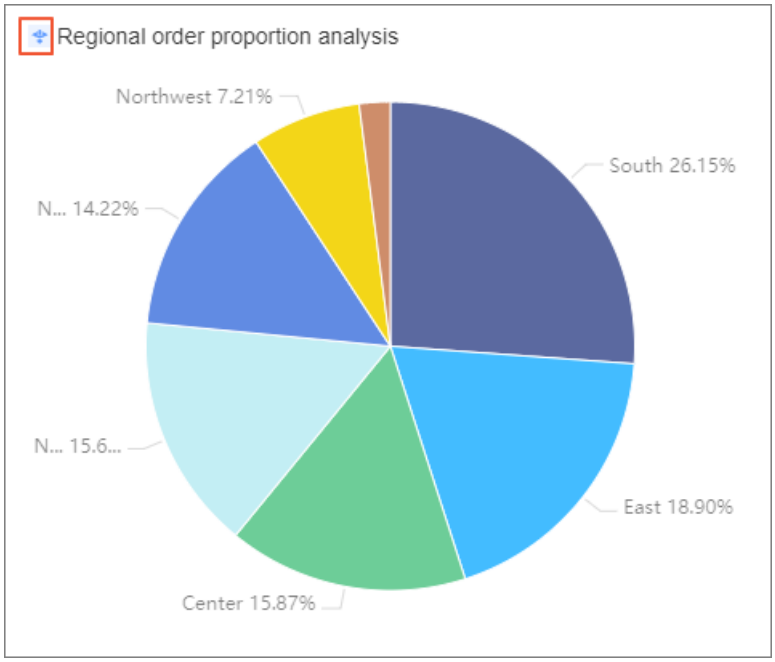
1. On the **Data** tab, click the **Drill Down** icon next to **area**.



2. Set the drilling level.In this example, the drilling hierarchy is area > province > city. You can also perform the following operations:
   - Add a drilling dimension. Drag a dimension to the **Drilling (Dim.)** field and adjust its level.
   - Change the level of a field for drilling. Under the **Drilling (Dim.)** field, drag a field and move it to the required level.
   - Delete a dimension field: Under the **Drilling (Dim.)** field, find the field that you want to delete and click the **Delete** icon.

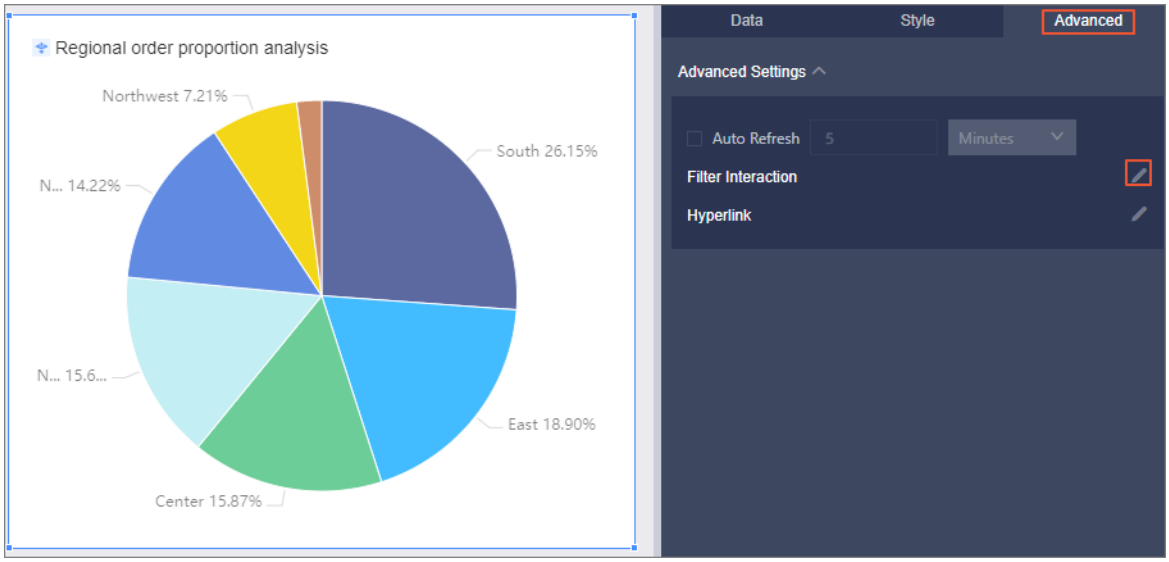
   > **Note** You can enable drilling for a maximum of three dimensions in a cross table. You can enable drilling for only one dimension for other types of charts. You can set a maximum of six levels in a hierarchy for drilling.

3. Click **Update**.The drilling icon appears on the left of the chart title, as shown in the following figure.

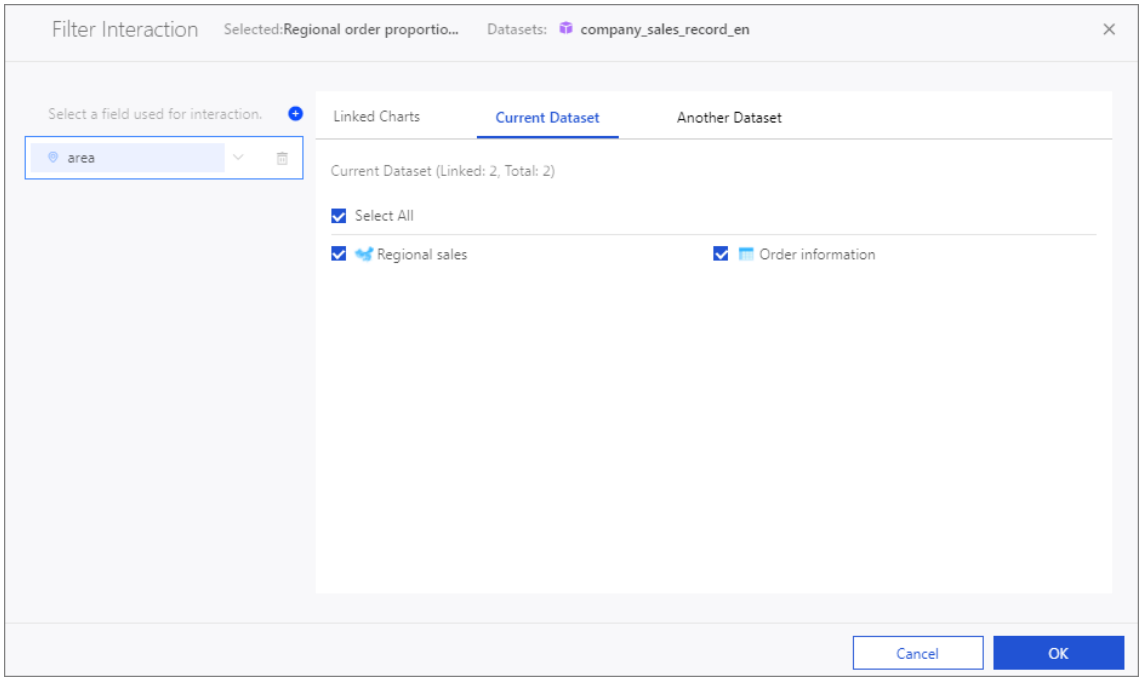


Configure the filter interaction feature

1. On the **Advanced** tab, click the Edit icon next to **Filter Interaction**.

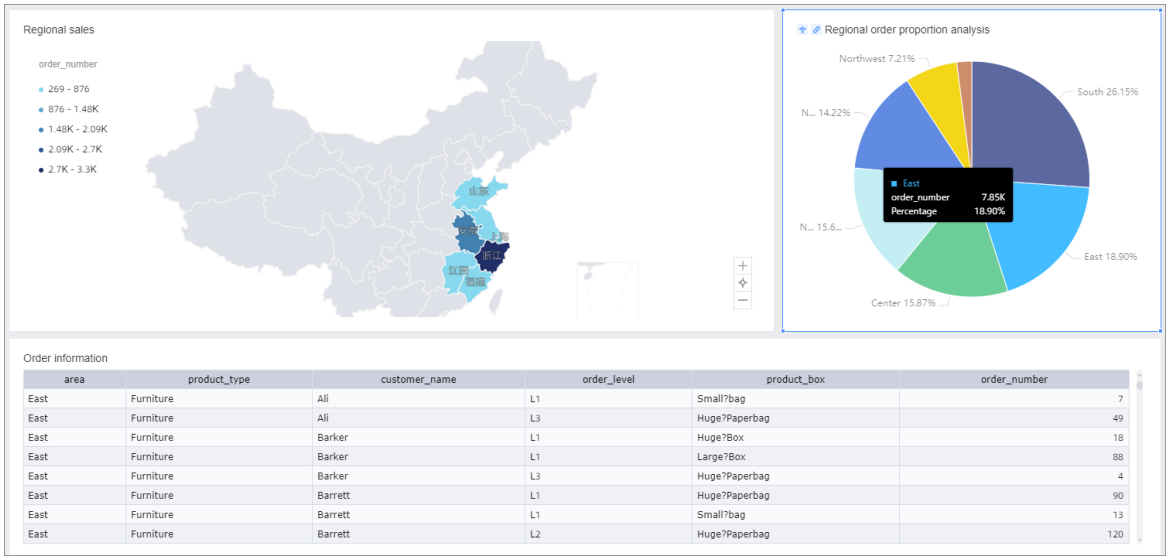


2. In the **Filter Interaction** dialog box, select **area** for chart association.You can associate the pie chart with charts that are created based on the same dataset or a different dataset.
   - If you want to associate the pie chart with a chart that is created based on the same dataset as the pie chart, select the colored map **Regional sales** and the cross table **Order information** on the **Current Dataset** tab, and click **OK**.



- If you want to associate the pie chart with a chart that is created based on a dataset different from the pie chart, select the colored map **Regional sales** on the **Current Dataset** tab and the cross table **Order information** on the **Another Dataset** tab, select **area**, and then click **OK**.

3. In the pie chart **Regional order proportion analysis**, click the **East** slice.The cross table **Order information** and the colored map **Regional sales** show the sales details in the **East** region. When you move the pointer over the chart, the detailed interaction information appears in the upper-right corner.



area	product_type	customer_name	order_level	product_box	order_number
East	Furniture	Ali	L1	Small?bag	7
East	Furniture	Ali	L3	Huge?Paperbag	49
East	Furniture	Barker	L1	Huge?Box	18
East	Furniture	Barker	L1	Large?Box	88
East	Furniture	Barker	L3	Huge?Paperbag	4
East	Furniture	Barrett	L1	Huge?Paperbag	90
East	Furniture	Barrett	L1	Small?bag	13
East	Furniture	Barrett	L2	Huge?Paperbag	120

Configure the hyperlink feature

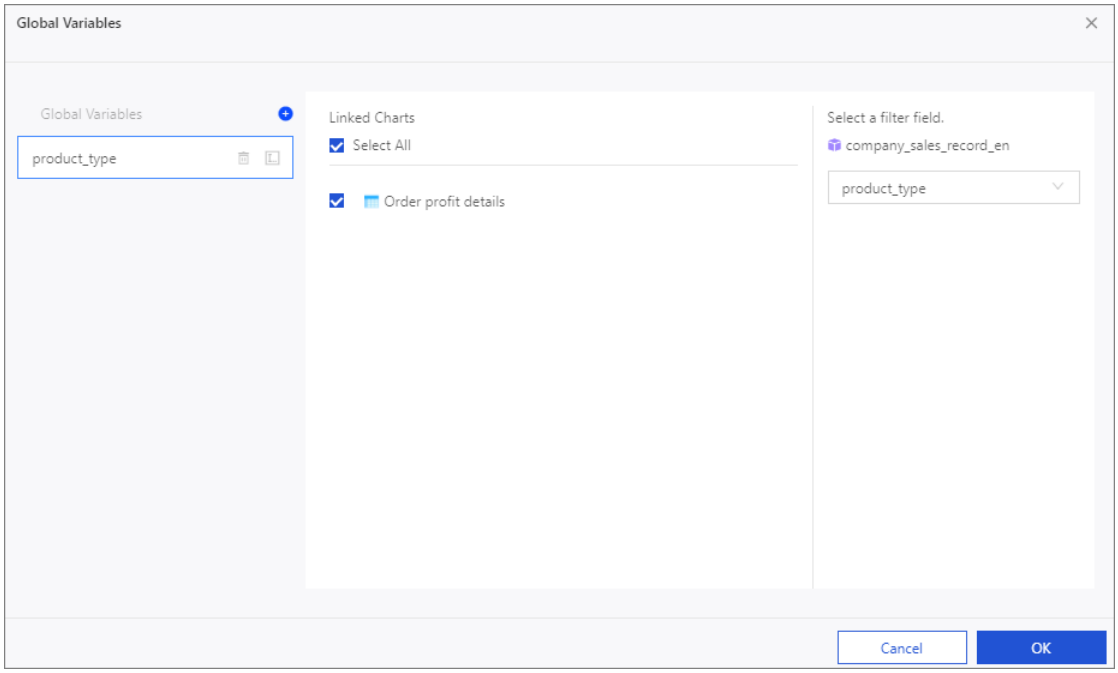
When you click **Office** in the cross table **Order information**, you are redirected to the dashboard **Order profit details** and all the orders with product_type set to **Office** appears.

1. Configure global variables

> **Note** The following example illustrates redirection by using global parameters. You must configure global parameters in advance.

i. In the dashboard **Order profit details**, click the **Global Variables** icon.

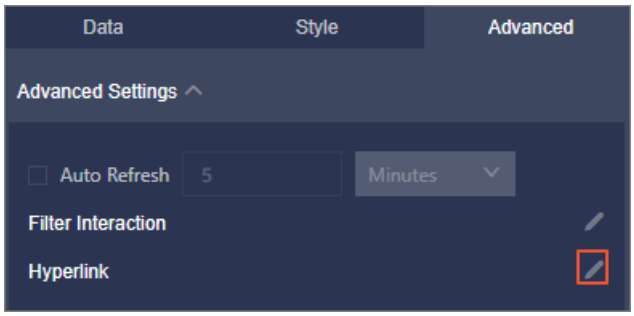
ii. In the **Global Variables** dialog box, configure global variables as shown in the following figure and click **OK**.



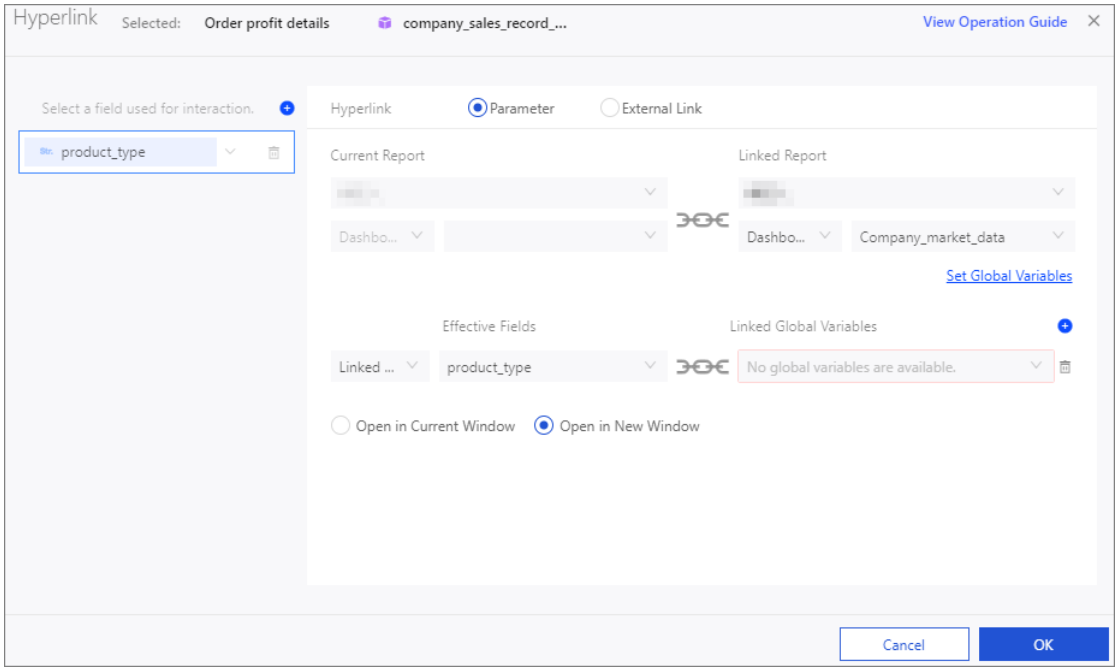
2. Configure the hyperlink feature.Hyperlink can be set to **Parameter** or **External link**. In this example, **Parameter** is selected.

i. In the dashboard **Company market data**, select the cross table **Order information** and click the **Advanced** tab in the **Graphic Design** area.

ii. Click the Edit icon next to **Hyperlink**.



iii. In the **Hyperlink** dialog box, perform the configurations as shown in the following figure and click **OK**.



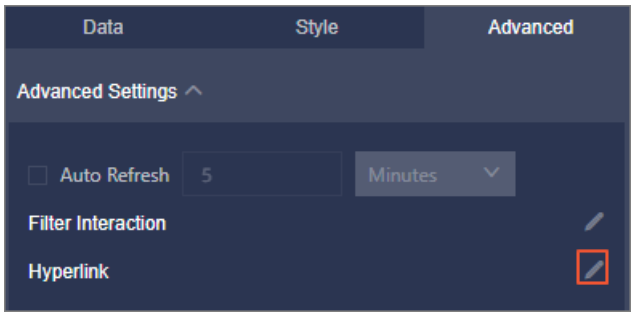
After the configuration, the values in the **product_type** column of the cross table **Order information** appear as hyperlinks.

iv. Check the hyperlink.Click **Office** in the cross table **Order information**, you will be redirected to the dashboard **Order profit details** and all the orders with **product_type** set to **Office** appear.

3. If Hyperlink is set to **External Link**, you can be redirected to a specified URL or to a user system by configuring related parameters.

i. Select the cross table **Order information** and click the **Advanced** tab in the **Graphic Design** pane.

ii. Click the Edit icon next to **Hyperlink**.



iii. In the **Hyperlink** dialog box, select a field that you want add the hyperlink, select **External Link**, enter a URL, and then click **OK**.

> **Note** You can enter the URL in the text box. You can also add dimension fields in the Add Dimensions list to the URL by double-clicking them.

iv. Click the hyperlinked field. You are redirected to the URL or user system.

2.4.2. Metric analysis

This topic describes three analysis methods: auxiliary line, trendline, and fluctuation analysis.

Background information

The following table lists charts that support these analysis methods.

Chart type	Auxiliary line	Trendline	Fluctuation analysis
Line chart	√	√	√
Area chart	√	√	√
Stacked area chart	√	×	×
100% stacked area chart	√	×	×
Vertical bar chart	√	√	√
Stacked vertical bar chart	√	×	×
100% stacked vertical bar chart	√	×	×
Horizontal bar chart	√	√	×
Stacked horizontal bar chart	√	×	×
100% stacked horizontal bar chart	√	×	×
Combination chart	√	√	√
Trend indicator	×	×	√
Scatter chart	√	×	×
Bubble chart	√	×	×

Prerequisites

A dashboard is created. For more information, see Dashboard overview and Create a dashboard.

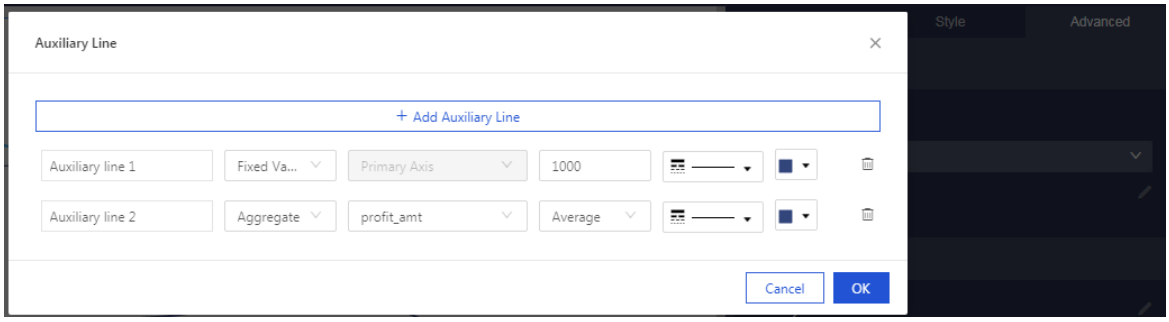
Auxiliary line

You can add an auxiliary line to view the difference between the value of a measure and the value indicated by the auxiliary line. The value indicated by an auxiliary line can be a fixed or aggregate value. Supported aggregate functions include AVG, MAX, MIN, and Median.

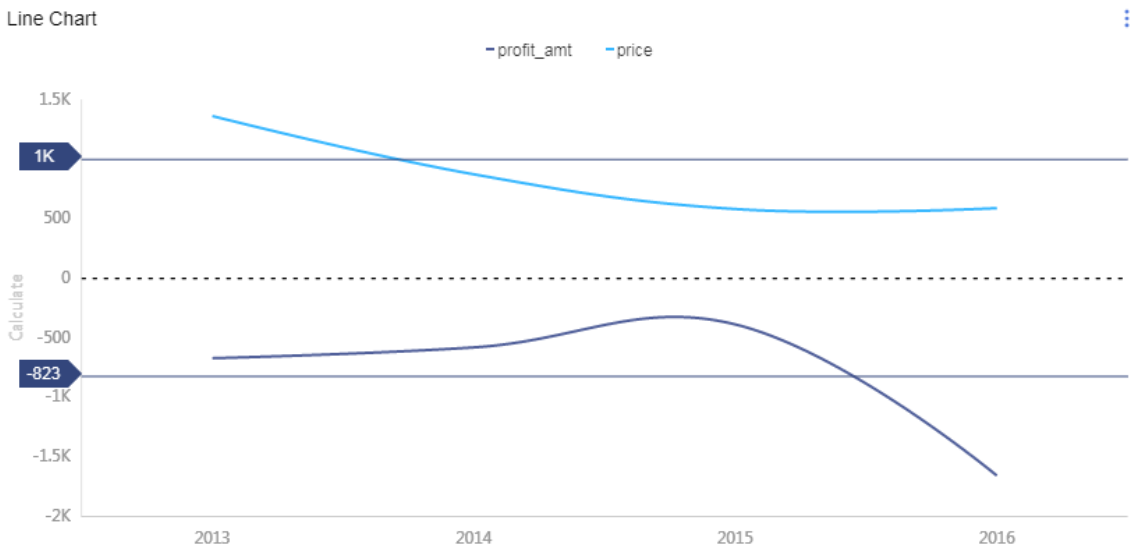
1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**. On the Dashboards

page, find the required dashboard and click the icon.

2. On the dashboard edit page, click the required chart.
3. On the **Advanced** tab of the **Graphic Design** pane, click the icon next to **Auxiliary Line** in the **Metric Analysis** section.
4. In the **Auxiliary Line** dialog box, click Add Auxiliary Line. Select a value type for the auxiliary line that you want to create.



5. Click **OK**. The following figure shows a sample auxiliary line.



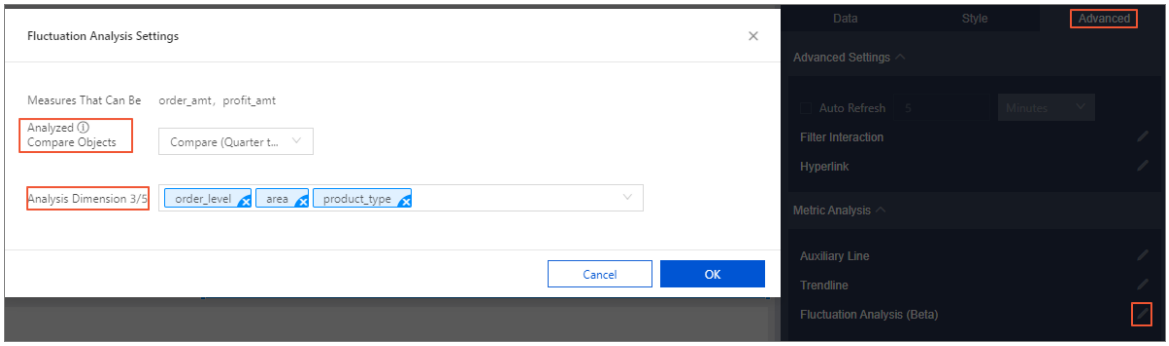
Fluctuation analysis

The fluctuation analysis feature uses machine learning algorithms to analyze the causes of the fluctuations of key metrics. You can specify the dimensions or measures to analyze the fluctuation causes.

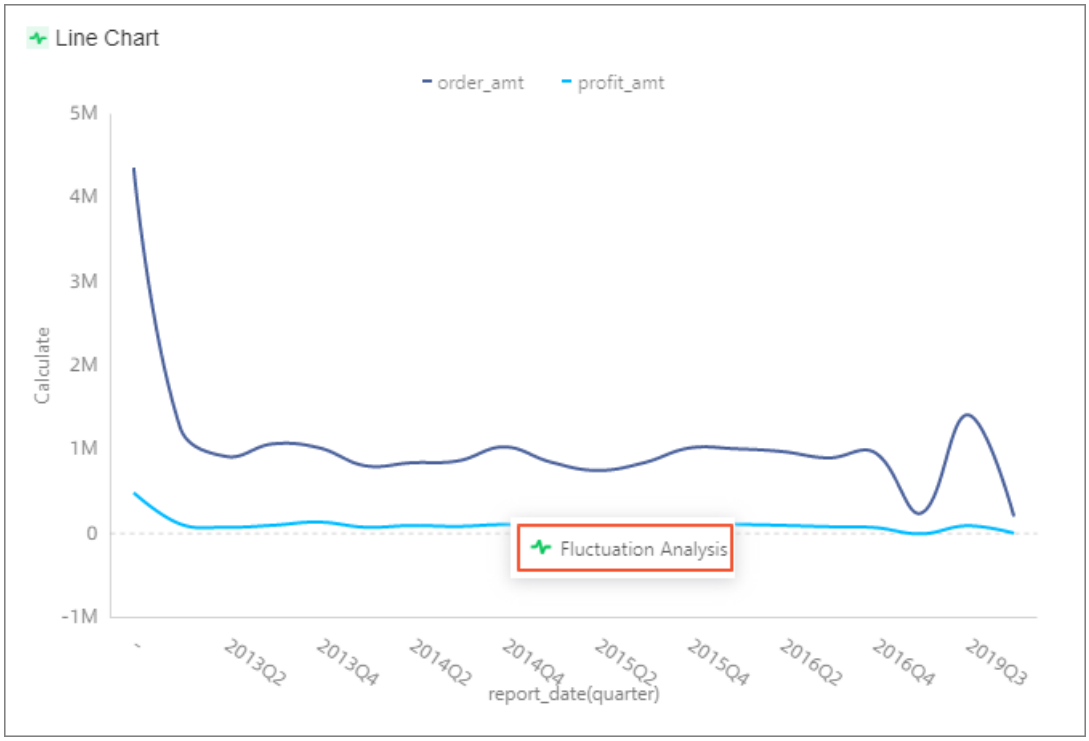
1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**. On the Dashboards page, find the required dashboard and click the icon.
2. On the dashboard edit page, click the required chart.
3. On the **Advanced** tab of the **Graphic Design** pane, click the icon next to **Fluctuation Analysis** in the **Metric Analysis** section.

> **Note** The charts that meet both of the following conditions support fluctuation analysis:
>
> - A time dimension (except hour, minute, and second) is selected for the category axis.
> - At least one measure uses the aggregate method SUM, COUNT, or COUNT DISTINCT.

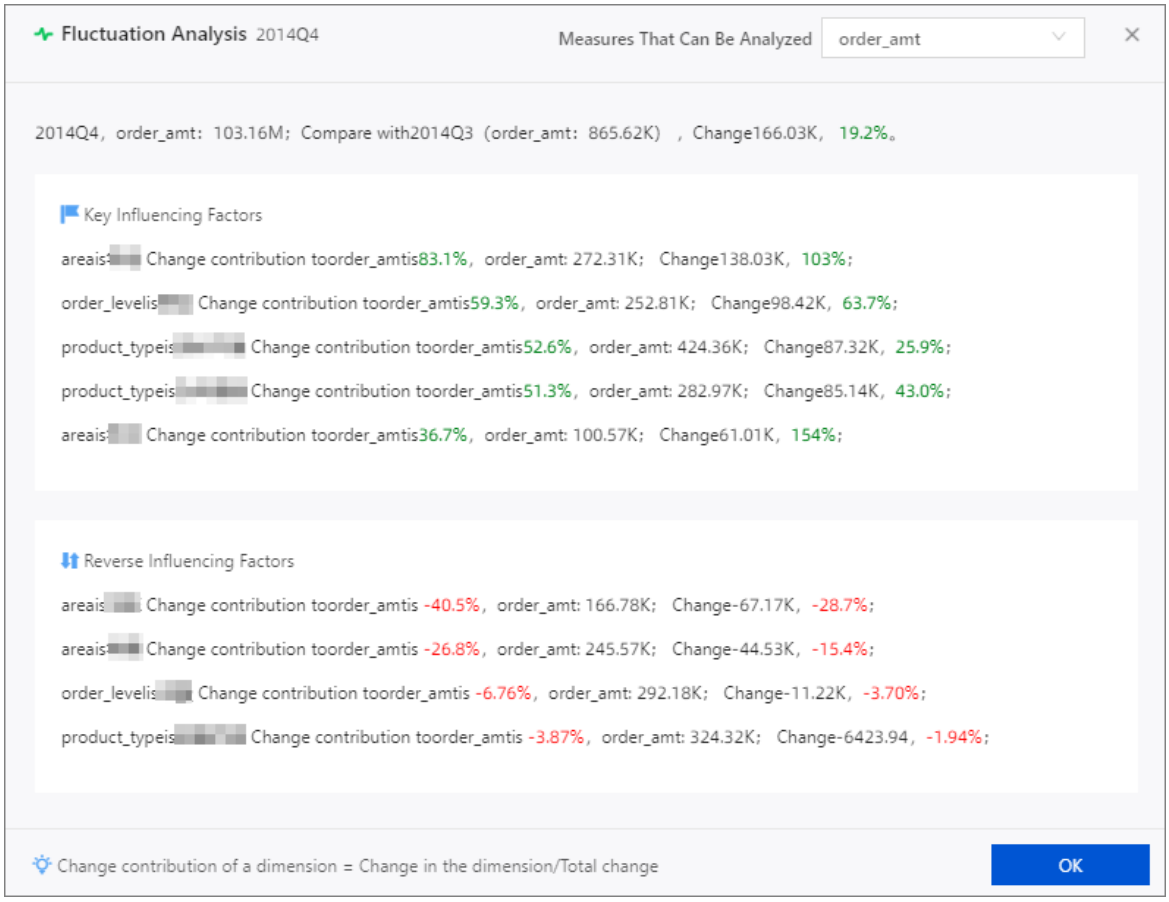
4. In the **Fluctuation Analysis Settings** dialog box, configure **Compare Objects** and **Analysis Dimension**, and click **OK**.



5. Click a time point in the chart and then click **Fluctuation Analysis**.



6. In the Fluctuation Analysis dialog box, select a measure to view the key factors that affect the measure.



Note

- Change contribution rate of a dimension = Change of the measure to be analyzed caused by the dimension/Total change of the measure to be analyzed
- The change contribution rate of a measure indicates how much the measure affects the measure to be analyzed. A great value indicates a great impact.

2.5. Query control

2.5.1. Overview of the filter bar widget

You can use the filter bar widget to query the charts in a dashboard and display the required data.

The filter bar widget allows you to query date, text, and numeric data. Follow these steps to use the filter bar widget:

1. Create a query widget in a dashboard. For more information, see Create a query control.
2. Configure the filter condition based on the type of fields that you want to query. For more information, see Query data based on a date field, Query data based on a text field, and Query data based on a numeric field.

2.5.2. Create a query control

You can use a query control to query data of one or more charts. On a dashboard, you can create multiple query controls. However, you can pin only one query control to the top.

Prerequisites

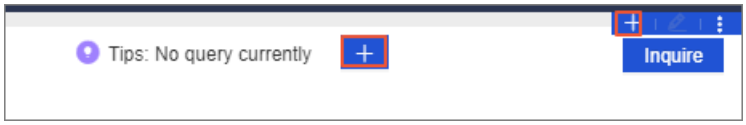
A dashboard is created. For more information, see Create a dashboard.

Create a query control

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Datasets**.
3. On the **Datasets** page, find the *company_sales_record* dataset and click the icon in the Actions column.

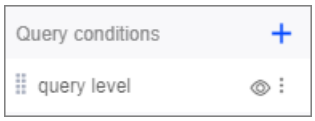
   > **Note** If you are using **Quick BI Enterprise Standard**, select **Standard** or **Full Screen** as the dashboard type. In this example, **Standard** is selected.

4. Click the icon.
5. Click the **New Filter** icon in the middle of the query control or in the upper-right corner of the query control.



6. In the **Set Query Conditions** dialog box, configure the following parameters:
   i. **Query condition**

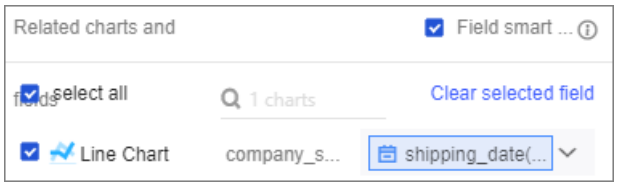
   When you click the icon next to **Query Condition** to add a query condition, the default name of the query condition is **Unnamed**. You can enter a name for the new query condition.



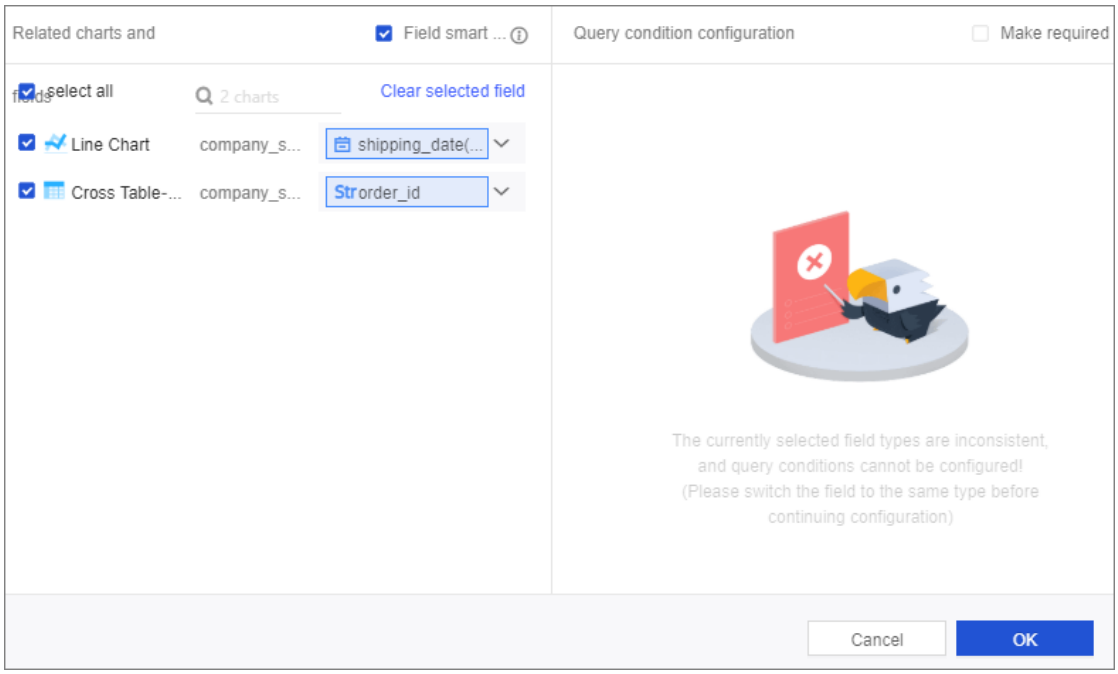
> **Note**
> - After you enter a name for the query condition and move your pointer to anywhere else, the name immediately takes effect.
> - You can click the icon to hide the query condition. After a query condition is hidden, it is no longer displayed on the dashboard. However, the configuration is retained.
> - You can click the icon to rename or delete a query condition.

ii. **Associated charts and fields**

Select the charts and fields to be associated with the query control. You can select Smart Field Selection. This feature automatically selects associated fields in the charts that are created based on the same dataset as the current chart. If the number of available charts is excessively large, select the check boxes before the charts that you want to associate.

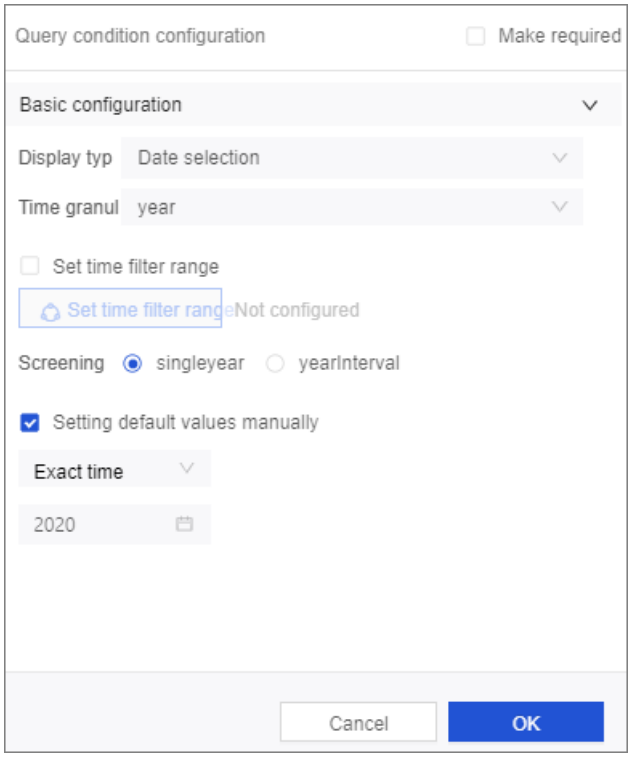


Fields of different data types, for example, a DATE field and a NUMERIC field, cannot be associated with the query control at the same time.



iii. **Query condition configuration**

Parameters in the Query Condition Configuration pane vary with the type of the associated field. The following figure shows parameters for a year-granularity time field. For more information, see Display mode configurations.



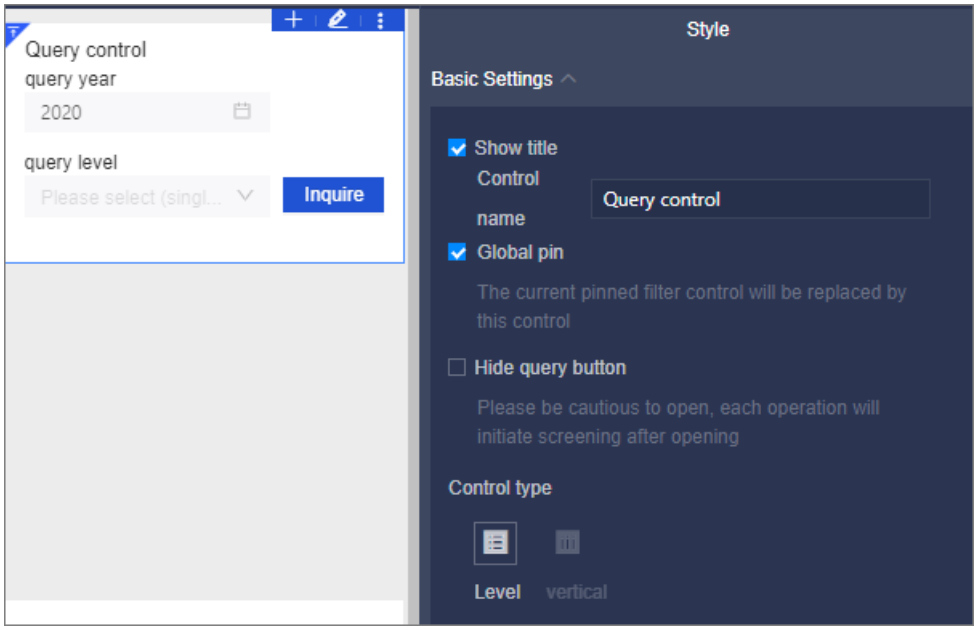
iv. **Cascading Conditions**

For more information, see Configure conditional cascade.

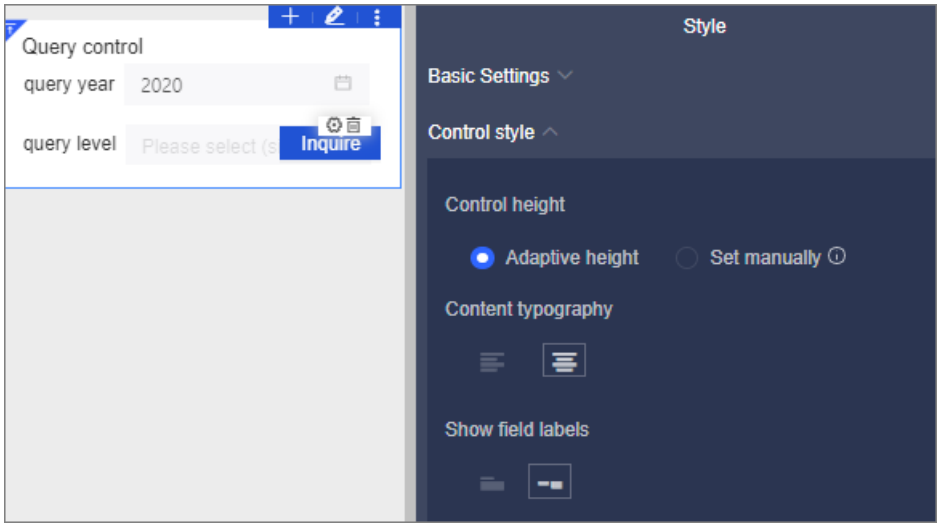
Configure parameters on the Style page

After a query condition is configured, you can set the display style of the query control on the Style page.

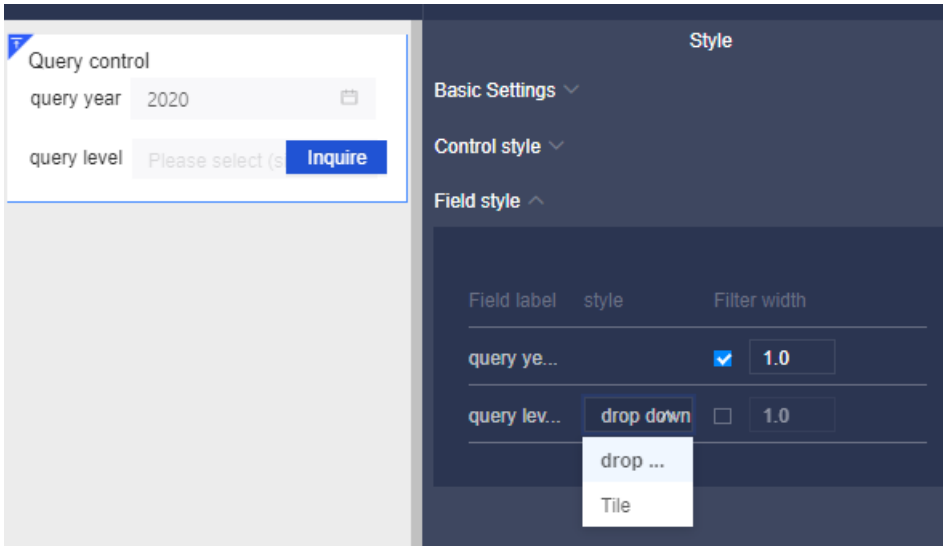
1. In the **Basic Settings** section, configure Show Title, Pin to Top, Hide Query Button, and Control Type.



2. In the **Control Style** section, configure Control Height, Layout, and Show Field Label.



3. In the **Field style** section, specify the value style and filter width for each field. For DATE and NUMERIC fields, you can specify only the filter width. For TEXT fields, you can also set the value style to Drop-Down or Tile.



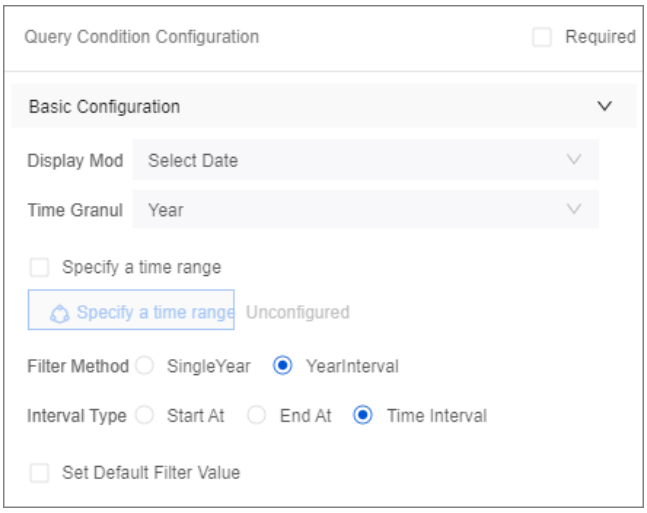
Display mode configurations

The following sections describe the settings of **Display Mode**.

- **Select Date**

  After you associate a DATE field with a query control, Display Mode is set to Select Date by default, and Time Granularity is set based on the DATE field. Multiple time granularities are supported, including Year, Year-Quarter, Year-Month, Year-Week, Year-Month-Day, and YYYYMMDD HH:MM:SS.

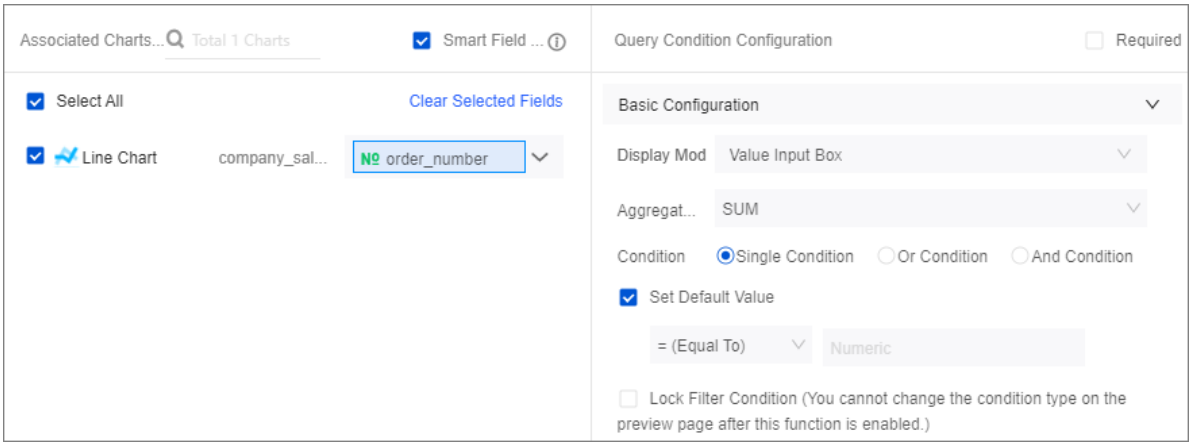
  If you select Specify a time range, you can specify **Start At** and **End At**. You can start a query without specifying the two parameters.



- **Value Input Box**

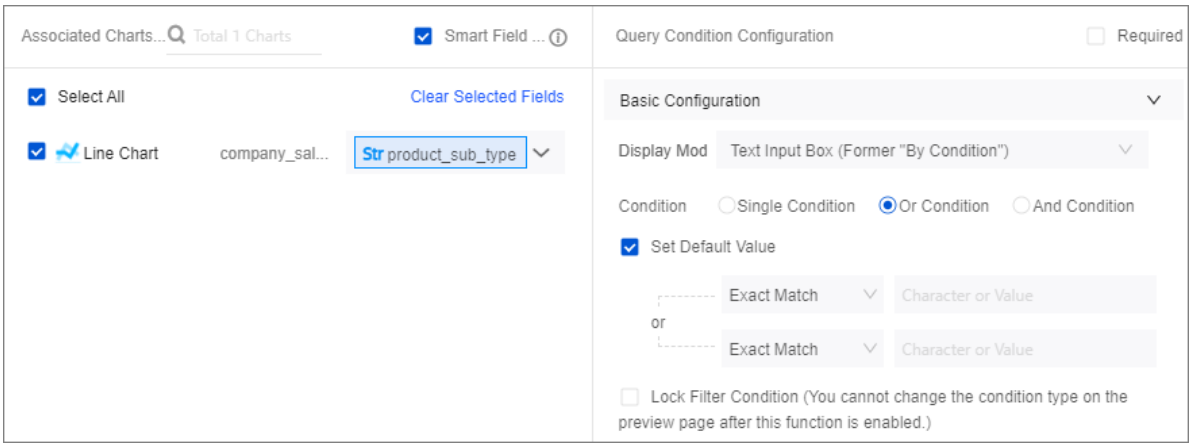
  If the associated field is a measure, Display Mode is set to Value Input Box by default. You can set Aggregation Method, which has a default value SUM. You can modify the parameter value to No Aggregation or another aggregation method. In this example, the parameter is set to AVG.

  > **Note** If an aggregation method is used in a query control, the query control cannot be used to query detailed data. You can set Condition to Single Condition, Or Condition, or And Condition. If you want users to preview a report by using a fixed condition, for example, the Equal To condition, select Lock Filter Condition.



- **Text Input Box (Former "By Condition")**

  Similar to Value Input Box, Text Input Box provides three conditions for you to choose: Single Condition, Or Condition, or And Condition. However, text input boxes are suitable for dimensions, and support condition types such as Exact Match, Include, and Exclude.

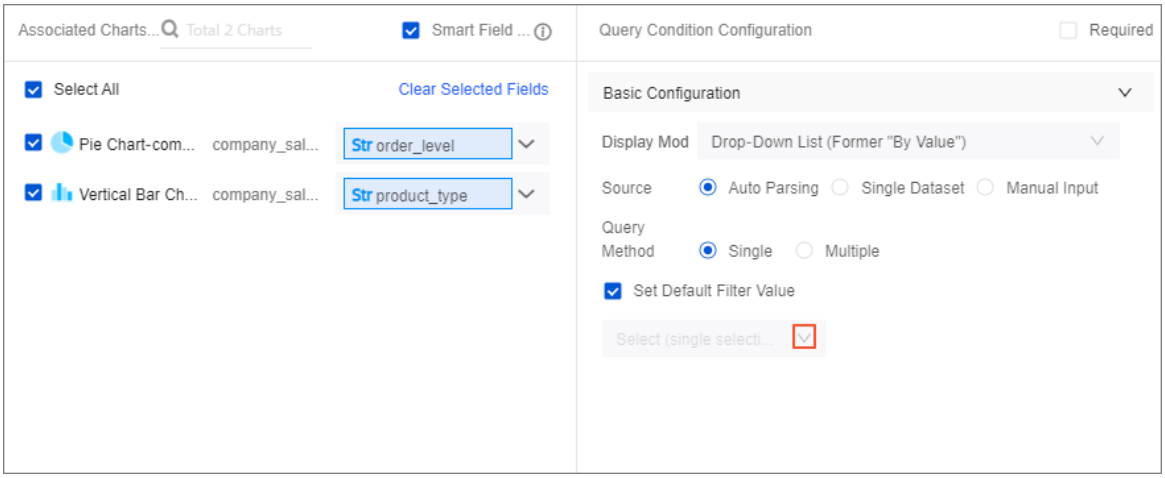


- **Drop-Down List (Former "By Value")**

  You can select enumerated values from a drop-down list. In this version, the available enumerated values come from auto-parsing, a single dataset, or manual input.

- **Auto Parsing**

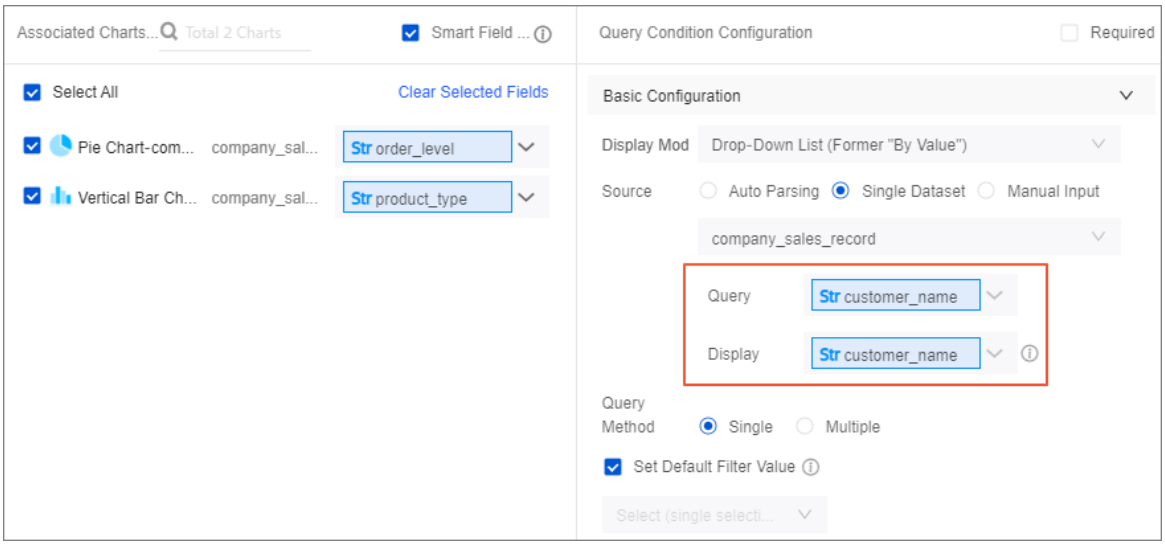
  Auto parsing returns all values of the fields that are used for chart association. The fields are order_level and product_type. The available enumerated value include all values of the fields, as shown in the following figure. You can set Query Method to Single or Multiple.



- **Single Dataset**

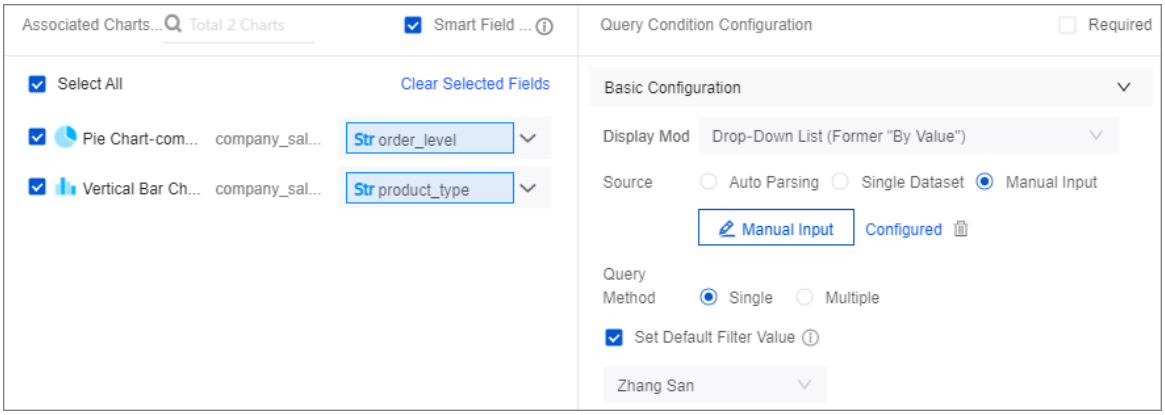
  If you set Source to Single Dataset, you can select any dataset in the current workspace and then configure query fields.

  > **Note** In this version, query fields can be different from display names. After you select a query field, Quick BI automatically fills in a display name the same as the query field. If they are different, you only need to modify the display name.

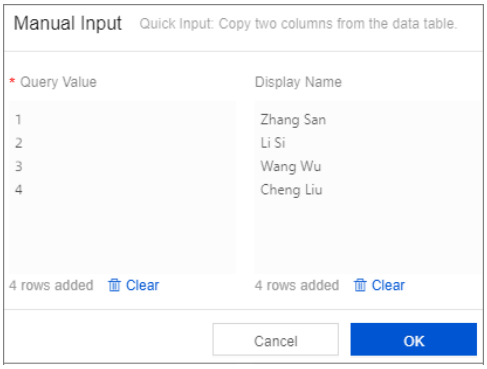


- **Manual Input**

  When Source is set to Manual Input, query fields can be different from display names. For example, when you enter IDs in the Query Value section, person names are displayed in the Display Name section.



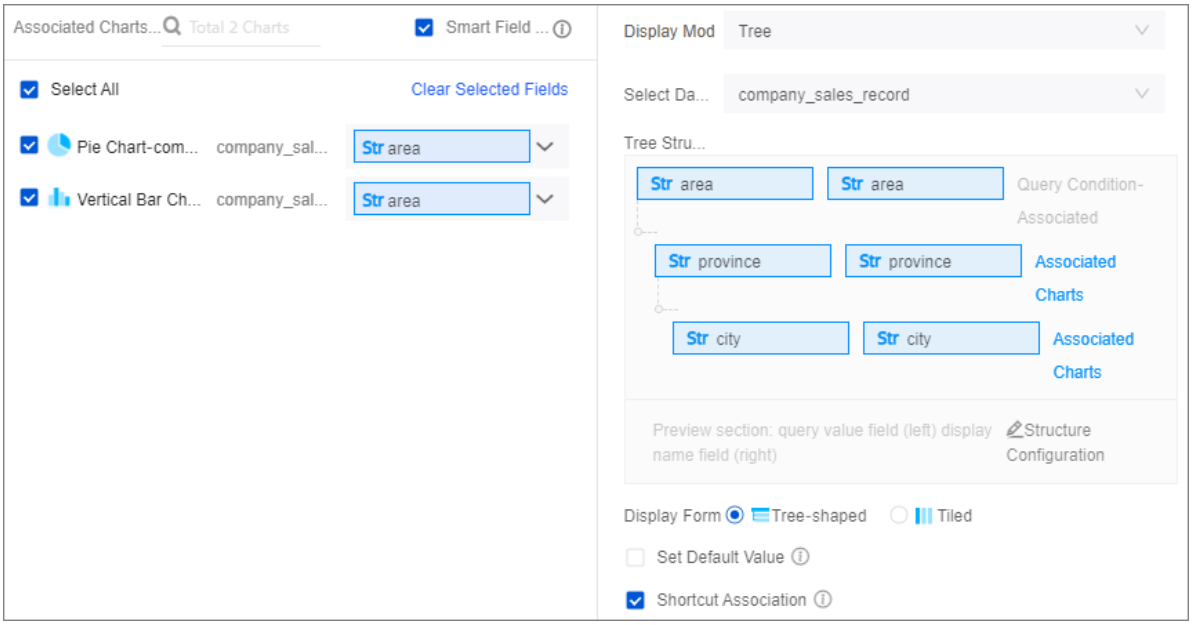
  The following figure shows the Manual Input dialog box.

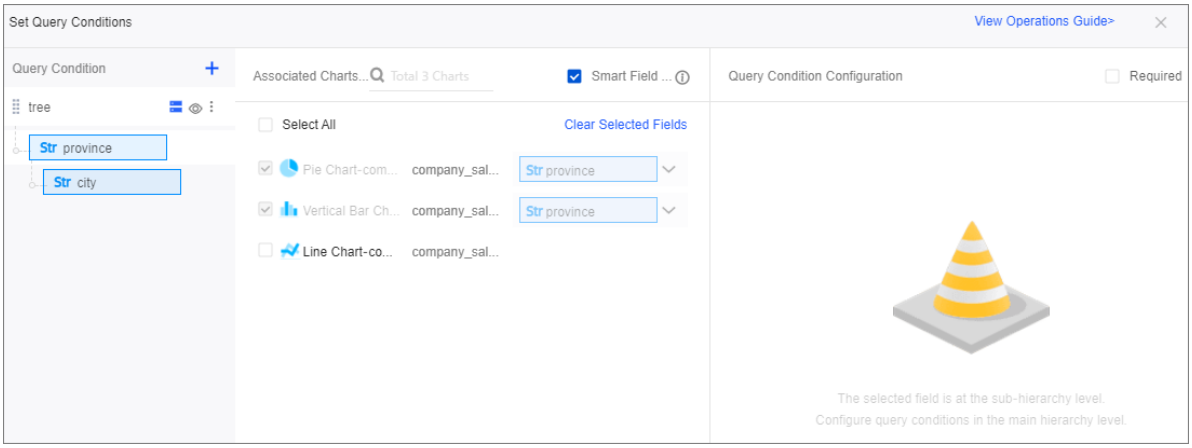


- **Tree**

  The tree display mode is similar to the cascading display mode in previous versions. It implements the control relationships between fields in a dataset. You must select a dataset before you use the tree display mode. You can set Display Form to Tree-shaped or Tiled.

  If you select Shortcut Association, the associated charts and fields in the current dataset are automatically added to the sub-levels of the tree structure. For example, the sub-level of the tree structure is province. After you select Shortcut Association, charts that are created based on the same dataset company_qbi_testdata are selected and the associated field that corresponds to province is also selected. If you want this function to take effect on charts that are created based on different datasets, select the charts and associated fields.





2.5.3. Query data based on a date field

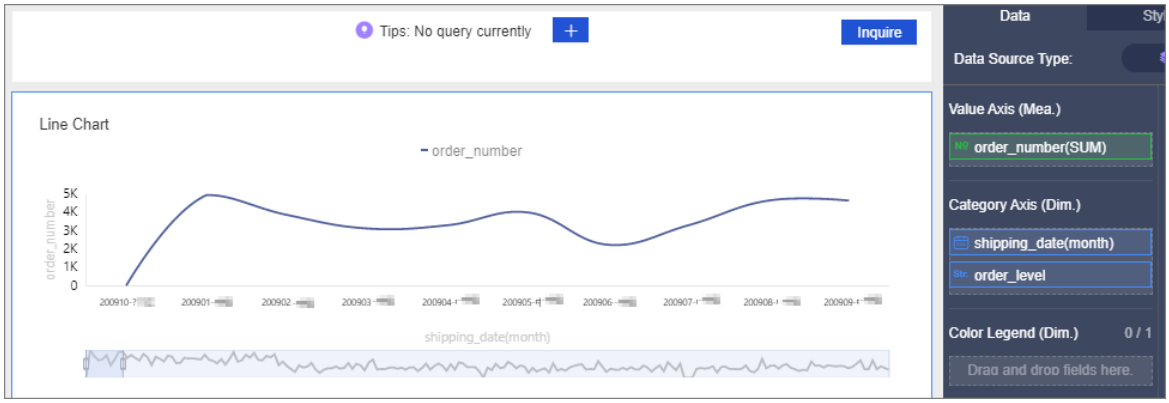
This topic describes how to use a query control to query data based on a date field.

Prerequisites

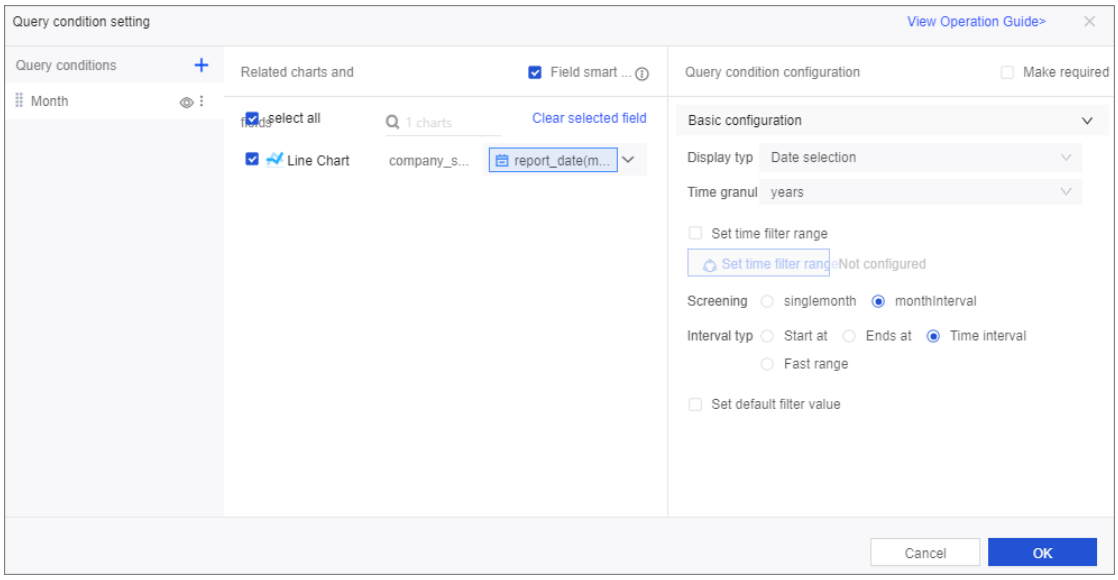
- A dashboard is created.
- A query control is created on the dashboard. For more information, see Create a query control.

Query the orders within a specific month

1. Select the created dashboard. It contains the following chart and query control.

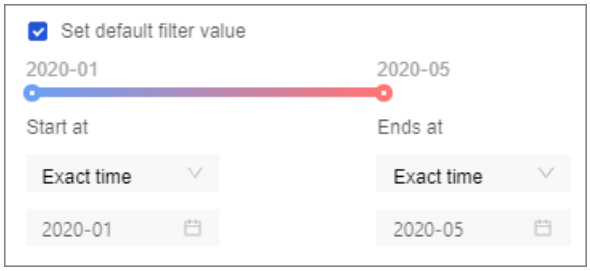


2. Click the New filter icon in the query control. In the Query condition setting dialog box that appears, configure the following parameters:
   i. Set the query condition name to **Monthly query**.
   ii. Select **Line Chart** and the **order_date(month)** field to associate with the query control.

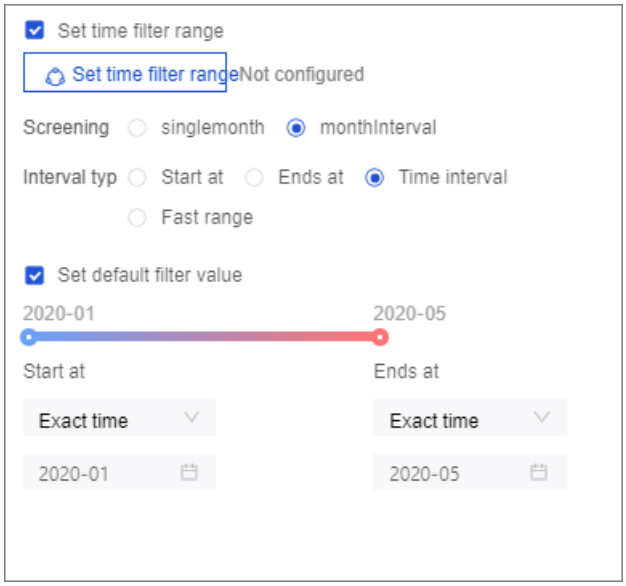


> **Note** Quick BI selects a time granularity in the right-side Query condition configuration pane based on the date granularity of the associated field. In this example, the field is on a month granularity, so **Year-month** is selected for Time granularity in the right-side pane.

   iii. Specify the display type, time granularity, filter range, filter method, and interval type.
   - In the Set time filter range section, you can specify the time range within which the data can be queried. After the configuration is complete, the time range that you specified in the query control must be within this range.

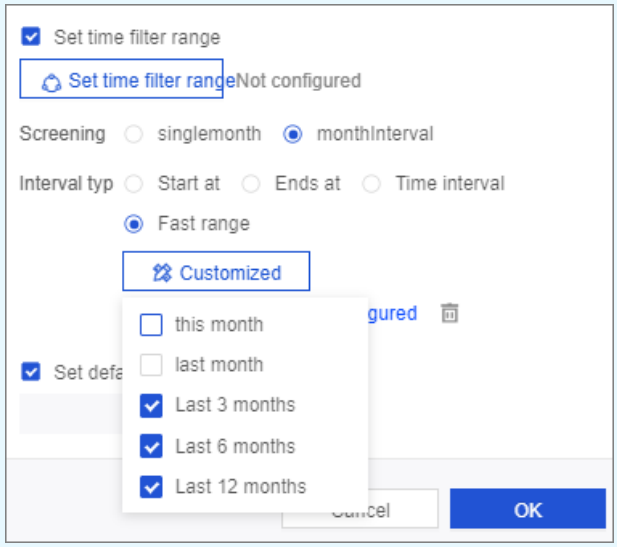


- You can set Screening mode to **singlemonth** or **monthInterval** and set a default value. In this example, **monthInterval** is selected and Interval type is set to **Time interval**.

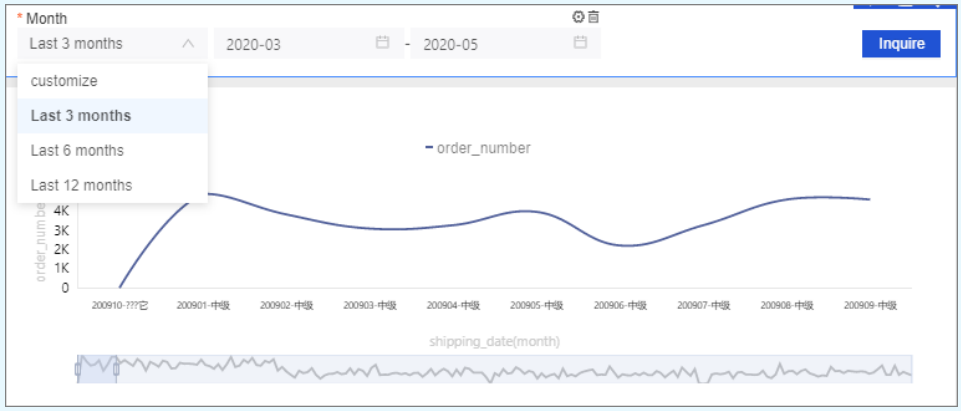


> **Note**
>
> - If you select **Make required**, the system starts data query only after all fields in this query condition are specified.
> - If Screening mode is set to **monthInterval**, you can set Interval type to **Start at**, **Ends at**, **Time interval**, or **Fast range**.

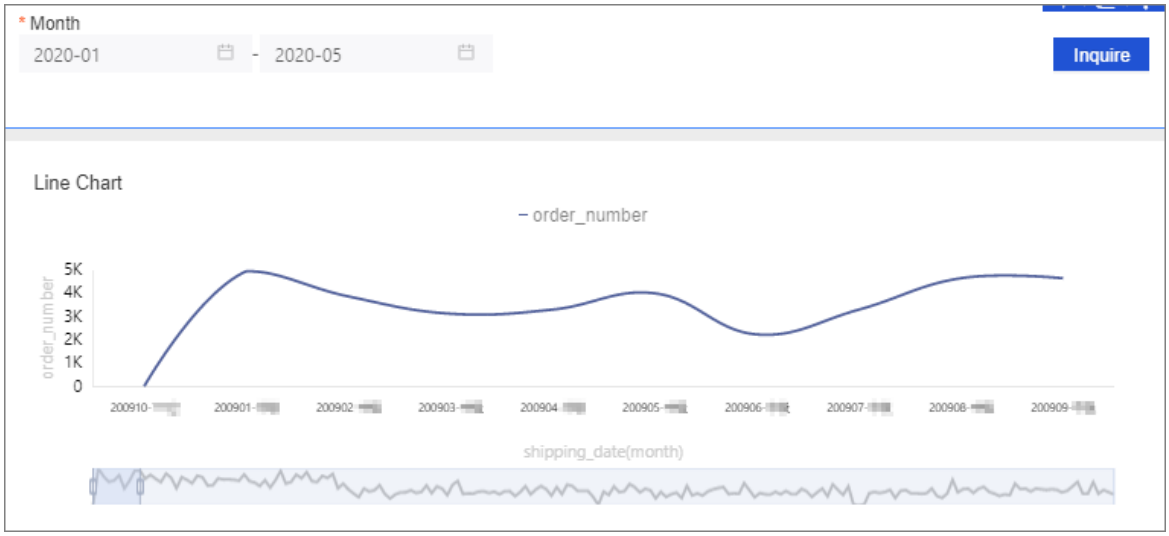
- Fast range is available only for the month and day granularities and allows you to select a time range in the Quick range drop-down list, which is convenient.



After Quick range is set, you can select a preconfigured range or click **customize** on the dashboard. If you select **customize**, you can manually specify a time range.



3. Click **OK**.
4. In the query control, specify the time range that you want to query and click **Inquire**. The chart to which the query control applies is updated.



2.5.4. Query data based on a text field

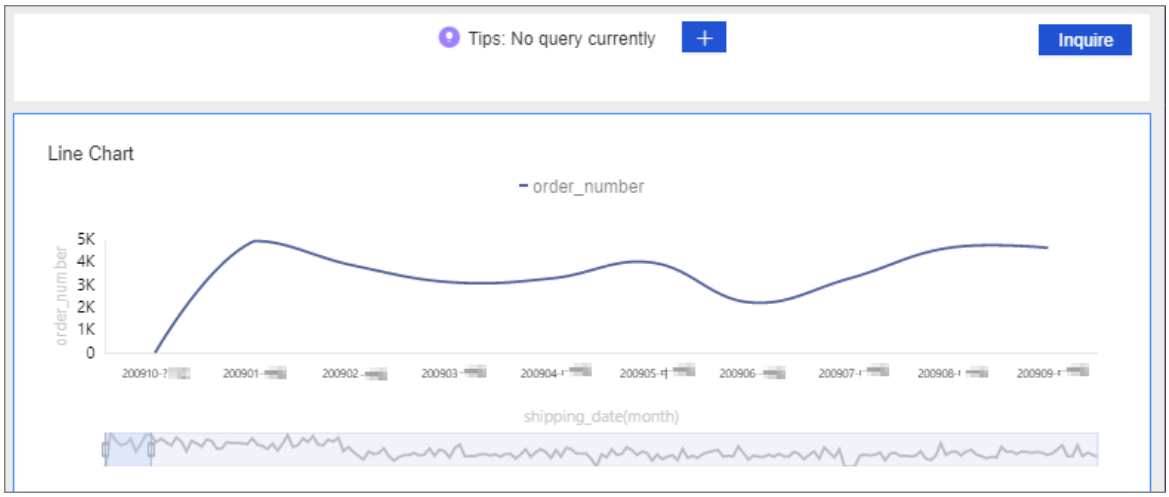
This topic describes how to use a query control to query data based on a text field.

Prerequisites

- A dashboard is created.
- A query control is created on the dashboard. For more information, see Create a query control.

Procedure

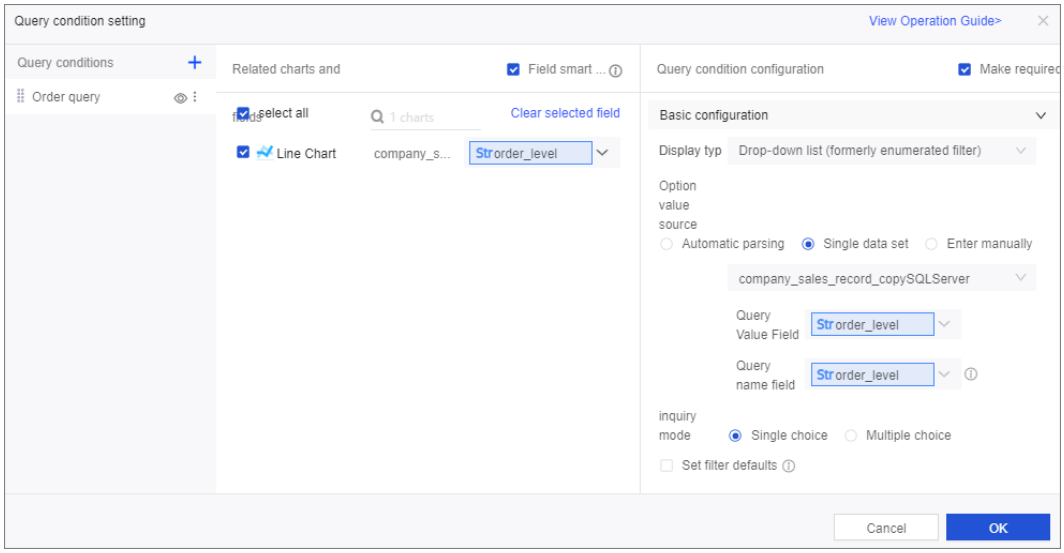
1. Select the created dashboard. It contains the following chart and query control.



2. Click the New filter icon in the query control. In the Query condition setting dialog box that appears, configure the following parameters:
   i. Set the query condition name to **Order query**.
   ii. Select **Line chart** and the **order_level** field to associate with the query control.
   iii. Set Display type to one of the following values:
      - **Drop-down list (formally enumerated filter)**

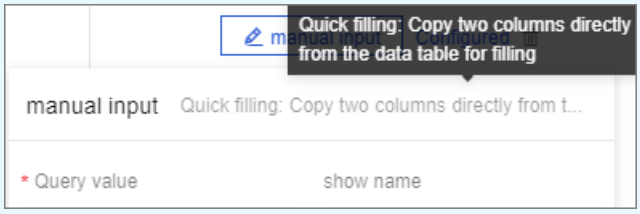
When Display type is set to **Drop-down list (formally enumerated filter)**, you can set Option value source to **Automatic parsing**, **Single data set**, or **Enter manually**. Option value source indicates the source of available values of the query condition field.

- When Option value source is set to Automatic parsing, the values of the query field are automatically parsed. Up to 1,000 values can be displayed.
- When Option value source is set to Single data set, you can select a dataset in the workspace of the current dashboard. We recommend that you select the dataset of the associated chart. The relationships between the associated field, Query Value Field, and Query name field are as follows:



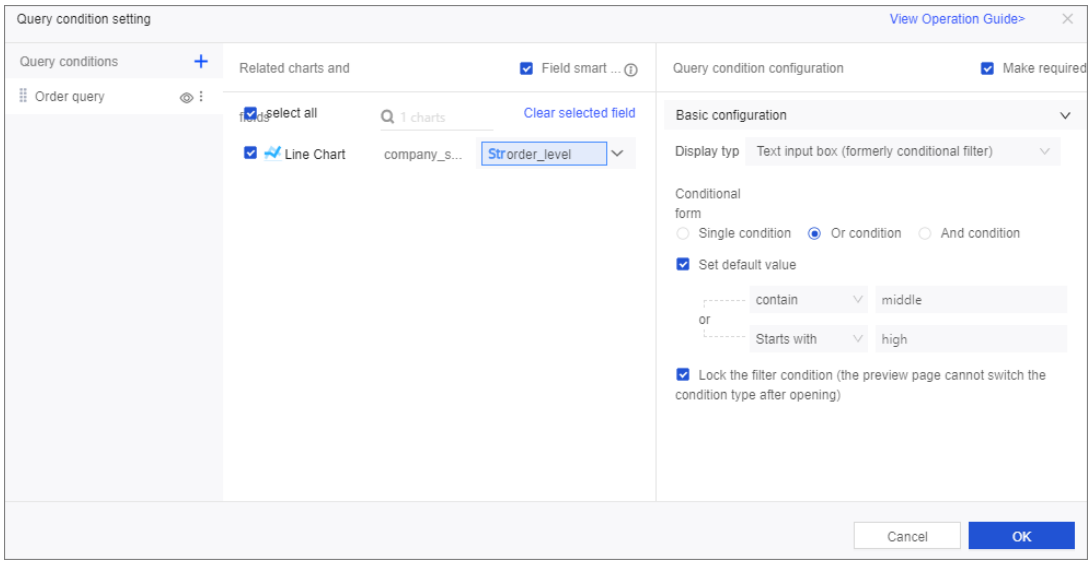
  - The associated field is the field you want to associate with the query control in the chart.
  - Query Value Field is the field in the source dataset that is used to match the associated field.
  - Query name field is the field in the source dataset that is used to filter data. This field is displayed in the query control.
  - Query name field is the same as Query Value Field by default. After you specify Query Value Field, Query name field is automatically set. If the two values are inconsistent, you must manually specify the same value for the two fields.

- When Option value source is set to Enter manually, click the manual input icon. In the **manual input** dialog box that appears, specify Query value and show name.

  > **Note**
  >
  > - If it is the first time that you manually enter the values and Query value and show name are consistent, you only need to specify Query value. After you click **OK**, show name is automatically set.
  > - If it is the first time that you manually enter the values and Query value and show name are inconsistent, you must manually specify both values.
  > - If it is not the first time you manually enter the values, you must manually enter the new query value and the show name. If you enter only the query value, the following error message is displayed.
  >
  > 
  >

- **Text input box (formally conditional filter)**

  When Display type is set to **Text input box (formally conditional filter)**, Conditional form can be set to **Single condition**, **Or condition**, or **And condition**. In this example, Conditional form is set to **Or condition**.

- **Tree drop**

  When Display type is set to **Tree drop** (formally cascading query), fields from both the current dataset and another dataset can be selected. Display form can be set to **Tree display** or **Tiled display**. Follow these steps to configure Tree display:

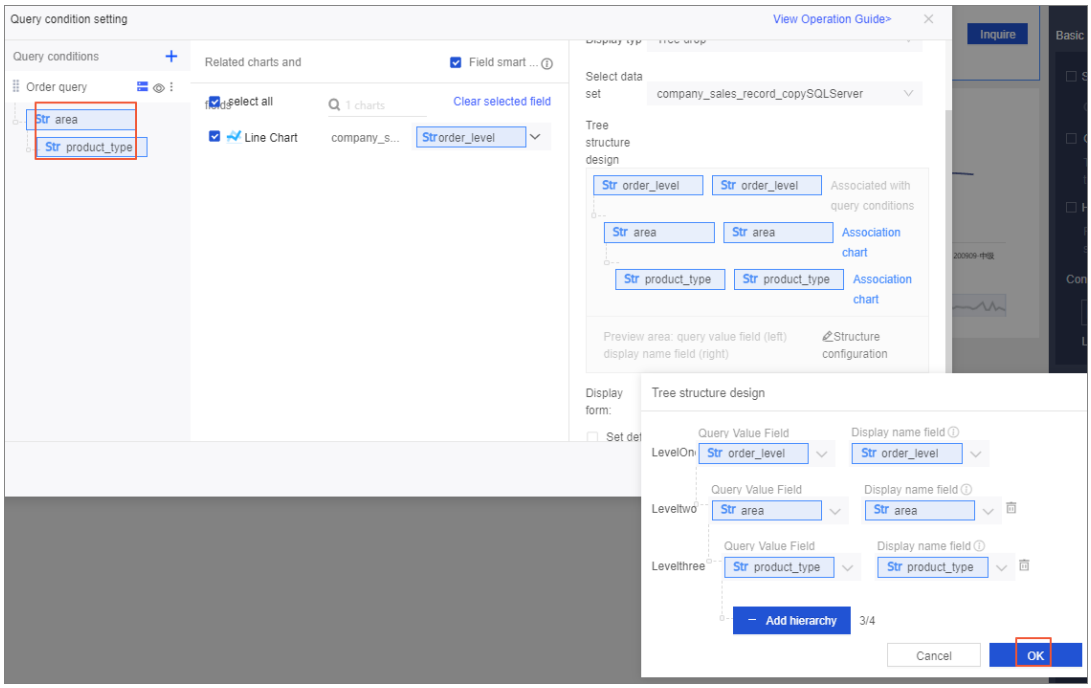
  a. Select a dataset and click **Start configuration**.

b. In the **Tree structure design** dialog box, specify Query Value Field and Display name field for each level.

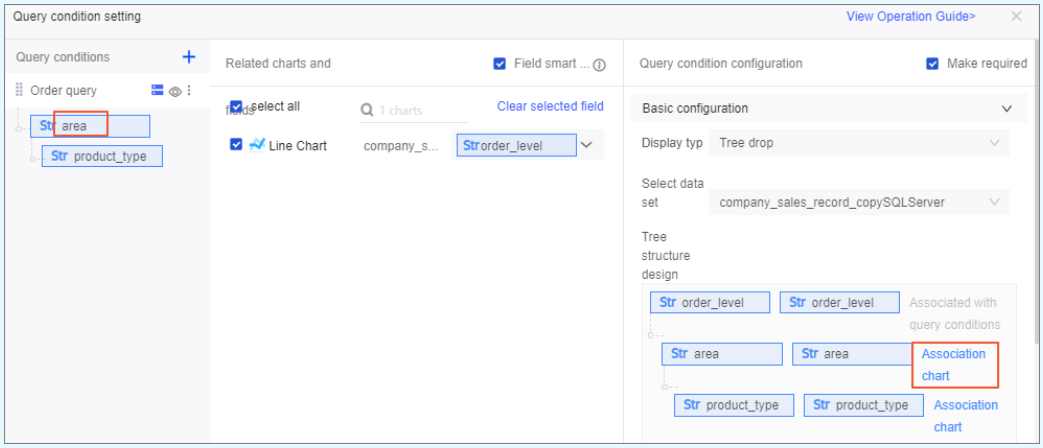
> **Note**
>
> - The value of Display name field is the same as that of Query Value Field by default. If the values are inconsistent, you must manually specify the same value for the two fields.
> - Up to four levels are supported.

c. Click **OK**.

After the configuration is complete, you can view the query levels in the left-side navigation pane of the **Query condition setting** dialog box. You can click the icon to show or hide query levels and click the icon to hide this filter in the query control, but the configurations are retained.

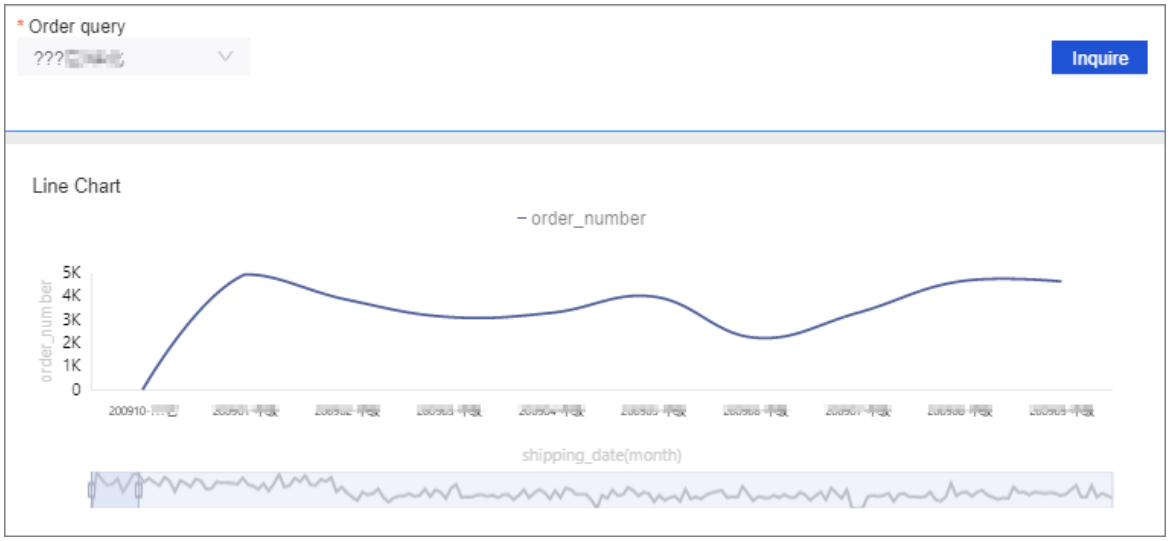


Note Quick association is enabled by default. This feature automatically selects associated charts and fields in the same dataset for sub-levels of a tree structure. Click **Association chart** in the tree structure or the sub-level name in the left-side navigation pane to associate the sub-level with charts and fields in another dataset.



For example, after you click Association chart next to the second level **area**, associated fields of **Line chart 1** and **Line Chart 2** that are created based on the same dataset are automatically selected. However, the associated field of **Vertical car chart** that is created based on another dataset must be manually entered.

3. Click **OK**.
4. In the query control, click **Inquire**. The chart to which the query control applies is updated. The following figure shows the query results when Display type is set to **Tree drop**.



2.5.5. Query data based on a numeric field

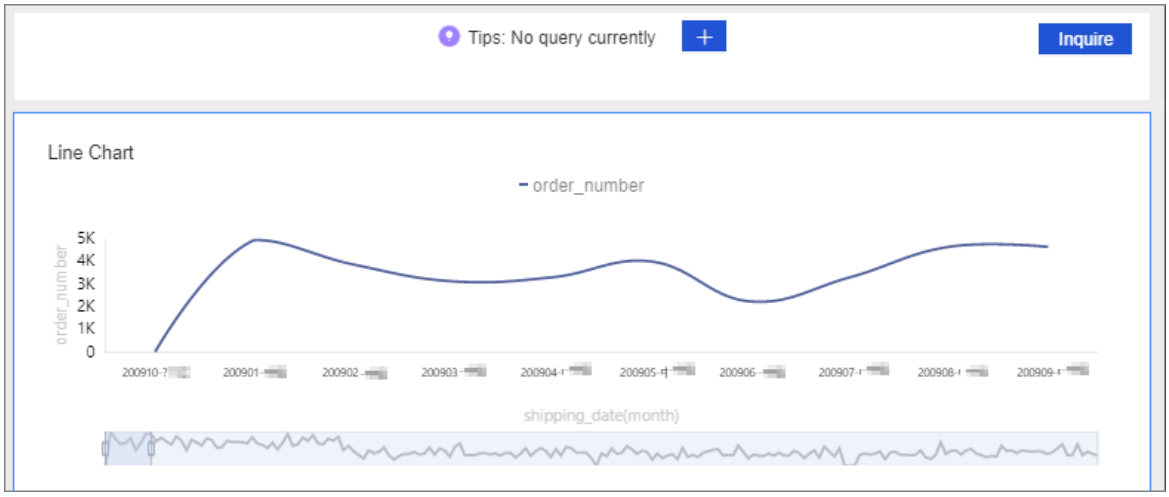
This topic describes how to use a query control to query data based on a numeric field.

Prerequisites

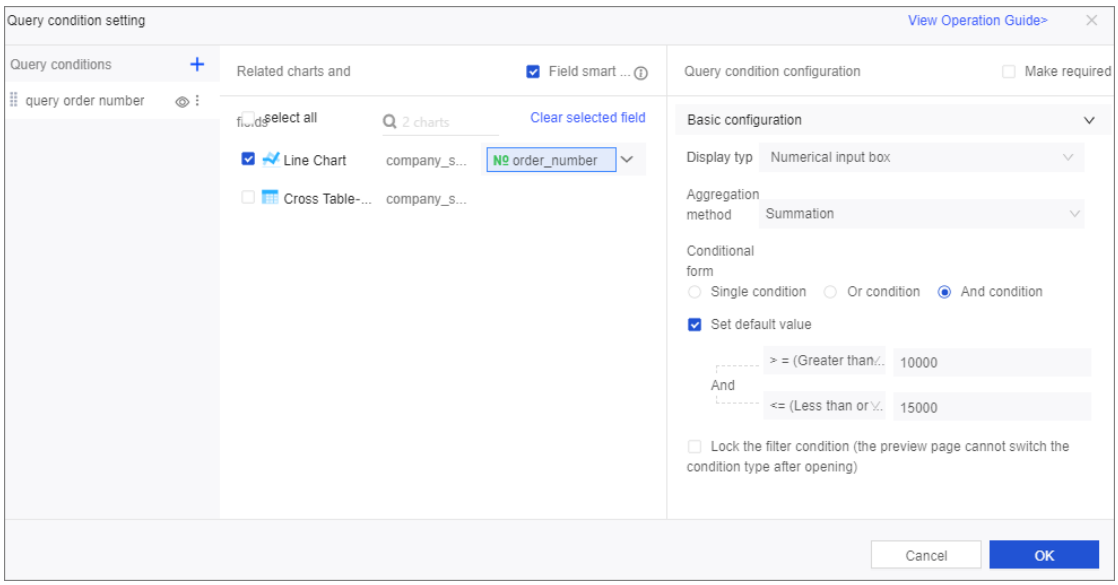
- A dashboard that contains numeric fields is created.
- A query control is created on the dashboard. For more information, see Create a query control.

Procedure

1. Select the created dashboard. It contains the following chart and query control.

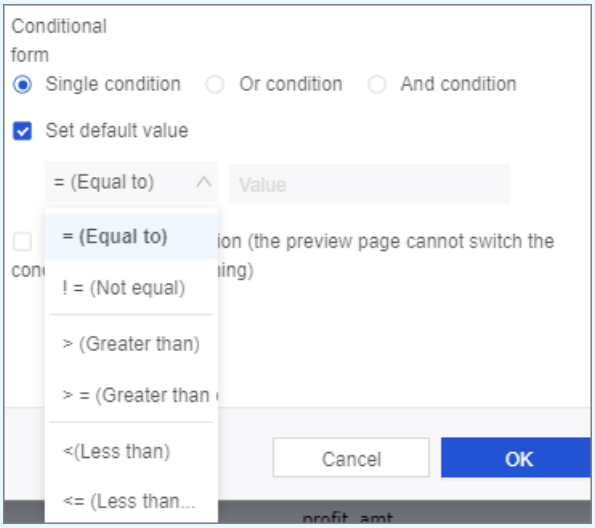


2. Click the New filter icon in the query control. In the **Query condition setting** dialog box that appears, configure the following parameters:
   i. Set the query condition name to **Order quantity query**.
   ii. Select **Line chart** and the **order_number** field to associate with the query control.
   iii. When the field type is numeric, set Aggregation method and **Conditional form** as required. **Display type** is automatically set to **Numerical input box**. Supported aggregation methods include multiple aggregate functions, variance, and standard deviation. Supported conditional forms include **Single condition**, **Or condition** or **And condition**. In the following example, Aggregation method is set to **Summation** and Conditional form is set to **And condition**.

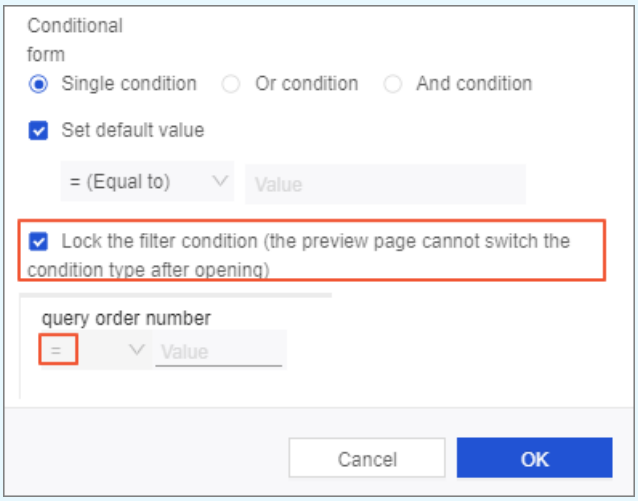


Note

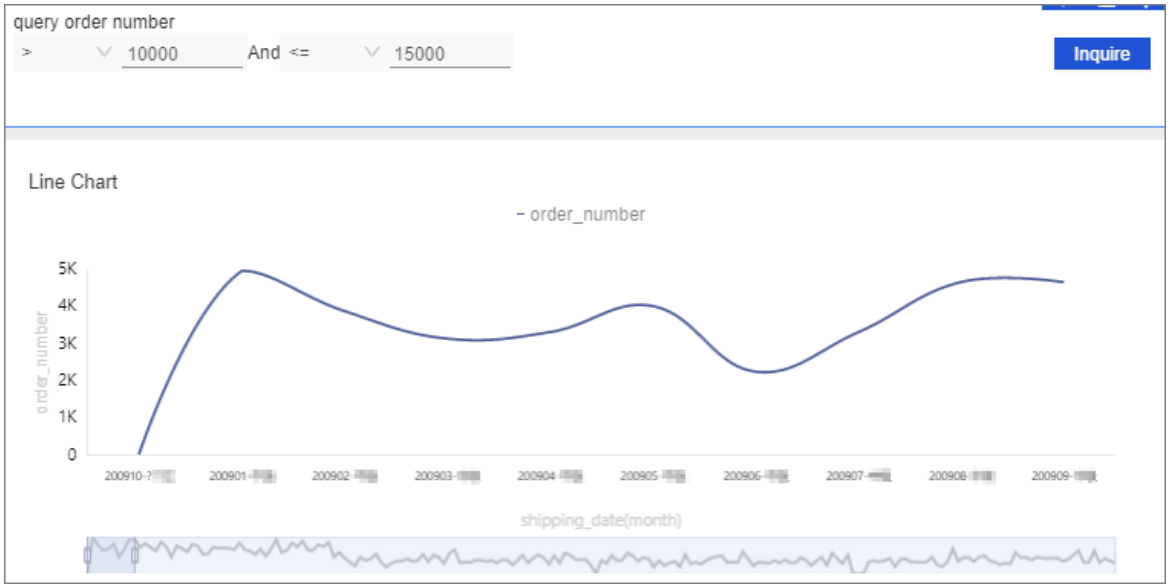
- If you select Single condition for Conditional form, you can configure only one filter condition.



- If you select Lock the filter condition, you cannot change the filter type on the preview page.



3. Click **OK**.
4. In the query control, specify the time range that you want to query and click **Inquire**. The chart to which the query control applies is updated.



2.5.6. Configure conditional cascade

You can associate two query controls. For example, if query control A and query control B are associated, when you select an area in query control A, the province list of query control B displays only the provinces in this area. You can also associate multiple conditions in a query control. This topic describes how to configure conditional cascade to associate query controls.

Prerequisites

- A dashboard is created.
- Two query controls are created on the dashboard, with Display Mode set to Drop-Down List (Former "By Value") and Source set to Single Dataset. For more information, see Query data based on a text field.

Context

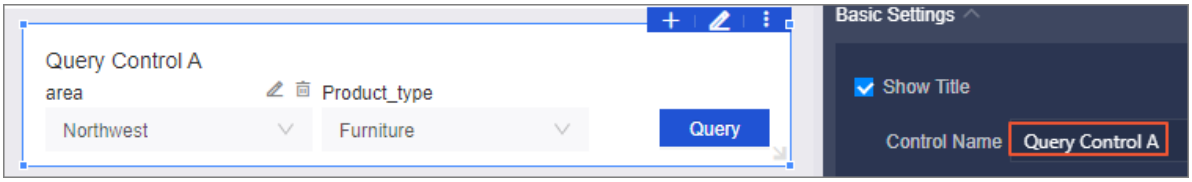
When you configure conditional cascade, note the following limits:

- Upper-level fields can control the display of lower-level fields. However, lower-level fields do not affect upper-level fields. Conditions at the same level can affect each other.

  > **Note** Assume that query fields specified in query control A are area and product_type, and those specified in query control B are province and product_sub_type. If the two controls are associated, when you select an area in query control A, the provinces in the area are selected in query control B. This indicates that fields in query control A are upper-level fields and those in query control B are lower-level fields. All fields in query control A affects query control B. For example, If you select furniture for product_type in query control A, values such as bookshelf and table are displayed for product_sub_type in query control B. However, fields in query control B do not affect query control A.

- Cascading configuration is not supported on mobile terminals.
- You can configure up to five conditions for cascading.
- Conditional cascade is supported only by query controls that have text fields and with Display Mode set to **Drop-Down List (Former "By Value")** and Source set to **Single Dataset**.

- Different query controls may have the same fields. You can modify the value of **Control Name** for easy identification.

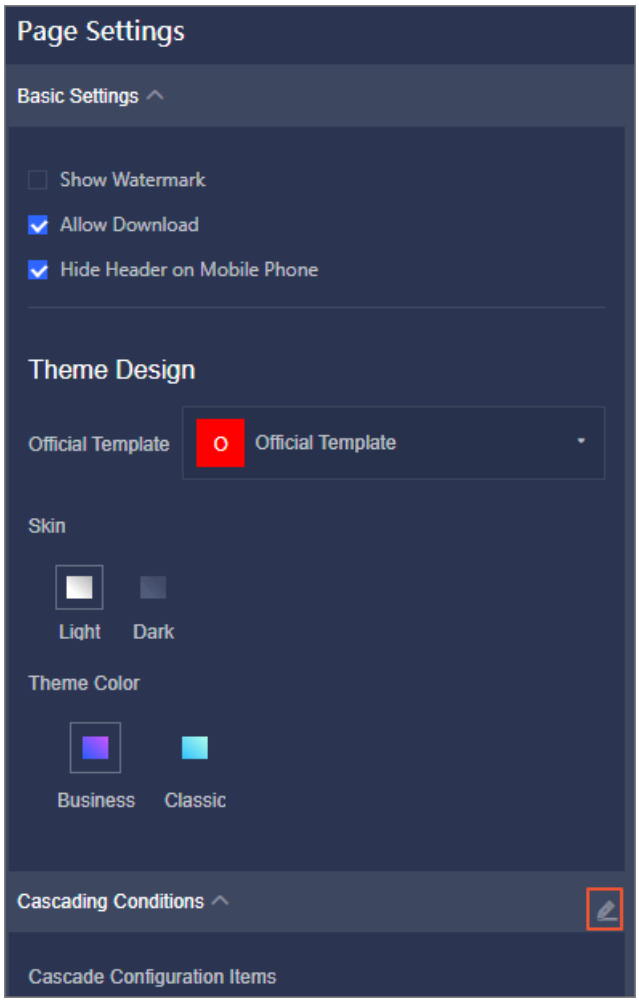


Open a cascade condition configuration dialog box

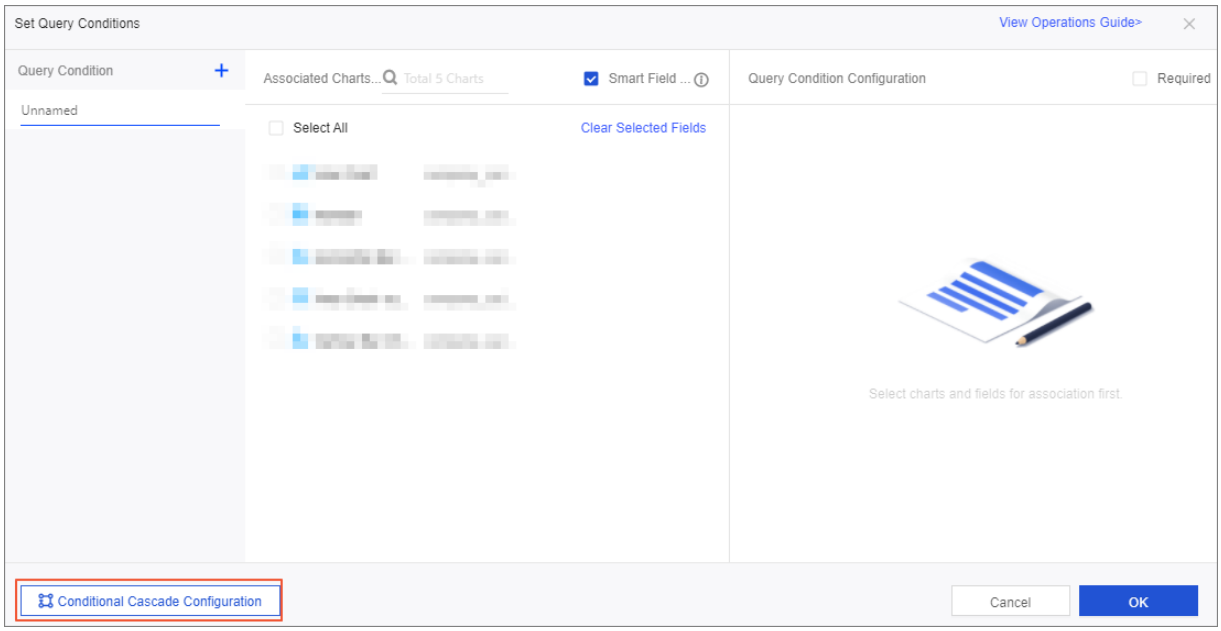
1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
3. Click the required dashboard.

> **Note** Conditional cascade is supported only by query controls that have text fields and with Display Mode set to **Drop-Down List (Former "By Value")** and Source set to **Single Dataset**.

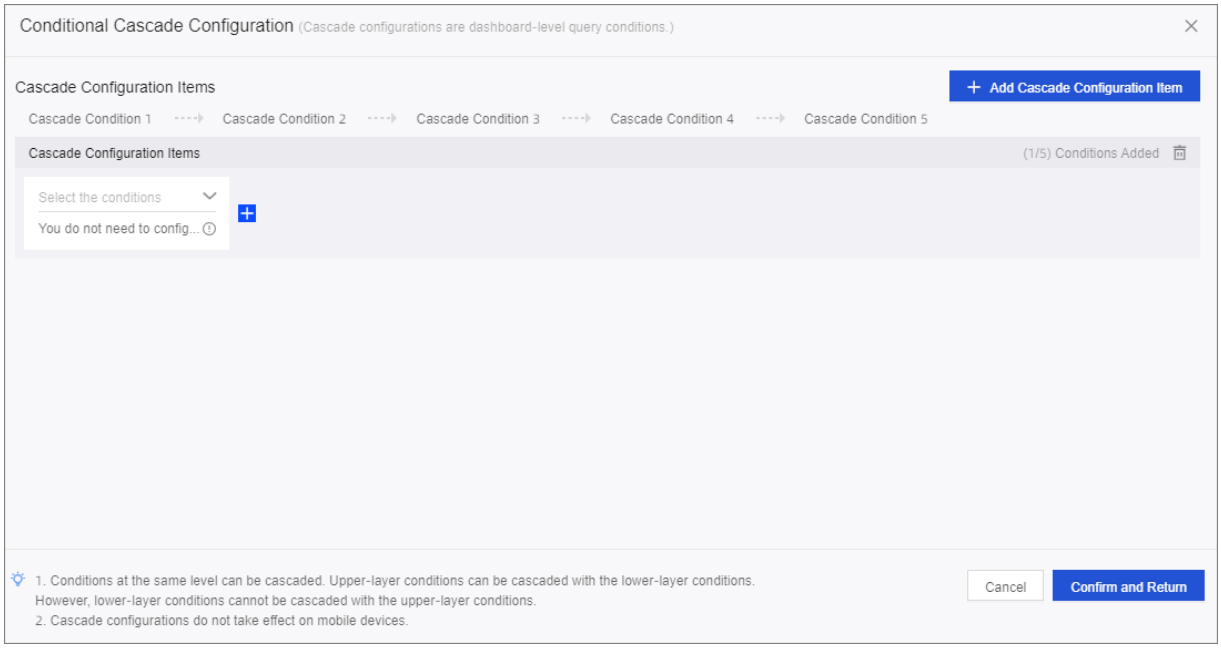
4. Click the icon next to **Cascading Conditions**.



You can also click **Conditional Cascade Configuration** in the **Set Query Conditions** dialog box.



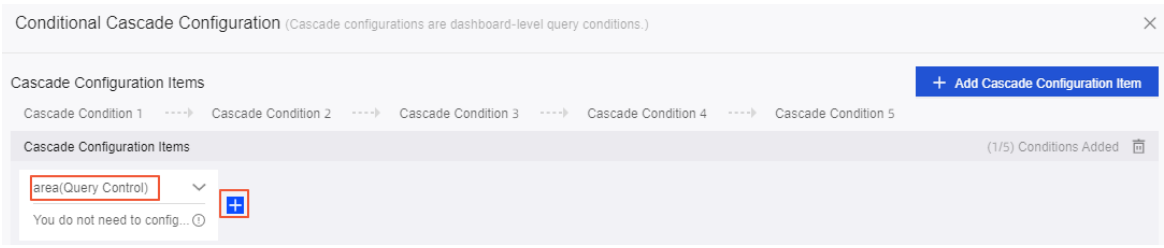
The **Conditional Cascade Configuration** dialog box appears.



Configure conditional cascade

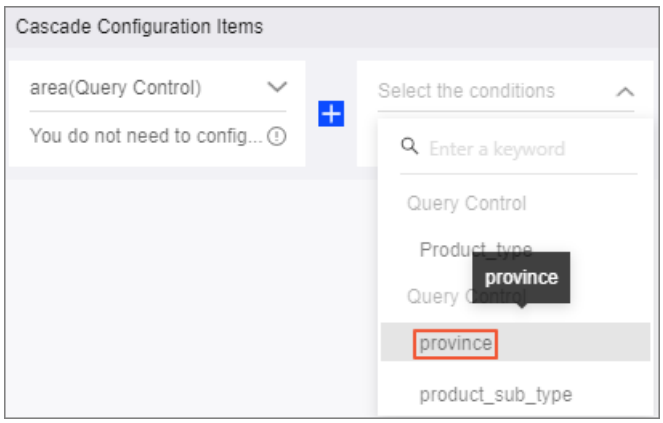
Assume that query fields specified in query control A are area and product_type, and those specified in query control B are province and product_sub-type. After the area and province fields are associated, when you select an area in query control A, the province list of query control B displays only the provinces in this area.

1. In the **Cascade Configuration Items** section, select **area** and then click the + icon.



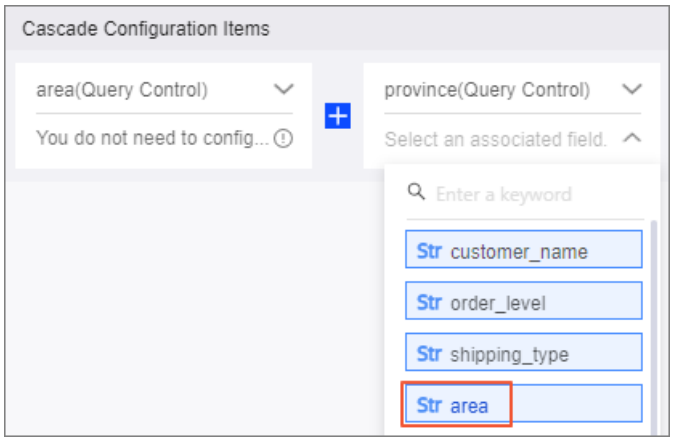
2. Perform the following configurations:

   i. The drop-down list may contain multiple **province** fields, select the one in query control B.

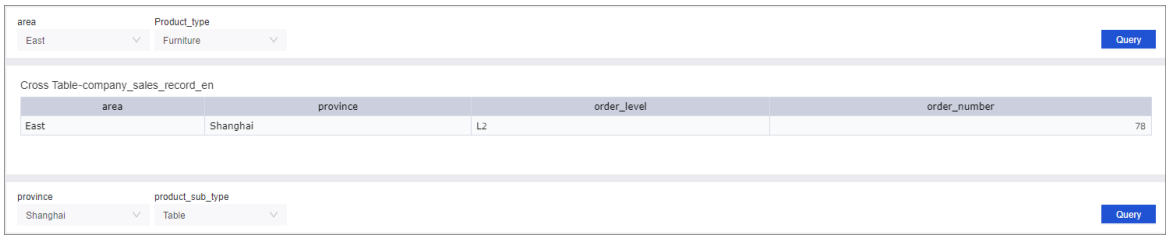


   ii. Select an associated field.

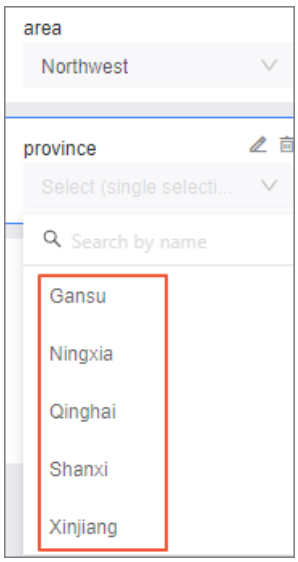
> **Note** The associated field refers to a field in a dataset. The field is associated with the area field in query control. In this example, the area field in query control A is an upper-level field and the province field in query control B is a lower-level field, and the area field selected is associated with the area field in query control A.



3. (Optional)If you want to configure multiple cascade conditions for query controls A and B, click **Add Cascade Configuration Item** and repeat steps 1 and 2.



4. After the configuration is completed, click **Confirm and Return**.If you select **Northwest** for **area** in query control A and select **province** in query control B, only provinces in northwest China are listed in query control B.



Modify the conditional cascade configuration.

You can perform the following operations:

- Rename a cascade configuration item.

  When you add a cascade configuration item, the default name is **Cascade Configuration Items**. You can click it to rename the item.

- Delete a cascade configuration item.

  Click the **Delete** icon in the upper-right corner of a cascade condition to delete the condition. Click the **Delete** icon in the upper-right corner of the cascade configuration item to delete the cascade configuration item.

2.6. Common widgets

The presentation area of a dashboard supports the following widget types. You can double-click or drag a widget to add it to the presentation area of a dashboard.

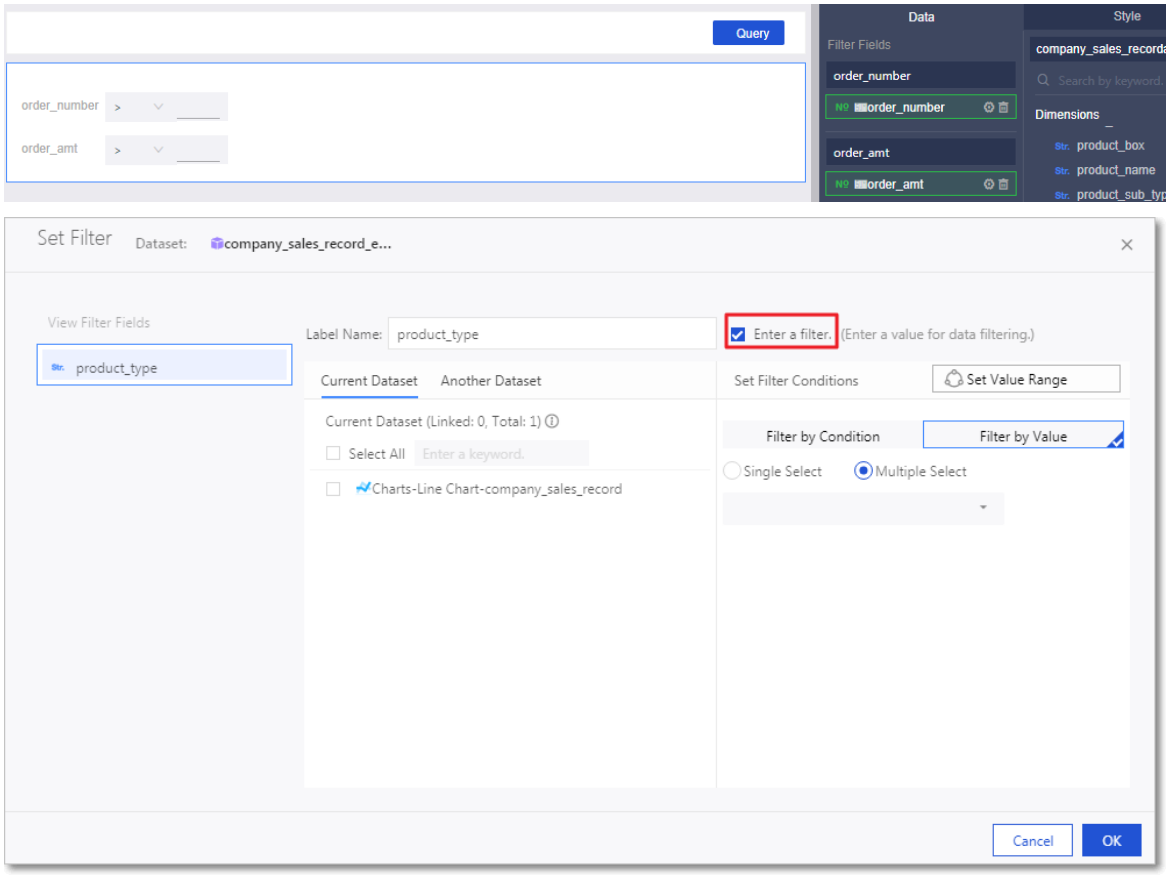
- Standard mode

- Filter bar
- Text area
- IFrame
- TAB
- Image

- Full-screen mode
  - Text area
  - IFrame
  - Image

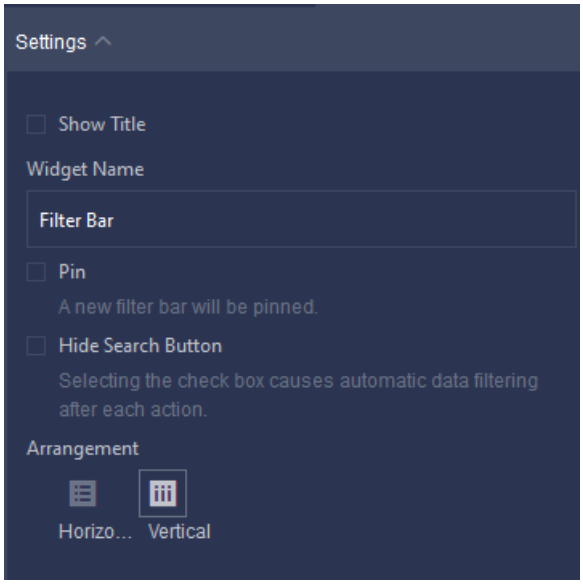
2.6.1.

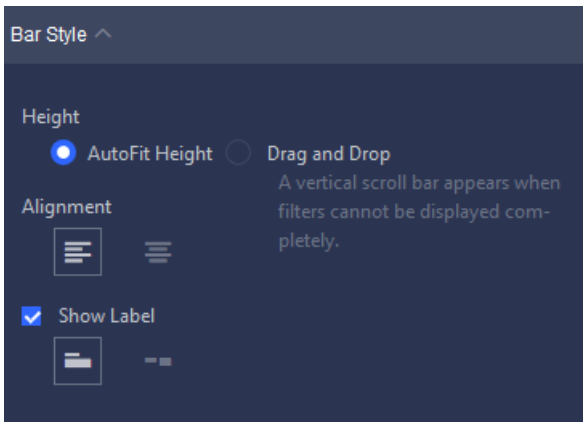
1.

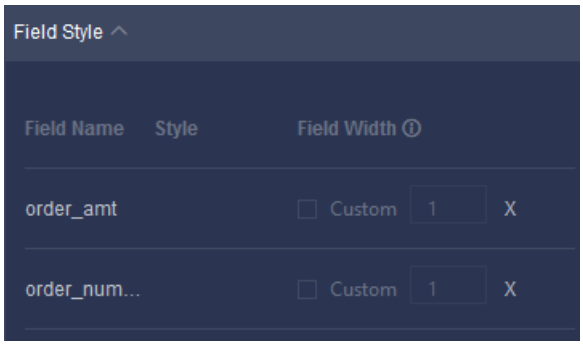


2. Note

3. ○


Settings
Show Title
Widget Name
Filter Bar
Pin
A new filter bar will be pinned.
Hide Search Button
Selecting the check box causes automatic data filtering after each action.
Arrangement
Horizo...
Vertical

- 
Bar Style
Height
AutoFit Height
Drag and Drop
A vertical scroll bar appears when filters cannot be displayed completely.
Alignment
Show Label

- 
Field Style
Field Name
Style
Field Width
order_amt
Custom
1
X
order_num...
Custom
1
X

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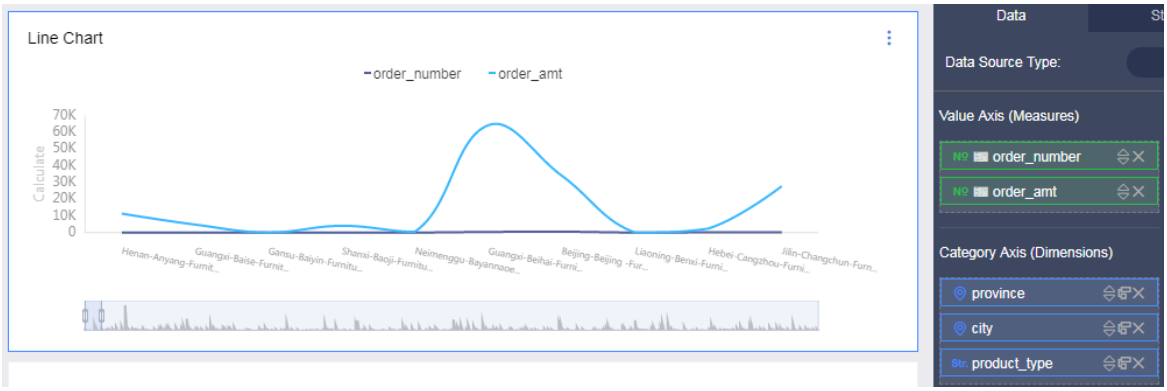

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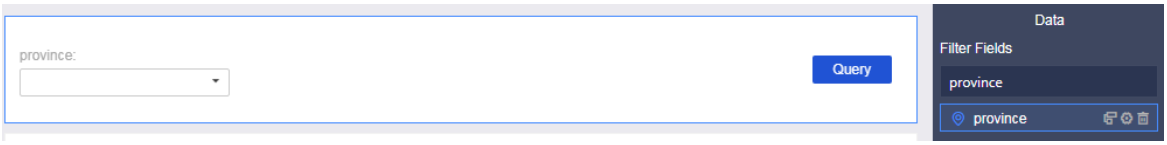

3. **Note**
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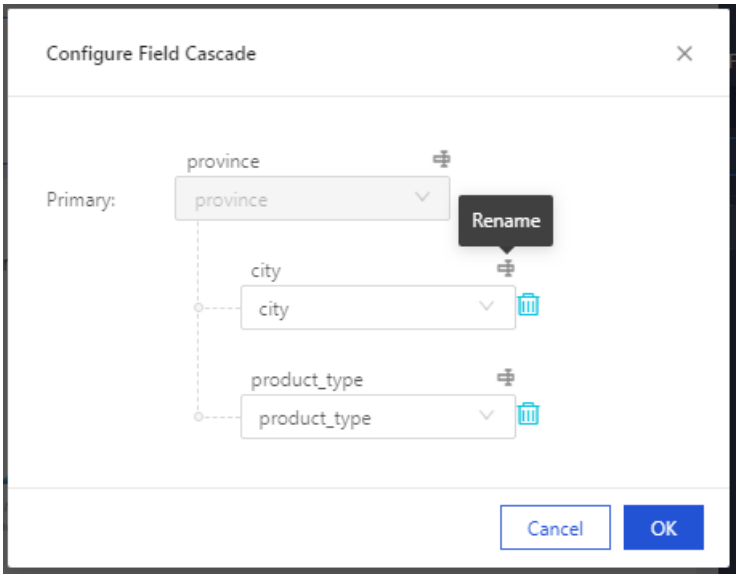

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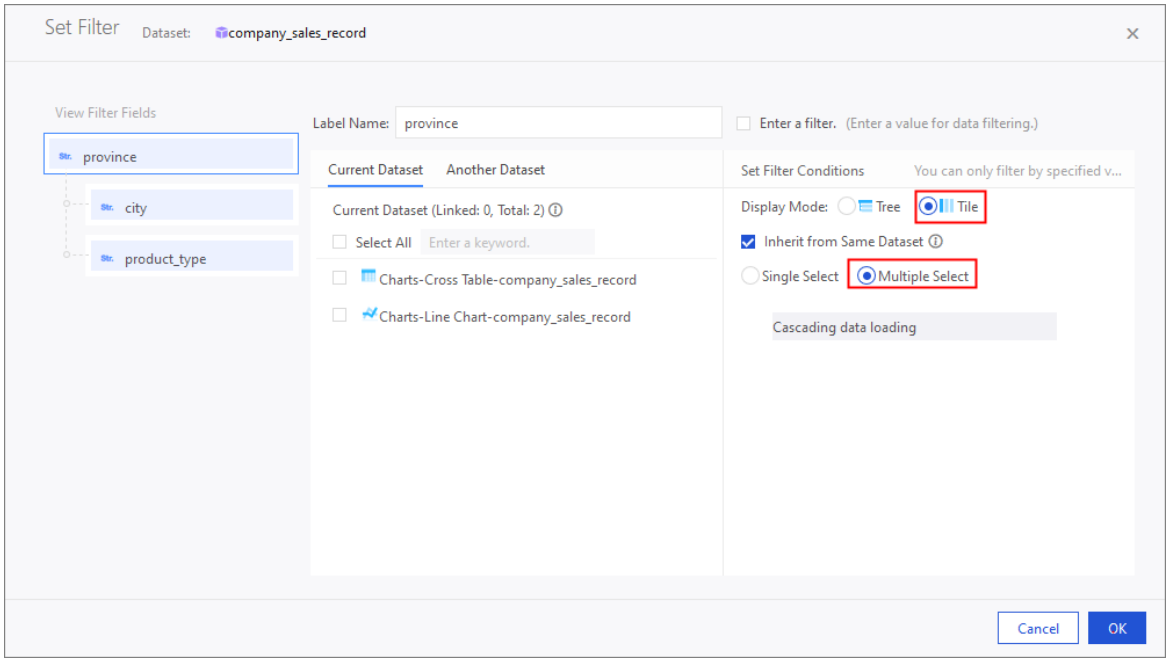
Set Filter
Dataset:
company_sales_record
View Filter Fields
province
city
product_type
Label Name:
province
Enter a filter. (Enter a value for data filtering.)
Current Dataset
Another Dataset
Current Dataset (Linked: 0, Total: 2)
Select All
Enter a keyword.
Charts-Cross Table-company_sales_record
Charts-Line Chart-company_sales_record
Set Filter Conditions
You can only filter by specified v...
Display Mode:
Tree
Tile
Inherit from Same Dataset
Single Select
Multiple Select
Cascading data loading
Cancel
OK

Note

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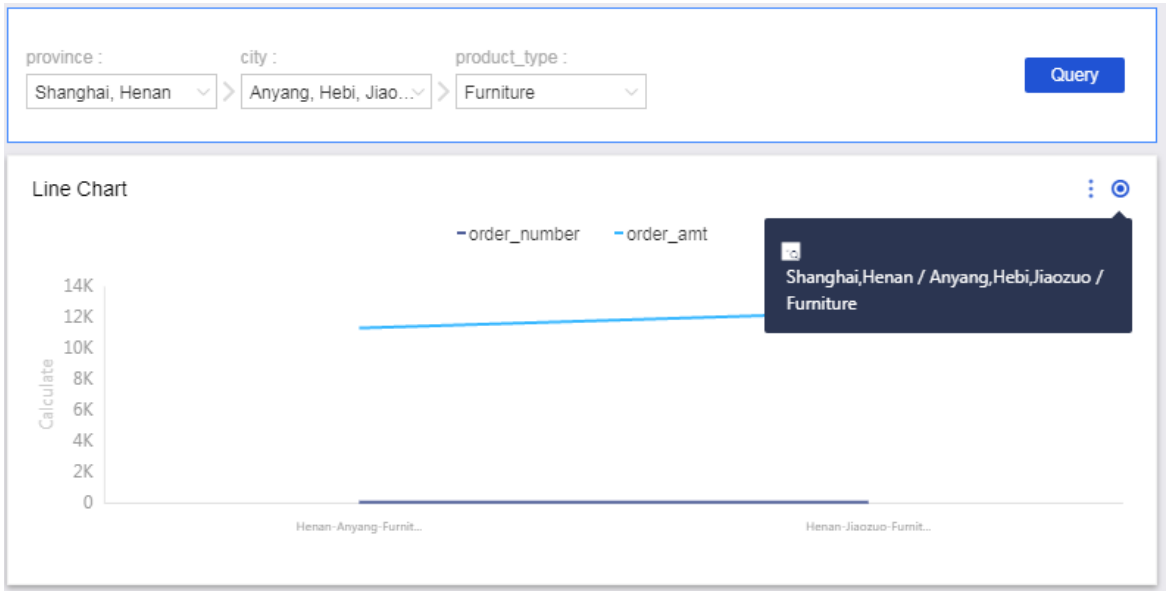
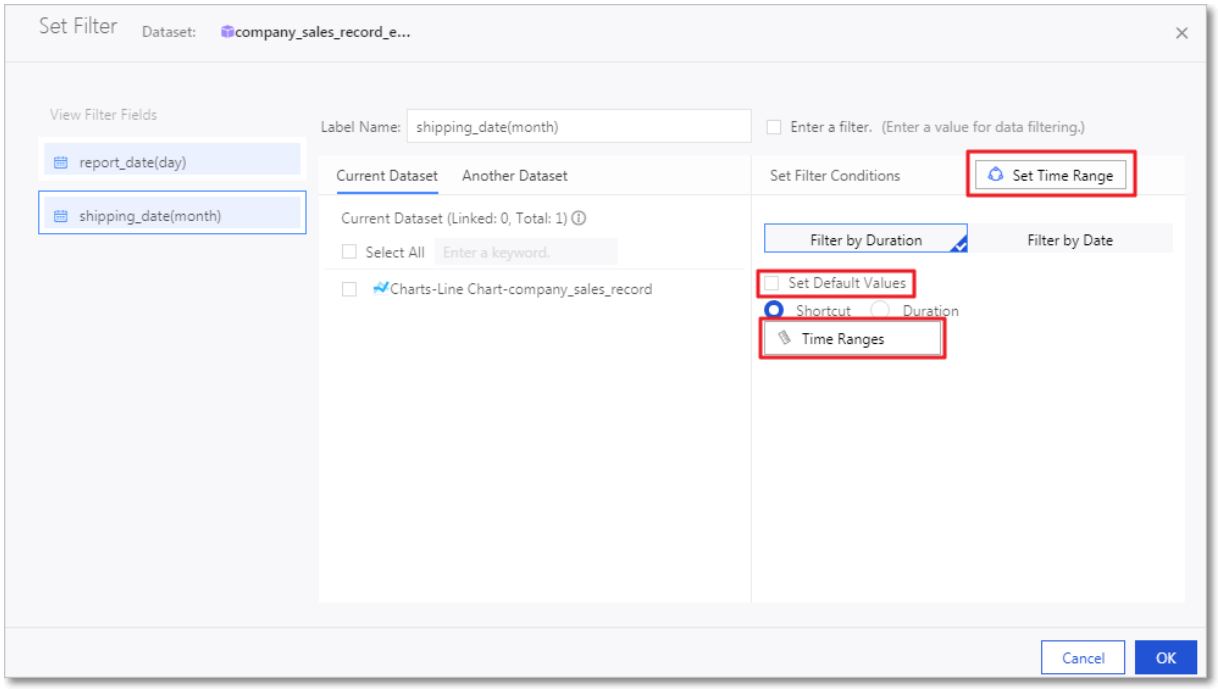

province :
Shanghai, Henan
city :
Anyang, Hebi, Jiao...
product_type :
Furniture
Query
Line Chart
order_number
order_amt
Shanghai,Henan / Anyang,Hebi,Jiaozuo / Furniture
14K
12K
10K
8K
6K
4K
2K
0
Calculate
Henan-Anyang-Furnit...
Henan-Jiaozuo-Furnit...

Note


Set Filter
Dataset:
company_sales_record_e...
View Filter Fields
report_date(day)
shipping_date(month)
Label Name:
shipping_date(month)
Enter a filter. (Enter a value for data filtering.)
Current Dataset
Another Dataset
Set Filter Conditions
Set Time Range
Current Dataset (Linked: 0, Total: 1)
Select All
Enter a keyword.
Charts-Line Chart-company_sales_record
Filter by Duration
Filter by Date
Set Default Values
Shortcut
Duration
Time Ranges
Cancel
OK

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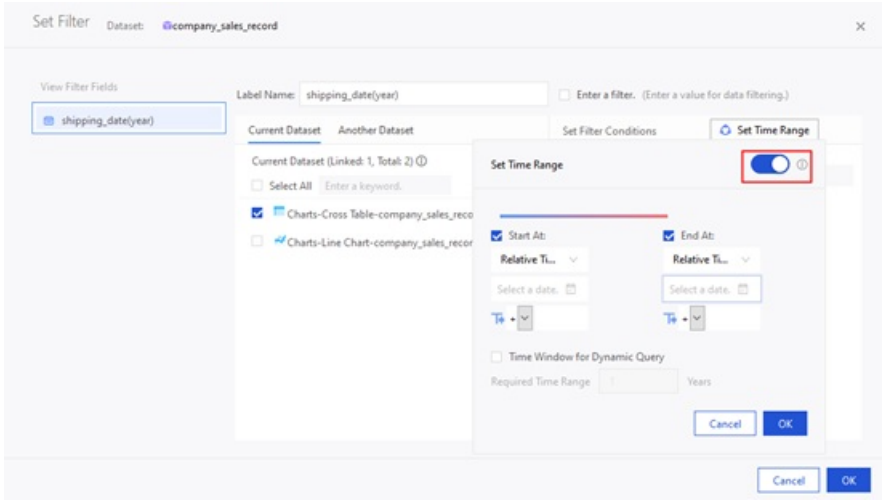
Set Filter
Dataset:
company_sales_record
View Filter Fields
shipping_date(year)
Label Name:
shipping_date(year)
Enter a filter. (Enter a value for data filtering.)
Current Dataset
Another Dataset
Set Filter Conditions
Set Time Range
Current Dataset (Linked: 1, Total: 2)
Select All
Enter a keyword.
Charts-Cross Table-company_sales_reco
Charts-Line Chart-company_sales_recor
Set Time Range
Start At:
End At:
Relative Ti...
Relative Ti...
Select a date.
Select a date.
Time Window for Dynamic Query
Required Time Range
Years
Cancel
OK
Cancel
OK

4. Note

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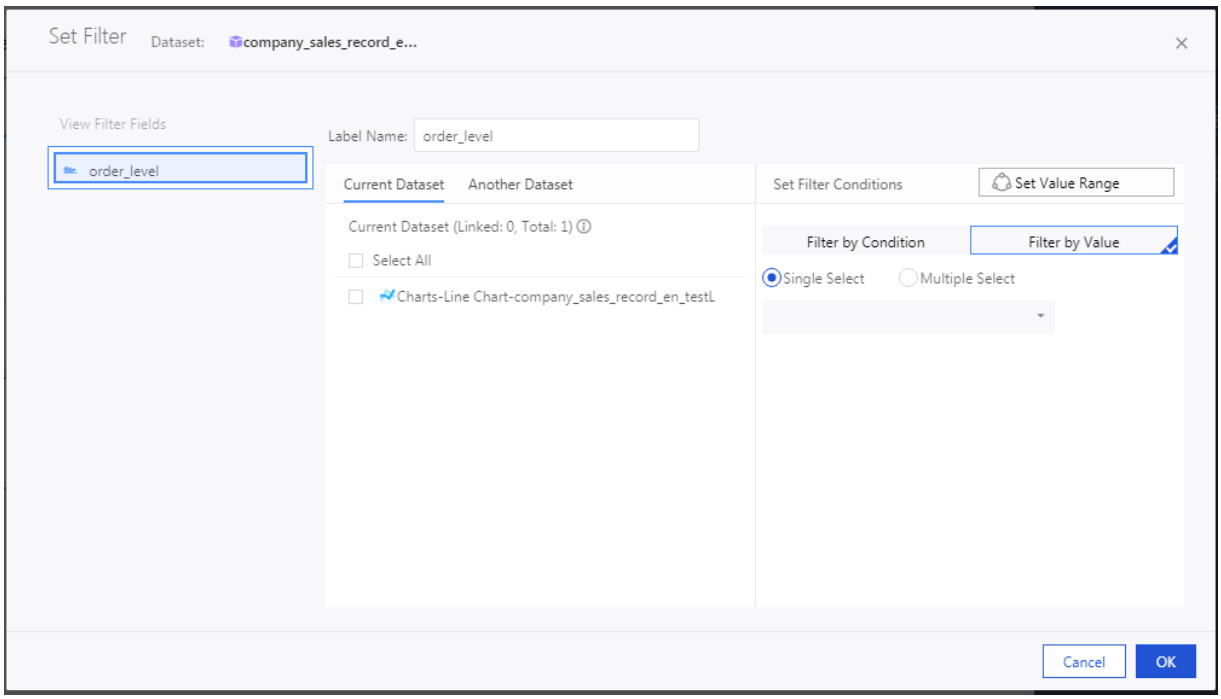
Set Filter
Dataset:
company_sales_record_e...
View Filter Fields
order_level
Label Name:
order_level
Current Dataset
Another Dataset
Current Dataset (Linked: 0, Total: 1)
Select All
Charts-Line Chart-company_sales_record_en_testL
Set Filter Conditions
Set Value Range
Filter by Condition
Filter by Value
Single Select
Multiple Select
Cancel
OK

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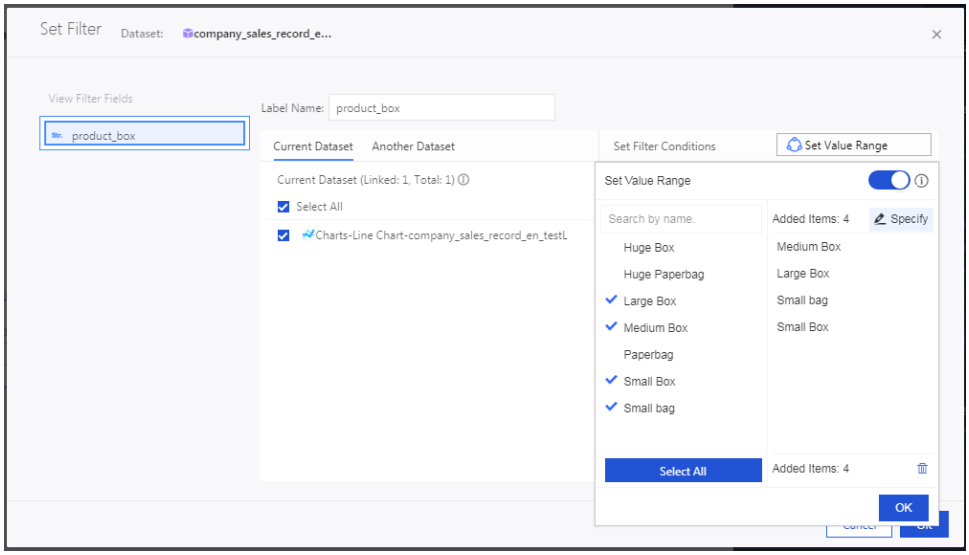
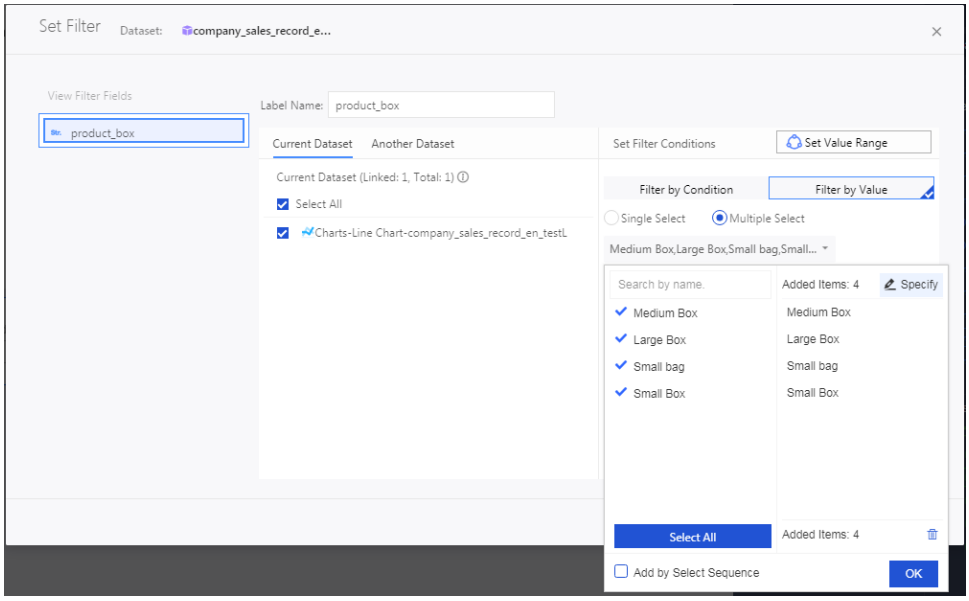

Set Filter
Dataset:
company_sales_record_e...
View Filter Fields
product_box
Label Name:
product_box
Current Dataset
Another Dataset
Current Dataset (Linked: 1, Total: 1)
Select All
Charts-Line Chart-company_sales_record_en_testL
Set Filter Conditions
Set Value Range
Set Value Range
Search by name.
Added Items: 4
Specify
Huge Box
Huge Paperbag
Large Box
Medium Box
Paperbag
Small Box
Small bag
Medium Box
Large Box
Small bag
Small Box
Select All
Added Items: 4
OK

4.



Note

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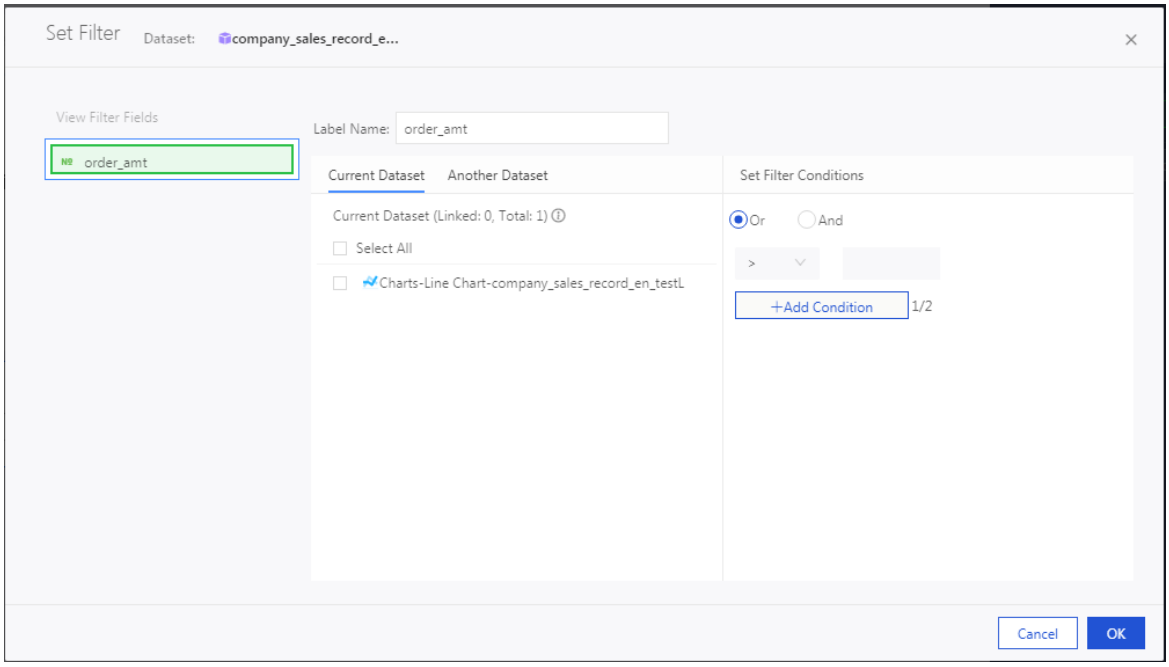

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2.6.2. Compound query control

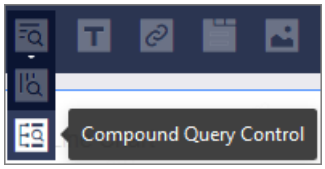
This topic describes how to use a compound query control. It uses nested OR and AND relationships to implement compound query of charts in the same dataset.

Prerequisites

The dashboard edit page is displayed.

Procedure

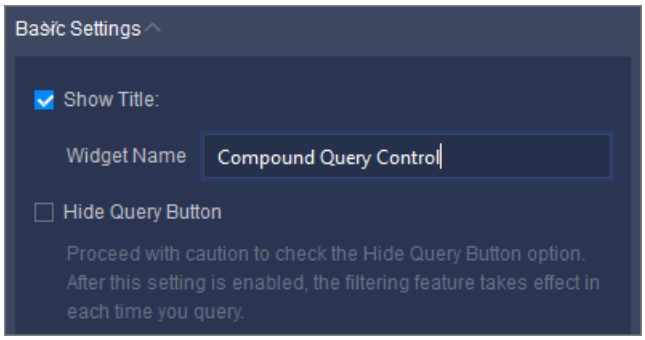
1. Click the **Compound Query Control** icon.



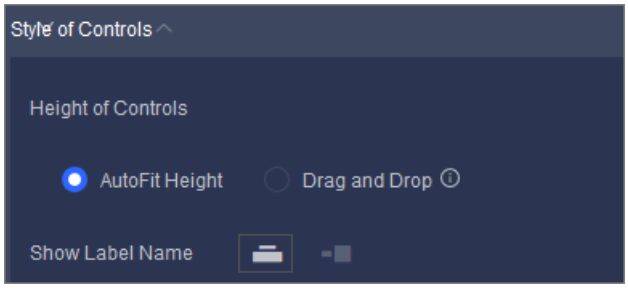
2. Perform the following operations on the **Data** tab:
   - Select a dataset from the Dataset drop-down list.
   - Click the  icon to go to the dataset edit page. You can edit dimensions and measures.

3. Click **Configure Selector** to add fields you want to query.

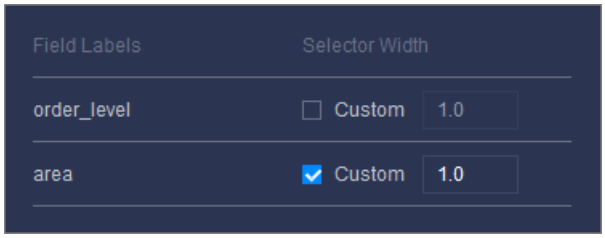
4. On the **Style** tab, you can perform the following configuration:
   - **Basic Settings**: You can set Show Title, Widget Name, and Hide Query Button.



   - **Style of Controls**: You can set Height of Controls and Show Label Name.

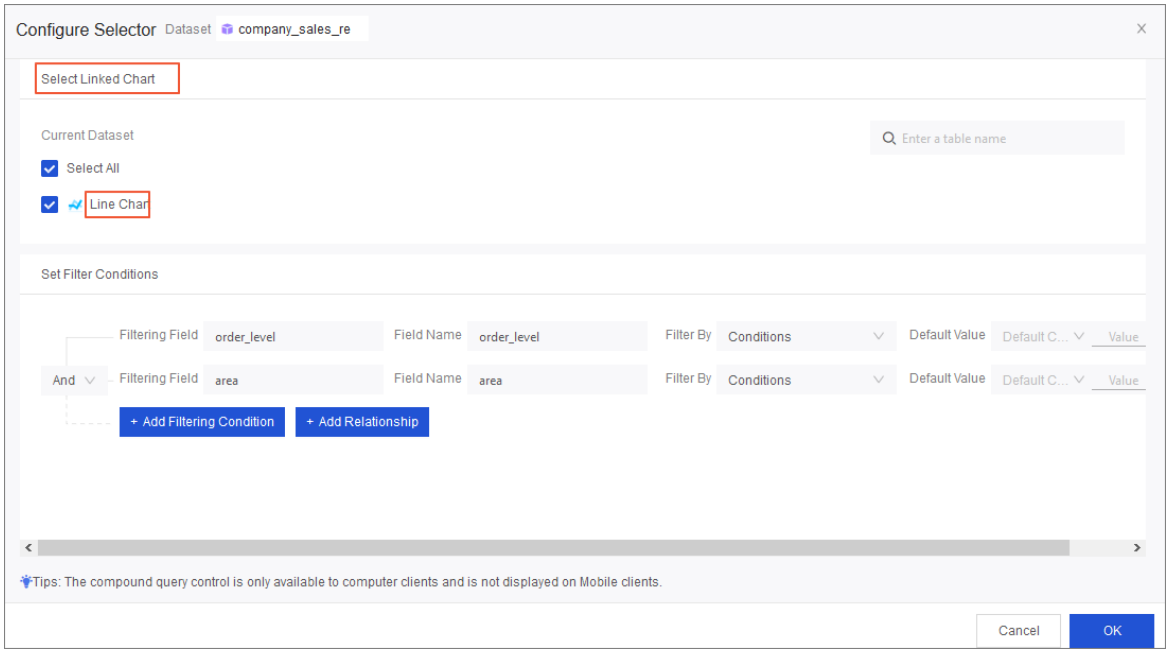


   - **Style of Field**: You can set Selector Width.



5. Click **Configure Selector**. In the Configure Selector dialog box that appears, select a chart for filter interaction.

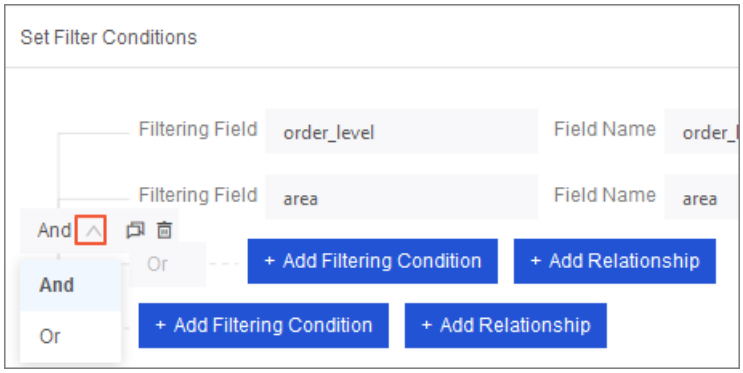
> **Note** Compound Query Control supports only filter interaction of charts from the same dataset. Cascade filtering is not supported.



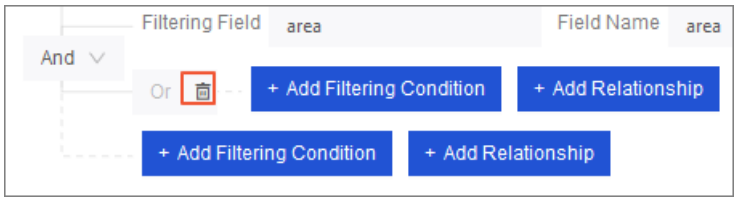
6. In the **Configure Selector** dialog box, select filter fields.
   i. Click **Add Filtering Condition** to add a filter condition under this level.
      - Search for or select a field for filtering, change Field Name, specify Filter By, and set Default Value.
      - If you want to delete a filter condition, click the Delete icon next to the filter condition.

ii. Click **Add Relationship** to add a relationship node to the inner layer of this level.

- Click the node of the first outer layer relationship and select a relationship type to replace the current relationship.



- If the relationship of the outer layer is **And**, the default relationship of the next layer is **Or**. If the relationship of the outer layer is **Or**, the default relationship of the next layer is **And**. The relationship types of the inner layer and its outer layer are opposite. They can be **And-Or**, **Or-And**, **And-Or-And**, or **Or-And-Or**.
- You can click the Delete icon to delete all filter fields and relationships for a node.



> **Note** You can add a maximum of three layers of relationship nodes for each link.

7. Click **OK** to complete the compound query configuration.

Example

- **Filter by string**

  Data of the string type can be filtered in three methods: Enum - Single Choice, Enum - Multiple Choice, and Conditions.

  i. Click the **Compound Query Control** icon. On the Data tab, select a dataset.

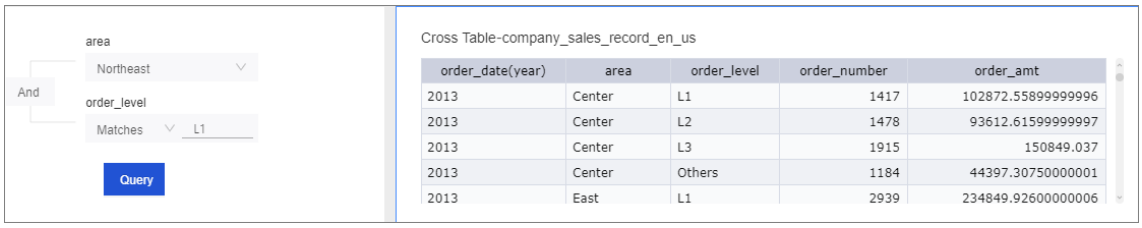
  ii. Click **Configure Selector**. In the Configure Selector dialog box that appears, select a chart for filter interaction.

  iii. In the **Set Filter Conditions** section, set filter conditions.

  - Click **Add Filtering Condition**, set Filtering Field to *area*, Field Name to *area*, Filter By to *Enum - Single Choice*, and Default Value to *North*.
  - Click **Add Filtering Condition**, set Filtering Field to *order_level*, Field Name to *order_level*, Filter By to *Conditions*, and Default Value to *Matches, L1*.

iv. Click **OK**.

v. Click **Query** in the display area of the compound query control. All the charts that are filtered by the control are updated.



- **Filter by data**

i. Click the **Compound Query Control** icon. On the Data tab, select a dataset.

ii. Click **Configure Selector**. In the Configure Selector dialog box that appears, select a chart for filter interaction.

iii. In the **Set Filter Conditions** section, set filter conditions.

- Click **Add Filtering Condition**, set Filtering Field to *order_number*, Field Name to *order_number*, and Default Value to *Greater Than, 30*.
- Click **Add Filtering Condition**, set Filtering Field to *order_amt*, Field Name to *order_amt*, and Default Value to *Greater Than, 10000*.

iv. Click **OK**.

v. Click **Query** in the display area of the compound query control. All the charts that are filtered by the control are updated.

> **Note** Only values of numeric fields can be filtered. The data is displayed based on the aggregate method selected for measures in a chart. Assume that the aggregate method of the order_number field in a cross table is sum. If you use the compound query control to filter data in which the number of orders is greater than 30, the cross table displays all data in which the number of orders is greater than 30 and the aggregate method is sum.

- **Filter by date**

Data of the date type can be filtered by using Shortcut or Filter By Date.

i. Click the **Compound Query Control** icon. On the Data tab, select a dataset.

ii. Click **Configure Selector**. In the Configure Selector dialog box that appears, select a chart for filter interaction.

iii. Click **Add Filtering Condition** to set filter conditions.

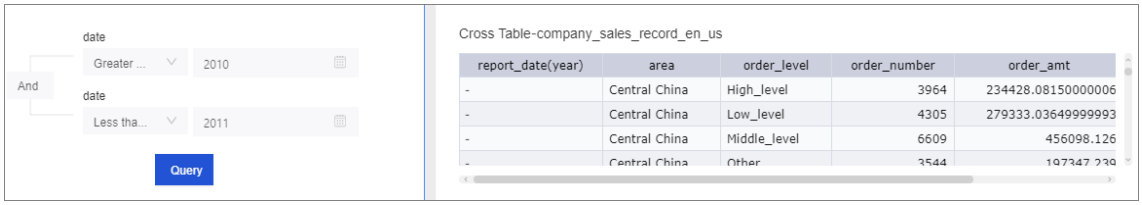
> **Note** If you filter data of a certain period of time, you need to add a date filter field first, and set **Default Value** to Greater Than or Greater than or Equal To. Then, add the same date filter field, and set **Default Value** to Less than or Equal To or Less Than.

- Click **Add Filtering Condition**, set Filtering Field to *report_date(year)*, Field Name to *date*, and Default Value to *Greater Than, 2010*.
- Click **Add Filtering Condition**, set Filtering Field to *report_date(year)*, Field Name to *date*, and Default Value to *Less than or Equal To, 2011*.

> **Note**

iv. Click **OK**.

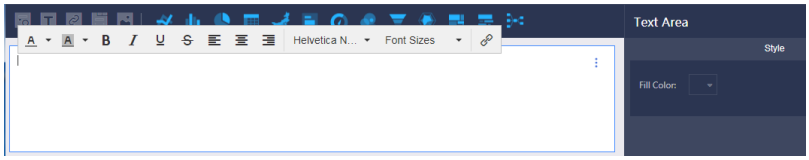
v. Click **Query** in the display area of the compound query control. All the charts that are filtered by the widget are updated.



2.6.3. Text area

You can use a text area to enter text. For example, you can use this to create the report title.

1. Click the **Text Area** icon, and a text area appears in the dashboard display area.
2. Enter text, as shown in the following figure.



2.6.4. IFrame

You can use iFrames to insert required web pages to filter web data and browse web pages related to the current data in real time.

1. Click the **IFrame** icon, and an iFrame appears in the dashboard display area.
2. In the URL input box, enter the URL.

> **Note** You must use an https URL.

2.6.5.

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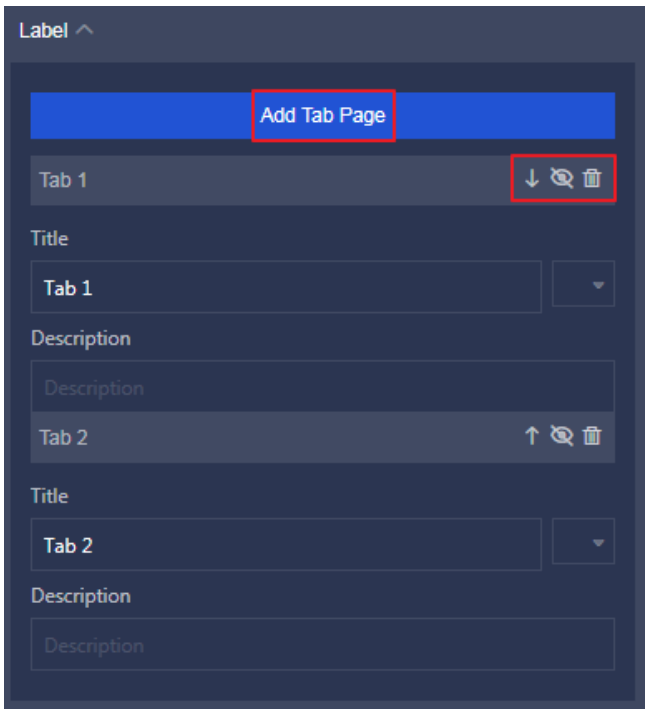

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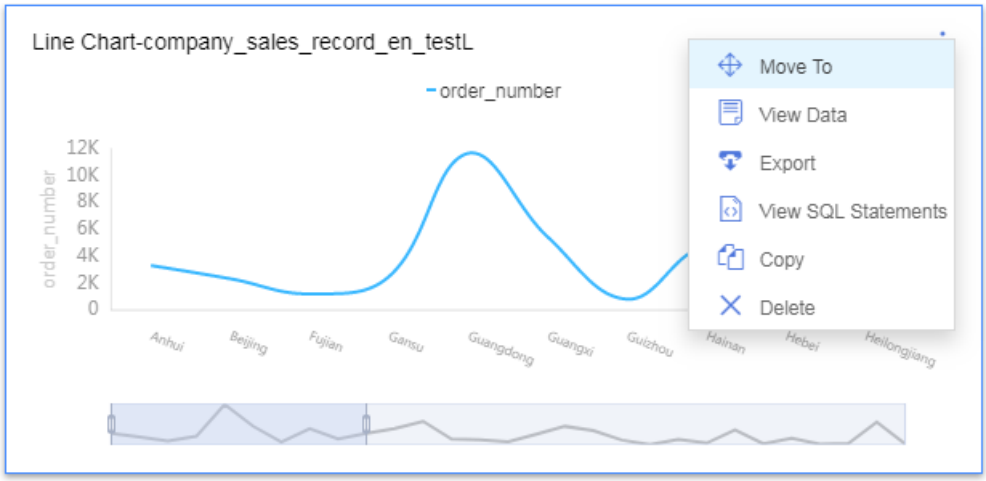
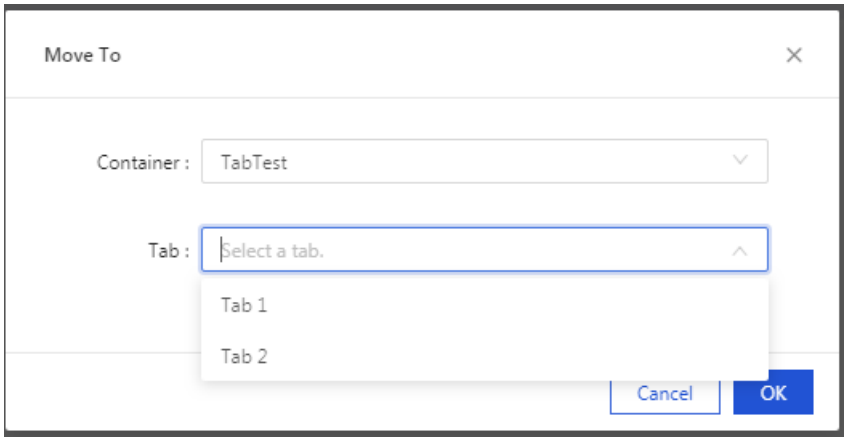
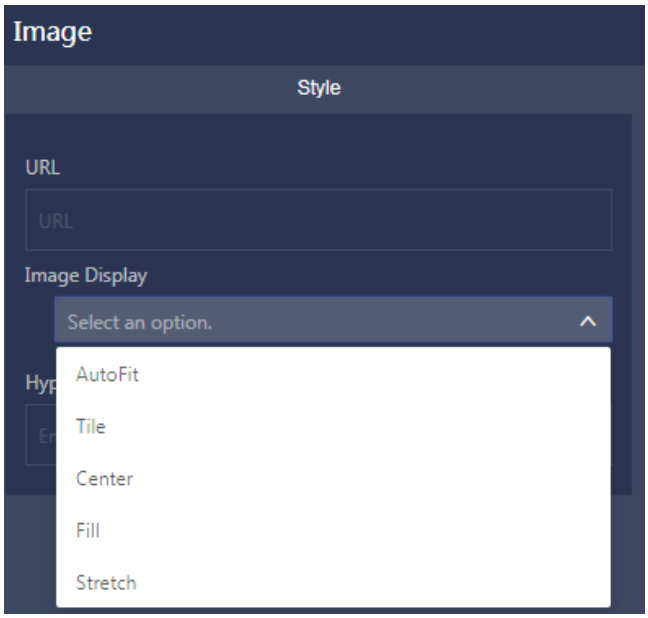




5.

2.6.6. Image

1. Click the **Image** icon, and an image appears in the dashboard display area.
2. Enter the URL of the image.
3. Configure the style of the image, as shown in the following figure.



3.Manage dashboards

3.1. View, share, and transfer a dashboard, make it public, add it to favorites, and configure its security level

This topic describes how to view, share, and transfer a dashboard, make it public, add it to favorites, and configure its security level.

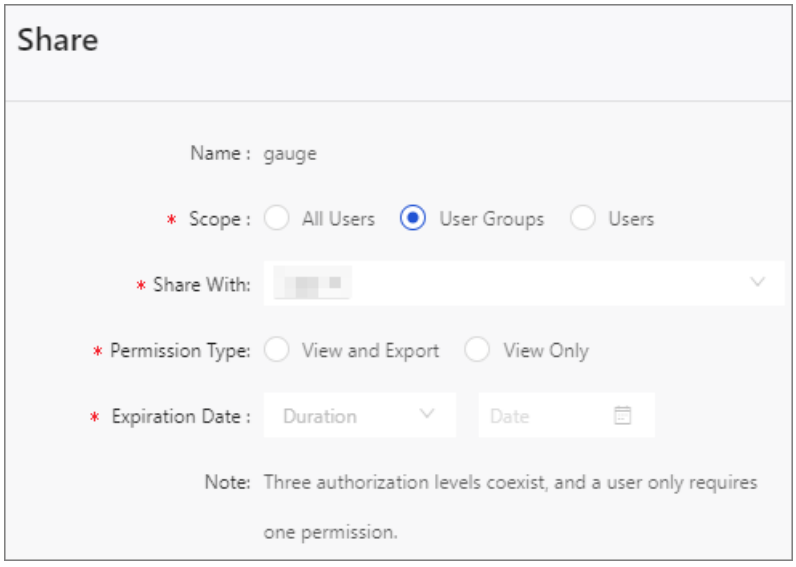
View a dashboard

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
3. On the **Dashboards** page, find the dashboard that you want to view and click the  icon.
4. On the page that appears, you can perform the following operations:

   - **Edit**: click **Edit** to go to the chart edit page.
   - **Export to Image**: Click **Export to Image** to export the chart data as an image.
   - **Export to PDF**: click **export to PDF** to export the chart data in a PDF file.

Share a dashboard

1. Click **Workspace** in the top navigation bar. In the left-side navigation pane, click **Dashboards**.
2. On the Dashboards page, select a dashboard that you want to share with others and click the icon in the Actions column.
3. Set Scope, Permission Type, and Expiration Date, as shown in the following figure.

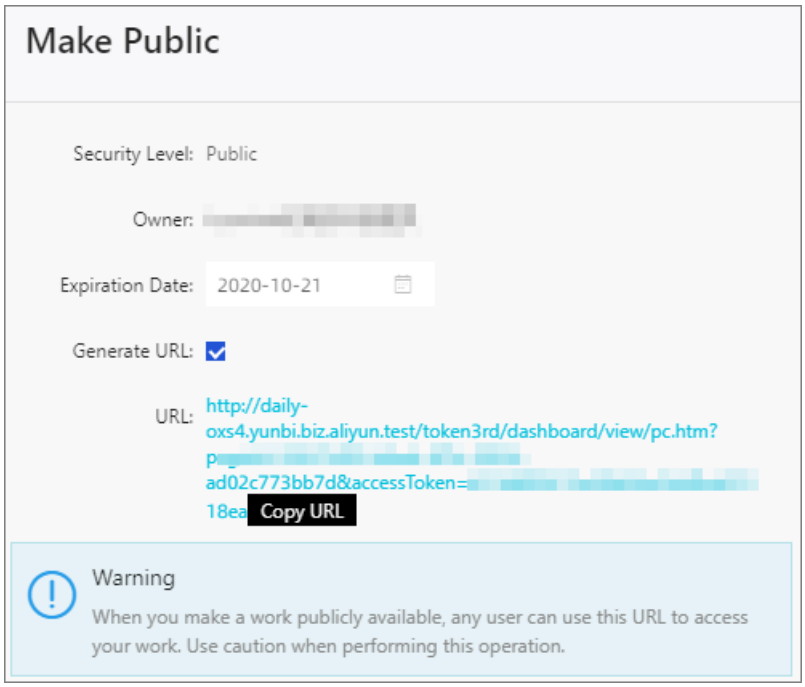


> **Note**
>
> - In Quick BI Pro and Quick BI Enterprise Standard, you can share dashboards with specific user groups, specific users, or all users. In Quick BI Basic, you must specify individual users with whom to share dashboards.
> - A report can be downloaded only if **Allow Download** is selected and Permission Type is set to **View and Export**.

4. Click **Save** to share the dashboard.

Make a dashboard public

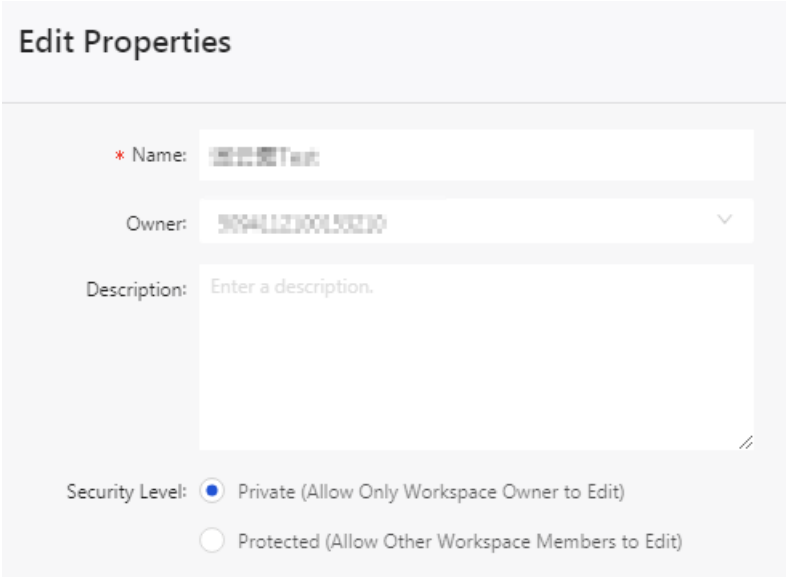
1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
2. On the Dashboards page, right-click the dashboard that you want to make public and select **Make Public**.You can also click the icon in the Actions column and select **Make Public**.
3. In the Make Public pane, set Expiration Date and select **Generate URL**.



4. Click **Make Public** to make the dashboard public.

Rename a dashboard, transfer it to another user, or configure its security level

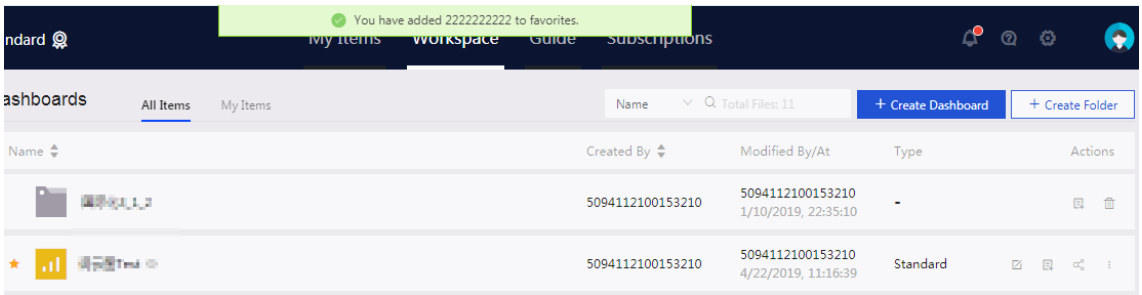
1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.
2. On the Dashboards page, right-click the dashboard that you want to edit and select **Edit Properties**.You can also click the icon in the Actions column.
3. In the **Edit Properties** pane, you can rename the dashboard, transfer it to another user in the workspace, or change its security level. If the security level is set to **Protected (Allow Other Workspace Members to Edit)**, other members in the workspace can edit the workbook. These members can use the lock function to prevent their changes from being overwritten by other users.



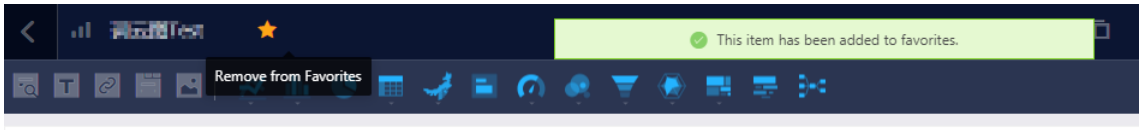
Note The dashboard transfer and security level setting functions are available only in Quick BI Pro and Quick BI Enterprise Standard workspaces.

Add a dashboard to favorites

1. Click the **Workspace** tab. In the left-side navigation pane, click **Dashboards**.You can use the following methods to add a dashboard to favorites:
   - On the Dashboards page, click the ☆ icon next to the dashboard name.



   - On the dashboard edit page, click the ☆ icon next to the dashboard name.



Note You can click the Add to Favorites icon again to remove a dashboard from your favorites.

3.2. Save, save and publish, restore, unpublish, and republish a dashboard

This topic describes how to save, save and publish, restore, unpublish, and republish a dashboard. These features allow users to view only published dashboards. All modifications made by developers are invisible to users until they are published.

Prerequisites

You have logged on to the Quick BI console and created a dashboard. For more information, see Basic dashboard operations.

Context

Dashboards are published automatically after they are saved. If developers save modifications to the dashboards, users may view the intermediate versions that are generated. To improve user experience, the save feature is separated from the publish feature, and the unpublish and republish features are added.

Save a dashboard

The save feature saves only the current operation. New dashboards are not published after you save them. To publish a new dashboard, use the save and publish feature. If you want to update a published dashboard, republish it.

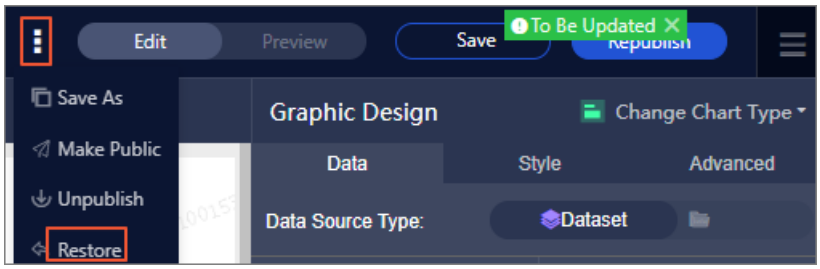
Save and publish a dashboard

The save and publish feature saves the current operation and publishes the dashboard. This feature is available only for dashboards that are not published.

Restore a dashboard

After you save your modifications to a published dashboard but have not yet published the modifications, you can use the **restore** feature to restore the dashboards to the latest version.

1. Select a published dashboard.
2. Modify the dashboard and save the modifications.
   The dashboard is in the **Saved But Not Published** state.
3. On the dashboard edit page, click the icon and select **Restore**.

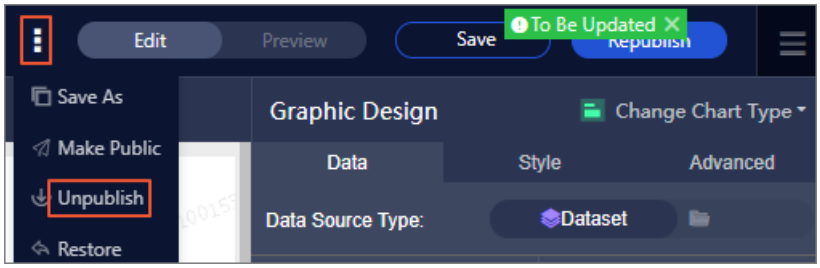


4. In the message that appears, click **OK**.

Unpublish a dashboard

You can unpublish a dashboard. Unpublished dashboards are invisible to users.

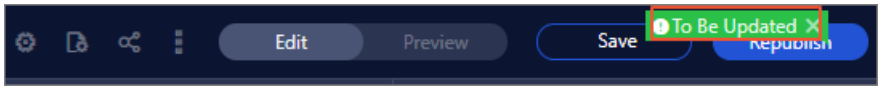
1. On the dashboard edit page, click the icon and select **Unpublish**.



2. In the message that appears, click **OK**.

Republish a dashboard

After you update a published dashboard, you can republish it to make the updates take effect. If "To Be Updated" is displayed for a dashboard and the dashboard is in the **Saved But Not Published** state, you can republish it



4.Create workbooks

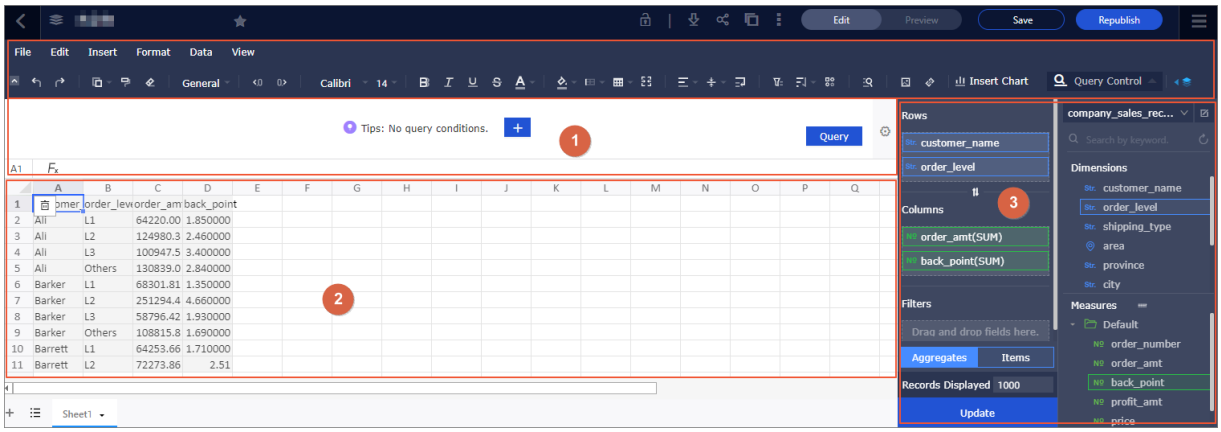
4.1. Overview

Workbooks are available only in workspaces of Quick BI Pro and Quick BI Enterprise Standard. You cannot create workbooks in personal workspaces. You can add charts and query controls in workbooks only in Quick BI Enterprise Standard.

Workbook edit page

A workbook edit page consists of three sections:

- Dataset selection section
- Workbook configuration section
- Workbook display section



- The workbook configuration section is marked as 1. In this section, you can select the chart that you want to create on the workbook, export and edit the workbook, configure the data format and style of the workbook, and add a query control.
- The workbook display section is marked as 2. In this section, you can display data in specified cells in a specified chart and reprocess data by using cell references.
- The dataset selection section is marked as 3. In this section, you can switch the current dataset to another. The fields of a dataset are displayed in the Dimensions and Measures lists based on the data types preconfigured in the system. You can select dimensions and measures based on the chart type.

4.2. Basic workbook operations

4.2.1. Create a workbook

This topic describes how to create a workbook based on a dataset.

Background information

If you want to perform complex operations on fields, such as **converting dimensions to measures**, **converting measures to dimensions**, **creating calculated measures**, and **creating hierarchies**, you must go to the dataset edit page.

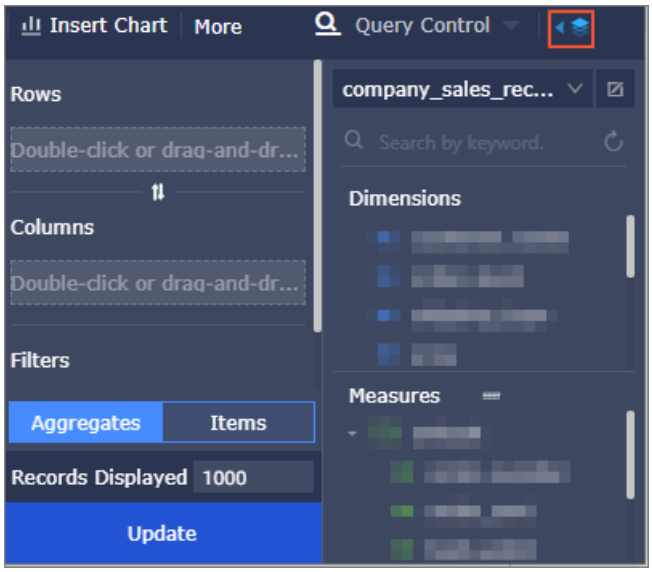
For information about how to create a dataset, see Create a dataset.

After a dataset schema is changed, you must reload the workbook to view the new dataset schema.

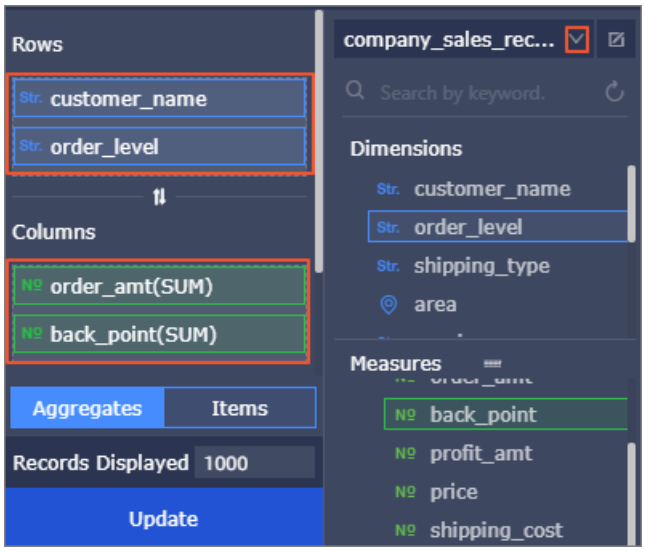
You can create workbooks only in group workspaces of Quick BI Pro and Quick BI Enterprise Standard.

Procedure

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Workbooks**.
3. On the **Workbooks** page, click **Create Workbook**.
4. On the workbook edit page, click the icon.

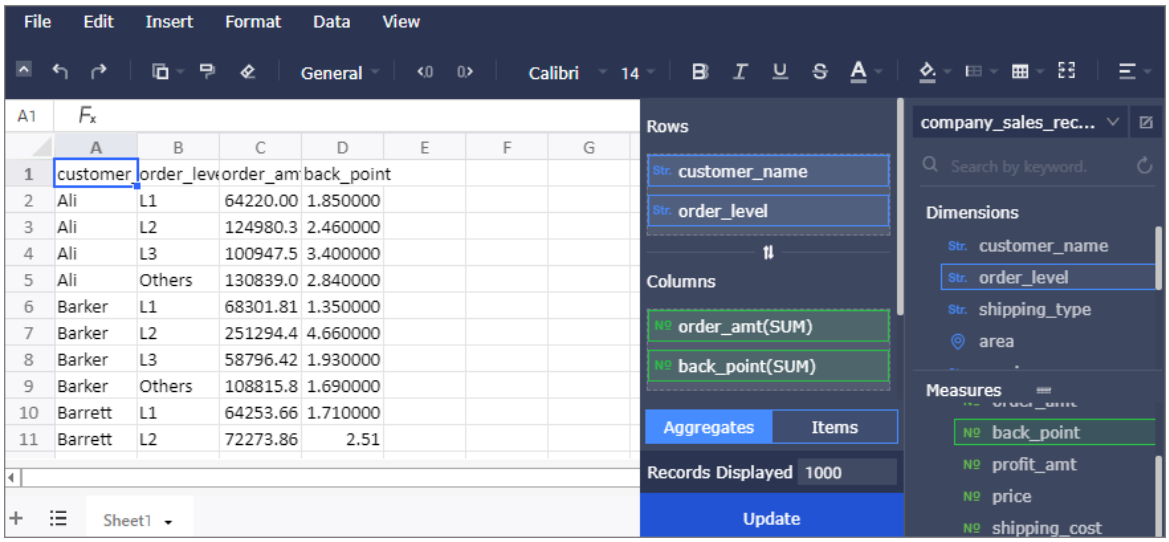


5. Select a dataset. Add required fields in the Dimensions and Measures lists to the **Rows** and **Columns** fields.



6. Click **Update**.

The fields are displayed in the workbook display section.



> **Note** If you want to exchange rows and columns, you can click the icon, and then click Update.

7. Click **Save**.

> **Note** If it is the first time that you save the workbook, the **Save Workbook** dialog box appears. You must configure the following parameters in the dialog box.

Parameter	Description
Name	The name of the workbook.
Save To	The location where you want to save the workbook.

8. Click **OK**.

4.2.2. Configure a workbook

You can configure a workbook in the workbook configuration section.

Prerequisites

You have logged on to the Quick BI console and created a workbook. For more information, see Create a workbook.

File

After you edit a workbook, you can click **File** and then click Export to export the workbook.

Edit

You can perform the following edit operations:

- Undo

- Restore
- Copy
- Cut
- Paste
- Format Painter
- Clear Format
- Indent
- Unindent

Insert

You can perform the following insert operations:

- Insert rows or columns to a workbook.
  - Insert rows above
  - Insert rows below
  - Insert columns to the left
  - Insert columns to the right
- Insert a dataset to a workbook.
- Insert a chart to a workbook.

  You can insert the following types of charts: line chart, vertical bar chart, pie chart, gauge, radar chart, scatter chart, funnel chart, and polar diagram. For more information, see Insert a chart.
- Insert an image to a workbook.

  The supported image formats include PNG, JPG, and GIF.
- Insert a function to a workbook.

  For more information, see Workbook functions.
- Insert a hyperlink to a workbook.
- Insert remarks to a workbook.
- Insert a drop-down list box to a workbook.

  For more information, see Add a drop-down list box.

Format

Item	Description
Data Format	Set the data format. The options include General, Date, Number, Text, Percentage, and Custom.
Font and Font Size	Set the font and font size.
Bold, Italic, Underline and Strikethrough	Configure the text style.
Horizontal Align, Vertical Align, Wrap Text, Merge Cells, Set Row Height, Set Column Width, Adaptive Row Height, and Adaptive Column Width	Configure the cell style.

Item	Description
Conditional Formatting	Add rules to filter data results. For more information, see Conditional Formatting.

Data

You can perform the following operations on the data in a workbook:

- Sort
- Filter
- Search Data
- Group and Ungroup

View

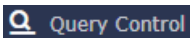
You can perform the following operations on the data in a workbook:

- Show or hide gridlines
- Hide selected rows or columns
- Unhide
- Freeze to the current row or column
- Cancel freeze

Toolbar

You can perform the following operations on the data in a workbook.

Operation	Description
	Paste data with custom formatting.
	Copy all of the formatting from one object and apply it to another one.
	Clear the formatting.
	Decrease or increase decimal places.
	Specify the font color.
	Specify the fill color for cells.
	Specify whether to show cell borders and the border color.
	Specify the theme color of the workbook.

Operation	Description
	Search for data.
	Specify the theme style of a table.
	Add a query control

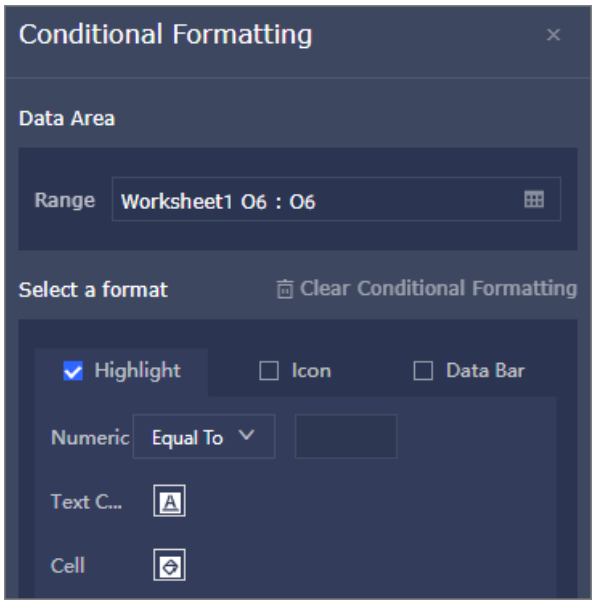
Sheet settings

You can perform the following operations on a sheet in a workbook:

- Rename the sheet.
- Delete the sheet.
- Set the border color.
- Hide the sheet.

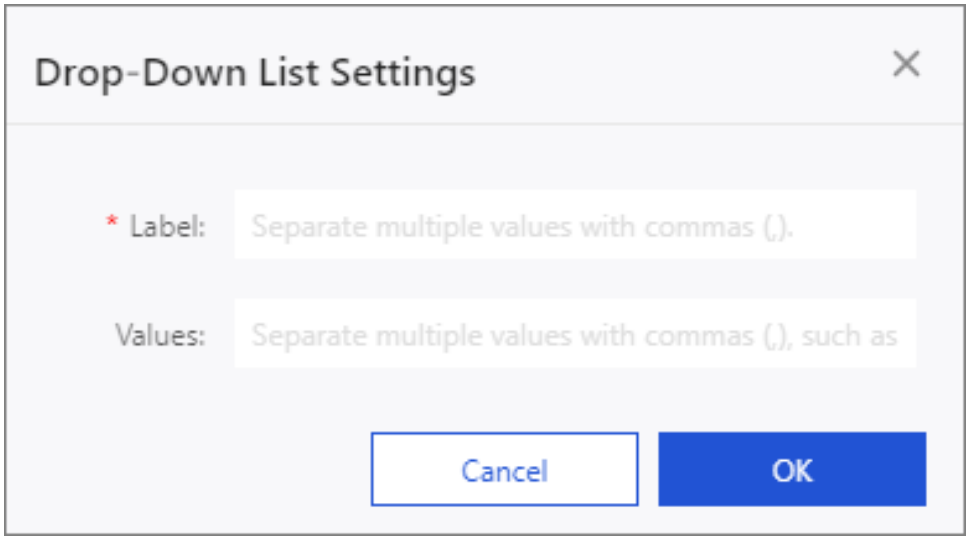
Conditional Formatting

You can click **Conditional Formatting** in the toolbar and add rules to filter the data results, such as highlighting the data within a specified range, setting an icon for specified data, and adding a data bar.



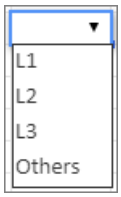
Add a drop-down list box

1. In the toolbar on the workbook edit page, click **Insert** and select **Drop-Down List**.
2. In the Drop-Down List Settings dialog box, add a label for the data item.



Note Separate multiple labels with commas (,).

3. Click **OK**.



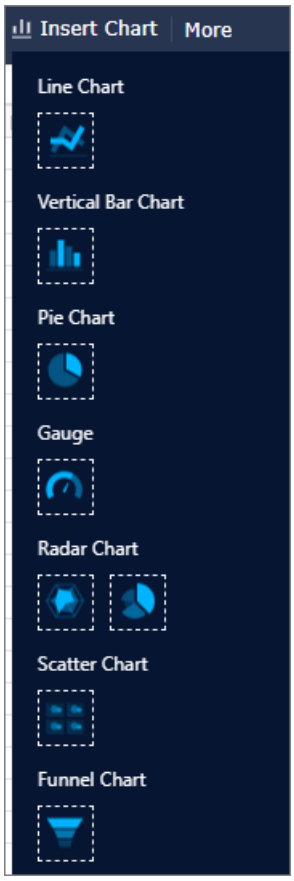
Note If the message **This operation is not allowed because it may affect the data of nearby datasets.** appears, copy the data to another area in the workbook and then repeat the operations.

Insert a chart

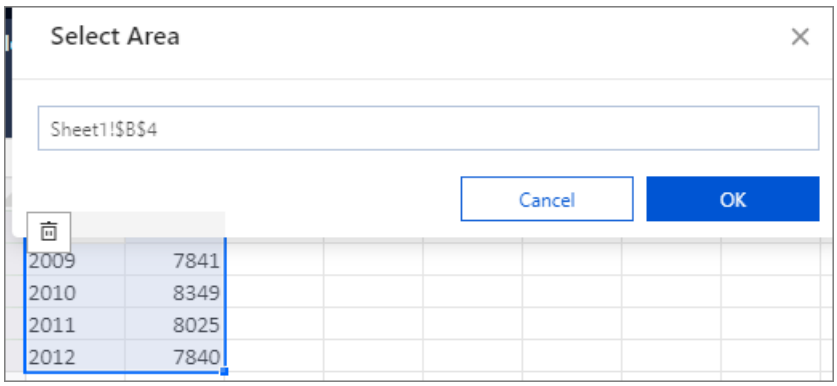
You can insert charts to a workbook based on the data in the workbook. You can insert the following types of charts: line chart, vertical bar chart, pie chart, gauge, radar chart, scatter chart, funnel chart, and polar diagram.

1. In the toolbar of the workbook edit page, click **Insert** and select Charts, and then select a chart type.

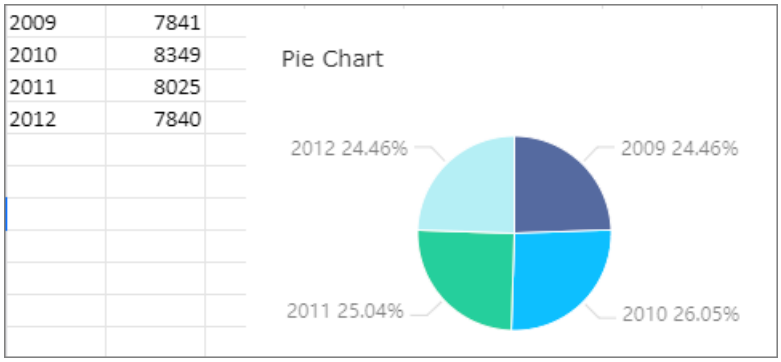
In this example, Pie Chart is selected.



2. In the **Select Area** dialog box, specify the data range for creating the chart.



3. Click **OK**. A pie chart appears in the workbook.



Click the chart and configure the chart style in the **Chart Design** section on the right side. For more information, see Create a dashboard.

4.2.3. Add a query control

This topic describes how to add a query control to filter your data. This feature is available only in Quick BI Enterprise Standard.

Prerequisites

A workbook is created. For more information, see Create a workbook.

Context

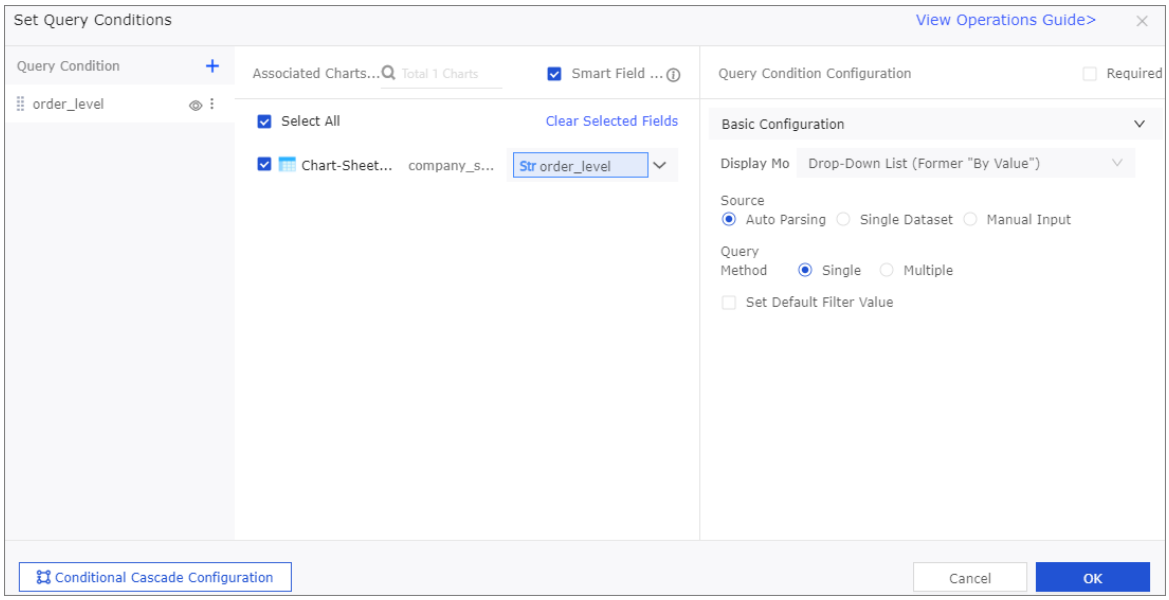
A workbook can have only one query control. You can configure multiple filter conditions in the query control.

Procedure

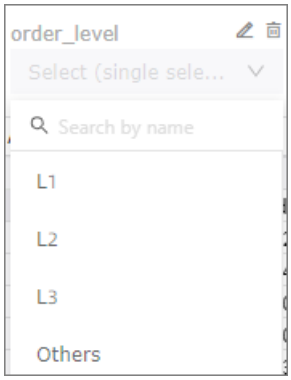
1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Workbooks**.
3. On the **Workbooks** page, click the workbook to go to the workbook edit page.You can also click the **Edit** icon in the **Actions** column.
4. On the workbook edit page, click **Query Control** in the toolbar.

5. In the workbook display section, click the + icon.
6. In the **Set Query Conditions** dialog box, configure query conditions.

   For more information, see Create a query control.

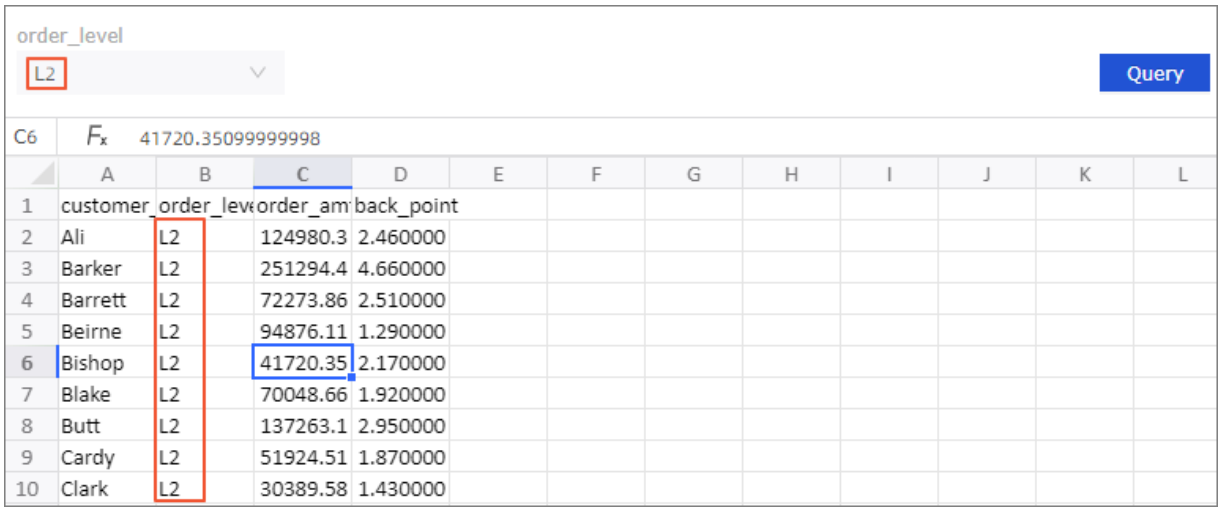


7. Click **OK**.



Result

Select **L2** for **order_level** and click **Query**. The following figure shows the query result.



	A	B	C	D
1	customer_	order_leve	order_am	back_point
2	Ali	L2	124980.3	2.460000
3	Barker	L2	251294.4	4.660000
4	Barrett	L2	72273.86	2.510000
5	Beirne	L2	94876.11	1.290000
6	Bishop	L2	41720.35	2.170000
7	Blake	L2	70048.66	1.920000
8	Butt	L2	137263.1	2.950000
9	Cardy	L2	51924.51	1.870000
10	Clark	L2	30389.58	1.430000

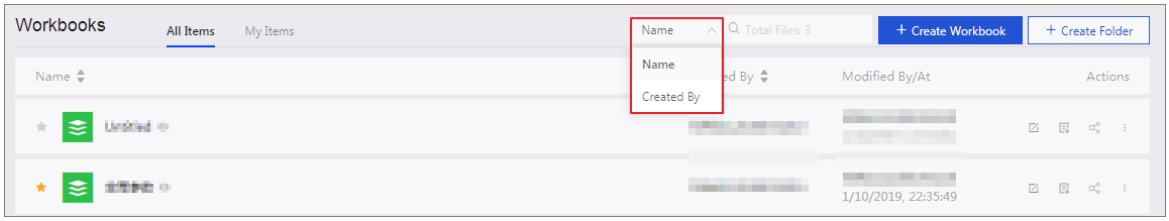
4.3. Search for, move, and delete a workbook

This topic describes how to search for, move, and delete a workbook.

Search for a workbook

1. Log on to the Quick BI console.
2. Click the **Workspace** tab. In the left-side navigation pane, click **Workbooks**.
3. On the **Workbooks** page, enter the keywords or the creator of the workbook that you want to search for in the search box, and click the **search** icon.

   You can specify **Publish Status** to narrow the search range.



Move a workbook

1. On the **Workbooks** page, find the workbook that you want to move, click the icon in the **Actions** column, and then select **Move To**.

   You can also right-click the row of the workbook and select **Move To**.

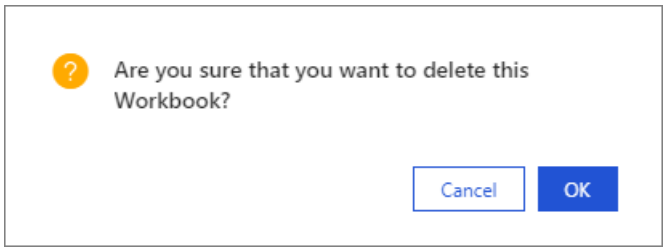
2. In the Move To pane, select the destination directory and click **Save**.

Delete a workbook

1. On the **Workbooks** page, find the workbook that you want to delete, click the icon in the **Actions** column, and then select **Delete**.

   You can also right-click the row of the workbook and select **Delete**.

2. In the dialog box that appears, click **OK**.



> **Note** If you want to delete a workbook that is in the **Published** status, you must unpublish it first.

4.4. Save, save and publish, restore, unpublish, and republish a workbook

This topic describes how to save, save and publish, restore, unpublish, and republish a workbook. These features allow users to view only published workbooks. All changes made by developers are invisible to users until they are published.

Prerequisites

You have logged on to the Quick BI console and created a workbook. For more information, see Create a workbook.

Context

Workbooks are automatically published after they are saved. Users may view intermediate versions that are generated as developers save changes to the workbooks. To improve user experience, the save feature is separated from the publish feature, and the unpublish and republish features are added.

Save a workbook

You can save only the current operation by using the save feature.

- After you create a workbook and save it, the workbook is not published. You can use the **save and publish** feature to publish a newly created workbook.
- After you modify a published workbook, you can use the **republish** feature to republish the workbook.

Save and publish a workbook

You can use this feature to save the current operation and publish the workbook. This feature is available only for workbooks that are not published.

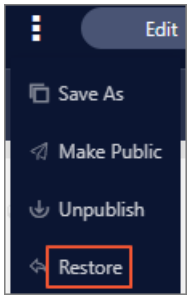
Restore a workbook

If you save your modifications to a published workbook but have not published the modifications, you can use the restore feature to restore the workbook to the latest published version.

> **Note** This feature is supported only by published workbooks.

For example, an employee publishes a workbook and the manager gives some comments. However, after the employee makes modifications based on the comments of the manager, the manager prefers the previous version. In this case, the employee needs to restore the workbook to the previously published version. To restore a workbook, perform the following operations:

1. On the workbook edit page, click the icon in the top menu bar and select **Restore**.

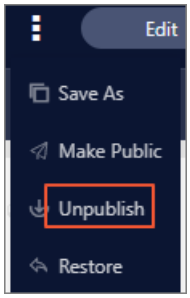


2. In the message that appears, click **OK**.

Unpublish a workbook

You can unpublish a workbook. After the workbook is unpublished, it is invisible to users.

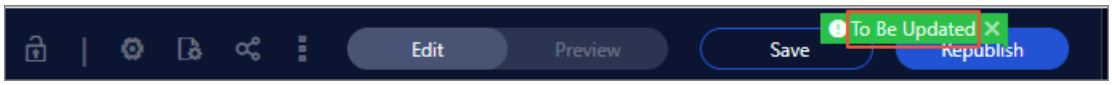
1. On the workbook edit page, click the icon and select **Unpublish**.



2. In the message that appears, click **OK**.

Republish a workbook

After you update a published workbook, you can republish it to make the updates available for users. You can republish a workbook if "To Be Updated" is displayed and the state of the workbook is **Saved But Not Published**.



4.5. Share a workbook, make it public, transfer it, rename it, change its security level, or add it to favorites

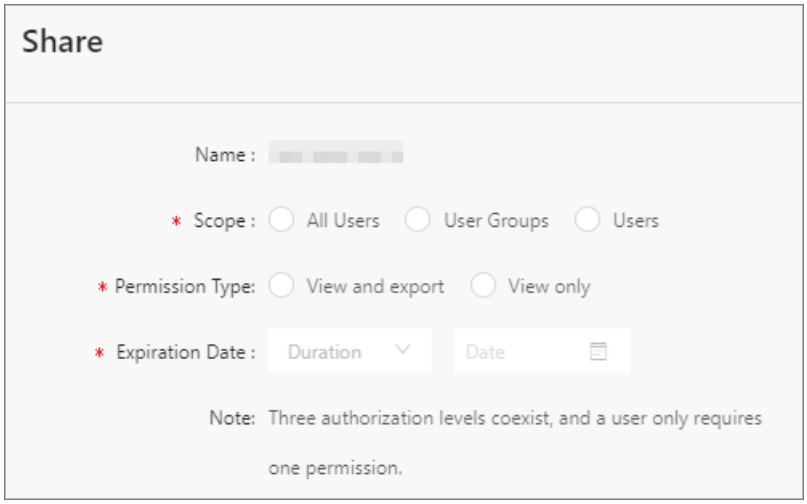
You can collaborate with others to prepare a workbook. After the workbook is prepared, you can share it with others, make it public, transfer it to another user, rename it, change its security level, or add it to favorites.

Share a workbook

Only workbooks whose **Publish Status** is **Published** can be shared with others.

1. Log on to the Quick BI console.
2. Click **Workspace** in the top navigation bar. In the left-side navigation pane, click **Workbooks**.
3. On the **Workbooks** page, find the workbook that you want to share with others and click the icon in the **Actions** column.

   You can also right-click the row of the workbook and select **Share**.
4. In the Share pane, configure Scope, Permission Type, and Expiration Date.



> **Note** Set Scope to All Users, User Groups, or Users as required.

5. Click **Save**.

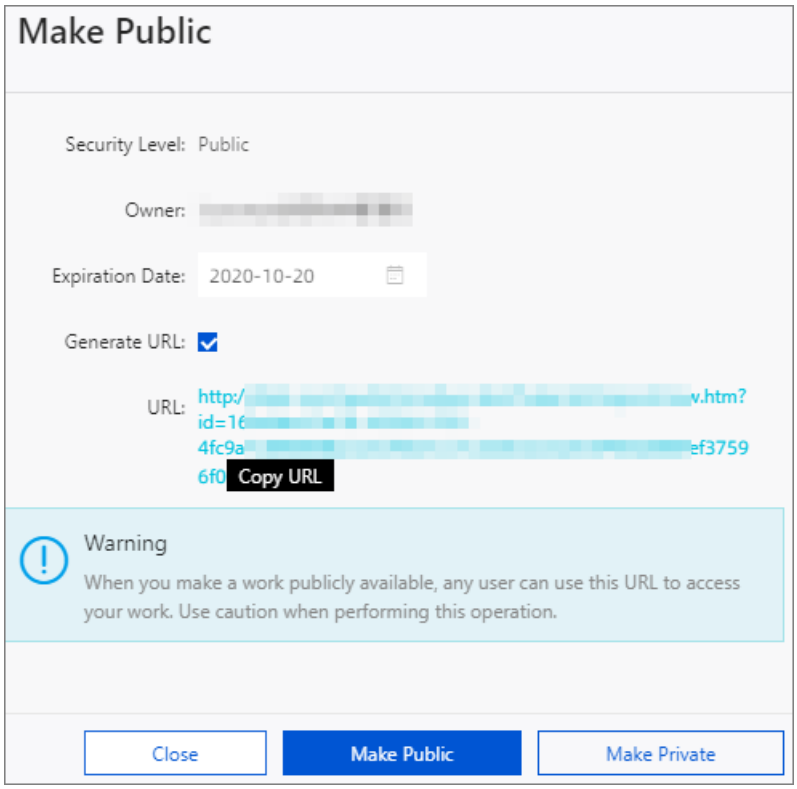
Make a workbook public

Only workbooks whose **Publish Status** is **Published** can be made public.

1. On the **Workbooks** page, find the workbook that you want to make public, click the icon in the **Actions** column, and then select **Make Public**.

   You can also right-click the row of the workbook and select **Make Public**.

2. In the Make Public pane, set Expiration Date and select **Generate URL**.



3. Click **Make Public**.

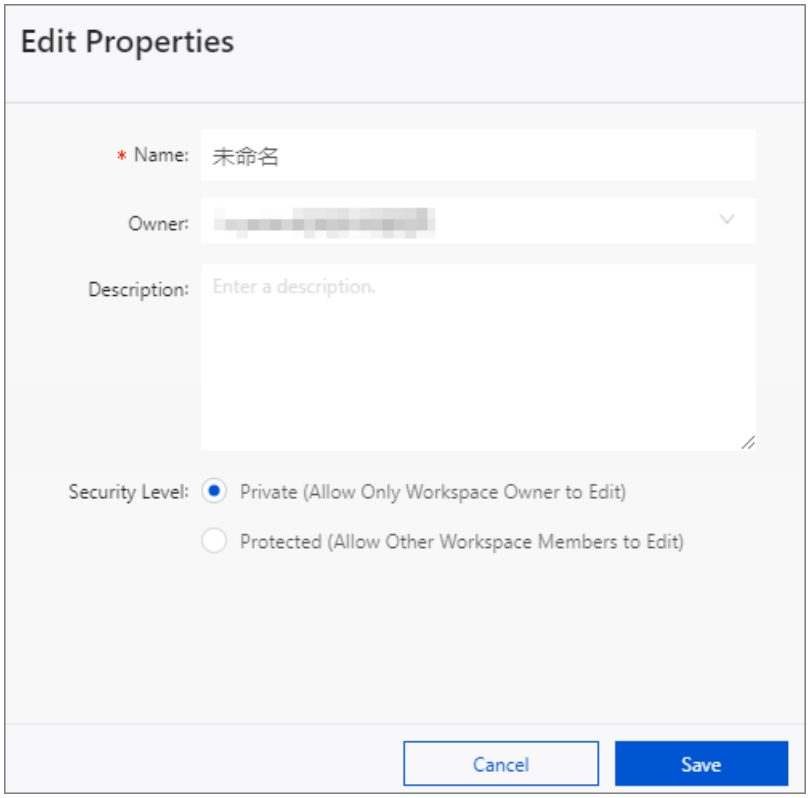
Transfer a workbook, rename a workbook, and change its security level

1. On the **Workbooks** page, find the required workbook and click the icon in the **Actions** column.

   You can also right-click the row of the workbook and select **Edit Properties**.

2. In the **Edit Properties** pane, change the name, owner, description, and security level of the workbook.

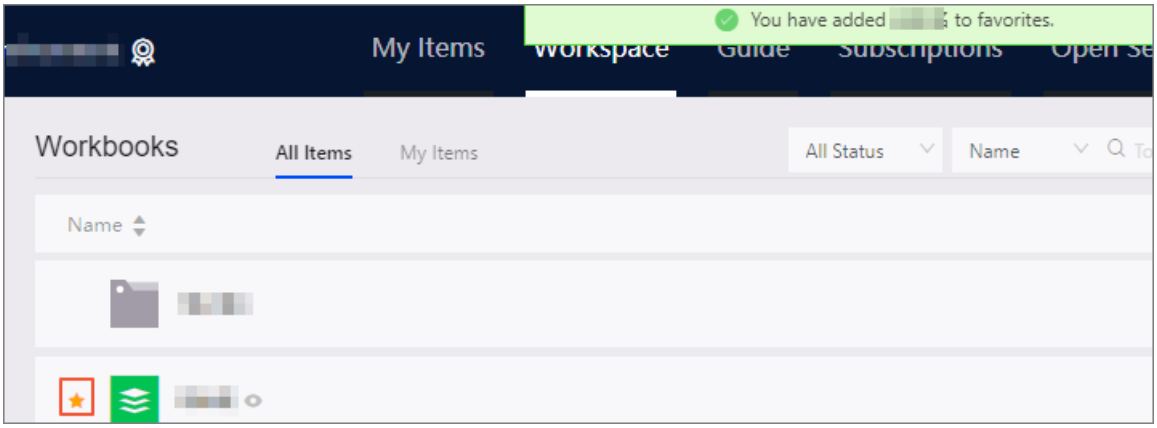
   If you select **Protected (Allow Other Workspace Members to Edit)** for Security Level, you must lock the workbook before you edit it.



Add a workbook to favorites

You can use any of the following methods to add a workbook to favorites:

- On the Workbooks page, click the Add to Favorites icon next to the workbook name.



- On the workbook edit page, click the Add to Favorites icon next to the workbook name.

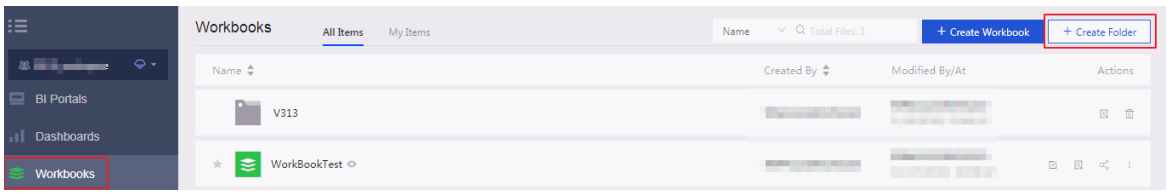
> **Note** You can click the Add to Favorites icon again to remove the workbook from your favorites.

4.6. Manage workbook folders

On the workbooks page, you can create, rename, and delete a workbook folder.

Create a workbook folder

1. Log on to the Quick BI console.
2. Click **Workspace** in the top navigation bar. In the left-side navigation pane, click **Workbooks**.
3. On the **Workbooks** page, click **Create Folder**.

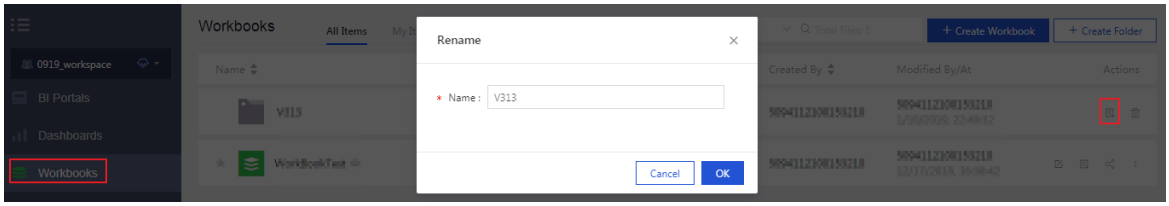


4. In the **Create Folder** dialog box, enter a workbook name and click **OK**.

Rename a workbook folder

1. On the **Workbooks** page, find the folder that you want to rename and click the icon in the **Actions** column.

   You can also right-click the row of the folder and select **Rename**.
2. In the **Rename** dialog box, enter a new name for the folder and click **OK**.

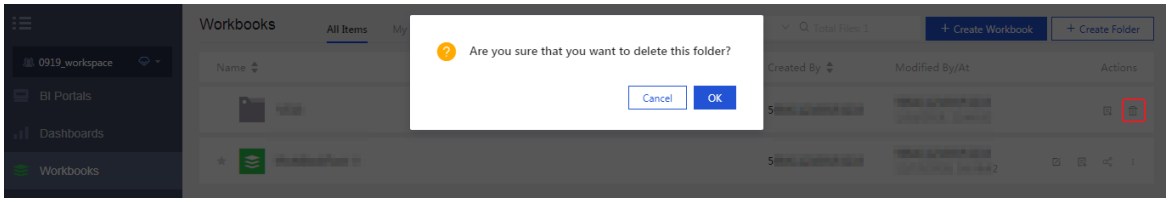


Delete a workbook folder

1. On the **Workbooks** page, find the folder that you want to delete and click the icon in the **Actions** column.

   You can also right-click the row of the folder and select **Delete**.

2. In the message that appears, click **OK**.



4.7. Workbook functions

Database functions

DAVERAGE: returns the average of selected database entries.

DCOUNT: counts the cells that contain numbers in a database.

DCOUNTA: counts non-blank cells in a database.

DGET: extracts a single record that matches the specified criteria from a database.

DMAX: returns the maximum value from selected database entries.

DMIN: returns the minimum value from selected database entries.

DPRODUCT: multiplies the values in a field for records that match the specified criteria in a database.

DSTDEV: estimates the standard deviation based on a sample of selected database entries.

DSTDEVP: calculates the standard deviation based on the entire population of selected database entries.

DSUM: adds the numbers in a field for records that match the specified criteria in a database.

DVAR: estimates variance based on a sample of selected database entries.

DVARP: calculates variance based on the entire population of selected database entries.

GETPIVOTDATA: returns data stored in a pivot table.

Date and time functions

DATE: returns a date.

DATEDIF: calculates the number of days, months, or years between two dates.

DATEVALUE: converts a date in text format to a serial number.

DAY: returns the day of a date. The day is given as an integer ranging from 1 to 31.

DAYS360: returns the number of days between two dates based on a 360-day year (twelve 30-day months), which is used in some accounting calculations. You can use this function to compute payments if your accounting system is based on twelve 30-day months.

EDATE: returns a date that is a specified number of months before or after the specified start date. You can use this function to calculate maturity dates or due dates that fall on the same day of a month as the date of issue.

EOMONTH: returns the last day of a month that is a specified number of months before or after the specified start date. You can use this function to calculate maturity dates or due dates that fall on the last day of a month.

HOUR: returns the hour of a time value. The hour is given as an integer ranging from 0 (12:00 A.M.) to 23 (11:00 P.M.) .

MINUTE: returns the minutes of a time value. The minute is given as an integer ranging from 0 to 59.

MONTH: returns the month of a date. The month is given as an integer ranging from 1 (January) to 12 (December).

NETWORKDAYS: returns the number of working days between the specified start date and end date. Working days exclude weekends and any specified holidays. You can use this function to calculate employee benefits that accrue based on the number of working days during a specific period.

NETWORKDAYS.INTL: returns the number of working days between two dates.

NOW: returns the current date and time. If the cell format is general before you enter this function, it changes to time for the result of this function.

SECOND: returns the seconds of a time value. The second is given as an integer ranging from 0 (zero) to 59.

TIME: returns the decimal for a time. If the cell format is general before you enter this function, it changes to time for the result of this function.

TIMEVALUE: returns the decimal of a time represented by a text string. The decimal is a value ranging from 0 (zero) to 0.999999999, which represents a time from 0:00:00 (12:00:00 A.M.) to 23:59:59 (11:59:59 P.M.) .

TODAY: returns the current date. If the cell format is general before you enter this function, it changes to date for the result of this function.

WEEKDAY: returns the day of the week corresponding to a date. The day is given as an integer ranging from 1 (Sunday) to 7 (Saturday) by default.

WEEKNUM: returns an integer that represents the week number of a specific date in a year.

WORKDAY: returns a date that is a specified number of working days before or after the specified start date. Working days exclude weekends and any specified holidays. You can use this function to exclude weekends or holidays when you calculate invoice due dates, expected delivery time, or the number of working days.

WORKDAY.INTL: returns a date before or after a specified number of working days, where weekends can be customized.

YEAR: returns the year corresponding to a date. The year is returned as an integer ranging from 1900 to 9999.

YEARFRAC: calculates the fraction of a year represented by the number of days between the specified start date and end date. You can use this function to identify the proportion of benefits or obligations during a specific period to those in a whole year.

Engineering functions

BESSELI: returns the modified Bessel function In(x).

BESSELJ: returns the Bessel function Jn(x).

BESSELK: returns the modified Bessel function Kn(x).

BESSELY: returns the Bessel function Yn(x).

BIN2DEC: converts a binary number to decimal.

BIN2HEX: converts a binary number to hexadecimal.

BIN2OCT: converts a binary number to octal.

COMPLEX: converts real and imaginary coefficients to a complex number.

CONVERT: converts a number from one measurement system to another.

DEC2BIN: converts a decimal number to binary.

DEC2HEX: converts a decimal number to hexadecimal.

DEC2OCT: converts a decimal number to octal.

DELTA: tests whether two values are equal.

ERF: returns the error function.

ERF.PRECISE: returns the error function.

ERFC: returns the complementary error function.

ERFC.PRECISE: returns the complementary ERF function integrated between x and infinity.

GESTEP: tests whether a number is greater than a threshold value.

HEX2BIN: converts a hexadecimal number to binary.

HEX2DEC: converts a hexadecimal number to decimal.

HEX2OCT: converts a hexadecimal number to octal.

IMABS: returns the absolute value (modulus) of a complex number.

IMAGINARY: returns the imaginary coefficient of a complex number.

IMARGUMENT: returns the argument theta, which is an angle expressed in radians.

IMCONJUGATE: returns the complex conjugate of a complex number.

IMCOS: returns the cosine of a complex number.

IMDIV: returns the quotient of two complex numbers.

IMEXP: returns the exponential of a complex number.

IMLN: returns the natural logarithm of a complex number.

IMLOG10: returns the base-10 logarithm of a complex number.

IMLOG2: returns the base-2 logarithm of a complex number.

IMPOWER: returns a complex number raised to an integer power.

IMPRODUCT: returns the product of 1 to 255 complex numbers.

IMREAL: returns the real coefficient of a complex number.

IMSIN: returns the sine of a complex number.

IMSQRT: returns the square root of a complex number.

IMSUB: returns the difference between two complex numbers.

IMSUM: returns the sum of complex numbers.

OCT2BIN: converts an octal number to binary.

OCT2DEC: converts an octal number to decimal.

OCT2HEX: converts an octal number to hexadecimal.

Financial functions

ACCRINT: returns the accrued interest for a security that pays periodic interest.

ACCRINTM: returns the accrued interest for a security that pays interest at maturity.

AMORDEGRC: uses a depreciation coefficient to return the depreciation for each accounting period.

AMORLINC: returns the depreciation for each accounting period.

COUPDAYBS: returns the number of days from the beginning of the current coupon period to the settlement date.

COUPDAYS: returns the number of days in the coupon period that contains the settlement date.

COUPDAYSNC: returns the number of days from the settlement date to the next coupon date.

COUPNCD: returns the next coupon date after the settlement date.

COUPNUM: returns the number of coupons payable between the settlement date and maturity date.

COUPPCD: returns the previous coupon date before the settlement date.

CUMIPMT: returns the cumulative interest paid between two periods.

CUMPRINC: returns the cumulative principal paid on a loan between two periods.

DB: uses the fixed-declining balance method to return the depreciation of an asset for a specified period.

DDB: uses the double-declining balance method or some other specified methods to return the depreciation of an asset for a specified period.

DISC: returns the discount rate for a security.

DOLLARDE: converts a dollar price, expressed as a fraction, to a dollar price, expressed as a decimal.

DOLLARFR: converts a dollar price, expressed as a decimal, to a dollar price, expressed as a fraction.

DURATION: returns the annual duration of a security with periodic interest payments.

EFFECT: returns the effective annual interest rate.

FV: returns the future value of an investment.

FVSCHEDULE: returns the future value of an initial principal after applying a series of compound interest rates.

INTRATE: returns the interest rate for a fully invested security.

IPMT: returns the interest payment for an investment for a given period.

IRR: returns the internal rate of return for a series of cash flows.

ISPMT: calculates the interest paid during a specific period of an investment.

MDURATION: returns the Macauley modified duration for a security with an assumed face value of USD 100.

MIRR: returns the internal rate of return where positive and negative cash flows are financed at different rates.

NOMINAL: returns the annual nominal interest rate.

NPER: returns the number of periods for an investment.

NPV: returns the net present value of an investment based on a series of periodic cash flows and a discount rate.

ODDFPRICE: returns the price per USD 100 face value of a security with an odd first period.

ODDFYIELD: returns the yield of a security with an odd first period.

ODDLPRICE: returns the price per USD 100 face value of a security with an odd last period.

ODDLYIELD: returns the yield of a security with an odd last period.

PMT: returns the periodic payment for an annuity.

PPMT: returns the payment on the principal for an investment for a given period.

PRICE: returns the price per USD 100 face value of a security that pays periodic interest.

PRICEDISC: returns the price per USD 100 face value of a discounted security.

PRICEMAT: returns the price per USD 100 face value of a security that pays interest at maturity.

PV: returns the present value of an investment.

RATE: returns the interest rate per period of an annuity.

RECEIVED: returns the amount received at maturity for a fully invested security.

SLN: returns the straight-line depreciation of an asset for one period.

SYD: returns the sum-of-years' digits depreciation of an asset for a specified period.

TBILLEQ: returns the bond-equivalent yield for a Treasury bill.

TBILLPRICE: returns the price per USD 100 face value for a Treasury bill.

TBILLYIELD: returns the yield for a Treasury bill.

VDB: uses a declining balance method to return the depreciation of an asset for a specified or partial period.

XIRR: returns the internal rate of return for a schedule of cash flows, which is not necessarily periodic.

XNPV: returns the net present value for a schedule of cash flows, which is not necessarily periodic.

YIELD: returns the yield on a security that pays periodic interest.

YIELDDISC: returns the annual yield for a discounted security, such as a Treasury bill.

YIELDMAT: returns the annual yield of a security that pays interest at maturity.

Information functions

CELL: returns information about the format, location, or content of a cell.

ERROR.TYPE: returns a number corresponding to an error type.

INFO: returns information about the current operating environment.

ISBLANK: returns TRUE if the value is blank.

ISERR: returns TRUE if the value is any error value except #N/A.

ISERROR: returns TRUE if the value is any error value.

ISEVEN: returns TRUE if the number is even.

ISLOGICAL: returns TRUE if the value is a logical value.

ISNA: returns TRUE if the value is the error value #N/A.

ISNONTEXT: returns TRUE if the value is not text.

ISNUMBER: returns TRUE if the value is a number.

ISODD: returns TRUE if the number is odd.

ISREF: returns TRUE if the value is a reference.

ISTEXT: returns TRUE if the value is text.

N: returns a value converted to a number.

NA: returns the error value #N/A.

TYPE: returns a number indicating the data type of a value.

FORMULATEXT: returns a formula as a string.

Logical functions

AND: returns TRUE if all of its arguments are TRUE.

FALSE: returns the logical value FALSE.

IF: specifies a logical test to perform.

IFERROR: returns a value that you specify if a formula evaluates to an error.

NOT: reverses the logic of its argument.

OR: returns TRUE if any argument is TRUE.

TRUE: returns the logical value TRUE.

Lookup and reference functions

ADDRESS: returns a reference as text to a single cell in a worksheet.

AREAS: returns the number of areas in a reference.

CHOOSE: chooses a value from a list of values.

AGGREGATE: returns an aggregate in a list or database.

COLUMN: returns the column number of a reference.

COLUMNS: returns the number of columns in a reference.

HLOOKUP: searches for a value in the top row of an array and returns the value of a cell in the same column.

HYPERLINK: creates a shortcut that jumps to another location or opens a document stored on a network server, an intranet, or the Internet.

INDEX (Array): uses an index to choose a value from an array.

INDEX (Reference): uses an index to choose a value from a reference.

INDIRECT: returns a reference indicated by a text value.

LOOKUP (Array): searches for values in an array.

LOOKUP (Vector): searches for values in a vector.

MATCH: searches for values in a reference or array.

OFFSET: returns a reference offset from a given reference.

ROW: returns the row number of a reference.

ROWS: returns the number of rows in a reference.

TRANSPOSE: returns the transpose of an array.

VLOOKUP: searches for a value in the first column of an array and returns the value of a cell in the same row.

Math and trigonometry functions

ABS: returns the absolute value of a number.

ACOS: returns the arccosine of a number.

ACOSH: returns the inverse hyperbolic cosine of a number.

AGGREGATE: returns an aggregate in a list or database.

ASIN: returns the arcsine of a number.

ASINH: returns the inverse hyperbolic sine of a number.

ATAN: returns the arctangent of a number.

ATAN2: returns the arctangent from x- and y-coordinates.

ATANH: returns the inverse hyperbolic tangent of a number.

CEILING: rounds a number to the nearest integer or to the nearest multiple of significance.

CEILING.PRECISE: returns a number that is rounded up to the nearest integer or to the nearest multiple of significance.

COMBIN: returns the number of combinations for a given number of objects.

COS: returns the cosine of a number.

COSH: returns the hyperbolic cosine of a number.

DEGREES: converts radians to degrees.

EVEN: rounds a number up to the nearest even integer.

EXP: returns e raised to the power of a given number.

FACT: returns the factorial of a number.

FACTDOUBLE: returns the double factorial of a number.

FLOOR: rounds a number down, towards zero, to the nearest multiple of significance.

FLOOR.PRECISE: returns a number that is rounded down to the nearest integer or to the nearest multiple of significance.

GCD: returns the greatest common divisor.

INT: rounds a number down to the nearest integer.

ISO.CEILING: returns a number that is rounded up to the nearest integer or to the nearest multiple of significance.

LCM: returns the least common multiple.

LN: returns the natural logarithm of a number.

LOG: returns the logarithm of a number to a specified base.

LOG10: returns the base-10 logarithm of a number.

MDETERM: returns the matrix determinant of an array.

MINVERSE: returns the matrix inverse of an array.

MMULT: returns the matrix product of two arrays.

MOD: returns the remainder from division.

MROUND: returns a number rounded to the desired multiple.

MULTINOMIAL: returns the multinomial of a set of numbers.

ODD: rounds a number up to the nearest odd integer.

PI: returns the value of pi.

POWER: returns the result of a number raised to a power.

PRODUCT: multiplies its arguments.

QUOTIENT: returns the integer portion of a division.

RADIANS: converts degrees to radians.

RAND: returns a random number between 0 and 1.

RANDBETWEEN: returns a random number between specified numbers.

ROMAN: converts an Arabic numeral to Roman in text format.

ROUND: rounds a number to a specified number of digits.

ROUNDDOWN: rounds a number down, towards zero.

ROUNDUP: rounds a number up, away from zero.

SERIESSUM: returns the sum of a power series based on the formula.

SIGN: returns the sign of a number.

SIN: returns the sine of the given angle.

SINH: returns the hyperbolic sine of a number.

SQRT: returns a positive square root.

SQRTPI: returns the square root of a number multiplied by pi.

SUBTOTAL: returns a subtotal in a list or database.

SUM: adds its arguments.

SUMIF: adds the cells specified by the given criteria.

SUMIFS: adds the cells that meet multiple criteria in a range.

SUMPRODUCT: returns the sum of the products of corresponding array components.

SUMSQ: returns the sum of the squares of arguments.

SUMX2MY2: returns the sum of the difference of squares of corresponding values in two arrays.

SUMX2PY2: returns the sum of the sum of squares of corresponding values in two arrays.

SUMXMY2: returns the sum of squares of differences of corresponding values in two arrays.

TAN: returns the tangent of a number.

TANH: returns the hyperbolic tangent of a number.

TRUNC: truncates a number to an integer.

Statistical functions

AVEDEV: returns the average of the absolute deviations of data points from their mean.

AVERAGE: returns the average of its arguments.

AVERAGEA: returns the average of its arguments, including numbers, text, and logical values.

AVERAGEIF: returns the average (arithmetic mean) of all cells that meet the given criteria in a range.

AVERAGEIFS: returns the average (arithmetic mean) of all cells that meet multiple criteria.

BETA.DIST: returns the beta cumulative distribution function.

BETA.INV: returns the inverse of the cumulative distribution function for a specified beta distribution.

BETADIST: returns the beta cumulative distribution function.

BETAINV: returns the inverse of the cumulative distribution function for a specified beta distribution.

BINOM.DIST: returns the individual term binomial distribution probability.

BINOM.INV: returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.

BINOMDIST: returns the individual term binomial distribution probability.

CHIDIST: returns the one-tailed probability of the chi-squared distribution.

CHIINV: returns the inverse of the one-tailed probability of the chi-squared distribution.

CHISQ.DIST: returns the chi-squared distribution.

CHISQ.DIST.RT: returns the right-tailed probability of the chi-squared distribution.

CHISQ.INV: returns the inverse of the left-tailed probability of the chi-squared distribution.

CHISQ.INV.RT: returns the inverse of the one-tailed probability of the chi-squared distribution.

CHISQ.TEST: returns the test for independence.

CHITEST: returns the test for independence.

CONFIDENCE: returns the confidence interval for a population mean.

CONFIDENCE.NORM: uses a normal distribution to return the confidence interval for a population mean.

CONFIDENCE.T: uses a Student's t distribution to return the confidence interval for a population mean.

CORREL: returns the correlation coefficient between two datasets.

COUNT: counts how many numbers are in the list of arguments.

COUNTA: counts how many values are in the list of arguments.

COUNTBLANK: counts the number of blank cells within a range.

COUNTIF: counts the number of cells that meet the given criteria within a range.

COUNTIFS: counts the number of cells that meet multiple criteria within a range.

COVAR: returns covariance, which is the average of the products of paired deviations.

COVARIANCE.P: returns covariance, which is the average of the products of deviations for each data point pair in two datasets.

COVARIANCE.S: returns the sample covariance, which is the average of the products of deviations for each data point pair in two datasets.

CRITBINOM: returns the smallest value for which the cumulative binomial distribution is greater than or equal to a criterion value.

DEVSQ: returns the sum of squares of deviations.

EXPON.DIST: returns the exponential distribution.

EXPONDIST: returns the exponential distribution.

F.DIST: returns the F probability distribution.

F.DIST.RT: returns the F probability distribution.

F.INV: returns the inverse of the F probability distribution.

F.INV.RT: returns the inverse of the F probability distribution.

F.TEST: returns the result of an F-test.

FDIST: returns the F probability distribution.

FINV: returns the inverse of the F probability distribution.

FISHER: returns the Fisher transformation.

FISHERINV: returns the inverse of the Fisher transformation.

FORECAST: returns a value along a linear trend.

FREQUENCY: returns a frequency distribution as a vertical array.

FTEST: returns the result of an F-test.

GAMMA.DIST: returns the gamma distribution.

GAMMA.INV: returns the inverse of the gamma cumulative distribution.

GAMMADIST: returns the gamma distribution.

GAMMAINV: returns the inverse of the gamma cumulative distribution.

GAMMALN: returns the natural logarithm of the gamma function, Γ(x).

GAMMALN.PRECISE: returns the natural logarithm of the gamma function, Γ(x).

GEOMEAN: returns the geometric mean.

GROWTH: returns the y-values for a series of new x-values along an exponential trend.

HARMEAN: returns the harmonic mean.

HYPGEOM.DIST: returns the hypergeometric distribution.

HYPGEOMDIST: returns the hypergeometric distribution.

INTERCEPT: returns the intercept of the linear regression line.

KURT: returns the kurtosis of a dataset.

LARGE: returns the k-th largest value in a dataset.

LINEST: returns the parameters of a linear trend.

LOGEST: returns the parameters of an exponential trend.

LOGINV: returns the inverse of the lognormal cumulative distribution.

LOGNORM.DIST: returns the lognormal distribution of x.

LOGNORM.INV: returns the inverse of the lognormal cumulative distribution function of x.

LOGNORMDIST: returns the cumulative lognormal distribution.

MAX: returns the maximum value in a list of arguments.

MAXA: returns the maximum value in a list of arguments, including numbers, text, and logical values.

MEDIAN: returns the median of the given numbers.

MIN: returns the minimum value in a list of arguments.

MINA: returns the smallest value in a list of arguments, including numbers, text, and logical values.

MODE: returns the most common value in a dataset.

MODE.MULT: returns a vertical array of the most frequently occurring or repetitive values in an array or range of data.

MODE.SNGL: returns the most frequently occurring or repetitive value in an array or range of data.

NEGBINOM.DIST: returns the negative binomial distribution.

NEGBINOMDIST: returns the negative binomial distribution.

NORM.DIST: returns the normal distribution for the specified mean and standard deviation.

NORM.INV: returns the inverse of the normal cumulative distribution for the specified mean and standard deviation.

NORM.S.DIST: returns the standard normal cumulative distribution.

NORM.S.INV: returns the inverse of the standard normal cumulative distribution.

NORMDIST: returns the normal cumulative distribution.

NORMINV: returns the inverse of the normal cumulative distribution.

NORMSDIST: returns the standard normal cumulative distribution.

NORMSINV: returns the inverse of the standard normal cumulative distribution.

PEARSON: returns the Pearson product moment correlation coefficient.

PERCENTILE: returns the k-th percentile of values for a set of data.

PERCENTILE.EXC: returns the k-th percentile of values for a set of data, where k is in the range of 0 to 1, exclusive.

PERCENTILE.INC: returns the k-th percentile of values in a range.

PERCENTRANK: returns the rank of a value in a dataset as a percentage of the dataset.

PERCENTRANK.EXC: returns the rank of a value in a dataset as a percentage (in the range of 0 to 1, exclusive) of the dataset.

PERCENTRANK.INC: returns the rank of a value in a dataset as a percentage (in the range of 0 to 1, inclusive) of the dataset.

PERMUT: returns the number of permutations for a given number of objects.

POISSON: returns the Poisson distribution.

POISSON.DIST: returns the Poisson distribution.

PROB: returns the probability that values in a range are between two limits.

QUARTILE: returns the quartile of a dataset.

QUARTILE.EXC: returns the quartile of a dataset, based on percentile values in the range of 0 to 1, exclusive.

QUARTILE.INC: returns the quartile of a dataset, based on percentile values in the range of 0 to 1, inclusive.

RANK: returns the rank of a number in a list of numbers. The rank of a number is its size relative to other values in a list.

RANK.AVG: returns the rank of a number in a list of numbers. The rank of a number is its size relative to other values in a list.

RANK.EQ: returns the rank of a number in a list of numbers. The rank of a number is its size relative to other values in a list.

RSQ: returns the square of the Pearson product moment correlation coefficient.

SKEW: returns the skewness of a distribution.

SLOPE: returns the slope of the linear regression line.

SMALL: returns the k-th smallest value in a dataset.

STANDARDIZE: returns a normalized value.

STDEV: estimates the standard deviation based on a sample.

STDEV.P: calculates the standard deviation based on the entire population.

STDEV.S: estimates the standard deviation based on a sample.

STDEVA: estimates the standard deviation based on a sample, including numbers, text, and logical values.

STDEVP: calculates the standard deviation based on the entire population.

STDEVPA: calculates the standard deviation based on the entire population, including numbers, text, and logical values.

STEYX: returns the standard error of the predicted y-value for each x in the regression.

T.DIST: returns the Student's t-distribution.

T.DIST. 2T: returns the two-tailed Student's t-distribution.

T.DIST.RT: returns the right-tailed Student's t-distribution.

T.INV: returns the left-tailed inverse of the Student's t-distribution.

T.INV. 2T: returns the two-tailed inverse of the Student's t-distribution.

T.TEST: returns the probability associated with a Student's t-test.

TDIST: returns the Student's t-distribution.

TINV: returns the inverse of the Student's t-distribution.

TREND: returns the y-values of a specified array along a linear trend.

TRIMMEAN: returns the mean of the interior of a dataset.

TTEST: returns the probability associated with a Student's t-test.

VAR: estimates variance based on a sample.

VAR.P: calculates variance based on the entire population.

VAR.S: estimates variance based on a sample.

VARA: estimates variance based on a sample, including numbers, text, and logical values.

VARP: calculates variance based on the entire population.

VARPA: calculates variance based on the entire population, including numbers, text, and logical values.

WEIBULL: returns the Weibull distribution.

WEIBULL.DIST: returns the Weibull distribution.

Z.TEST: returns the one-tailed probability-value of a z-test.

ZTEST: returns the one-tailed probability-value of a z-test.

Text functions

CHAR: returns the character specified by a code number.

CLEAN: removes all non-printable characters from text.

CODE: returns a numeric code for the first character in a text string.

CONCATENATE: joins several text items into one text item.

DOLLAR: uses the $ (dollar) currency format to convert a number to text.

EXACT: checks whether two text values are identical.

FIND: finds one text value within another (case-sensitive).

FIXED: formats a number as text with a fixed number of decimal places.

LEFT: returns the leftmost characters from a text value.

LEN: returns the number of characters in a text string.

LOWER: converts text to lowercase.

MID: returns a specific number of characters from a text string starting at the position that you specify.

PROPER: capitalizes the first letter in each word of a text value.

REPLACE: replaces characters within text.

REPT: repeats text a given number of times.

RIGHT: returns the rightmost characters from a text value.

SEARCH: finds one text value within another (case-insensitive).

SUBSTITUTE: substitutes new text for old text in a text string.

T: converts its arguments to text.

TEXT: formats a number and converts it to text.

TRIM: removes spaces from text.

UPPER: converts text to uppercase.

VALUE: converts a text argument to a number.

5.BI portals

5.1. BI portal overview

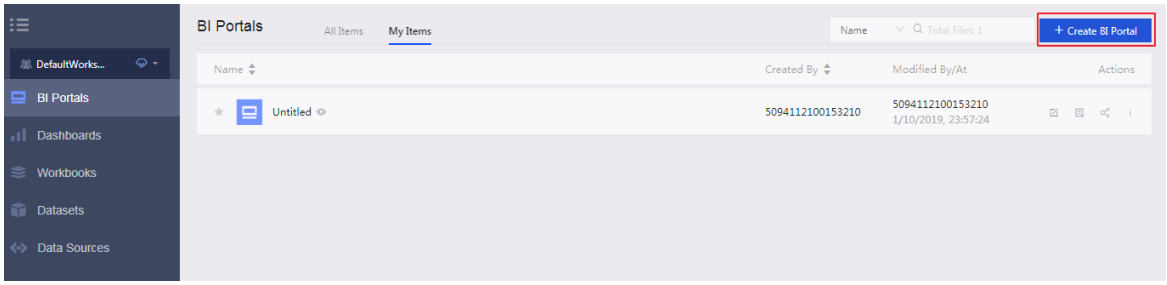
A BI portal, referred to as a data product, is a set of dashboards, workbooks, data reporting modules, downloads, and external links organized in menus with various levels. You can use a BI portal to perform complex topic-based data analysis with navigation menus.

5.2. Create a BI portal

This topic describes how to create a BI portal.

Procedure

1. Log on to the Quick BI console, and select a workspace.
2. In the left-side navigation pane, select **BI Portals**.
3. Click **Create BI Portal**.



4. On the BI portal edit page, set the parameters, and then click **Save**.

5.3. Configure a BI portal

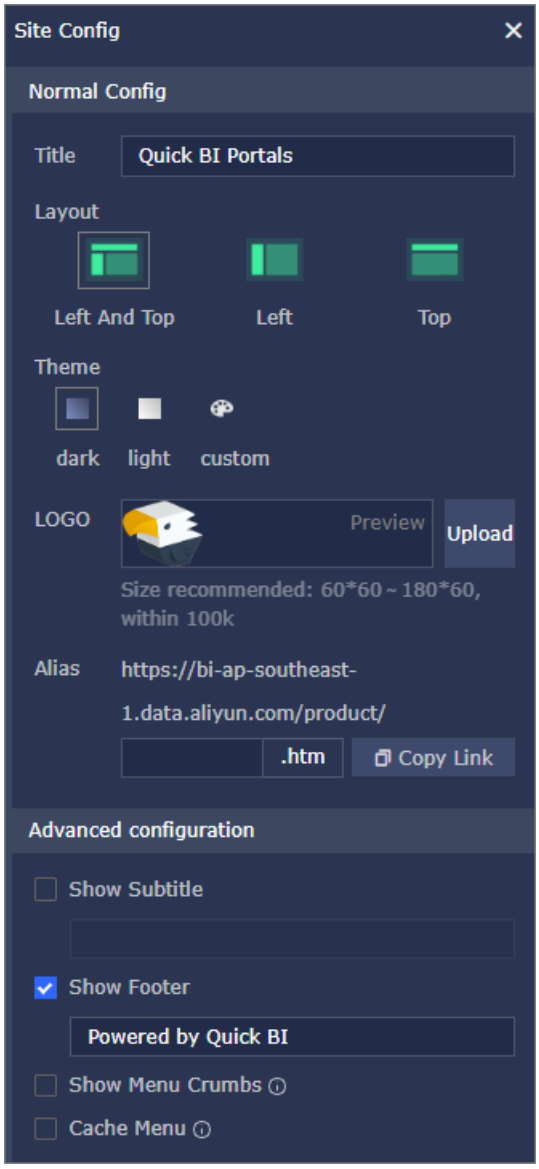
This topic describes how to set the title, upload the logo, and edit the footer for a BI portal on the portal settings page.

Prerequisites

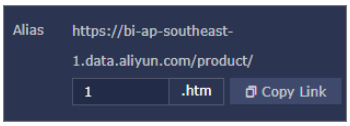
A BI portal is created. For more information, see Create a BI portal.

Procedure

1. Log on to the Quick BI console and select a workspace.
2. In the left-side navigation pane, click **BI Portals**.
3. On the BI Portals page, click the name of a BI portal.
4. Click the icon in the top navigation bar and configure the BI portal.



Configuration category	Parameter	Description
Normal Config	**Title**	Customize the title of the BI portal.
	Layout	Select **Left And Top**, **Left**, or **Top**.
	Theme	Select **Dark**, **Light**, or **Custom**.
	LOGO	Click **Upload** to upload a logo image file.

Configuration category	Parameter	Description
	Alias	Enter a value in the text box under Alias. The value is embedded in the portal link. For example, if you enter 1, the alias is http://daily.yunbi.biz.aliyun.test/product/1.htm. 
Advanced configuration	**Show Subtitle**	After you select this option, add a subtitle for the portal.
	Show Footer	After you select this option, customize the footer, which is displayed at the bottom of the content page.
	Show Menu Crumbs	After you select this option, the menu levels are displayed at the top of the content page.
	Cache Menu	After you select this option and open multiple menus at the same time, reloading is not required when you switch between menus.

5. Click the **Save** icon.

5.4. Configure menus

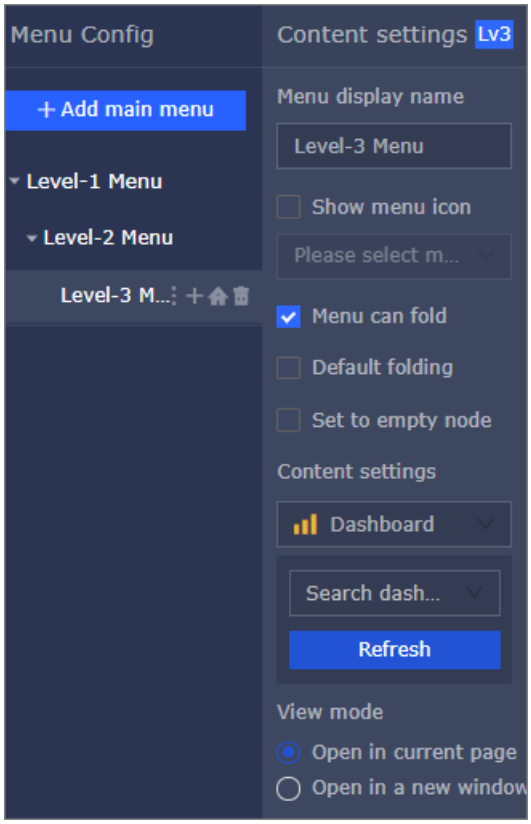
You can add or delete menus, modify menu levels, and specify the menu names.

Prerequisites

A BI portal is created. For more information, see Create a BI portal.

Procedure

1. Log on to the Quick BI console and select a workspace.
2. In the left-side navigation pane, click **BI Portals**.
3. On the BI Portals page, click a BI portal name.
4. In the left-side navigation pane, click a menu name. Configure parameters on the **Menu Config** and **Content settings** tabs in the right-side part of the page.



Tab	Parameter	Description
Menu Config	**Add main menu**	Add a level-1 menu. **Note** You can also drag and drop a menu to adjust its level.
		Hides a menu. If a parent menu is hidden, its child menus are also hidden. If you want to show a menu after it is hidden, click the icon again.
		Adds a level-2 or lower menu.
		Set a menu as the home page. When you open a BI portal, this home page appears.
		Deletes a menu.
	Menu display name	Specifies the name of a menu.

Tab	Parameter	Description
Content settings	**Show menu icon**	Sets the icon of a menu.
	Menu can fold	Specifies whether a menu can be folded.
	Default folding	Specifies the default state of a menu. **Note** This option can be selected only if **Menu can fold** is selected.
	Set to empty node	If this option is selected, you cannot set the menu content.
	Content settings	The following content types are supported: ○ Dashboard ○ Excel ○ Data reporting ○ Downloads ○ External link **View mode**: The options are **Open in current page** and **Open in a new window**. **Note** This field cannot be configured if **Set to empty node** is selected.

5. Click **Save** in the upper-right corner of the page.

5.5. Share, rename, and transfer a BI portal and change its security level

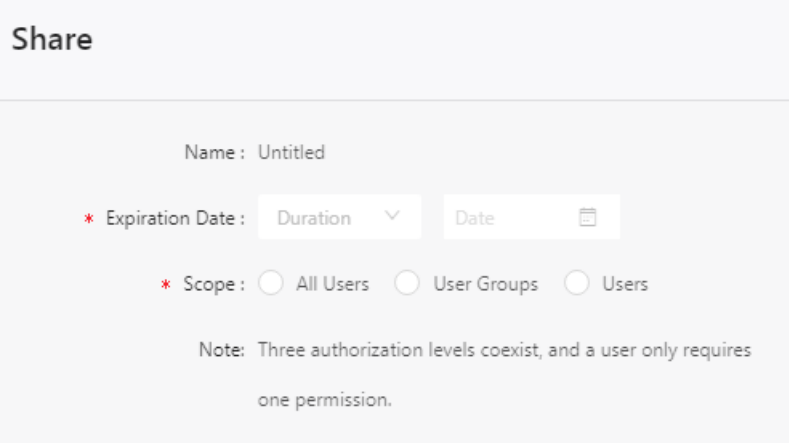
You can share your BI portals with other users. You can also edit the properties of a BI portal. Specifically, you can rename the BI portal, transfer it to another user, or change its security level.

Prerequisites

A BI portal is created. For more information, see Create a BI portal.

Share a BI portal

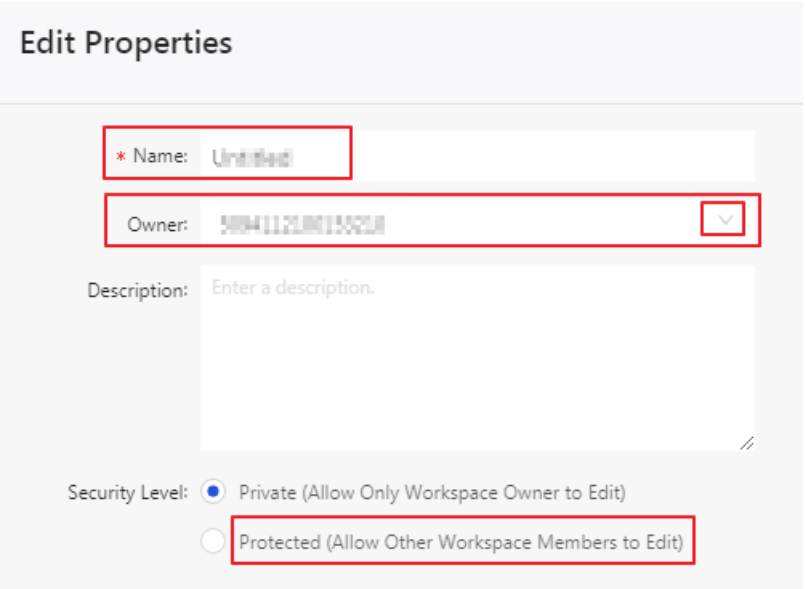
1. Log on to the Quick BI console and select a workspace.
2. In the left-side navigation pane, click **BI Portals**.
3. On the BI Portals page, find the BI portal that you want to share with other users, and click **Share** in the Actions column.
4. In the Share side pane that appears, set the expiration date and select the users with whom you want to share the BI portal.



5. Click **Save**.

Rename a BI portal, transfer it to another user, or change its security level

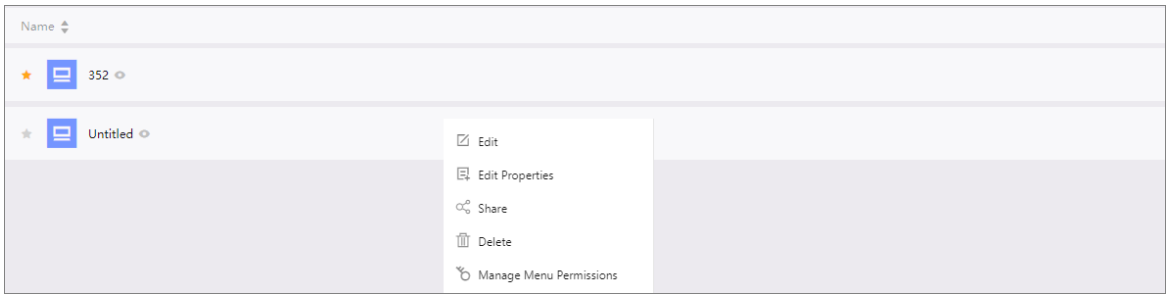
1. Log on to the Quick BI console and select a workspace.
2. In the left-side navigation pane, click **BI Portals**.
3. On the BI Portals page, find the target BI portal, and click **Edit Properties** in the Actions column.
4. In the Edit Properties side pane that appears, rename the BI portal, transfer it to another user in the workspace, or change its security level. If the security level is set to **Protected (Allow Other Workspace Members to Edit)**, the lock mechanism is triggered when multiple users attempt to edit the BI portal at the same time.



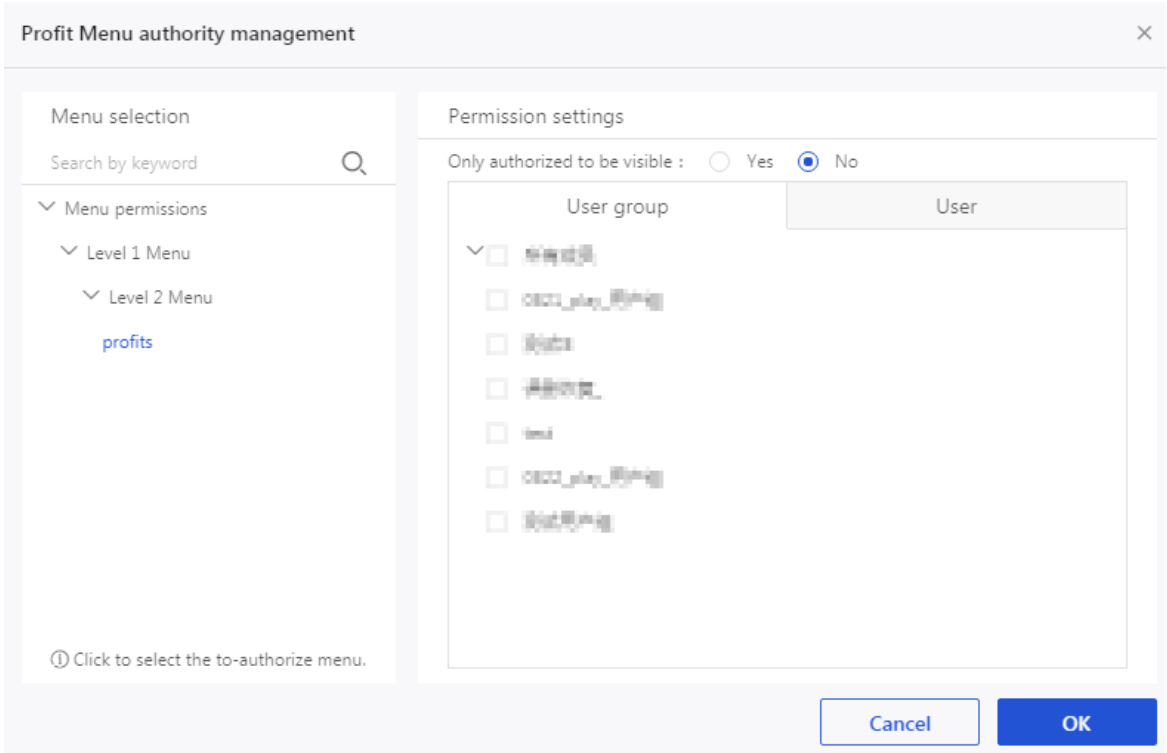
5.6. BI portal menu permissions

Workspace administrators can manage permissions to view BI portal menus.

1. Log on to the Quick BI console.
2. Select the target workspace. For information about how to create a workspace, see Create a workspace.
3. In the left-side navigation pane, click **BI Portals**.
4. On the BI Portals page that appears, select the target portal and click **More** in the Actions column, or right-click the target portal and select **Manage Menu Permissions**, as shown in the following figure.



5. In the **Manage Menu Permissions** dialog box that appears, select the target menu, specify whether the menu is available only to authorized users, and select the users or user groups that you want to authorize. The configuration takes effect immediately.



> **Note** The meanings of values of **Available Only to Authorized Users** are as follows:
>
> - Yes: Only authorized users and user groups can access this menu.
> - No: All users and user groups can access this menu.

For information about how to create a user group, see Create a user group.

6. Click **Close** to complete configuring the menu permissions.