Alibaba Cloud Quick BI

Best Practices

Issue: 20190715

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information 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.
	This warning information 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 restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus , page names, and other UI elements.	Click OK.
`Courier font`	It is used for commands.	Run the `cd /d C:/windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *[-all|-t]*

Style	Description	Example
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich {stand | slave}`

Contents

1 Common practices

1.1 Create a dashboard with a cross-chart reference

When you create a dashboard, you may have a requirement like that. For example, when you click an area of a chart, you want the corresponding fields of other correlated charts to change along with this area.

This section describes how to create a dashboard with a cross-chart reference. Take a sample dataset provided in our data model as an example. This dashboard consists of two charts, divided into two parts the upper half and lower half respectively. In the upper half, a pie chart contains the profit data for each region. In the lower half, a table contains the sales and profit data of cities in each region.

Prepare sample datasets

Create a dataset by using a CSV file. For more information, see Upload local files.

Rename this dataset demo sales dataset.

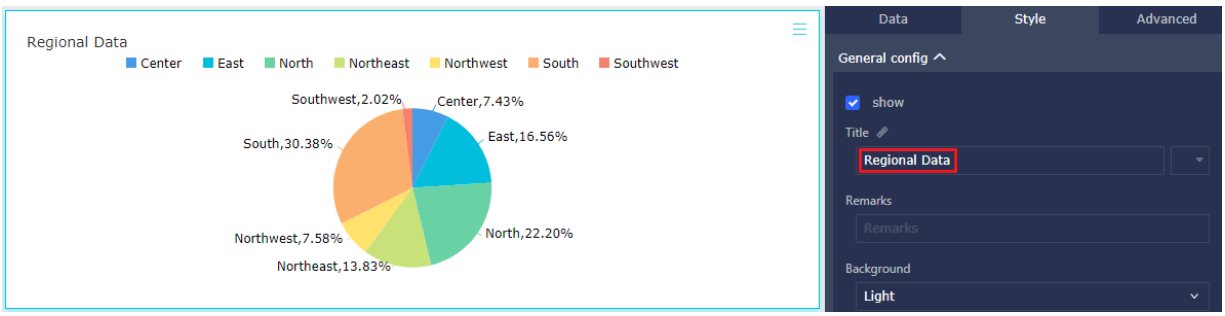
Create a pie chart that contains profit data of each region

Create a dashboard and then click the pie chart icon in the configuration area of this dashboard. You can configure the dataset of this pie chart as follows.

- Select Sales data demo dataset as the dataset of this pie chart.
- Select the area field as a dataset dimension.
- Select the profit_amt field as a metric.

Click the Update button.

On the Style tab, set the title of the pie chart to Regional Data. The result is shown in the following figure.



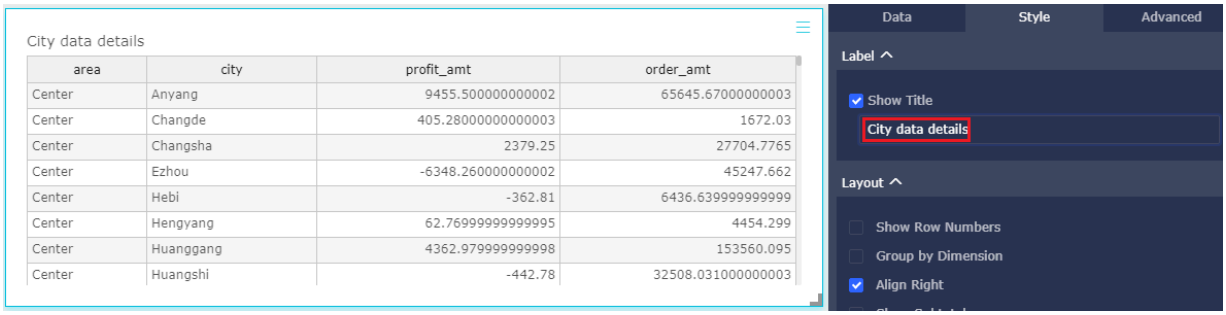
Create a table that contains sales and profit details of cities in each region

In the configuration area of this dashboard, click the table icon and then drag it to the lower half of the dashboard. You can configure data attributes of this table as follows.

- Select Sales data demo dataset as a dataset of this table.
- Select the area field and the city field as data dimensions.
- Select the profit_amt field and the order_amt field as metrics.

On the Style tab of the table, set the title of this table to City data details.

Click the Update button. The result is shown as follows.



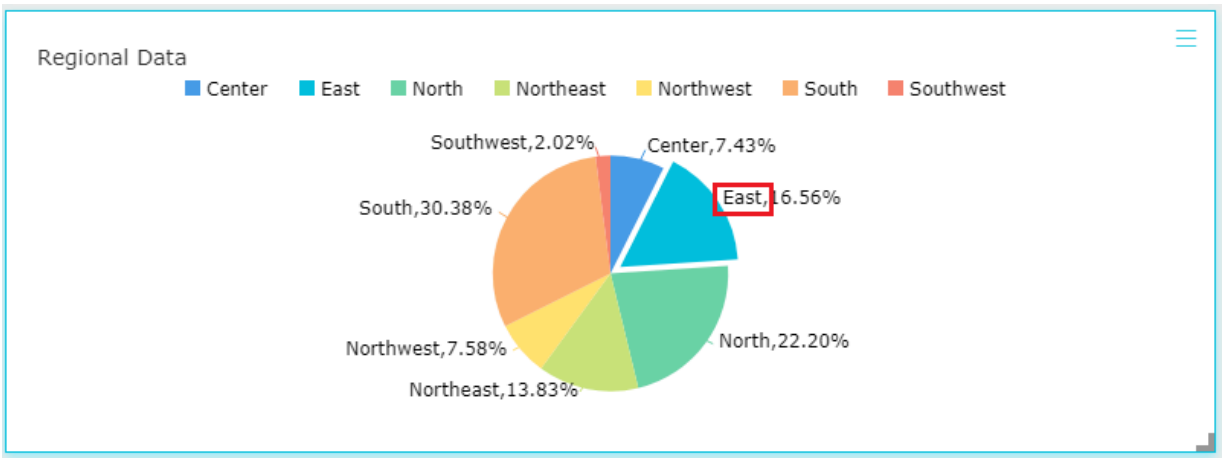
Configure a cross-chart reference on the pie chart

Click Advanced tab on pie chart. Join the pie chart with the table.

Preview correlations

Click the Preview button to view how the correlation works.

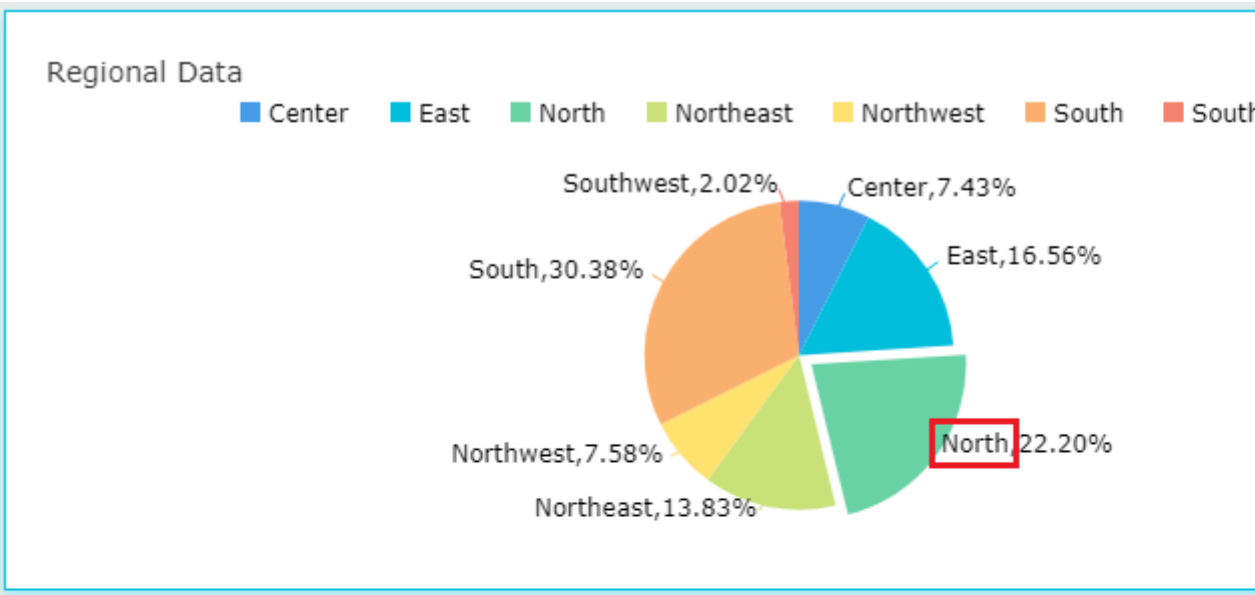
Click the East region on the pie chart, the data is shown as follows.



City data details

area	city	profit_amt	order_amt
East	Anqing	-1243.63	13719.099999999999
East	Bangbu	-3365.3399999999997	71883.93899999998
East	Bozhou	2335.9700000000007	17691.5315
East	Changzhou	77.33	221.33
East	Chizhou	10426.7	34210.655999999995
East	Chuzhou	7158.72	24481.5915
East	Fuyang	1579.3300000000002	13811.570000000002
East	Fuzhou	1618.77	21816.980000000003

Click the North region on the pie chart, the data is shown as follows.

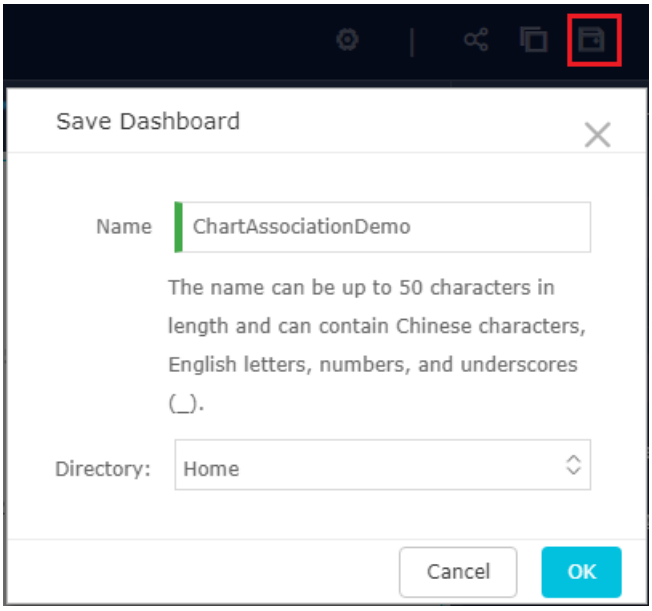


City data details

area	city	profit_amt
North	Baoding	981.6500000000001
North	Baotou	1400.1599999999999
North	Bayannaoer	5316.569999999998
North	Beijing	41976.36
North	Cangzhou	-460.01000000000016
North	Changzhi	2322.95
North	Chengde	7327.91
North	Chifeng	58.57000000000011

Save the dashboard

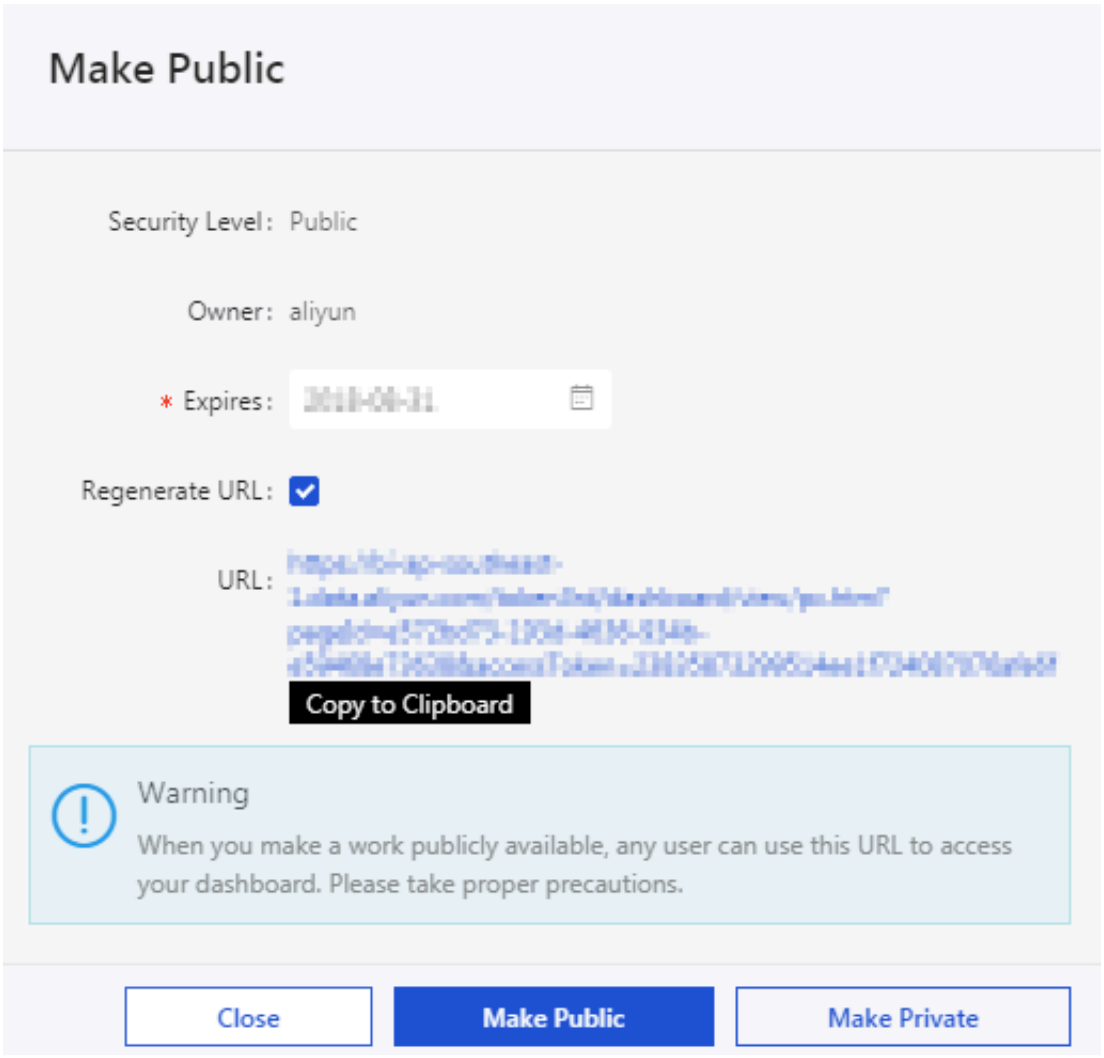
Save this dashboard after you complete the previous steps.



Publish the dashboard

If no sensitive data exists in a dashboard, you can publish this dashboard on the Internet.

You can publish the dashboard as shown in the following figure.



1.2 Create a report where different data is available to different people

For example, if a sales team serves customers across the country, they must be able to track sales data for more than 30 provinces and their cities and county regions for any time period. As the business continuously grows and scales, the team views an ever-increasing amount of sales data. With such a large amount of data, it will greatly improve efficiency and avoid data leaks if only the sales data of a region that a person is responsible for is available to them.

Row-level permissions of Quick BI make different data of a report be available to different people. This section describes the feature by taking the company_sales_record dataset as an example. For more information about how to create a dataset, see Create a dataset.

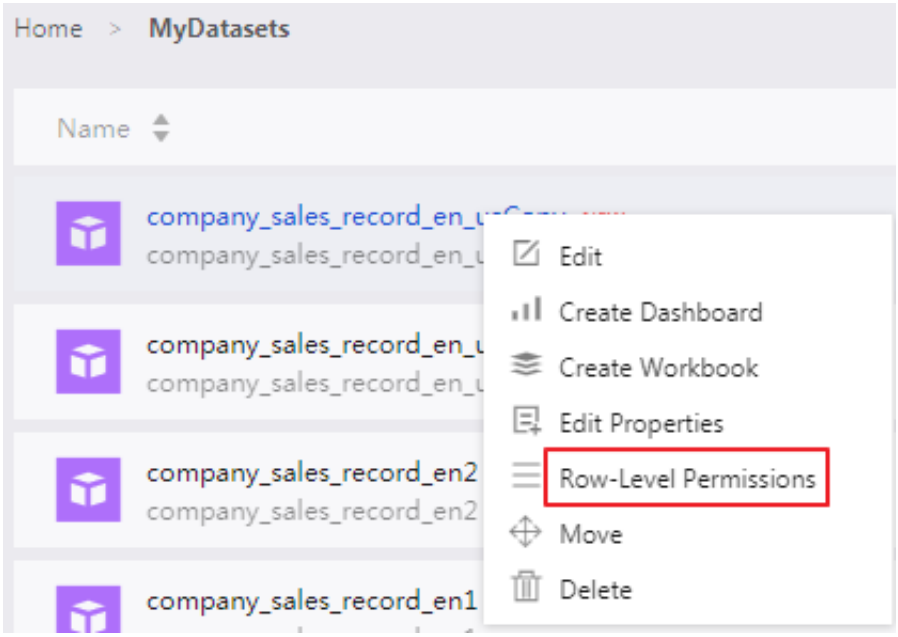
> **Note:**
> Currently, row-level permissions are only available in Quick BI Pro and Quick BI Enterprise Standard. If you want to activate Quick BI Pro or Quick BI Enterprise Standard, see Quick BI purchase, upgrade, and renew.

Configure row-level permissions

You can configure the row-level permissions of a dataset in the workspace.

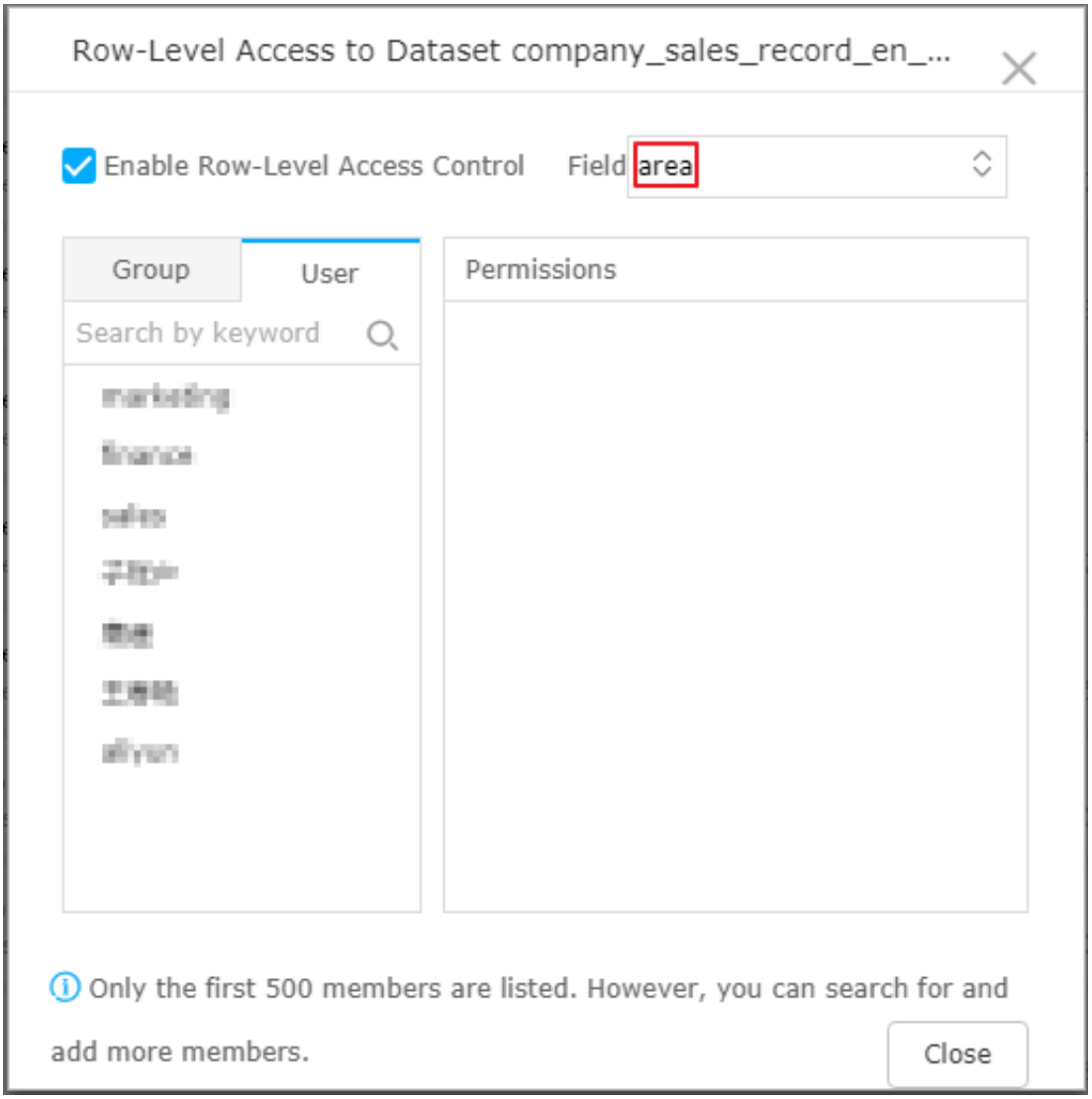
You must configure the row-level permissions of a dataset when it is used to create a dashboard. If the dataset does not exist in a workspace, you must add this dataset to the workspace.

1. Log on to the Quick BI console.
2. Click the Workspace tab, and select a workspace.
3. Click Dataset to enter the dataset management page of this workspace.
4. Select the required dataset. Click the ellipsis icon or right-click this dataset, and select Row-Level Permissions as shown in the following figure.



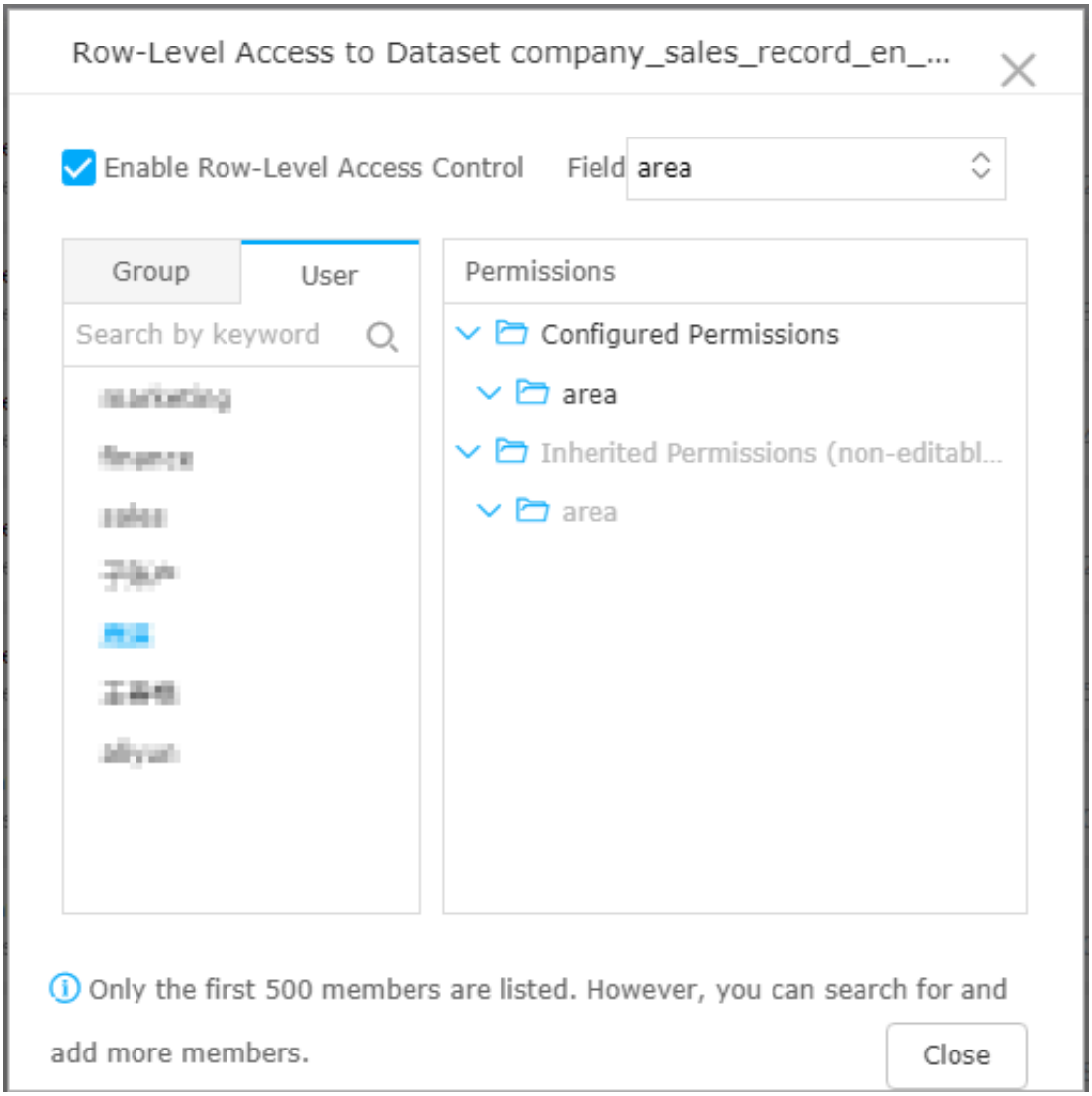
5. Select the Enable Row-Level Access Control check box, and select User / User Group Authorization.

6. Click the drop-down arrow and select a field such as area, as shown in the following figure.



7. Select a member in the list.

   After you select a member, the field automatically appears in the Permissions area as shown in the following figure.



8. Click area to expand all information contained in the field.
9. Select an area such as the selected region, and then click Add.

   After you add a member, this member can only view the sales data of Northeast China.

> Note:
> When you configure row-level permissions for a field of a dataset, you must configure the permissions for each member to access the dataset field. If you do not configure permissions for a member to view the data, all requests to access the configured data by the member will return no data.

10. Click Close to complete the configuration.

Verify row-level permissions

1. Click Personal workspace.
2. Click Dashboard to enter the dashboard management page.
3. Locate a dashboard, click the Share icon next to this dashboard.
4. Enter the account name of the person with whom you want to share the dashboard, and select an expiration date.

   > Note:
   > Row-level permissions must be granted to the account of the person with whom you want to share the dashboard. Otherwise, you cannot check whether the permissions for the account work on the dashboard.

5. Click Save to share the report.

If row-level permissions are granted to the person with whom you want to share the dashboard, the person will be able to view the data they are authorized for, and only the data they are authorized for.

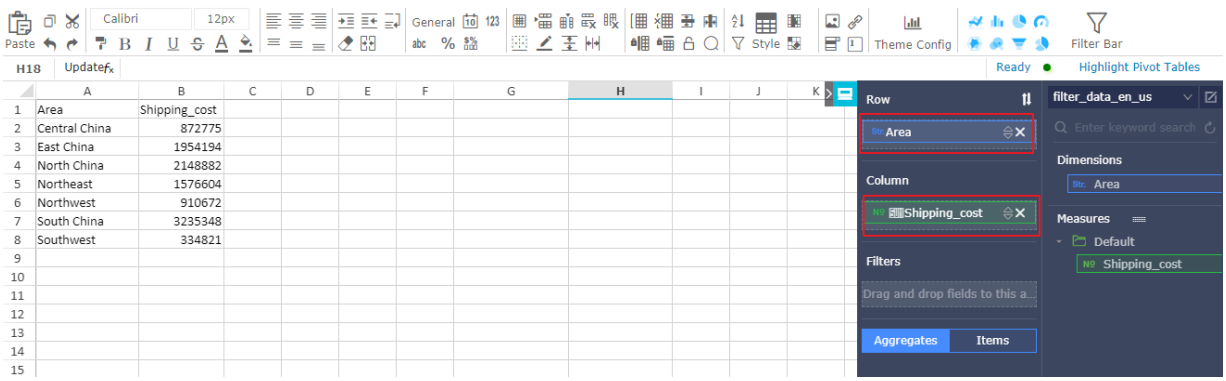
1.3 Use filters in a workbook

You can use Filter, Filter Bar, Filters to filter data. You can set filter conditions as required to obtain the required results.

Scenario: Compare shipping costs for East China, South China, and North China. This example is based on the company_sales_record dataset.

Prepare a workbook

You can create the following workbook based on the company_sales_record dataset and name it Shipping costs. For more information basic workbook operations, see Workbook overview and Create a workbook.



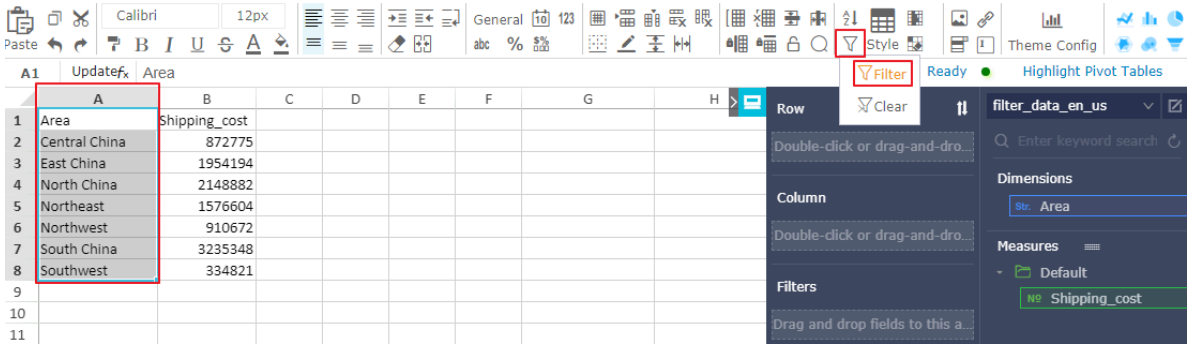
Filter

The filter is a feature of a workbook. You can use a filter to filter data of a workbook.

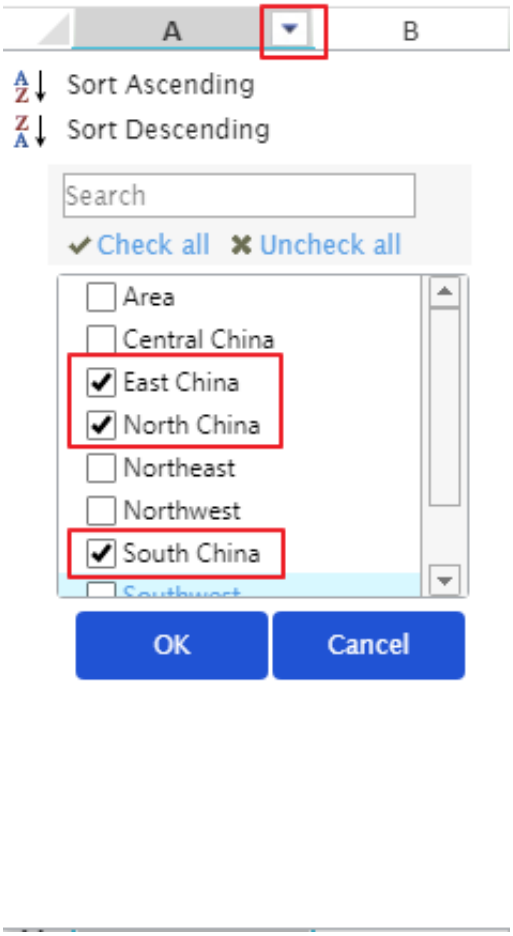
1. In the Shipping costs workbook, select the area column or all of the data contained in the column.

   > **Note:**
   > You must select the area column or all of the data contained in the column to ensure a successful filter.

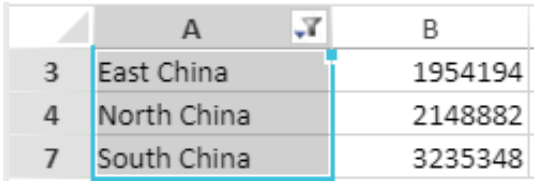
2. Click the Filter icon, select Filter as shown in the following figure.



3. Click the drop-down arrow for the area column, select East, South, and North, and click OK as shown in the following figure.



The filter results are shown in the following figure.

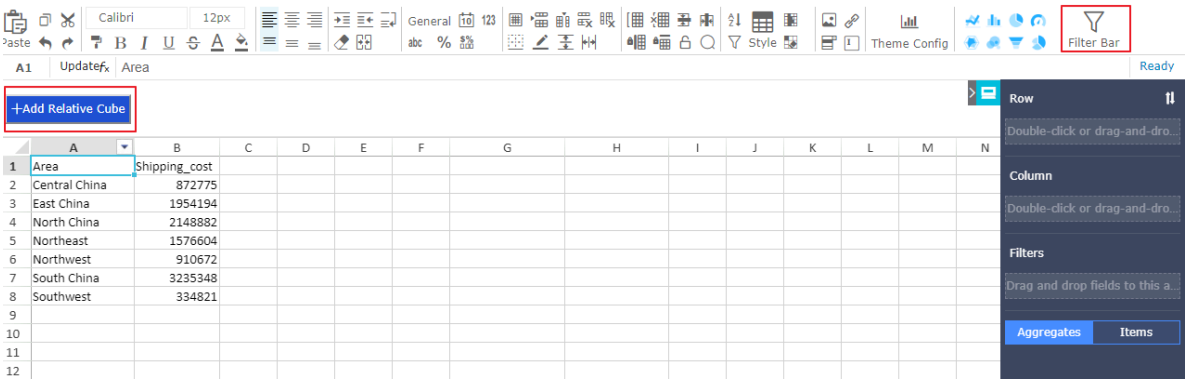


	A	B
3	East China	1954194
4	North China	2148882
7	South China	3235348

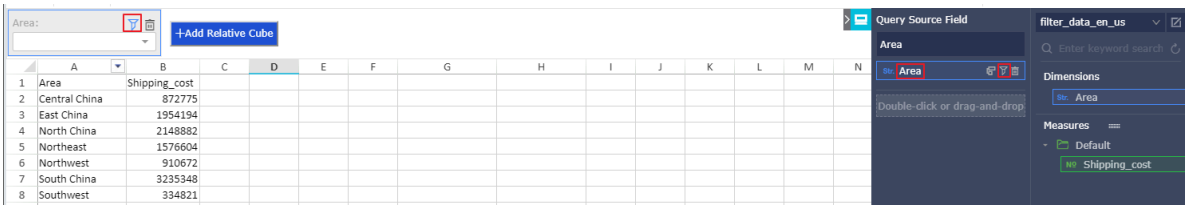
Filter bar

You can use Filter Bar to filter target data.

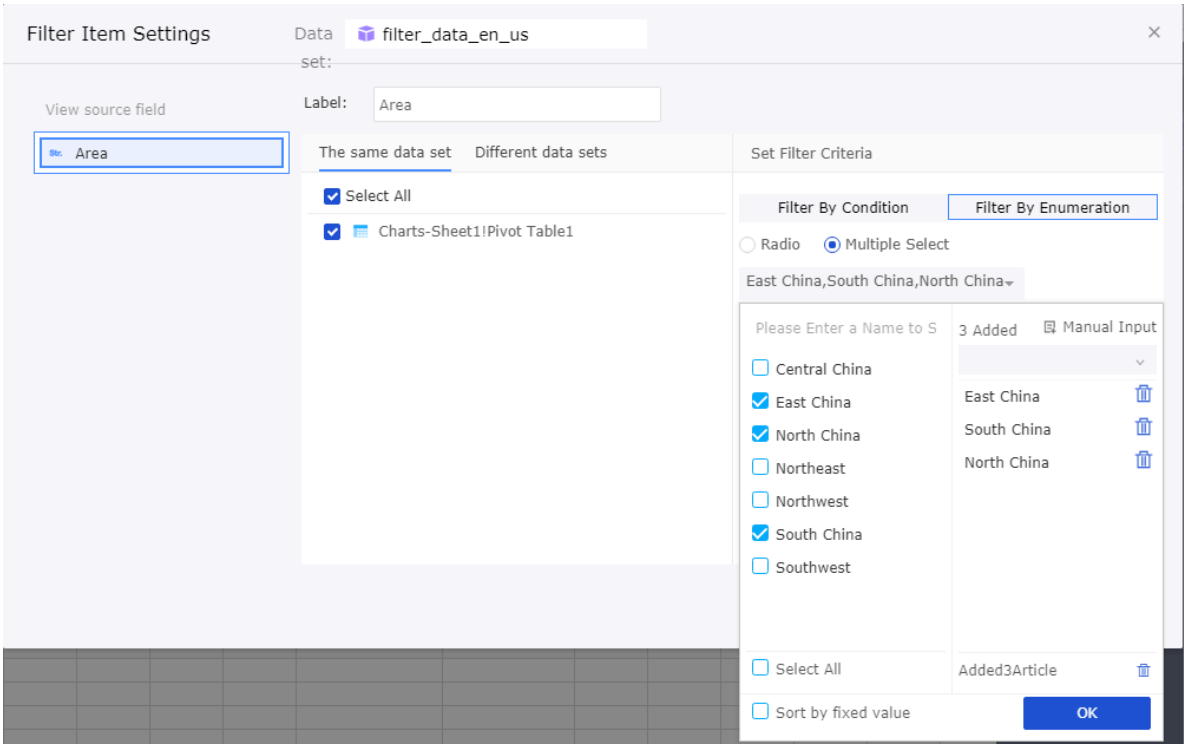
1. In the Shopping costs workbook, click Filter Bar and +Add Correlated Datasets as shown in the following figure.



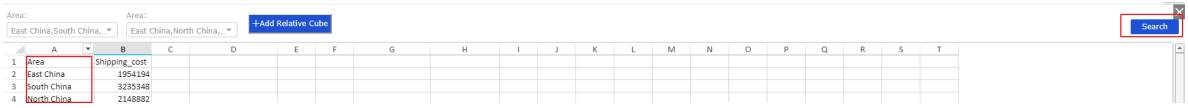
2. Double click the area field or drag this field to the Filter Fields area and click the Set Filter icon as shown in the following figure.



3. In the Set Filter dialog box, configure the options as shown in the following figure and chooseOK > OK.



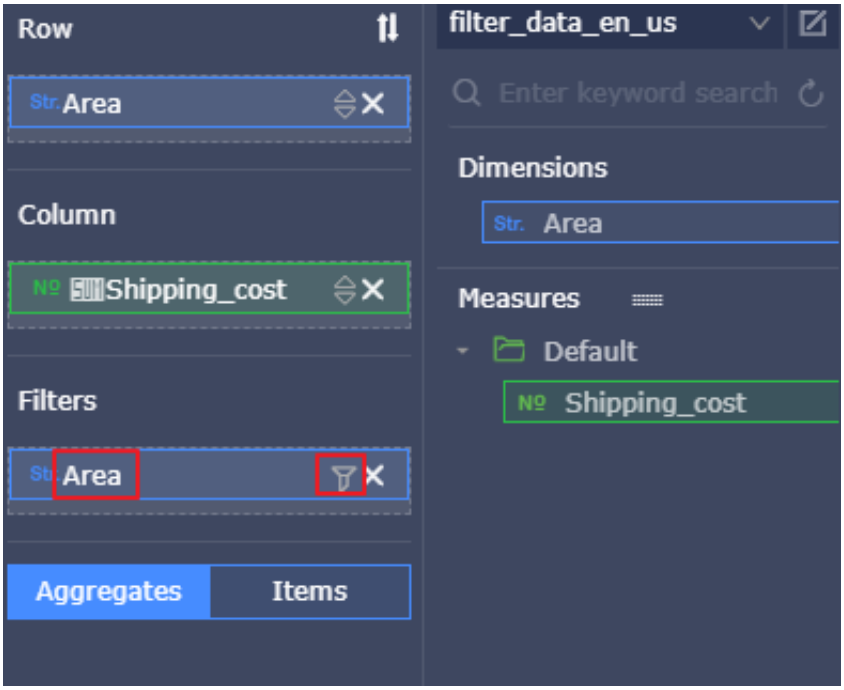
4. Click Search to obtain the results as shown in the following figure.



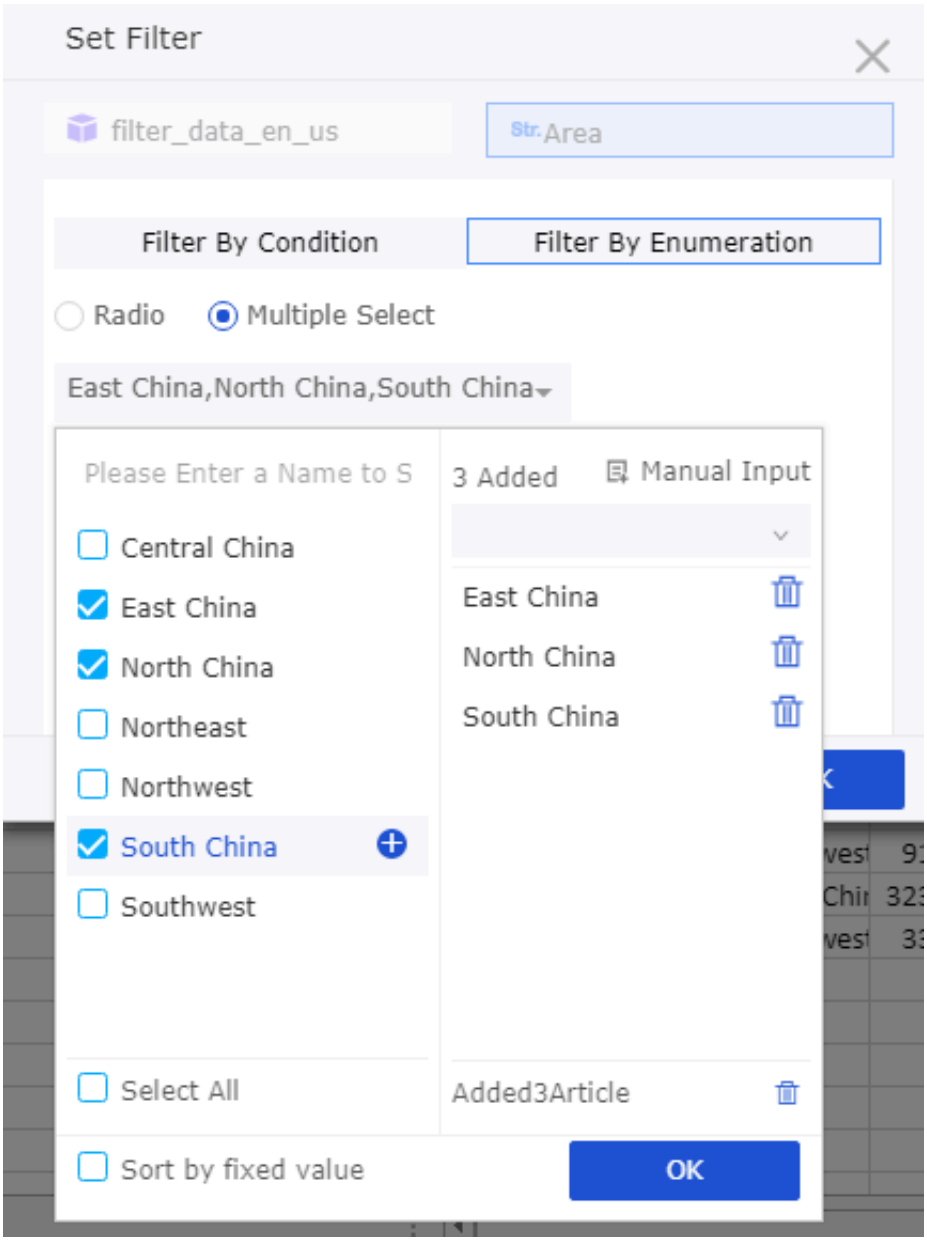
Filters

When you create a workbook, you can use the Filters feature to filter data.

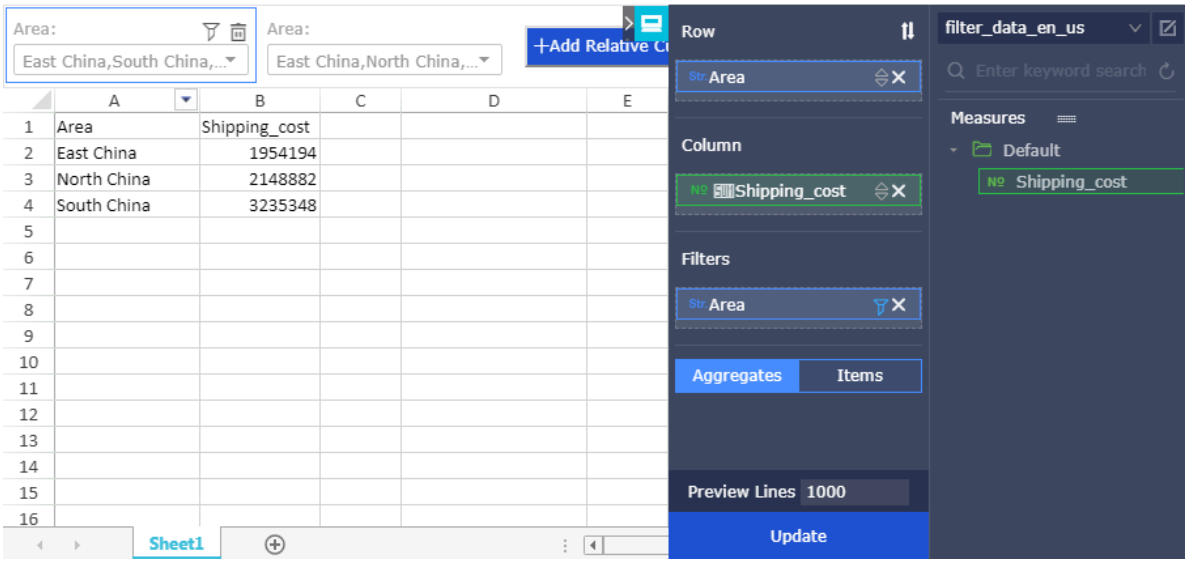
1. When you create a workbook, drag the area field to the Filters area and click the Set Filter icon as shown in the following figure.



2. In the Set Filter dialog box, configure the options as shown in the following figure and chooseOK > OK.



3. Click Update. The filter results are shown in the following figure.



1.4 Use Filter Bar to filter data by a date range

You can use the Filter Bar widget to filter data by a date range. You can obtain target data that falls within a specified range of dates. This example is based on the company_sales_record dataset.

Create a dataset

1. Log on to the Quick BI console.
2. Click Workspace > Datasts to enter the Datasets page.
3. Click Create Data Sources to select a data source.

> Note:
> For more information about how to create a data source, see Create a cloud data source, Create a data source from an external database, and Upload local files.

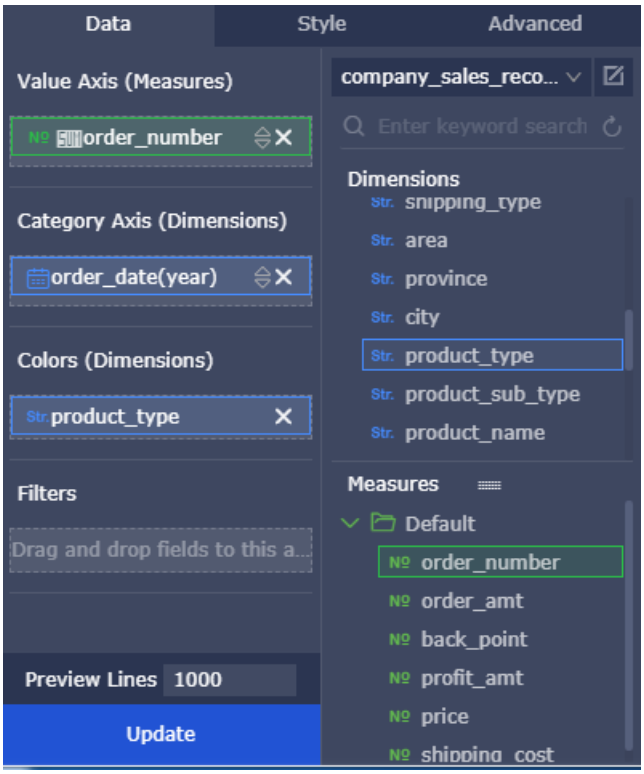
4. Click the Create Dataset icon to Create a dataset.

Create a dashboard

1. Click Dashboards to enter the Dashboards page.
2. On the Data tab, select the company_sales_record dataset.
3. Select a chart such as Pie.
4. Select a field as shown in the following figure.

> Note:

If you want to filter a dataset by date, the dataset must include at least one field of the Date type.



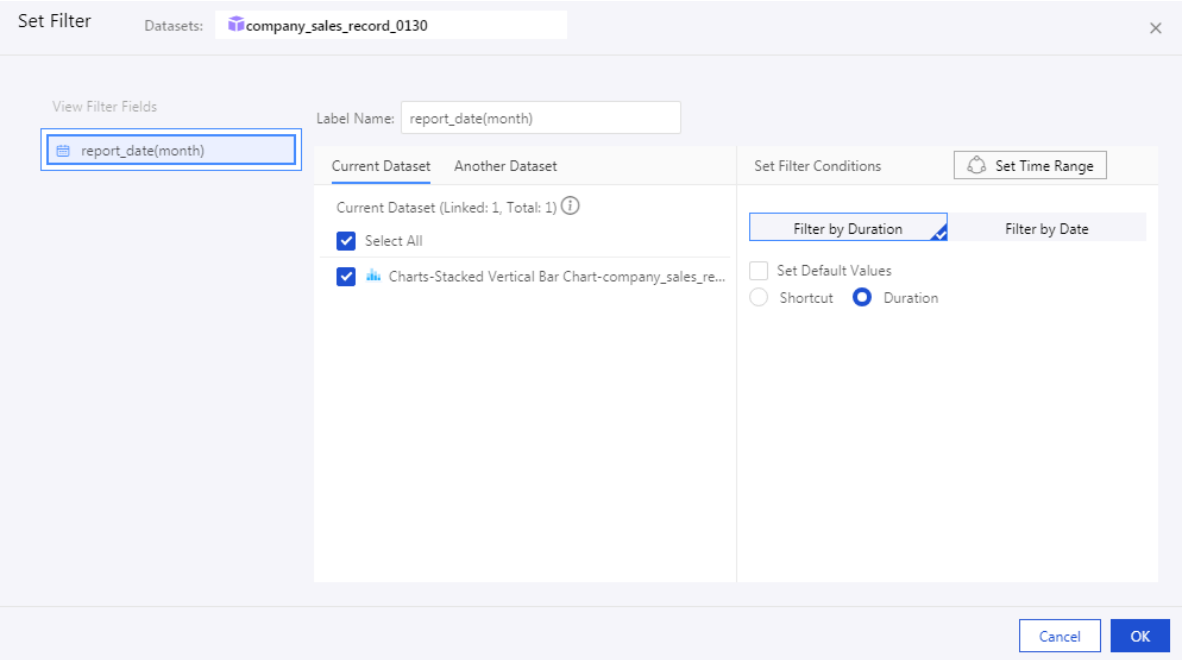
5. Click Update to update the chart.

Filter data by a date range

1. Click the Filter Bar icon.
2. Select company_sales_record as the dataset.
3. Select the report_date(month) field as a filter field as shown in the following figure.

4. Click the Set Filter icon.

5. In the Set Filter dialog box, select Single-Dataset and select Charts-Bar as a correlated chart. You can configure the options in the Set Filter dialog box. as shown in the following figure.



6. Click OK to complete the filter configuration.
7. Click Search to update the chart based on the specified filter conditions.

1.5 Use filters in a dashboard

In a dashboard, you can use filters to filter data to refine the results for a report. You can obtain the required data that meets the specified filter conditions.

Scenario: Compare shipping costs for East China, South China, and North China based on the company_sales_record dataset.

Create a dataset

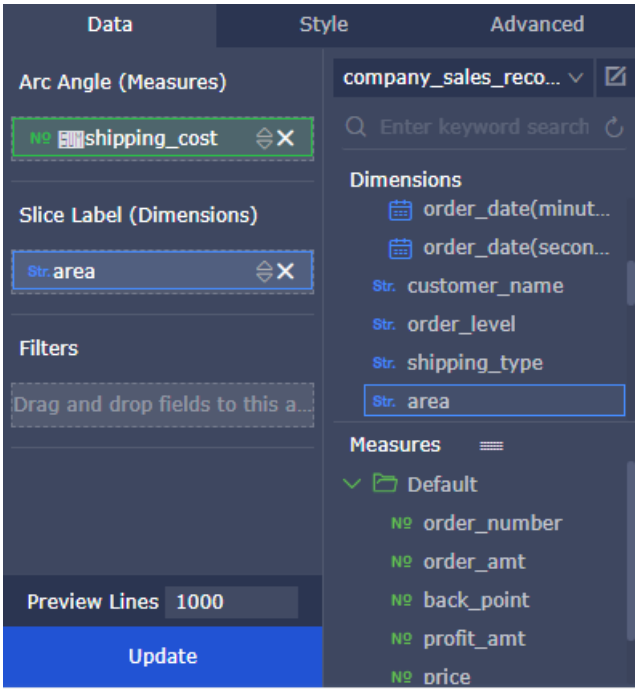
1. Log on to the Quick BI console.
2. Choose Workspace > Data Source to enter the Data Sources page.
3. Click Create Data Sources to select a data source.

> **Note:**
> For more information about how to create a data source, see Create a cloud data source, Create a data source from an external database, and Upload local files.

4. Click the Create Dataset icon to create a dataset.

Create a dashboard

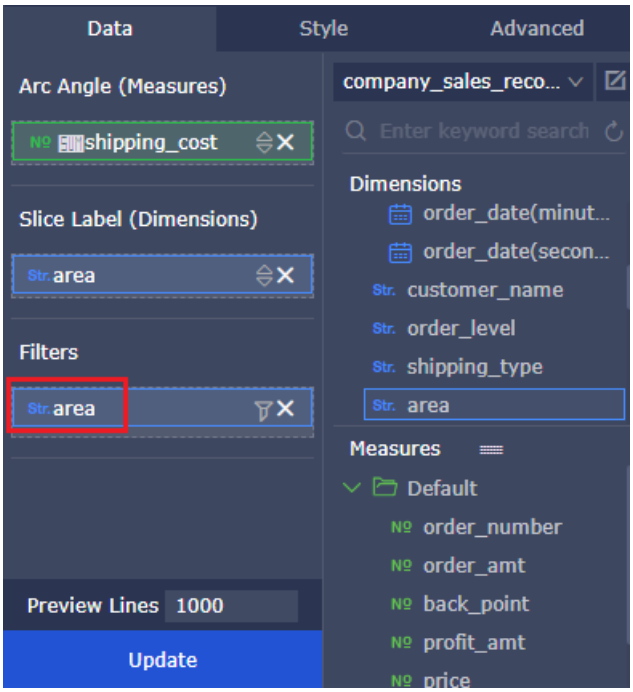
1. Click Dashboards to enter the Dashboards page.
2. Click the Switch dataset icon, and select the company_sales_record dataset.
3. Select a chart such as a pie chart.
4. Select a field as shown in the following figure.



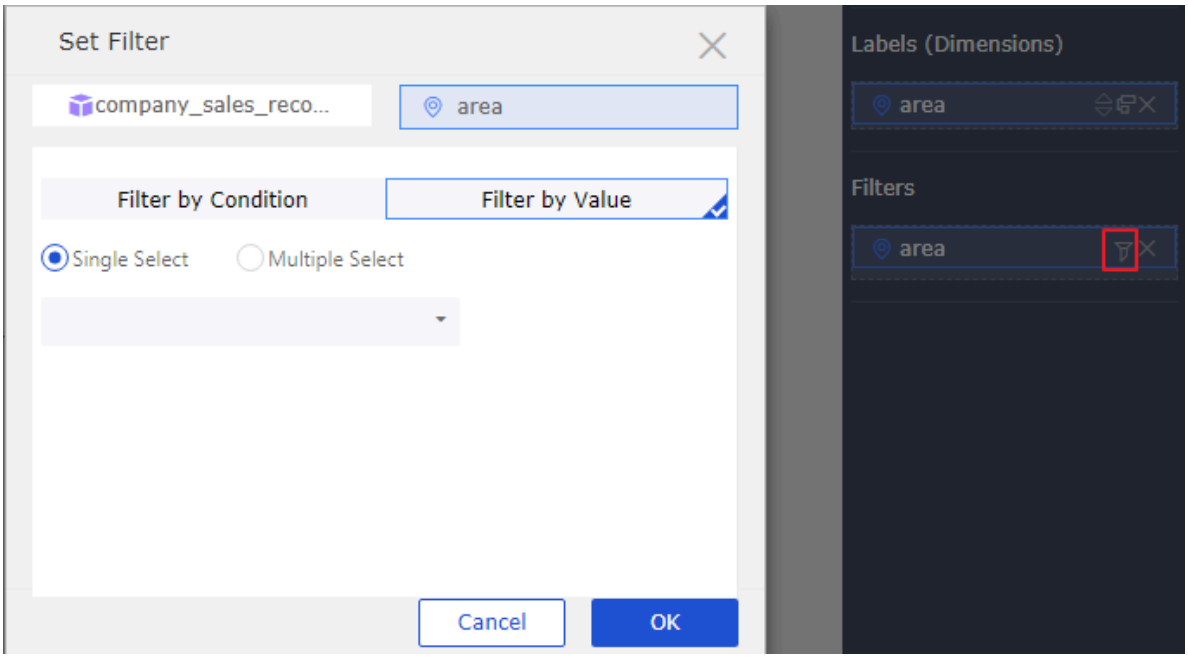
5. Click Update. A chart is generated automatically.

Filter data

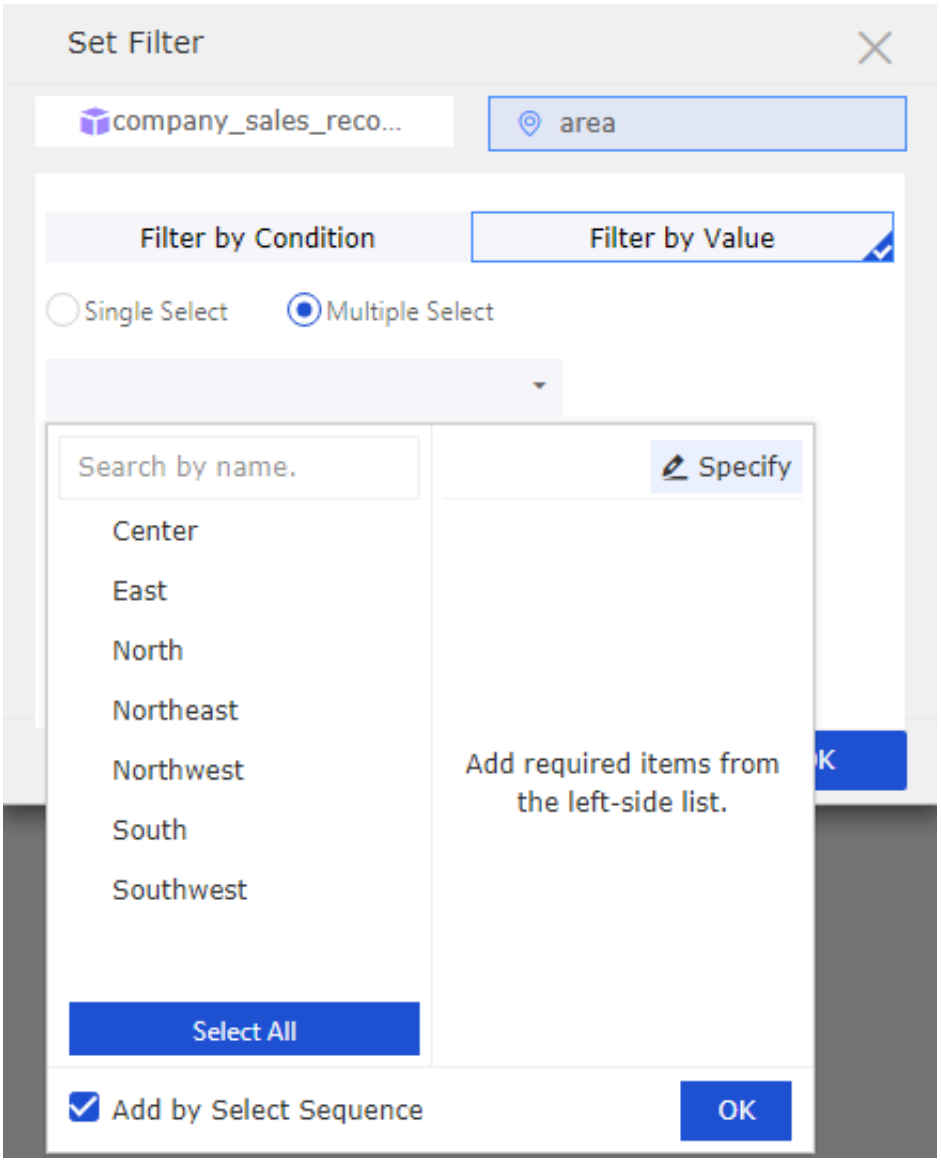
1. Drag the area field to the Filters area as shown in the following figure.



2. Click Filters icon to set filter conditions as shown in the following figure.

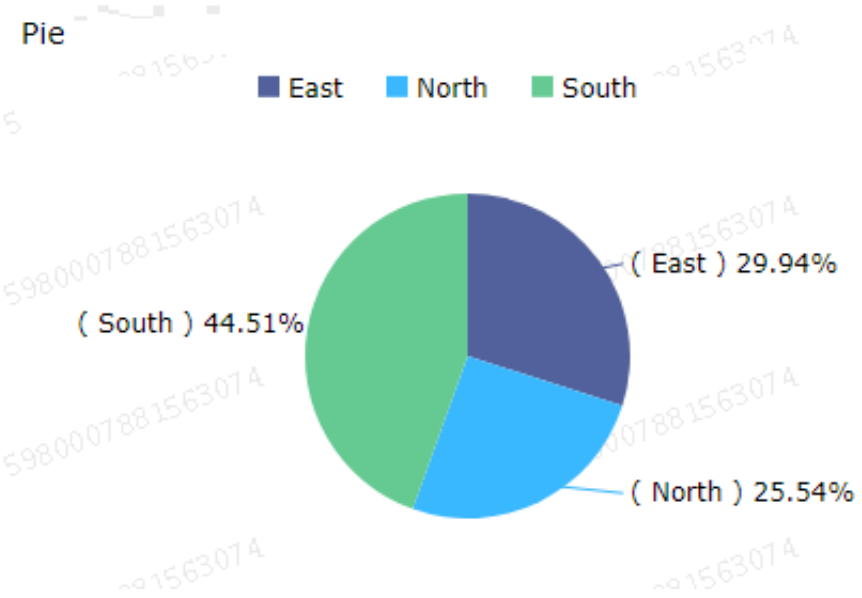


3. Choose Enum > Multiple Selectand click the drop-down arrow to list all options as shown in the following figure.



4. Select East, North, and South and click OK.

5. Click Update to update the chart. The chart shows only the comparison results of shipping costs for East China, North China, and South China as shown in the following figure.



1.6 Associate multiple datasets with a dashboard

When you configure a cross-chart reference, you can associate a single dataset or multiple datasets with available charts in a dashboard. When you want to compare data from multiple datasets, you must select an associated field from each dataset. Some values of these selected fields must be the same. Otherwise, you cannot compare multiple datasets. This example is based on the company_sales_record_en_us and company_sales_record datasets.

Create a dataset

1. Log on to the Quick BI console.
2. Choose Workspace > Datasets to enter the Datasets page.
3. Click Create Data Sources to select a data source.

> Note:
> For more information about how to create a data source, see Create a cloud data source, Create a data source from an external database, and Upload local files.

4. Click the Create Dataset icon to Create a dataset.

Create a dashboard

1. Click Dashboards to enter the Dashboards page.

2. On the Data tab, select the company_sales_record_en_us dataset.
3. Select a chart such as table.
4. Select the required fields.
5. Click Update to update the chart.
6. Click the Style tab, rename the chart to Overseas report as shown in the following figure.
7. On the Data tab, select the company_sales_record dataset.
8. Select a chart and fields, such as table.
9. Click Update to update the chart.
10. Click the Style tab, rename the chart Domestic report.
11. Click Save to save the dashboard.

Associate multiple datasets with a dashboard

1. Click the Filter Bar control, and drag the control at the top of the dashboard.
2. On the data tab, select a dataset, such as company_sales_record.
3. Select a field to be filtered such as product_box.
4. Click the Set Filter icon.
5. In the Set Filter dialog box, click the Single-Dataset tab and select Domestic report.
6. Click the Multi-Dataset tab, and click the drop-down arrow of Overseas report to view the field list.
7. Select the product_box field.
8. In the Set Filter area, click Filter by Enumeration and select Radio or Multiple Select.
9. Click the drop-down arrow of product_ box, select the values to be filtered, and clickOK.
10. Click Search to obtain the query results from both the Overseas report chart and the Domestic report chart.

1.7 Use Filter Bar to filter data by a number range

You can use the Filter Bar widget to filter data by a number range. You specify a range to filter data based on your requirements.

Scenario: Filter the company_sales_record dataset by provinces and cities with values between 2,500 and 4,500.

Create a dataset

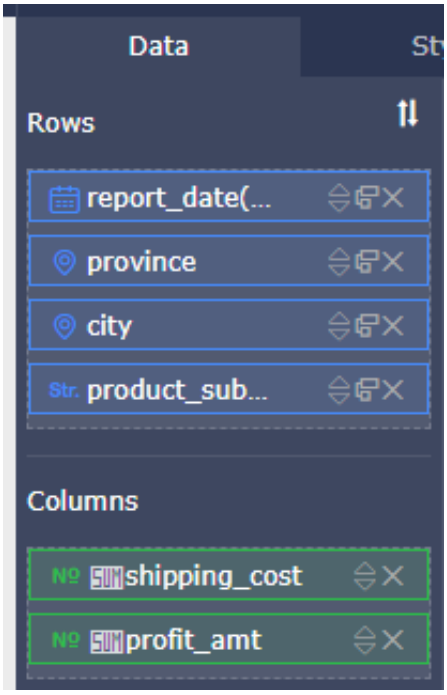
1. Log on to the Quick BI console.
2. Click Workspace > Datasets to enter the Datasets page.
3. Click Create Data Sources to select a data source.

> Note:
> For more information about how to create a data source, see Create a cloud data source, Create a data source from an external database, and Upload local files.

4. Click the Create Dataset icon to create a dataset.

Create a dashboard

1. Click Dashboards to enter the Dashboards page.
2. On the Data tab, select the company_sales_record dataset.
3. Select a chart such as Table.
4. Select a field as the following figure shows.

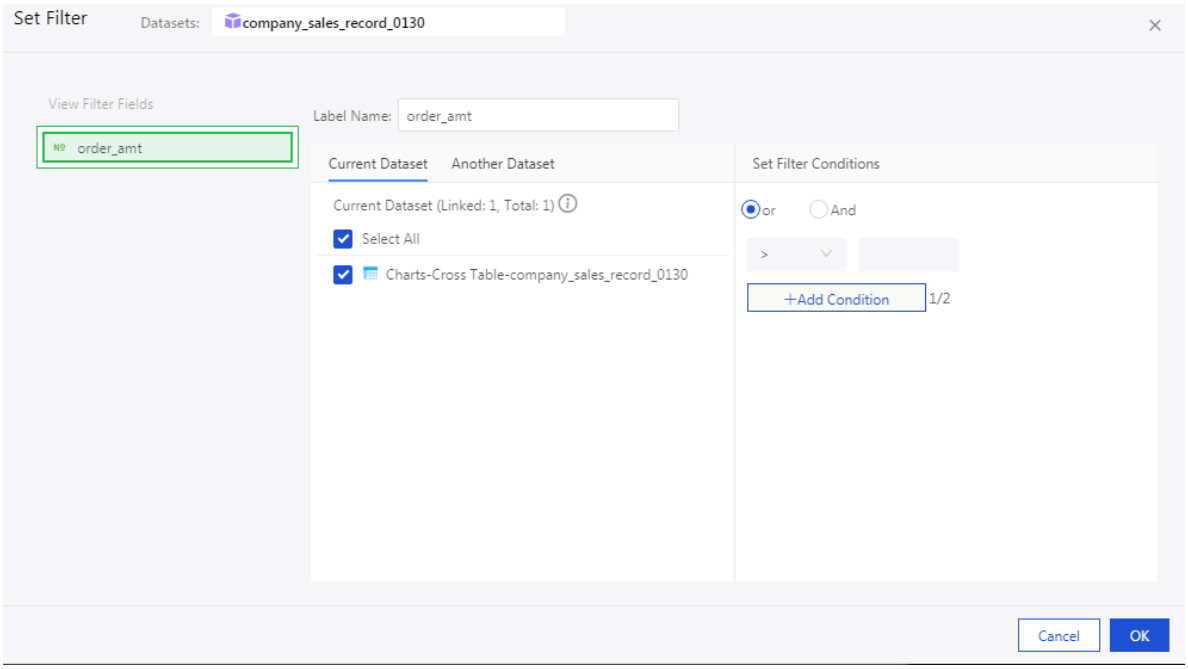


5. Click Update to automatically generate the chart.

Filter data by a number range

1. Click the Filter Bar icon.
2. Select the company_sales_record dataset as a dataset and order_amt as a filter field.
3. Click the Set Filter icon.

4. In the Set Filter dialog box, click the Single-Dataset tab, and select the table as the associated chart as shown in the following figure.



5. In the Filter Bar widget, set a number range.
6. Enter two numbers for this filter range, which is greater than 2,500 and less than 4,500 as shown in the following figure.

7. Click the Search button to automatically update the associated charts. You can obtain the results whose order amount ranges from 2,500 to 4,500 as shown in the following figure.

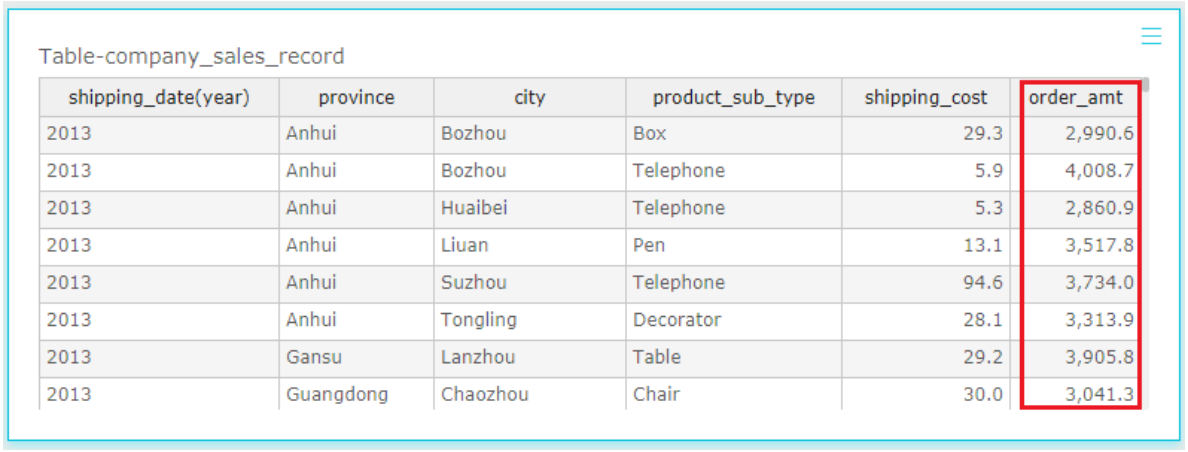


Table-company_sales_record

shipping_date(year)	province	city	product_sub_type	shipping_cost	order_amt
2013	Anhui	Bozhou	Box	29.3	2,990.6
2013	Anhui	Bozhou	Telephone	5.9	4,008.7
2013	Anhui	Huaibei	Telephone	5.3	2,860.9
2013	Anhui	Liuan	Pen	13.1	3,517.8
2013	Anhui	Suzhou	Telephone	94.6	3,734.0
2013	Anhui	Tongling	Decorator	28.1	3,313.9
2013	Gansu	Lanzhou	Table	29.2	3,905.8
2013	Guangdong	Chaozhou	Chair	30.0	3,041.3