

# Alibaba Cloud Quick BI

User Guide

Issue: 20181217

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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.	 <b>Danger:</b> 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.	 <b>Warning:</b> 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.	 <b>Note:</b> 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.	 <b>Note:</b> You can use <b>Ctrl + A</b> to select all files.
>	Multi-level menu cascade.	<b>Settings &gt; Network &gt; Set network type</b>
<b>Bold</b>	It is used for buttons, menus, page names, and other UI elements.	Click <b>OK</b> .
Courier font	It is used for commands.	Run the <code>cd /d C:/windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	It indicates that it is a optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	It indicates that it is a required value, and only one item can be selected.	<code>swich {stand / slave}</code>

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# 1 Privilege control

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## 1.1 Basic concepts of permission management

Permission management include data object management and row-level permission management.

Data objects include data sources, datasets, workbooks, dashboards, and portals. Data object management is classified based on the workspace types, which include the personal workspace and the workspace.

### Row-level permission

You do not need to configure row-level permission for all fields in a dataset. Configure row-level permission for certain fields as needed.

Currently, for a single field, the maximum number of values that can be shown on the list is 500. If the number of values exceeds 500, you can add the excess values to the list manually.

You can find the **All** check box on the list. If you select the All check box (equivalent to selecting all values of a field) for a member of the organization, then the member can access the dataset without restriction from this field. You do not need to reselect the All check box after adding or deleting values for this field.

Significant time for configuring permissions is saved for administrators through selecting the All check box.

### Manage data objects in a workspace

Quick BI supports sharing and publishing data objects in a workspace.

#### Share data objects in a workspace

Quick BI supports sharing workbooks, dashboards, and portals . Shared data objects are read-only for other Alibaba Cloud accounts and RAM users. Other Alibaba Cloud accounts and RAM users do not have permission to modify, delete or save the data objects.

- Only the owner of the data object and the administrators of the workspaces have permissions to share the data object.
- If you clear the Works can be authorized checkbox for a workspace, then the data objects in this workspace cannot be shared.
- Currently, data objects can only be shared with Alibaba Cloud accounts and RAM users of the same organization.

Members can access the data objects in the workspace that they belong to.

Data objects can be shared with members of the same organization. Authorized users can view the shared data objects in their own **personal workspaces**.

### **Publish data objects in a workspace**

Data objects that have been published can be accessed by everyone using the URLs. We recommend that you do not publish data objects that involve private business data.

### **Manage data objects in the personal workspace**

Only the owner of a personal workspace has permission to perform operations on the data objects

### **Share data objects in the personal workspace**

Quick BI supports sharing workbooks, dashboards, and portals . Shared data objects are read-only for other Alibaba Cloud accounts and RAM users. Other Alibaba Cloud accounts and RAM users do not have permissions to modify, delete or save the data objects.

- Only the owner of the data objects has permission to share them.
- Data objects can only be shared with users of Alibaba Cloud Quick BI.

Authorized users can view the shared data objects in their own personal workspaces.

### **Publish data objects in the personal workspace**

Data objects that have been published can be accessed by everyone using the URLs. We recommend that you do not publish data objects that involve private business data.

## **1.2 Share data objects in a workspace**

Quick BI supports sharing workbooks, dashboards, and portals in a workspace. Shared data objects are **read-only** for other Alibaba Cloud accounts and RAM users. Other Alibaba Cloud accounts and RAM users do not have permission to modify, delete or save the data objects.

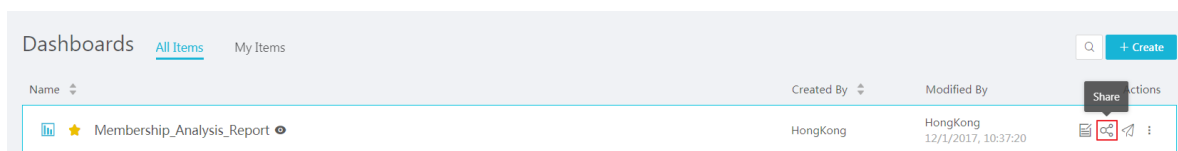
### **Context**

Only the owner of the data objects and administrators of the workspace have permission to share the data objects. Currently, data objects can only be shared with Alibaba Cloud accounts and RAM users within the same organization.

If the Works can be authorized check box is cleared for the workspace, then the data objects in this workspace cannot be shared.

### **Procedure**

1. Log on to the Quick BI console.
2. Select a workspace.
3. Click **Dashboards** to jump to the Dashboards page.
4. Select a dashboard and click the **Share** icon in the Actions column as shown in the following figure.



5. Enter the nickname or user ID of the user that you want to authorize. Select an expiration date as shown in the following figure.

## Share and Authorize

The 'Share and Authorize' dialog box is shown. It has a title bar 'Name: Membership\_Analysis\_Report'. Below it, there is a section for 'Expires:' with two options: 'Duration' (selected) and 'Date'. At the bottom, there is a section for 'Add Authorization:' with a text input field labeled 'User ID or Nickname' and an upward arrow icon.

6. Click **Save** to complete sharing the data objects.

## 1.3 Publish the data objects in a workspace


Data objects that have been published can be accessed by everyone using the URLs. We recommend that you do not publish data objects that involve private business data.

### Procedure

1. Log on to the Quick BI console.
2. Select a workspace.
3. Click the **Dashboards** icon to jump to the Dashboards page.
4. Select a dashboard, click the **More** icon, and click the **Make Public** icon.
5. Select an expiration date and click **Make Public** as shown in the following figure.


## Make Public

Security Level: Public

Owner: 

Expires:

Regenerate URL: ☒

**Warning**  
When you make a work publicly available, any user can use this URL to access your dashboard. Please take proper precautions.

Copy and paste the newly generated URL to the address bar in your browser. Then you can access the dashboard using this URL.

## 1.4 Share the data objects in the personal workspace

Only the owner of the data objects has permission to share them.

### Context

For personal workspaces, Quick BI supports sharing workbooks, dashboards, and portals. Shared data objects are read-only for other Alibaba Cloud accounts and RAM users. Other Alibaba Cloud accounts and RAM users do not have permission to modify, delete or save the data objects.



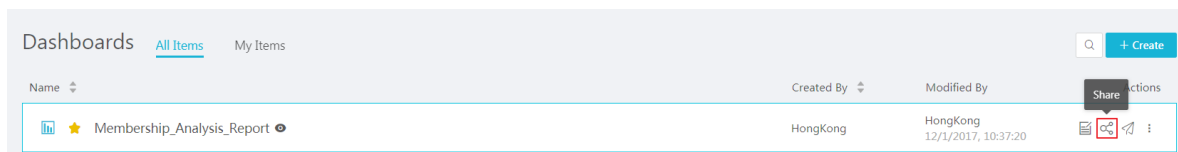
#### Note:

To access the data objects shared by others, make sure that you have purchased the Quick BI service using your Alibaba Cloud account and the Quick BI service has not expired.

### Procedure

1. Log on to the Quick BI console.
2. Click the **Dashboards** icon to jump to the Dashboards page.

3. Select a dashboard and click the **Share** icon in the Actions column as shown in the following figure.



4. Enter the usernames of the user that you want to authorize and select an expiration date as shown in the following figure.

## Share and Authorize

Name: Membership\_Analysis\_Report

\* Expires: Duration  Date

\* Add Authorization:

5. Click **Save** to finish the authorization.

## 1.5 Publish the data objects in the personal workspace


Data objects that have been published can be accessed by everyone using the URLs. We recommend that you do not publish data objects that involve private business data.

### Procedure

1. Log on to the Quick BI console.
2. Click the **Dashboards** icon to jump to the Dashboards page.
3. Select a dashboard, click the **More** icon, and click the **Make Public** icon.
4. Select an expiration date as shown in the following figure.


## Make Public

Security Level: Public

Owner: 

Expires:

Regenerate URL: ☒

**Warning**  
When you make a work publicly available, any user can use this URL to access your dashboard. Please take proper precautions.

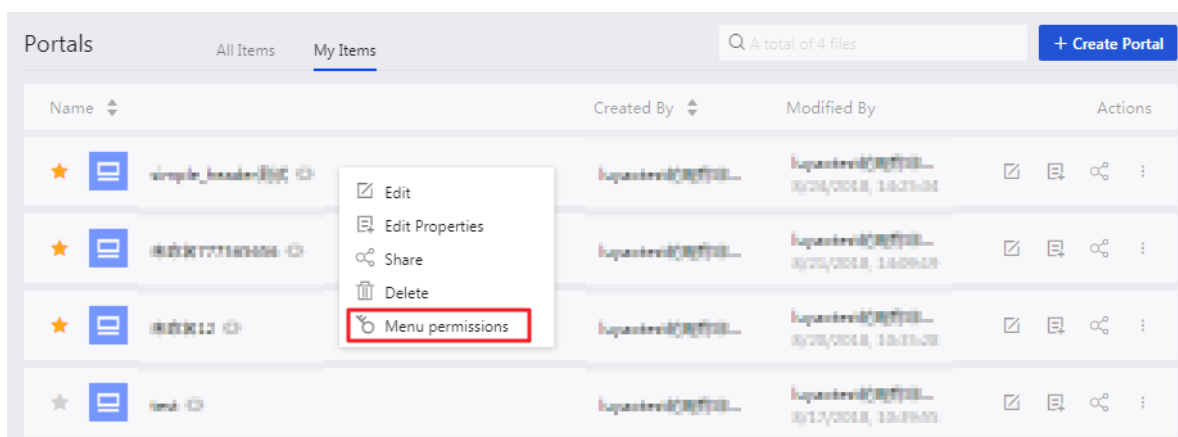
5. Click **Make Public** to complete publishing the data objects. Copy and paste the newly generated URL to the address bar in your browser. Then you can access the dashboard using this URL.

## 1.6 Data Portal menu permission settings

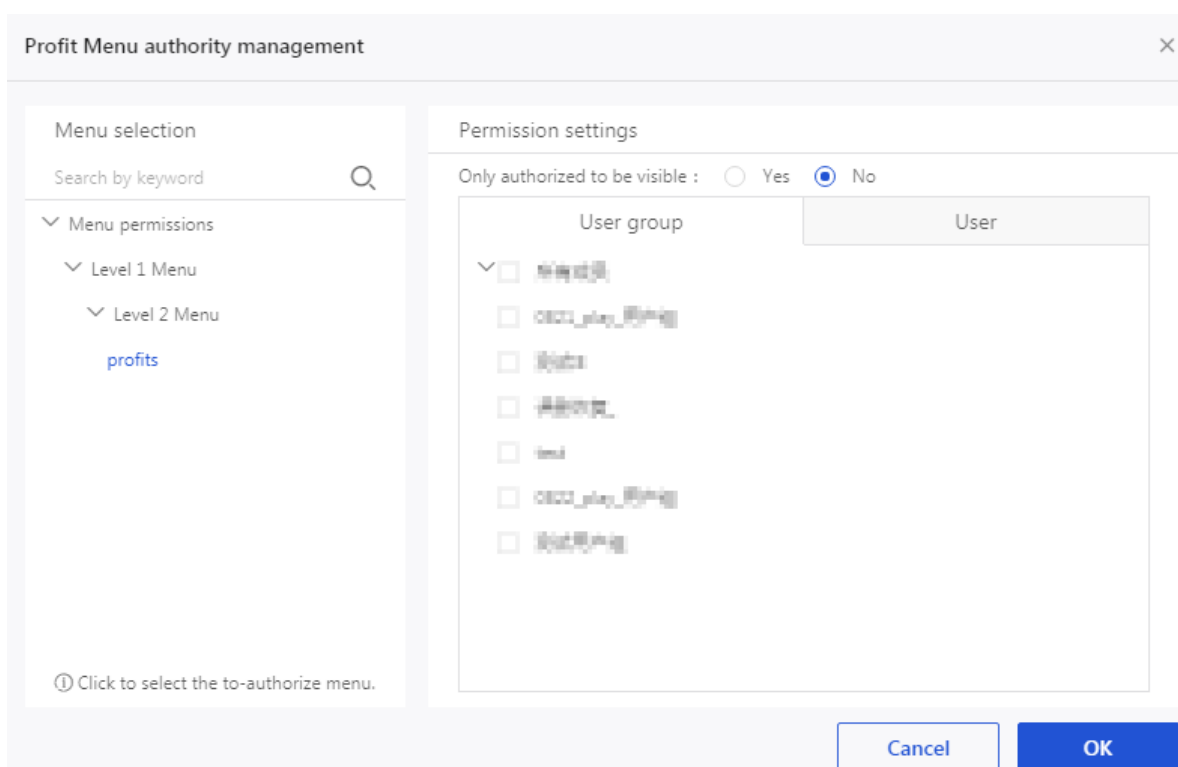
You can set menu permissions in workspaces for data portals.

Menu permissions can be authorized to user groups and users. To create a menu permission, follow these steps:

1. Log on to the Quick BI console.
2. Select the target workspace. If you need to create a workspace, see [Create a workspace](#).
3. In the left-side navigation pane, click **Portals**.
4. Select the target portal, click the **three dots** icon, and then select **Menu permissions**. You can also right-click the target portal.



5. In the **Menu authority management** panel, set menu permissions, as shown in the following figure:



#### Note:

You can select one of the following options for **Only authorized to be visible**:

- Yes, which indicates only authorized user groups and users have permission to read the menu.
- No, which indicates all user groups and users have permission to read the menu.

6. Click **OK**.

## 2 Data modeling

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### 2.1 Overview of data modeling

Data modeling is used to visualize data and allows you to quickly identify and extract information. Furthermore, it helps you to make correct decisions based on the trend represented by the data.

The basic process of data modeling is shown in the following figure.

1. Add data sources: a required step. Operations on datasets, workbooks, dashboards, and portals are all based on data sources. For more information about data sources, see [Data sources management overview](#).
2. Create datasets: a required step. You can create a dataset by using any one of the following three methods:
  - Tables in a data source: You can create dashboards and workbooks based on datasets. For more information about operations on datasets, see [Datasets management overview](#).
  - Local files: You can only create datasets based on local files in Personal Workspace. You can create datasets based on CSV files uploaded from your local disk. For more information about operations on CSV files, see [Upload local files](#).
  - Custom SQL queries: You can create datasets based on custom SQL queries in MaxCompute. For more information about operations on custom SQL queries, see [SQL overview](#).

### 2.2 Data source management

#### 2.2.1 Data sources management overview

Quick BI supports the following types of data sources:

**Cloud data sources:**

- MaxCompute
- MySQL
- SQL Server
- Analytic DB
- HybridDB for MySQL
- HybridDB for PostgreSQL released



- PostgreSQL
- PPAS
- Hive (Quick BI Pro)

### External database data sources

- MySQL
- SQL Server
- Oracle
- PostgreSQL
- Hive (Quick BI Pro)
- Vertica ( Quick BI Pro )
- IBM DB2 LUW ( Quick BI Pro )

### Exploration space

- CSV file
- Local Excel files
- Data IDE

Uploaded local files are stored in the exploration space. The exploration space is a dedicated storage area of Quick BI, providing 1G space for each user currently.

When creating data sources, the Quick BI has the following requirements for the network type of data sources.

1. The VPC RDS instance can access Quick BI by using an extranet domain name. MySQL and SQL Server instances can access Quick BI by using an intranet domain name, other VPC RDS instances can't access Quick BI by using an intranet domain name.
2. The instances in the classic network can access Quick BI by using an extranet domain name and an intranet domain name. When you access Quick BI by using an extranet domain name, you should set the IP address whitelist on the RDS. For more information, see [Set whitelist](#).
3. Quick BI can be accessed by using the public network.
4. MySQL and SQL Server built on a VPC ECs instance can access quick Bi via the internal network domain name.

## 2.2.2 List of data sources

On the Data Sources page, you can manage all the data sources. You can perform operations, such as **create data sources**, **query data sources**, **edit data sources**, and **delete data sources**, on this page as shown in the following figure.

On the right side of this page, you can click a data source to display all the tables in this data source. You can create a dataset from any one of these tables.

## 2.2.3 Create cloud data sources

Operations on datasets, workbooks, dashboards, and portals are based on data sources. This topic describes how to build a cloud data source.

Go to the data source creation page to create a cloud data source.

1. Log on to the Quick BI console.
2. Click **Data Sources** to go to the data source management page.
3. Click **Create Data Source** and select a data source.
4. Click the **Cloud Database** tab.

### MaxCompute

1. Click the **MaxCompute** icon.
2. Specify the parameters required for data source connection as follows:
  - Name: The display name in the data source list.
  - Database Endpoint: You do not need to modify the default address. If you want to modify it, see [Access domains and data centers](#).



#### Note:

The database endpoint varies with region. For example, in a classic network, the database endpoints of Hong Kong region and Singapore region are `http://service.cn-hongkong.maxcompute.aliyun-inc.com/api` and `http://service.ap-southeast-1.maxcompute.aliyun-inc.com/api` respectively. For more information, see [Access domains and data centers](#).

- Project: The project name.
- Access ID: The AccessKey ID.

- Access Key: The AccessKey Secret.

**Note:**

The value of the Access Key must be valid. The corresponding account is that of the project administrator or owner, or a common user who has permissions to list, select, and create instances.

**3. Click Test Connection.****Note:**

If the connection works properly, a message indicating connection success will be displayed.

**4. Click Add to add a data source.**

After the data source is added, the **Data Sources** tab page is automatically displayed, and all data tables under the data source are displayed in the right-side pane.

MaxCompute data sources are asynchronously loaded and updated. If you create a MaxCompute data source for the first time, wait up to five minutes for the data synchronization.

## MySQL

Due to the limitations imposed by the whitelist policy of ApsaraDB for RDS, before adding an ApsaraDB for RDS data source, you must manually add related IP addresses to whitelists on the ApsaraDB for RDS console.

For more information about how to add and set a whitelist, see [Set whitelists](#).

1. Click the **MySQL** icon.
2. Specify the parameters required for data source connection as follows:

- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The port number.
- Database: The name of the database.
- Username: The username of the database.
- Password: The password of the database.

If you do not know the username or the password, contact your data warehouse administrator.

**3. Click Test Connection.**

4. Click **Add** to add a data source.

If a data source with the same configuration already exists, a prompt message will be displayed  
. Do not add a data source repeatedly.

## SQL Server

You can add a data source from RDS for SQL Server in a similar way you add a data source from RDS for MySQL. The differences are that you need to add the configuration item **schema** for data sources from ApsaraDB for RDS (SQL Server), and the default port number of the SQL server is **1433**.

1. Click the **SQL Server** icon.
2. Specify the parameters required for data source connection as follows:

- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The port number.
- Database: The name of the database.
- Schema: dbo.
- Username: The username of the database.
- Password: The password of the database.

3. Click **Test Connection**.
4. Click **Add** to add a data source.

## Analytic DB

1. Click the **Analytic DB** icon.
2. Specify the parameters required for data source connection as follows:

- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The port number.
- Database: The name of the database.
- Access ID: The AccessKey ID.
- Access Key: The AccessKey Secret.

3. Click **Test Connection**.
4. Click **Add** to add a data source.

### HybridDB for MySQL

You can add a data source from HybridDB for MySQL in a similar way you add a data source from RDS for MySQL.

1. Click the **HybridDB for MySQL** icon.
2. Specify the parameters required for data source connection as follows:

- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The default value is 3306.
- Database: The name of the database.
- Username: The username of the database.
- Password: The password of the database.

3. Click **Test Connection**.
4. Click **Add** to add a data source.

### HybirdDB for PostgreSQL

You can add a data source from HybridDB for PostgreSQL in a similar way you add a data source from RDS for SQL Server. The default port is the port specific to HybridDB for PostgreSQL.

1. Click the **HybridDB for PostgreSQL** icon.
2. Specify the parameters required for data source connection as follows:

- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The port number.
- Database: The name of the database.
- Schema: public.
- Username: The username of the database.
- Password: The password of the database.

3. Click **Test Connection**.

4. Click **Add** to add a data source.

## PostgreSQL

1. Click the **PostgreSQL** icon.
2. Specify the parameters required for data source connection as follows:
  - Name: The display name in the data source list.
  - Database Endpoint: The host name or IP address.
  - Port: The port number.
  - Database: The name of the database.
  - Schema: public.
  - Username: The username of the database.
  - Password: The password of the database.
3. Click **Test Connection**.
4. Click **Add** to add a data source.

## PPAS

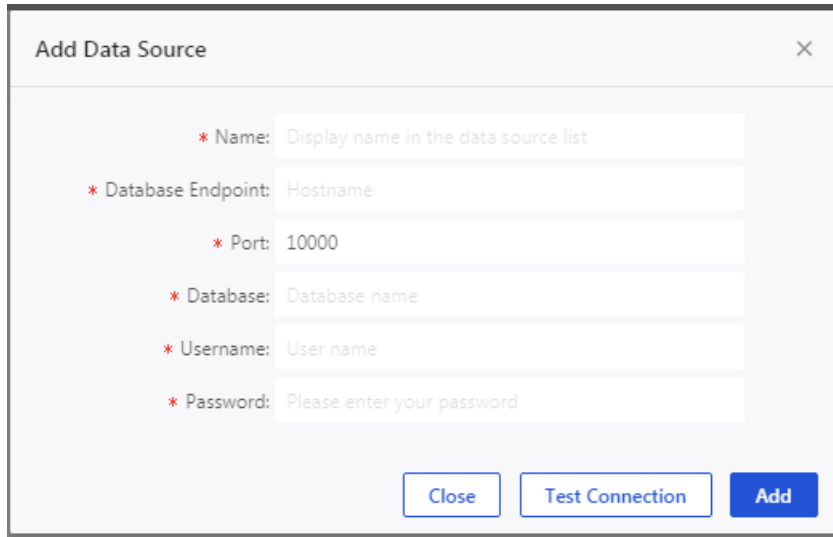
You can add a data source from RDS for PPAS in a similar way you add a data source from HybridDB for PostgreSQL.

1. Click the **PPAS** icon.
2. Specify the parameters required for data source connection as follows:
  - Name: The display name in the data source list.
  - Database Endpoint: The host name or IP address.
  - Port: The port number.
  - Database: The name of the database.
  - Schema: public.
  - Username: The username of the database.
  - Password: The password of the database.
3. Click **Test Connection**.
4. Click **Add** to add a data source.

## Hive (for Quick BI Professional)

If you have purchased **Quick BI Professional**, you can add a Hive data source.

1. Click the **Hive** icon.
2. Specify the parameters required for data source connection as follows:



- Name: The display name in the data source list.
- Database Endpoint: The host name or IP address.
- Port: The port number.
- Database: The name of the database.
- Username: The username of the database.
- Password: The password of the database.

3. Click **Test Connection**.
4. Click **Add** to add a data source.

## 2.2.4 Create a data source from external database

This section describes how to create a data source from external database.

### MySQL

1. Log on to Quick BI console.
2. Click **Data Sources**. The data source management page is displayed.
3. Click **Create data source > From External Database > MySQL**
4. Enter the required data source connection information, as shown in the following figure.

### Add Data Source ✕

\*Name:

\*Database Endpoint:

\*Port:

\*Database:

\*Username:

\*Password:

⚠ Note: Add the following IP ranges to the whitelist of your databases. 11.193.158.0/24, 11.193.162.0/24, 47.74.161.0/24, 47.74.162.0/24

- Display name: list of data sources display name
- Database address: Just fill in the host name or IP address.
- Port: Default 3306
- Database: Connection database name
- User name: corresponding user name
- Password: The password of the database.

5. Click **Test Connection** to perform the data source connectivity test.

6. Click Add to complete the data source add.

You must enable the ECS firewall to enable external accesses to MySQL.

1. Run the following command to access the firewall configuration file:

```
vi /etc/sysconfig/iptables
```

2. Add the following command to the firewall configuration file.

```
-A RH-Firewall-1-INPUT -m state --state NEW -m tcp -p tcp --dport 3306 -j
```



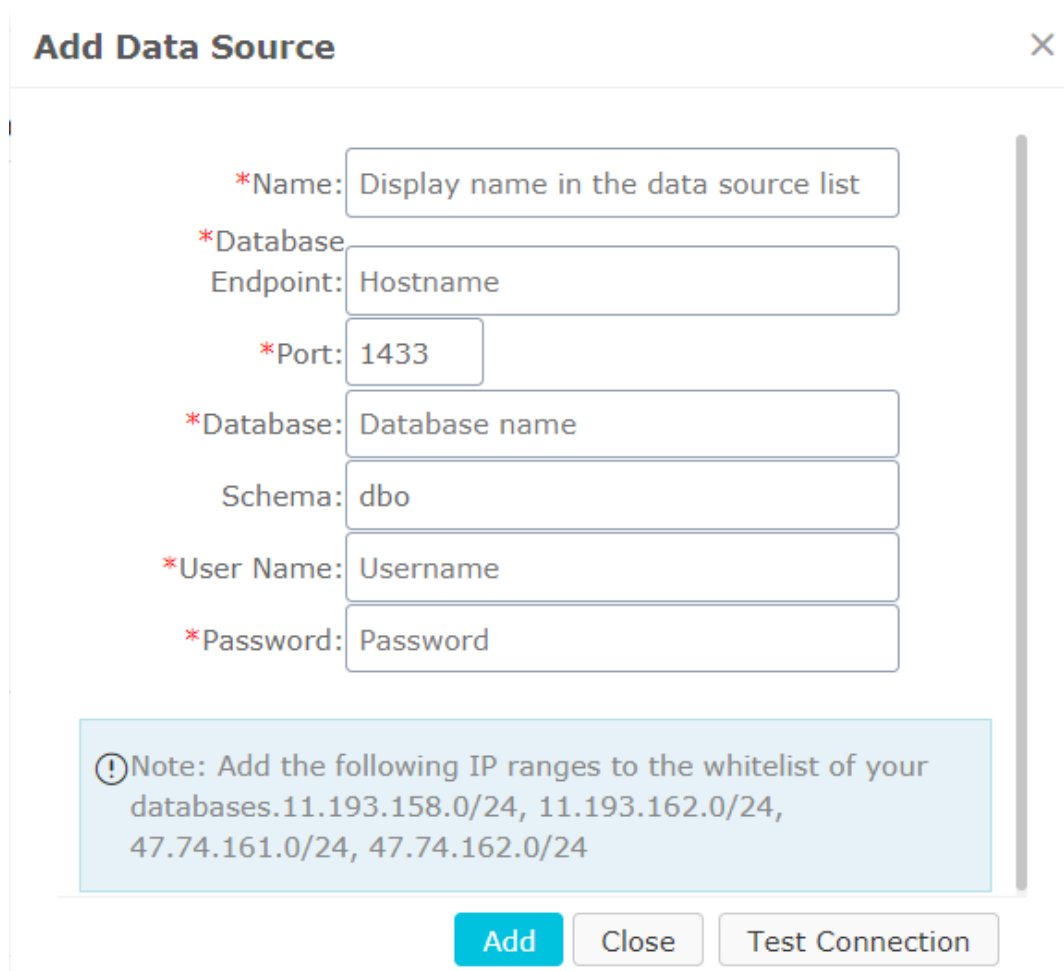
ACCEPT

3. After the configuration succeeds, restart iptable.

```
service iptables restart
```

## SQL Server

1. Click **SQL Server**.
2. Enter the required data source connection information, as shown in the following figure.



**Add Data Source** [X]

\*Name:

\*Database Endpoint:

\*Port:

\*Database:

Schema:

\*User Name:

\*Password:

ⓘ Note: Add the following IP ranges to the whitelist of your databases. 11.193.158.0/24, 11.193.162.0/24, 47.74.161.0/24, 47.74.162.0/24

- Display name: list of data sources display name
- Database address: Just fill in the host name or IP address.
- Port: Default 1433
- Database: Connection database name
- Schema: dbo
- User name: corresponding user name
- Password: The password of the database.

3. Click **Test Connection** to perform the data source connectivity test.

4. Click Add to complete the data source add.

## PostgreSQL

1. Click **PostgreSQL**.
2. Enter the required information for connecting to a data source.

**Add Data Source** [X]

\* Name: Display name in the data source list

\* Database Endpoint: Hostname or IP

\* Port: 5432

\* Database: Database name

Schema: public

\* Username: User name

\* Password: Please enter your password

ⓘ Note: Add the following IP ranges to the whitelist of your databases. 11.193.15.8.0/24, 11.193.162.0/24, 47.74.161.0/24, 47.74.162.0/24

[Close] [Test Connection] [Add]

- Display name: list of data sources display name
  - Database address: Just fill in the host name or IP address.
  - Port: Default 5432
  - Database: The name of the database to be connected to.
  - Schema: public
  - User Name: The user name of the database.
  - Password: The password of the database.
3. Click **Test Connection** to perform the data source connectivity test.
  4. Click Add to complete the data source add.

## Oracle

1. Click **Oracle**.
2. Enter the required data source connection information, as shown in the following figure.

### Add Data Source

×

\*Name:

Display name in the data source list

\*Database

Endpoint: Hostname or IP

\*Port:

1521

\*Database:

Database name

Schema:

Default schema 'public'

\*User Name:

User Name.

\*Password:

Password

Add

Close

Test Connection

- Display name: list of data sources display name
- Database Address: Enter the host name or IP address.
- Port: Default 1521
- Database: Name of the database to be connected to.
- Schema: public
- User Name: The user name of the database.
- Password: The password of the database.

3. Click **Test Connection** to perform the data source connectivity test.

4. Click **Add**. The data source is added.

### Hive (Quick BI Pro)

If you are using the Quick BI professional, you can add Hive data source.

1. Click **Hive**.

2. Enter the required data source connection information, as shown in the following figure.

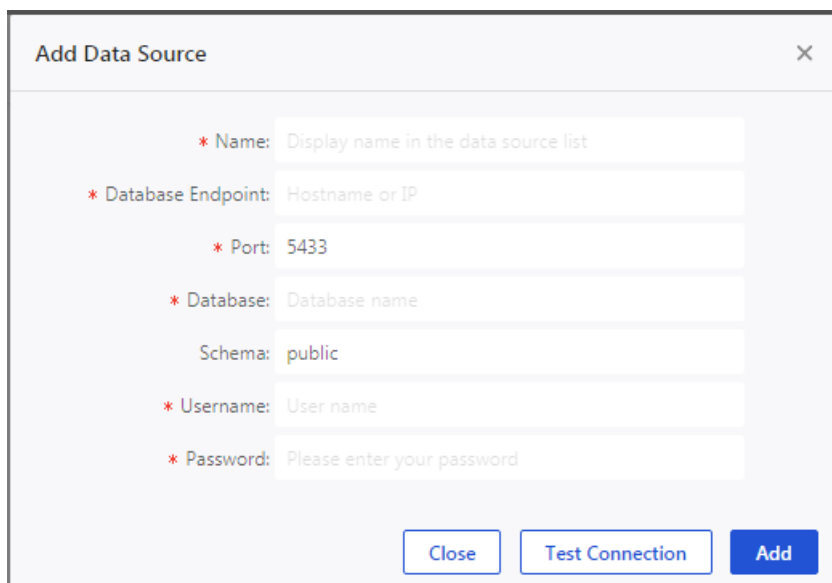
- Display name: list of data sources display name
  - Database address: Just fill in the host name or IP address.
  - Port: Just fill in the correct port number
  - Database: Connection database name
  - User name: Corresponding user name
  - Password: Corresponding Password
3. If you need to accelerate your Hive data source, enter the following data source acceleration information, as shown in the following figure.

- hiveMetastoreUri: The address of Hive metadata.
4. Click Connect tests to perform a data source connectivity test.
5. Click Add to complete the data source add.

### Vertica ( Quick BI Pro )

If you are using Quick BI professional, you can also add a Vertica data source.

1. Click **Vertica**.
2. Enter the required data source connection information, as shown in the following figure.



- Display name: List of data sources display name
- Database address: Just fill in the host name or IP address.
- Port Number: Default 5433
- Database: The name of the database to be connected to.
- Schema: public
- User Name: The user name of the database.
- Password: The password of the database.

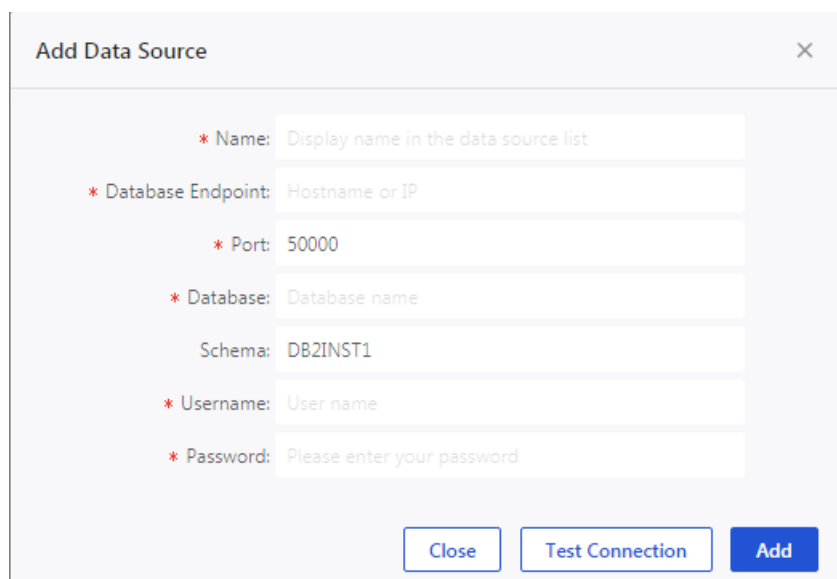
3. Click **Test Connection** to perform the data source connectivity test.

4. Click Add to complete the data source add.

### IBM DB2 LUW ( Quick BI Pro )

If you are using Quick BI professional, you can also add an IBM DB2 LUW data source.

1. Click **IBM DB2 LUW**.
2. Enter the required data source connection information, as shown in the following figure.



The screenshot shows a dialog box titled "Add Data Source" with a close button (X) in the top right corner. The dialog contains several input fields, each preceded by a red asterisk indicating it is required:

- Name:** A text input field with the placeholder text "Display name in the data source list".
- Database Endpoint:** A text input field with the placeholder text "Hostname or IP".
- Port:** A text input field with the value "50000".
- Database:** A text input field with the placeholder text "Database name".
- Schema:** A text input field with the value "DB2INST1".
- Username:** A text input field with the placeholder text "User name".
- Password:** A text input field with the placeholder text "Please enter your password".

At the bottom of the dialog, there are three buttons: "Close", "Test Connection", and "Add". The "Add" button is highlighted in blue.

- Display name: list of data sources display name
- Database address: Just fill in the host name or IP address.
- Port Number: Default 50000
- Database: Connection database name
- Schema: DB2INST1
- User name: Corresponding user name
- Password: The password of the database.

3. Click **Test Connection** to perform the data source connectivity test.

4. Click Add to complete the data source add.

## 2.2.5 Upload local files

You can upload local CSV files and Excel files (.xls and .xlsx files) to the explore space as a data source.

The explore space is a data source type that is used only in the personal workspace. Each user has 1 GB storage space.

In addition, you can import data sources from the Data IDE.

### CSV file

CSV files in UTF-8 format are decoded without errors. CSV files in GBK or GB2312 format are automatically decoded, but the decoding may fail in some special cases.

If your CSV files cannot be decoded correctly, use text editors such as Notepad to convert the encoding of the files to UTF-8. Otherwise, the content of the uploaded files is shown as gibberish.

1. Use **Notepad** to open a CSV file.
2. Choose **File > Save As**.
3. Click the drop-down arrow of **Encoding**.
4. Select UTF-8.

After you have changed the encoding, upload the CSV file to the explore space.

1. Log on to the Quick BI console.
2. Click **Data Source** to enter the Data Sources page.
3. Click **Create Data Sources > Local Upload > CSV file**.
4. Enter a display name for the file.
5. Click **Select File** to select a file to upload, as shown in the following figure.
6. Click **OK** to upload the file.

### Excel file

When you upload Excel files, you need to select which sheet in each excel file to upload. To make the editing and maintenance more flexible, you can only select one sheet in one Excel file at a time.

1. Click **Create Data Sources > Local Upload > EXCEL file**.
2. Enter a display name for the file.
3. Click **Select a file** to select the file to upload, as shown in the following figure.
4. Click **OK** to complete uploading the file.

### Data IDE



#### Note:

Only supports importing data sources from the China (Shanghai) region, and you must add your account to the project.

1. Click **Create Data Sources > Local Upload > Data IDE**.
2. Select the data source from the list.
3. Click **Import** to complete the importing of the data source.

## Update table data according to the local data source

The local data source feature of Quick BI is designed to meet the analysis requirements for your changing and growing business.

After you have uploaded a file, new files are generated as the business grows. You can append the new files to the table corresponding to the previously uploaded file to analyze business data consistently over a long period of time.

The new file can be in a format different from the previously uploaded file. For example, if you have uploaded a CSV file, you can import data from a sheet in an Excel file. Make sure that the field names and the field types in the files to be uploaded are the same as those in the previously uploaded file.

1. Click **Data Source** to enter the Data Sources page.
2. Click **Explore Space** to enter the Explore Space page.
3. Select a file, and then click **Update**.
4. Click **Append** to upload the file that needs to be appended.
5. Click **OK** to append the data.

## Delete the data of the table corresponding to a local data source

If a file that you have appended contains dirty data, which decreases the accuracy of the data, you can delete the file with dirty data that is corresponding to the table in the uploaded file list. The corresponding dashboard displays corrected data without any manual changes. Therefore, the analysis results of data are accurate at all times.

1. Click **Data Source** to enter the Data Sources page.
2. Click **Explore Space** to enter the Explore Space page.
3. Select a file, and then click **Update**.
4. Locate the file that needs to be deleted, and then click the **Delete** icon, as shown in the following figure.

## Example of local files

To help you learn to use local data source files, we provide a sample CSV file here: [Sales data examples](#).

The structure of the sales data is shown in the following table.



<i><b>Field</b></i>	<i><b>Field type</b></i>	<i><b>Description</b></i>
order_id	varchar	Order ID
report_date	datetime	Order date
customer_name	varchar	Customer name
order_level	varchar	Order grade
order_number	double	Order quantity
order_amt	double	Order amount
back_point	double	Discount
shipping_type	varchar	Shipping type
profit_amt	double	Profit amount
price	double	Unit price
shipping_cost	double	Shipping cost
area	varchar	Region
province	varchar	Province
city	varchar	City
product_type	varchar	Product type
product_sub_type	varchar	Product subtype
product_name	varchar	Product name
product_box	varchar	Product packing box
shipping_date	datetime	Shipping date

## 2.2.6 Edit data sources

On the Data Sources page, you can view all the data sources and edit them.

### Procedure

1. Log on to the Quick BI console.
2. Click **Data Sources** to go to the Data Sources page.
3. Select a data source, and click the **Edit** icon.
4. After you edit the data source, click **Save**.

## 2.2.7 Delete data sources

You can view all data sources and delete data sources on the Data Sources page.

### Context



#### Note:

If you have created a dataset based on a data source, the data source cannot be deleted and the system will display an error message if you delete the data source.

### Procedure

1. Log on to the Quick BI console.
2. Click **Data Sources** to go to the Data Sources page.
3. Select a data source, and click the **Delete** icon.

## 2.2.8 Synchronize data sources

In the Personal Space of Quick BI, you can synchronize MaxCompute and MySQL data sources to Exploration Space.

1. On the Data Sources page, click **Import Data**.
2. Select a MaxCompute data source or a MySQL data source.



#### Note:

- You must add the following IP addresses to the RDS whitelist before synchronizing the MySQL data source.  
  
11.193.158.0/24,11.193.162.0/24,47.74.161.0/24,47.74.162.0/24
- You must switch to a classic network to synchronize MySQL data sources. A VPC network does not support the synchronization of MySQL data sources.
- This function is a one-time synchronization. If the data source is updated, you must synchronize the data source again.

## 2.3 Dataset management

### 2.3.1 Dataset overview

You can add or import a data source to create a dataset. For more information about how to add and import a data source, see [Create a cloud data source](#), [Create a data source from external database](#), and [Upload local files](#).

After you create a dataset, you can create a dashboard to visualize the dataset. For more information about how to create a dashboard, see [Use dashboard to create charts](#).

On the Datasets page, you can perform operations on a selected dataset such as analyze, edit, and rename.

### 2.3.2 Create a dataset

#### Prerequisites

Ensure that data sources have been successfully added or uploaded before you create a dataset.

#### Context

For more information about how to add and import a data source, see [Create a cloud data source](#), [Create a data source from external database](#), and [Upload local files](#).

#### Procedure

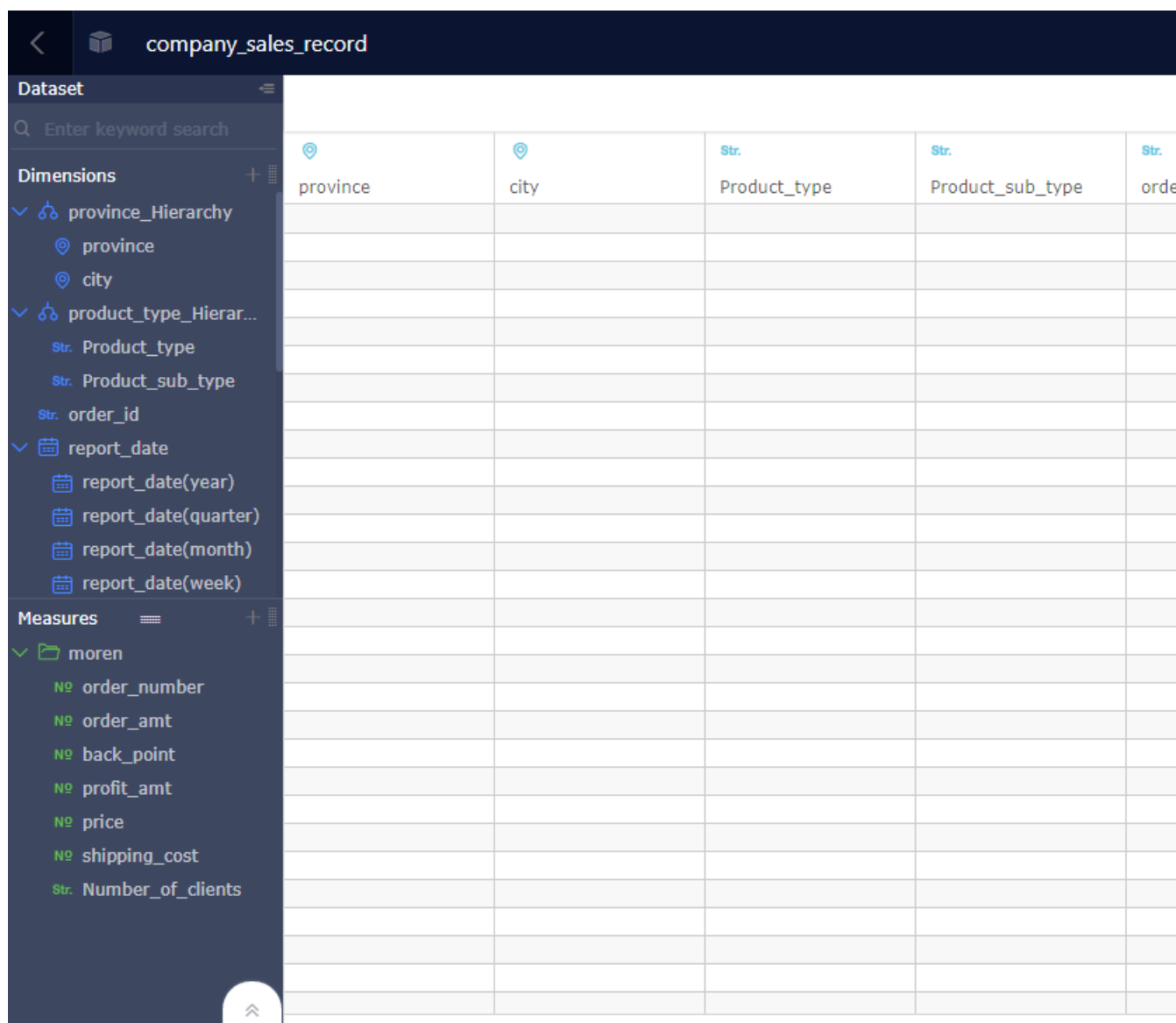
1. Log on to the Quick BI console.
2. Click **Data Source** to enter the Data Sources page.
3. On the right side of this page, select a table.
4. Click **Create Dataset** next to the table as the following figure shows.

After you create a dataset, you are automatically directed to the **Datasets** page. The newly created dataset is labeled with the **New** icon. This helps you quickly find the newly created dataset.

### 2.3.3 Edit a dataset

You can edit a dataset based on the chart demonstration needs.

1. Log on to the Quick BI console.
2. Click **Datasets**. The dataset management page is displayed.
3. Select a dataset and click its name. The dataset editing page is displayed.

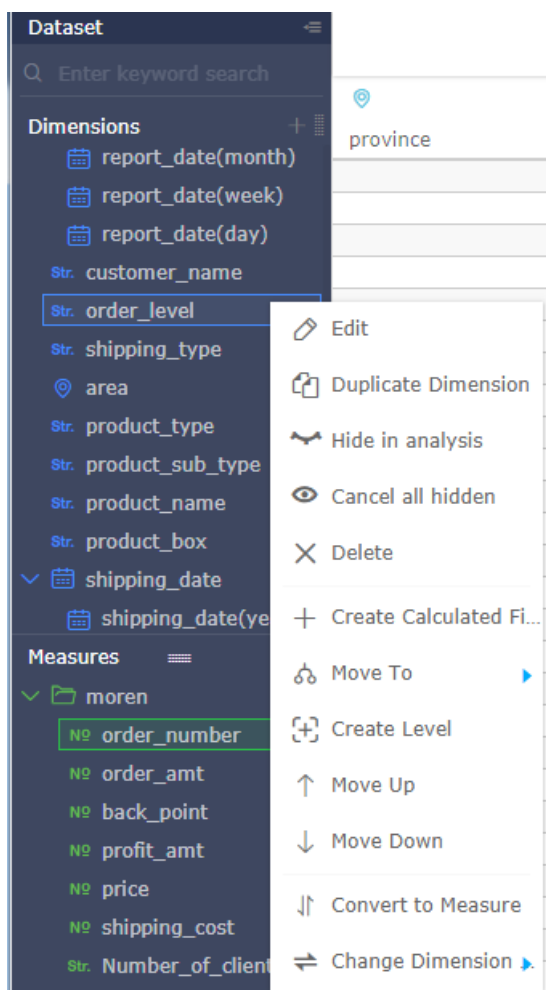


Fields in the dataset are automatically classified into **dimensions** and **measurements**. You can edit the dimension and measurement fields based on your table creation requirements. After the dataset is edited, you can save and refresh the edited data using **Toolbar** provided by the system.

### Edit a dimension field

You can click the operation icon of a dimension field or right-click a dimension field to open the editing menu. For example, if you want to create a bubble or color map, you must set the dimension type to "Geographical Information". Otherwise, you cannot properly make the map.

1. Select a dimension field, for example, **order\_level**.
2. Right-click the selected field. The field editing menu is displayed, as shown in the following figure.

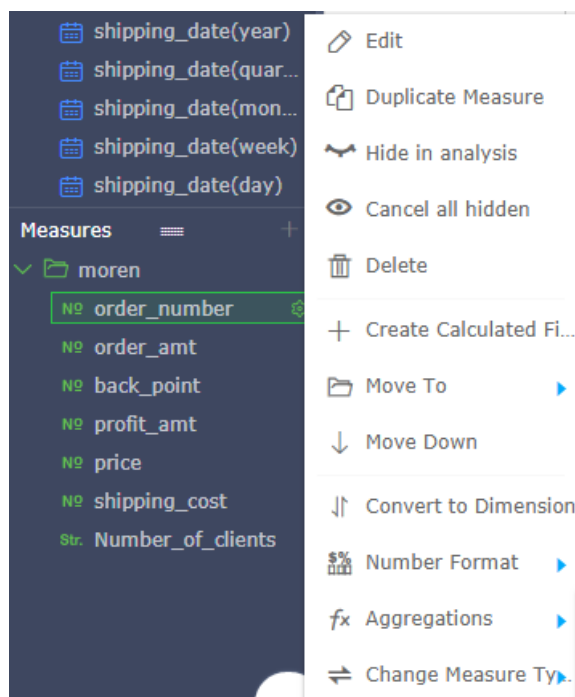


- **Edit:** To modify the display name and remarks of a dimension field.
- **Duplicate Dimension:** To quickly copy a dimension. **Copy** is automatically displayed for the generated dimension.
- **Hide in analysis:** Hide related dimensions.
- **Cancel all hidden:** Cancel the hide for related dimensions.
- **Delete:** To delete a field.
- **Create Calculated Field (Dimension):** To create a dimension field and customize the calculation mode.
- **Move To:** To quickly include a dimension field in an existing level for drilling.
- **Create Level:** To quickly include a dimension field in a created level.
- **Move Up/Move Down:** To move a field. You can drag the field or right-click the field to move it.
- **Convert to Measurement:** To convert the current dimension field to a measurement field.

- **Change Dimension Type:** To switch a dimension field to the default, date, or geographical type.

### Edit a measurement field

1. Select a measurement field, for example, **order\_number**.
2. Right-click the selected field. The field editing menu is displayed, as shown in the following figure.



- **Edit:** To modify the display name and remarks of a measurement field.
- **Duplicate Measure:** To quickly copy a measure. **Copy** is automatically displayed for the generated measure.
- **Hide in analysis:** Hide related measures.
- **Cancel all hidden:** Cancel the hide for related measures.
- **Delete:** To delete a field.
- **Create Calculated Field (Measurement):** To create a measurement field and customize the calculation mode.
- **Move To:** To quickly include a measurement field in an existing folder.
- **Move Up/Move Down:** To move a field. You can drag the field or right-click the field to move it.
- **Convert to Dimension:** To convert the current measurement field to a dimension field.
- **Number Format:** To set the display format of a number.

- Aggregations: You can select an aggregation mode, such as sum, max, or min, on the menu .
- Change Measure Type: To switch a measure field to the default, date, or geographical type.

## Toolbar

You can use the toolbar shown in the following figure to save, refresh, or synchronize datasets.



- Sync Table Schema: To combine new table fields added to an online physical table. This operation can be used when an online physical table is changed, for example, a field is added . In this case, fields can be easily synchronized online. If a field of the online table is deleted or renamed, the corresponding dimension/measurement of the dataset is not deleted.
- Refresh Preview: To refresh and preview data of a dataset. If you want to view the latest data in real time, save the dataset and then refresh data.
- Save: To save a dataset.
- Save As: To save the current dataset as a new one. This operation can be used to quickly copy a new dataset or back up a dataset.

## Join tables



### Note:

Professional edition supports Multi-Dataset type, and it only applies to the MaxCompute, MySQL, and Oracle data source. Other editions don't support.

mysql Oracle

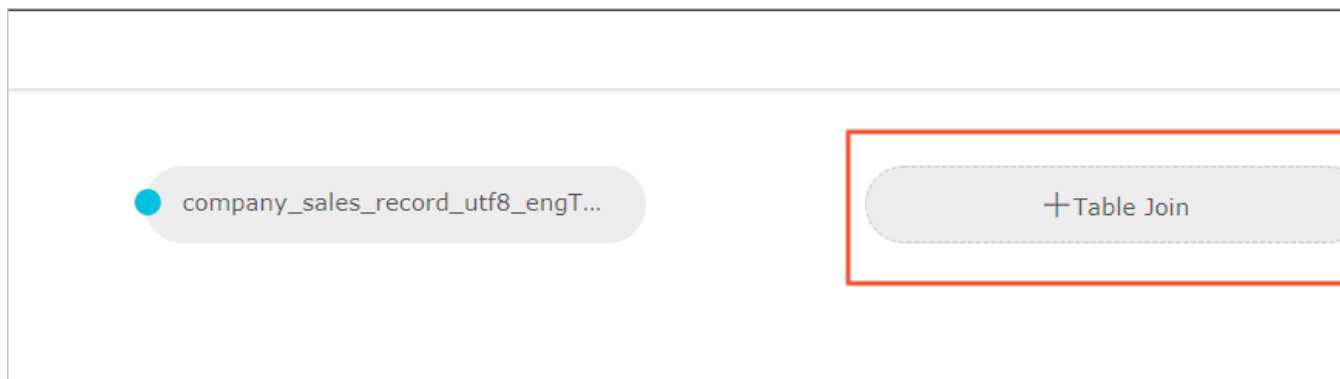
The Multi-Dataset type is not supported

The following two joining modes are supported.

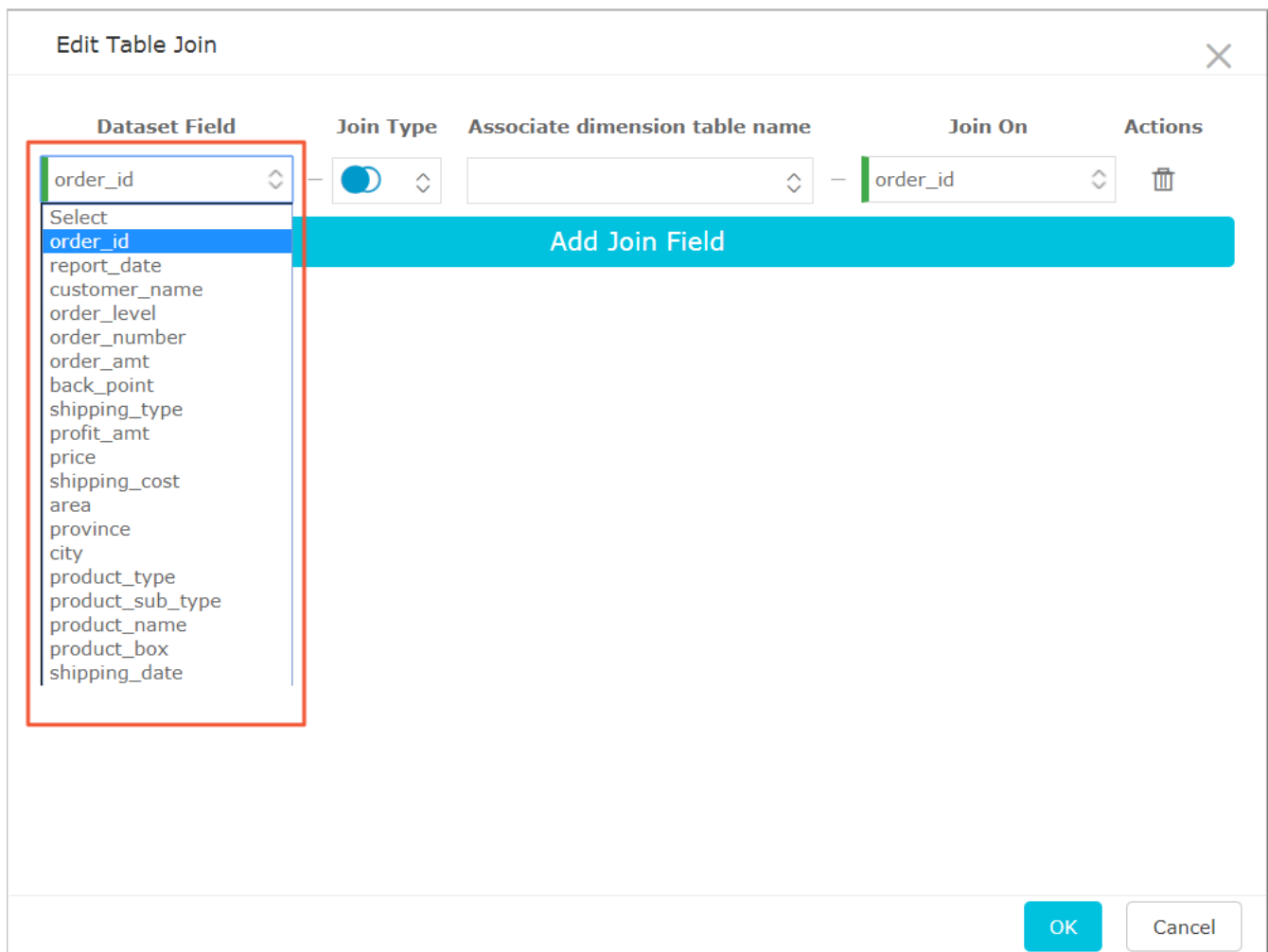
- Inner Join
- Left outer join

If you have two data tables that are from the same dataset, you can click **Join Table** to join one or multiple fields in the second table to the table that is currently edited. The joined table fields are automatically added to the dimension and measurement areas of the first table as folders.

1. Click the **Join Table** icon. The data table joining page is displayed.

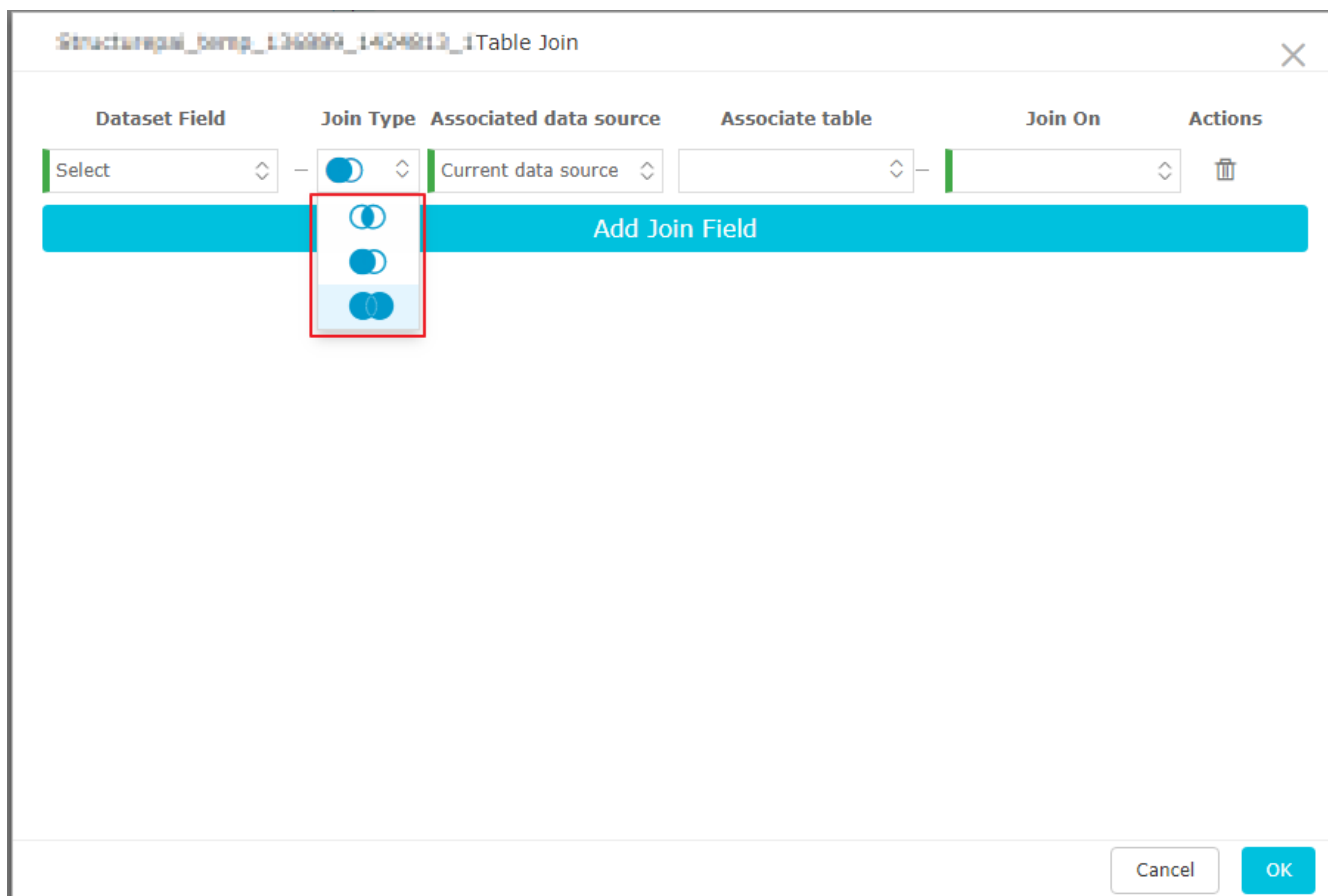


2. Click **+ Table Join** and add the data table to be joined.
3. Click the drop-down arrow of Dataset Field and select the dataset field to be joined.

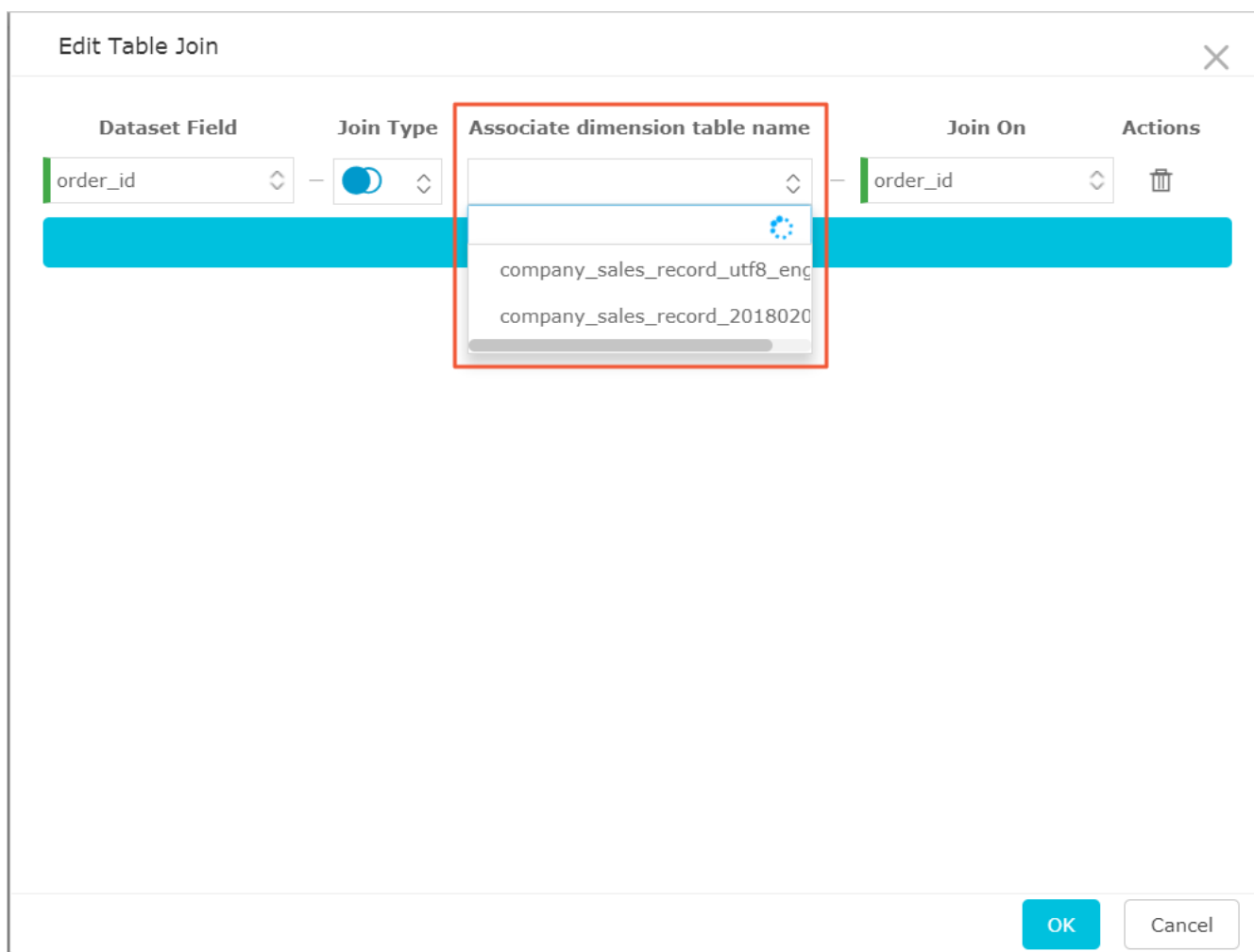


4. Click the drop-down arrow of **Join Type** and select the join mode.

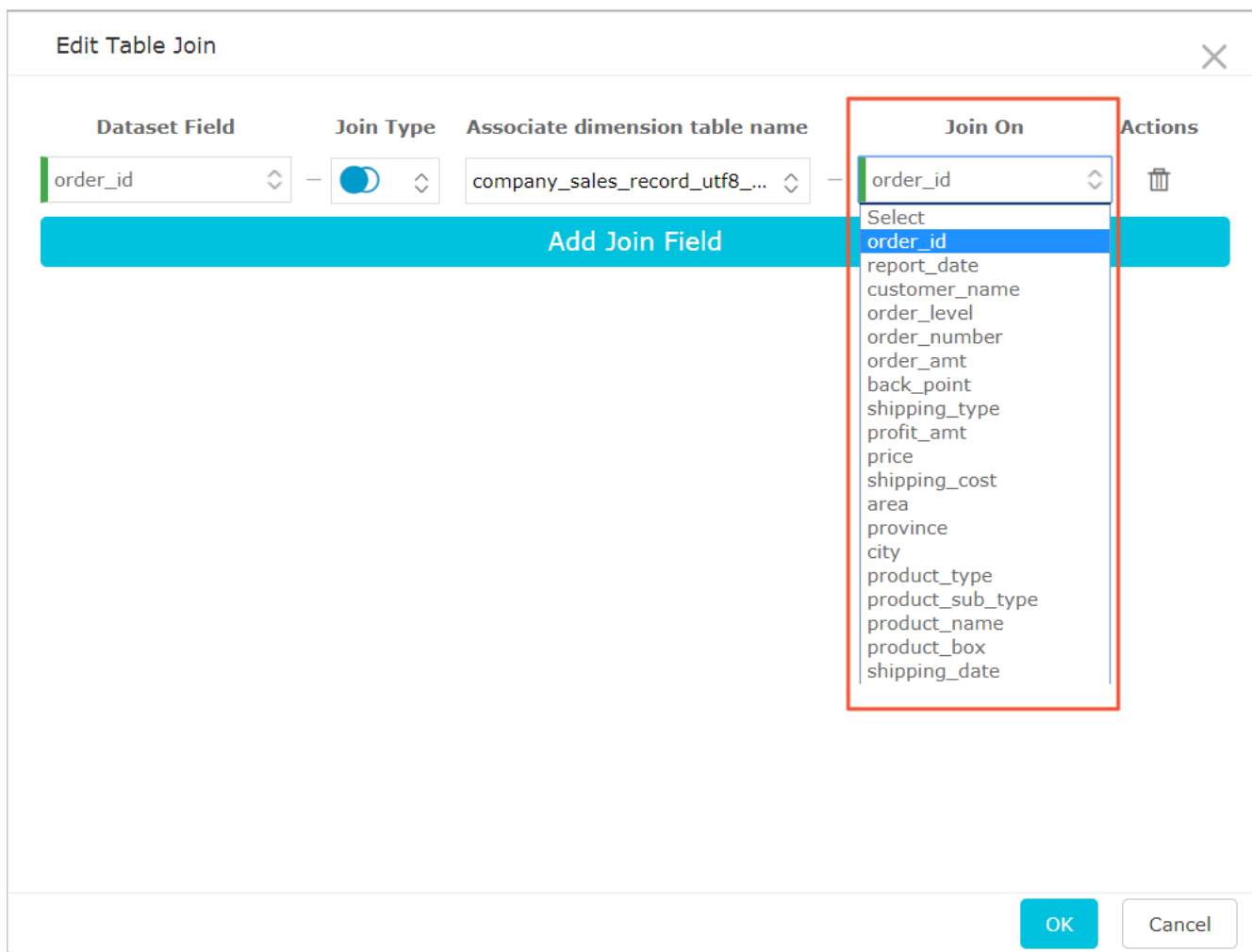




5. Click the drop-down arrow of **Associate dimension table name** and select a joined table name.



6. Click the drop-down arrow of **Join On** and select a joined field.



7. Click **OK**. The joined table is added.
8. Click the preview icon to switch to preview mode, as shown in the following figure.



9. Click **Save** to save the current dataset.

### Joined table example

1. On the dataset management page, select company\_sales\_record1.
2. Click its name and enter the dataset editing page.
3. Click the **Join Table** icon. The joined table editing page is displayed.
4. Click **+** to open the associated model dialog box.
5. Click **Dataset Field** drop-down arrow to select an associated field.
6. Click the **Join Type** drop-down arrow to select a join type, such as **left outer join**.

7. Click the drop-down arrow of **Associate dimension table name** and select an associated dataset.
8. Click **Join On** drop-down arrow to select an associated field.
9. Click **OK**. The joined table is added.
10. Click **Preview** icon to preview the data.
11. Click **Save** to save the dataset.

## 2.3.4 Analyze a dataset

You can use workbooks to analyze datasets.

### Workbooks

1. Log on to the Quick BI console. (Quick BI Pro or Quick BI Professional)
2. Select **Workspace**.
3. Click **Workbooks** to enter the Workbooks page as shown in the following figure.
4. Click **Create Workbook** to enter the Workbooks page as shown in the following figure.

For more information about workbook operations, see [Example: Create workbooks](#).

## 2.3.5 Rename datasets

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select a dataset. Click More, and click **Edit Properties**.
4. Enter a new dataset name and click **Save**.

## 2.3.6 Delete datasets

### Procedure

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the dataset management page.
3. Locate a dataset, and click the **Ellipsis** icon. Alternatively, right-click the dataset.
4. Select **Delete** to delete the dataset.

## 2.3.7 Search for datasets

### Procedure

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the dataset management page.
3. Enter a keyword in the search box, as shown in the following figure.
4. Click the **Search** icon to search for a dataset.

## 2.3.8 Create dataset folders

### Procedure

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the dataset management page.
3. Click **Create Folder** and enter the folder name.
4. Click **OK** to create a folder.

## 2.3.9 Rename dataset folders

### Procedure

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the dataset management page.
3. Locate a dataset folder. Click the **Rename** icon, or right-click the folder and select **Rename**.
4. Enter a new folder name, and click **OK**.

## 2.3.10 Delete dataset folders

### Procedure

1. Log on to the Quick BI console.
2. Click **Datasets** to go to the Datasets page.
3. Select a dataset folder. Click the **Delete** icon, or right-click the dataset folder and select **Delete**.
4. Click **OK** to delete the current folder.

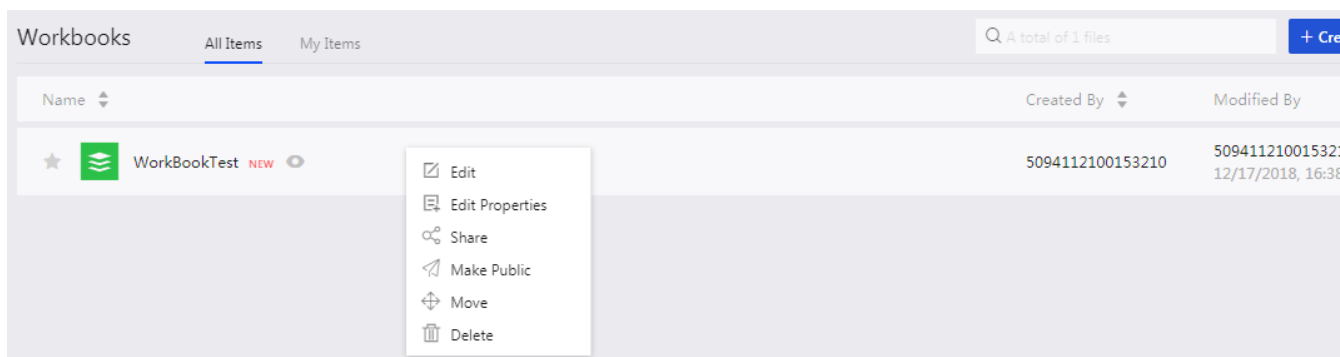
## 3 Create a report

### 3.1 Manage files

Data portals are also called data applications. You can query and edit your own chart files.

#### Procedure

1. Log on to the Quick BI console.
2. Click **Workspace** > **Workbooks** to enter the Workbooks page.
3. Select and right-click a workbook, as shown in the following figure.



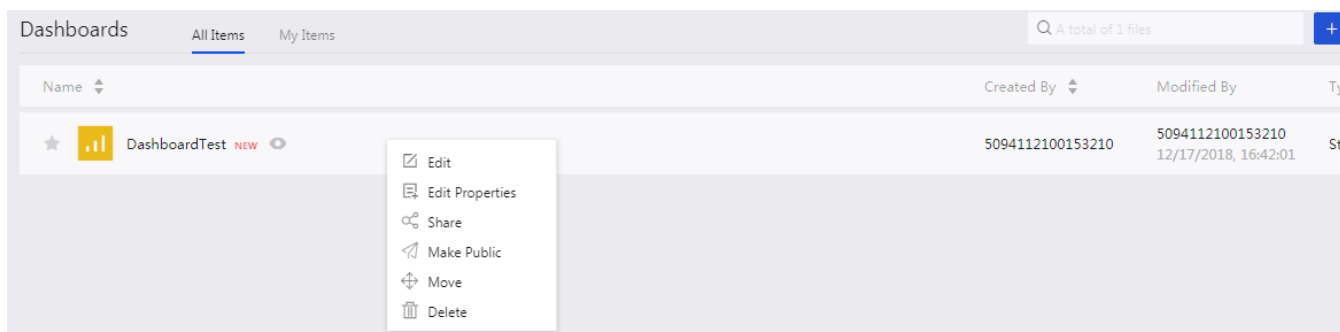
- Edit: Edit the workbook.
- Edit Properties: Edit the workbook name.
- Share: Share the workbook with other users in a specific period.
- Make Public: Allows visitors to access the workbook through a generated link without logging on to the system.
- Move: Move the workbook to another directory.
- Delete: Delete the workbook.



#### Note:

A shared workbook is read-only and cannot be edited.

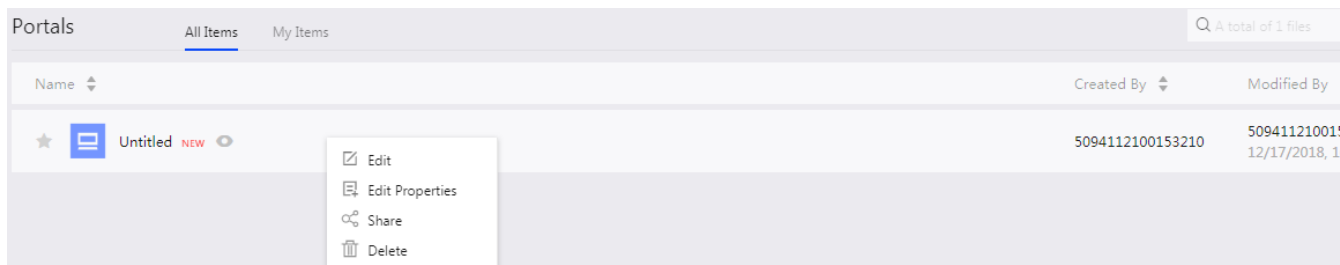
4. Click **Dashboards** to enter the Dashboards page.
5. Select and right-click a dashboard, as shown in the following figure.



- Edit: Edit the dashboard.
- Edit Properties: Edit the dashboard name.
- Share: Share the workbook with other users in a specific period.
- Make Public: Allows visitors to access the workbook through a generated link without logging on to the system.
- Move: Move the dashboard to another directory.
- Delete: Delete the dashboard.

6. Click **Portals** to enter the Portals page.

7. Select a portal, and right-click it, as shown in the following figure.



- Edit: Edit the portal.
- Edit Properties: Edit the portal name.
- Share: Share the workbook with other users in a specific period.
- Delete: Delete the portal.

## 3.2 Workbook overview

### Common features

After accessing a workbook, you can **Undo**, **Redo**, **Cut**, **Copy**, and **Paste** data content. See the following figure.

## Condition rules

By clicking **Set Conditional Formatting** on the toolbar, you can add rules for data results. For example, you can highlight data within a certain range. See the following figure.

## Add hyperlinks

The Workbook provides the **Add Hyperlink** icon, which helps you create more beautiful charts with richer content. See the following figure.

## Add drop-down lists

You can click **Drop-Down List** on the toolbar to add labels for data entries.



### Note:

Multiple labels must be separated by commas (,).

## Text format

The text format feature enables you to adjust text in charts. This feature supports the following operations:

- Set the font, color, and background of text.
- Set the size and style (such as bold, italic, underline, and strikethrough) of text.
- Set the format of cells (such as text alignment, text wrapping, indentation, and cell merging).
- Set the format of text (such as general, number, text, percentage, date, and custom settings).

## Table attributes

The table attribute feature enables you to adjust table attributes. This feature supports the following operations:

- Insert rows, insert columns, delete rows, delete columns, autofit row height, and autofit column width.
- Group, ungroup, hide rows, hide columns, freeze rows, and freeze columns.
- Set borders.
- Sort, filter, and set table styles.



### 3.3 Highlight pivot tables

You can use the highlight pivot table feature to show data in different pivot tables.

1. Open the workbook editing page
2. Click the **Data Preview** icon and select a dataset.
3. Double-click or drag the fields to the panel, and then click **Update**.
4. Click **Highlight Pivot Table**, and then select the area to show the data.
5. Double-click or drag the fields to the panel, and then click **Update**.

You can modify the display name for different pivot tables.

### 3.4 Dashboard overview

This section introduces basic concepts of the dashboard, including the types, application scenarios, and data elements of charts in the dashboard.

For more information about the basic operations on a dashboard, see [#unique\\_46](#).

To learn how to create other types of charts, see [#unique\\_47](#).

Dashboards use a more flexible tile layout to show interactions between data. A dashboard not only visualizes data but also supports data filtering and query and multiple data display modes to highlight the key fields of data.

In terms of data display, dashboards display data in a more intuitive and clearer way through the wizard and drag, drop, and click operations on fields. In terms of data analysis, dashboards improve interaction experience of users by friendly prompts.

The data display performance is also greatly improved. You can query dynamic data on the dashboard editing page.

#### Types and application scenarios of data charts

Different data needs to be displayed using different chart types. Currently, Quick BI supports 17 types of data charts, including line charts, bar charts, bubble map, and funnel charts.

The following table lists the analysis type and common application scenarios of each type of chart.

Analysis type	Description	Scenario	Applicable chart
Comparison	Compare the differences between each value or display a simple comparison	Compare the sales/income differences of different countries or regions.	Bar chart, radar chart, funnel chart, table, polar chart, tornado chart, and word cloud

Analysis type	Description	Scenario	Applicable chart
	of measurements between different categories.		
Percentage	Display the percentage of a part or the ratio of a value to the whole.	Display which salesperson contributes the most to the total sales.	Pie chart, funnel chart, gauge, and tree chart
Relation	Display relationship between each value or compare multiple measurement values.	View the relativity between two values and display the affect of the first value on the second value.	Scatter chart, tree chart, card chart, hierarchy chart, and conversion chart
Trend	Display the trend of a value (especially the trend changes with time (for example, by year, month, or day) or the progress or possible modes of an indicator.	View the sales or income trend of a product in a period of time.	Line chart
Geographic chart	Intuitively show the size and distribution of related data indicators in a country or region on a map. The datasets used must contain geographical data.	View the income of each region in a country.	Geo bubble and geo

### Data elements of a data chart

Each chart contains the Data, Style, and Advanced tabs, as shown in the following figure.

- The Data tab determines data displayed on the chart.
- The Style tab determines the chart appearance and displayed details.
- The More tab determines whether data is associated with multiple charts and whether to dynamically display interaction and comparison between data based on your needs.

Each chart is differentiated from other charts by its core data elements. For example, the core element of a map is its geographic latitude. Otherwise, data cannot be displayed on the map.

The following table lists the core data elements of each type of chart.

Chart name	Data elements	Composition of data elements
Line chart	Category axis and value axis	The category axis has at least one dimension, and the value axis has at least one measurement.
Area map	Category axis and value axis	The category axis has at least one dimension, and the value axis has at least one measurement.
Bar chart	Category axis and value axis	The category axis has at least one dimension, and the value axis has at least one measurement.
Code Charts	Category axis and value axis	The category axis has at least one dimension, and the value axis has at least one measurement.
Pie Chart	Slice label and slice angle	Slice labels have only one dimension, and the dimension value is smaller than or equal to 12. The slice angle has only one measurement.
Geo bubble map	Geographic region and bubble size	Geographic regions have only one dimension, which is the geographic latitude. The bubble size has one to five measurements.
Geo map	Geographic region and color saturation	Geographic regions have only one dimension, which is the geographic latitude. The color saturation has one to five measurements.

Chart name	Data elements	Composition of data elements
Table	Row and column	Rows have unlimited dimensions, and columns have unlimited measurements.
Gauge	Pointer angle and tooltip	A gauge has only one measurement.
Radar chart	Branch label and branch length	Branch labels have one to two dimensions, and the branch length has at least one measurement.
Scatter chart	Color legend, X axis, and Y axis	Color legends have only one dimension, and the maximum number of dimension members is 1000. The X axis has one to three measurements, and the Y axis has only one measurement.
Funnel chart	Funnel layer label and funnel layer width	Funnel layer labels have only one dimension, and the funnel layer width has only one measurement.
Card chart	Panel label and panel indicator	Panel labels have at most one dimension. Panel indicators have at least one and at most 10 measurements.
Tree map	Color block label and color block size	Color block labels have only one dimension, and the dimension value is smaller than or equal to 12. The color block size has only one measurement.
LBS map	Geographic region and LBS bubble size	Geographic regions have only one dimension, which is the geographic latitude. The LBS bubble size has one to five measurements.
Polar chart	Slice label and slice length	Slice labels have only one dimension, and the dimension

Chart name	Data elements	Composition of data elements
		value ranges from 3 to 12. The slice length has only one measurement.
Word cloud	Word size and word label	The word size has only one dimension, and word labels have only one measurement.
Tornado chart	Comparison subject and comparison indicator	The comparison subject has only one dimension, and comparison indicators have at least one measurement.
Hierarchy chart	Tree parent and child node label and tree parent and child node indicator	Tree parent and child node labels have at least two dimensions. Tree parent and child node indicators have at least one measurement.
Conversion chart	Previous page, current page, and next page; PV of the present, current, and next pages, UV of the present, current, and next pages, path conversion rate, and page bounce rate	Each data element has only one dimension or measurement.
Progress bar	Progress indication	The Progress indication has one to five measurements.
Pivot table	Row and column	Rows have unlimited dimensions, and columns have unlimited measurements.

## 3.5 Dashboard basic operations

### 3.5.1 Basic dashboard operations

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

For more information about dashboards, see [#unique\\_50](#).

To learn how to create charts, see [#unique\\_47](#).

## 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.

## 3.5.2 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.

## 3.5.3 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.

## 3.5.4 Configure a chart

You can select a chart in the configuration area of a dashboard. After you select a chart, you can configure this chart.

You must ensure that you have selected a dataset on the Data tab before you create a chart. In addition, dimensions and measures are applicable.

For more information about dimensions and measures, see [#unique\\_57](#).

1. After you click a chart icon, the selected chart appears in a dashboard.

You can switch a chart to other types by clicking Change chart type in the upper-right corner of the page.

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

- Click the **cross** icon next to a field to remove this field from the Category Axis (Dimensions) area.
- Click the **triangle** icon next to a field to display the values of this field in ascending or descending order.

3. Select a field and drag this field to the Colors (Dimensions) area.

The selected field appears in a chart with the specified color. If you fail to drag a field, an error message occurs. You can follow the instruction on the message to add or remove dimensions and measures.

Take the **product\_type** field as an example.

1. Drag the **product\_type** field to the **Colors (Dimensions)** area, and then click **Update**.
2. Select **Style > Series settings** to change your color matching themes.
4. Select the time interval that data automatically refreshes on the **Auto refresh** list.
5. On the **Style** tab, you can change the visual format of a chart by setting options in General config, Style, Layout, Axis, and Series settings.

You can change a unit by setting a number in the **Unit** area. You can only multiply the values of a field by the number you set in the Unit area.

Assume that the previous unit is centimeter. If you want to display data in meters, you must divide the previous unit by 100. In the Unit area, you can enter 0.01 in this case. For a multiplication operation, you can enter 100.

6. On the **Advanced** tab, you can associate the current chart with other charts.



You must ensure at least two charts are created in the display area of a dashboard before you associate charts.

### 3.5.5 Filter by fields

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

You can filter data of the string, number, or date type.

#### Filter data in string type

You can filter municipalities from the province field using the filter feature.

##### Take filtering municipalities as an example.

1. Drag the **province** field to the **Filter Bar** area, as shown in the following figure.
2. Click the **Set Filter** icon, and set filtering criteria.
3. Select the required filtering criteria. For example, select **Filter by Enumeration**, as shown in the following figure.
4. Manually enter the field names or select the city names from the list.
5. After you have specified the fields, click **OK**.
6. Click **Update**. The system automatically redraws the chart based on the filters.

#### Filter numerical data

You can specify filtering criteria in the filter. For example, you can specify the order number with a value between 50 thousand and 100 thousand. In this case, the chart displays data based on your specified range.

##### Take filtering profit amount as an example.

1. Drag the **profit amount** field to the **Filter Bar** area.
2. Click the **Set Filter** icon, and set filtering criteria.
3. Select the filters as needed, such as greater than, less than, or equal to, as shown in the following figure.
4. After you have specified the fields, click **OK**.
5. Click **Update**. The system automatically redraws the chart based on the filters.

### Filter data in date type

You can use the filter feature to filter data in a specific date range. For example, you can filter the order amounts in the range from 2013 to 2015.

**Note:**

You can filter data in date type exact to seconds.

**Take filtering order dates (year) as an example.**

1. Drag the **order date (year)** field to the **Filter Bar** area. Click the **Set Filter** icon, and set filtering criteria.
2. Select the filters as needed. For example, specify the **Absolute Time** with the range from 2013 to 2015, as shown in the following figure.
3. After you have specified the fields, click **OK**.
4. Click **Update**. The system automatically redraws the chart based on the filters.

### 3.5.6 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**.

### 3.5.7 Associate multiple charts

**Note:**

The association function is enabled only if the dashboard has at least two charts.

On the **More** tab in the dashboard configuration area, associate multiple charts by performing the following steps.

1. Select a chart, such as a funnel chart.

2. Click the **More** tab.
3. The More tab displays the available charts that can be associated with the selected funnel chart, as shown in the following figure.
4. Select the same field as **Source Field** to associate this chart with the funnel chart.  
  
If the selected field is different from the source field, the system displays an error message.
5. Select **Preview > PC**. To go to the preview page.
6. Click the field that selected in Source Field in the funnel chart, the associated table chart automatically displays other data.
7. Click Unlink in the upper-right corner of the funnel chart can make the table goes back to the original status.

**Note:**

The Unlink function only restored the chart to its original condition.

### 3.5.8 Common widgets

The dashboard display area supports the following widgets.

- Filter Bar
- Text Area
- IFrame
- TAB
- Image

#### Filter Bar

You can select the **Filter Bar** to query data in one or multiple charts.

1. Double-click **Filter Bar** icon.
2. Select a dataset and query fields. See the following figure.

Currently, the Filter Bar supports Single-Dataset association and Multi-Dataset association.

#### Example of Single-Dataset

1. Select **Single-Dataset** and select charts that query fields can be applied. See the following figure.

2. Click **Style** to edit the Filter bar title.

3. Click **Search** to query data.

### Example of Multi-Dataset

The Filter Bar can also associate data from different datasets. Make sure that the values of data members of association items are consistent. Otherwise, the association is invalid.

1. Select a chart, such as Table.

2. Drag or double-click the expected fields and then click **Update**.

3. Click **Style** tab to modify table label and its layout. For example, set table label as **Overseas Report**.

4. Click dataset switch icon to switch to another dataset.

5. Select a chart, such as Table.

6. Drag or double-click the expected fields and then click **Update**.

7. Click **Style** tab to modify table label and its layout. For example, set table label as **Domestic Report**.

8. Double-click **Filter Bar** and select dataset and expected fields.

9. Click **Multi-Dataset** and select associated items according to the field types.

10. Click **Style** tab and modify the filter bar label.

11. Click **Search**. The charts automatically update.

### Query data based on days

1. On the **Data** tab, select a dataset and a query field, for example, report\_date (day).

2. Select a chart, which is expected to be applied.

3. Click field in Filter Bar, and then the filtering tab is displayed on the right, as shown in the following figure.

4. Select a date range, as shown in the following figure.

The detailed time range for a month is automatically displayed, as shown in the following figure.

5. Click **Search** to query the date.

### Query data based on text

1. On the **Data** tab, select a dataset and a query field, for example, Product\_box.
2. Select a chart.
3. Click field in Filter Bar, then the text filtering tab is displayed on the right, as shown in the following figure.
4. Click **Enum**. The system automatically loads all available options of Product\_Box to the Filter Bar.
5. Select an option from the Product\_Box drop-down list, such as Paper Bag. See the following figure.
6. Click **Search**. The chart automatically update.

### Text area

You can enter fixed text in a text area and use the text as a report title.

1. Double-click **Text Area**.
2. Enter text in the text area based on your requirements.

### IFrame

IFrame enables you to insert an expected webpage in a dashboard to query network data in real time or to browse the webpage or website related to the current data.

1. Double-click **IFrame** icon.
2. In the link area, enter a webpage address based on your needs or preferences.



#### Note:

Webpage addresses must start with https.

### TAB

The TAB feature enables multiple charts to be displayed in different tabs.

1. Double-click TAB icon.
2. In the TAB editing menu, you can add or delete the number of tabs based on chart requirements. See the following figure.

3. Click a tab and insert a chart in it. For example, click the TAB1, the color of TAB1 is marked as blue.
4. Double-click the expected chart type icon. A chart is automatically inserted in TAB.
5. Create the chart by following the chart creation process.

### Image

1. Double-click **Image** icon.
2. Enter an image link.
3. Set a display style of image, as shown in the following figure.

## 3.5.9 Standard mode

In standard mode, you can perform the following operations in the display area of a dashboard.

- Change chart position
- View chart data
- Delete chart
- Change chart type
- Add to favorites
- Configure settings

If you are using a Quick BI dashboard for the first time, a wizard will appear in the display area to guide you through the dashboard features. Follow the instructions in the wizard to learn how to create a dashboard.

### More

In the top-right corner, click **More** to perform the following operations on a chart.

- View Data: view the data of this chart.
- Export: export the data of this chart with the Excel format.
- Delete: delete the chart.

### Change chart type

You can change the type of a chart that appears in the display area.

Select a chart in the display area of a dashboard. Then, in the top-right corner, click Change chart type to select a chart type you want to change to.

1. Select a chart in the display area of a dashboard.
2. Click **Change chart type** as shown in the following figure. For example, you can change a pie chart to a **radar** chart as shown in the following figure.
3. The chart changes to the new type.

If a chart fails to change types, it is because the data fields of the selected chart type do not match those of the current chart data. You must modify these fields manually to change the chart type.

You will be prompted to modify some fields based on the selected chart type. To change chart types, follow the instructions on the screen to add appropriate dimensions or measures to the corresponding area.

### Add to favorites

At the top of the display area of a dashboard, click the **star** icon to collect the current dashboard.

### Configure settings

Click **Settings** to download the current dashboard or show a watermark, as shown in the following figure.

## 3.5.10 Fullscreen mode

In the fullscreen mode, you can perform the following operations in the display area of a dashboard.

- Change chart position
- Add a subscreen
- View chart data
- Delete chart
- Change chart type
- Configure settings

### Change chart position

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

### Add a subscreen

1. Click the plus icon in the lower-right corner as shown in the following figure.
2. In a subscreen, you can add a chart as shown in the following figure.
3. Click the **dot** 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 a chart.
3. Select **View Data**.
4. Click the **Export** button in the Data Info dialog box to download data to your local disk.

### Delete chart

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

### Change chart type

1. Select a chart in the display area of a dashboard.
2. In the configuration area of a dashboard, click Change chart type.
3. Select a chart type that you want to change to.

A chart may fail to change types. This issue occurs when data fields of the selected chart type do not match those of the current chart data. You must modify these fields manually to change the chart type.

You are required to modify some data fields based on the selected chart type. To change chart types, follow the instructions on the screen to change corresponding dimensions and measures.



## Configure settings

Click **Page setting** to change the page scale, skin setting, theme, time interval to update data, and the time interval of carousel set.

## 3.6 Create charts

### 3.6.1 Line charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create a line chart. If you want to edit a dataset or create a dataset, see [Create a dataset](#).

A line chart displays information as a series of data points connected by straight line segments. You can use a line chart to analyze and visualize a trend in data over equal intervals of time. In addition, you can use a line chart to analyze the correlation between multiple groups of data that changes over time. For example, you can analyze the sales volume of a group of products or multiple groups of products that change over time to obtain a forecast of sales trends.

A line chart consists of the category axis and the value axis. The category axis appears as a horizontal axis and oriented to the right. You can only add dimensions to the category axis such as date, province, and product\_type. The value axis appears as a vertical axis and oriented upwards. You must add measures to the value axis such as metrics for analyzing objects including order\_amt.

In a dashboard, fields have been automatically sorted into dimensions and measures as shown in the following figure. When you create a line chart, you can drag fields from the **Dimensions** list and the **Measures** list to the corresponding category axis and value axis as required.

## Precautions

Select at least one dimension on the category axis and select at least one measure on the value axis. The Colors (Dimensions) area can take only one dimension at most.



### Note:

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

The following scenario is based on the company\_sales\_record dataset.

**Scenario: Visualize the number of orders and price for each product category.**

1. Log on to the Quick BI console.
2. Click **Datasets** to enter the Datasets page.
3. Click the **Create Dashboard** icon on the right side of the company\_sales\_record dataset.
4. Click the **Line** icon, a line chart appears in the display area of the dashboard.
5. Select required dimensions and measures.

On the Dimension list, drag **product\_type** to the Category Axis (Dimensions) area. On the Measures list, drag **order\_amt** and **price** to the Value Axis (Measures) area in turn as shown in the following figure.

**Note:**

You must ensure that you have changed the province field from the string type to the location type. For more information about how to change data types of a dimension, see [#unique\\_57](#).

6. On the **Style** tab, you can change some items such as the title, layout, legend, and axis format of a chart.

**Note:**

For more information about the **Style** tab, see [#unique\\_66](#).

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

If you want to delete the current chart, click More in the upper-right corner of the chart and select **Delete** to delete the current chart.

### 3.6.2 Area charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create an area chart. If you want to edit a dataset or create a dataset, see [Create a dataset](#).

An area chart displays graphically quantitative data. You can use an area chart to analyze and visualize a trend in data over identical intervals of time. In addition, you can use an area chart to analyze the interactions between multiple groups of data that changes over time. For example , you can analyze the sales volume of a group of products or multiple groups of products that change over time to obtain a forecast of sales trends.

An area chart consists of the category axis and the value axis. The category axis is depicted as horizontal and oriented to the right. You can only add dimensions to the category axis such as date, province, and product\_type. The value axis is depicted as vertical and oriented upwards

. You can only add measures to the value axis such as metrics for analyzing objects including order\_amt.

In a dashboard, fields have been automatically grouped into dimensions and measures as the following figure shows. When you create a line chart, you can drag fields from the Dimensions list and the Measures list to the corresponding category axis and value axis as required.

## Precautions

You can set at least one dimension for the category axis, and set at least one measure for the value axis. The Colors field can take only one dimension.



### Note:

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

The following scenario uses the company\_sales\_record dataset.

**Scenario: Visualize the number of orders for each product type of each province.**

1. Log on to the Quick BI console.
2. Click **Datasets** to enter the Datasets page.
3. Click the **Create Dashboard** icon next to the company\_sales\_record dataset.
4. Click the **Area** icon, an area chart appears in the display area of the dashboard.
5. Select required dimensions and measures.

On the Dimensions list, drag the province and product\_type fields to the Category Axis (Dimensions) area in turn. On the Measures list, drag the order\_amt field to the Value Axis (Measures) area as the following figure shows.



### Note:

You must ensure that you have changed the province field from the string type to the location type. For more information about how to change data types of a dimension, see [#unique\\_57](#).

6. Drag the **product\_type** field to the Colors (Dimensions) area and click **Update**.

**Note:**

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

7. On the **Style** tab, you can change some items such as the title, layout, legend, and axis format of a chart as the following figure shows.

**Note:**

For more information about the **Style** tab, see [#unique\\_66](#).

- In General config, select **Dark** as the background color.
- In Style, select **Secondary Y Axis**.
- In Layout, select **Right** to show the legend.
- In Axis, enter **province** in the Axis title field.
- In Series settings, change the color of the **Office** field to orange.

After you complete the configuration, the chart is shown in the following figure.

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

If you want to delete the current chart, click More in the upper-right corner of the chart and select **Delete**.

### 3.6.3 Bar charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create a line chart. If you want to create a dataset or edit a dataset, see [Create a dataset](#).

A bar chart shows comparisons among discrete categories. You can use a bar chart to visualize data changes over a period of time or comparisons among discrete categories. For example, you can show the comparison of the traffic flow of vehicles over different periods of time at a crossing.

Like [#unique\\_69](#), a bar chart consists of the category axis and the value axis.

## Precautions

You can set at least one dimension for the category axis such as province and product\_type. In addition, you can set at least one measure for the value axis such as order\_amt and profit\_amt. The Colors (Dimensions) area can take only one dimension.



### Note:

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

The following scenario is based on the company\_sales\_record dataset.

### Scenario: Compare the shipping cost for different products of provinces of East China.

1. Log on to the Quick BI console.
2. Click **Datasets** to enter the Datasets page.
3. Click the **Create Dashboard** icon on the right side of the company\_sales\_record dataset.
4. Click the **Bar** icon, a bar chart appears in the display area of the dashboard.
5. On the dimensions list, drag **area** to the Filters area.

You can search for the East China area by using filters as shown in the following figure.

6. Click the **Filter** icon. Select **Filter by Enumeration** in the Set Filter dialog box that appears as shown in the following figure.
7. Select East China and click **OK**.
8. Drag **province** and **product\_type** to the Category Axis (Dimensions) area in turn.



### Note:

You must ensure that you have changed the province field from the string type to the location type.

9. On the Measures list, drag **shipping\_cost** to the Value Axis (Measures) area.
10. Drag the **product\_type** field to the Colors (Dimensions) area.



### Note:

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

11. Click **Update** to update the chart.

12. On the **Style** tab, you can change some items such as the title, layout, legend, and axis format of a chart.



**Note:**

For more information about the **Style** tab, see [#unique\\_66](#).

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

If you want to delete the current chart, click More in the top-right corner of the chart and select **Delete**.

### 3.6.4 Stripe charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create a stripe chart. If you want to edit a dataset or create a dataset, see [Create a dataset](#).

A stripe chart shows comparisons between categories. You can use a stripe chart to visualize data changes over a period of time or comparisons between categories. For example, you can show the working progress of employees in a project group.

Like [#unique\\_69](#), a stripe chart consists of the category axis and the value axis.

#### Precautions

You can set at least one dimension for the category axis such as province and product\_type. In addition, you can set at least one measure for the value axis such as order\_amt and profit\_amt. The Colors (Dimensions) area can take only one dimension.



**Note:**

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

The following scenario uses the company\_sales\_record dataset.

**Scenario: Compare shipping costs for various products of each municipality.**

1. Log on to the Quick BI console.

2. Click **Datasets** to enter the Datasets page.
3. Click **Create Dashboard** on the right side of the company\_sales\_record dataset.
4. Click the **Stripe** icon and then a stripe chart appears in the display area of a dashboard.
5. On the Dimensions list, drag **city** to the Filters area.

You can search for municipalities from cities by using filters as the following figure shows.

6. Click the **Filter** icon and select **Filter by Enumeration** in the dialog box that appears.
7. Select four municipalities from the list or enter the names of them manually, and click **OK** as the following figure shows.

8. Drag the **city** and **product\_type** fields to the Category Axis (Dimensions) area in turn.

**Note:**

You must ensure that you have changed the province field from the string type to the location type.

9. On the Measures list, drag **shipping\_cost** to the Value Axis (Measures) area.
10. Drag **product\_type** to the Colors (Dimensions) area.

**Note:**

You can add dimensions to the Colors (Dimensions) area when only one measure is added to the Value Axis (Measures) area. Otherwise, you are not allowed to add dimensions to the Colors (Dimensions) area.

11. Click **Update** to update the chart.
12. On the **Style** tab, you can change some items such as the title, layout, legend, and axis format of a chart as the following figure shows.

**Note:**

For more information about the **Style** tab, see [#unique\\_66](#).

- In General config, select **Dark** as the background color.
- In Style, select **Stacked**.
- In Layout, select **Top** to show the legend.

- In Axis, select **Display scale** on the X-Axis tab.

After you complete the configuration, the chart is shown in the following figure.

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

If you want to delete the current chart, click More in the top-right corner of the chart and select **Delete** to delete the current chart.

### 3.6.5 Pie charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create a line chart. If you want to edit a dataset or create a dataset, see [Create a dataset](#).

A pie chart shows a series of values for items in a dimension. Each item shown in a pie chart has a unique color or texture. Each sector in a pie chart represents one item in the dimension. Sector size represents the proportion of the value for the selected measure that the item represents compared to the whole dimension. For example, you can show the expenditure of five social insurances and one housing fund in proportion to the total personal income or the sales volume of a certain automobile brand in proportion to the total sales volume of all the brands.

A pie chart consists of sectors. The label of a sector is determined by a dimension such as the area field and the product\_type field. The degree of an angle is determined by a measure such as order\_amt and profit\_amt.

#### Precautions

You can set at least one dimension in which the number of different values is less than or equals to 12 for the Slice Label (Dimensions) area such as area and product\_type. In addition, you can set at least one measure for the Arc Angle (Measures) area such as order\_amt and profit\_amt.

The following scenario uses the company\_sales\_record dataset.

#### Scenario: Compare shipping costs for various areas.

1. Log on to the Quick BI console.
2. Click **Datasets** to enter the Datasets page.
3. Click the **Create Dashboard** icon on the right side of the company\_sales\_record dataset.
4. Click the Pie icon, a pie chart appears in the display area of the dashboard.
5. On the **Data** tab, select required dimensions and measures.



On the dimensions list, drag **area** to the Slice Label (Dimensions) area. On the Measures list, drag **shipping\_cost** to the Arc Angle (Measures) as shown in the following figure.

**Note:**

You must ensure that you have changed the province field from the string type to the location type.

6. Click **Update** to update the chart.
7. On the **Style** tab, you can change some items such as the title, layout, legend, and axis format of a chart.
8. Click **Save** to save the dashboard.

If you want to delete the current chart, click More in the upper-right corner of the chart and select **Delete**.

### 3.6.6 Geo bubble charts

Assume that you have read [#unique\\_50](#) and [#unique\\_46](#). This section describes how to create a line chart. If you want to edit a dataset or create a dataset, see [Create a dataset](#).

A geo bubble chart is a map of a country or an area that is attached with bubbles to represent the amount of data. You can use a geo bubble chart to graphically display metrics for each country or area and the distribution of these countries or areas. For example, you can show the traffic flow of tourists for each tourist attraction or show the per capita income for each area.

A geo bubble chart consists of locations and bubbles of different sizes. Locations are determined by a dimension such as the province field and the size of bubbles are determined by a measure such as shipping\_cost and order\_amt.

#### Precautions

You can set up to one dimension and the dimension type must be geographic information, such as area, province, and city. In addition, the bubble size area can be set from one to five measures.

The following scenario uses the company\_sales\_record dataset.

**Scenario: Compare the number of orders and the amount of profit for each province.**

1. Log on to the Quick BI console.
2. Click **Datasets** to enter the Datasets page.

3. Click the **Create Dashboard** icon on the right side of the company\_sales\_record dataset.
4. Click the Geo Bubble icon and a geo bubble chart appears in the display area of a dashboard.
5. On the **Data** tab, select the required dimensions and measures.

On the Dimensions list, drag **province** to the Location (Dimension) area. On the Measures list, drag **order\_amt** and **profit\_amt** to the Bubble Size (Measures) area in turn as shown in the following figure.

**Note:**

Ensure that you have changed the province field from the string type to the location type.

6. Click **Update** to update the chart.
7. On the **Style** tab, you can change some items such as the title, layout, and legend of a chart.
8. Click **Save** to save the dashboard.

If you want to delete the current chart, click More in the upper-right corner of the chart and select **Delete** to delete the current chart.

### 3.6.7 Geomap

This section describes how to create a geomap. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [#unique\\_74](#), geomaps use the gradation of color to reflect data values and distribution.

A geomap is a geographical map with colors assigned to specific regions. Regions are determined by data dimensions, such as province. Colors are determined by data measures, such as order amount and profit amount.

**Note**

For each geomap, one dimension must be specified to determine the regions. This dimension must be about geographic information. One to five measures can be specified to determine the colors of regions.

The following scenario uses the company\_sales\_record dataset as an example.

**Scenario: Compare the transportation costs, orders amounts, and profits across multiple areas**

1. Log on to the Quick BI console.

2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the Geomap icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measures.

In the Dimensions list, select **Area** and add it to Location. In the Measures list, select **Order Amount**, **Profit Amount**, and **Transportation Cost**, and add them to Color Scale, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Area from String to Location.

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title of the diagram, the legend, and the value range of each color.
8. Click the **Save** icon to save the dashboard.

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.8 Table

This section describes how to create a table. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A table can be used to display the distribution and total of specific variables. One variable defines the values in the header row and the other variable defines the values in the header column. The intersections of rows and columns contain the results of calculations on the data, such as the sum, average, maximum, minimum, or count of the data.

A table consists of rows and columns. Rows are determined by data dimensions, such as province and product type. Columns are determined by data measures, such as order quantity and profit amount.

**Note**

For each table, the numbers of dimensions and measures are unlimited.

The following scenario uses the `company_sales_record` dataset as an example.

**Scenario: Compare multiple types of products with different package designs, transportation costs, order quantities, and profit amounts across multiple provinces**

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the table icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data dimensions and data measures.

In the Dimensions list, select **province**, **Product\_type**, and **Product\_box**, and add them sequentially to Row. In the Measures list, select **order\_amt**, **shipping\_cost**, and **average\_profit**, and add them sequentially to Column, as shown in the following figure:



**Note:**

Make sure you have changed the data type of Province from String to Location.

6. Click **Update** to generate the table.
7. In the **Style** tab, you can change the title, layout, style, and rules of the table.

In the **Rules** section, you can change the style of the data so that viewers can quickly find important data. For example, change the font color, add marks to specific data, or highlight cells based on custom rules.

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

To delete the table, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.9 Gauge

This section describes how to create a gauge. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to the dashboard in your car, a gauge clearly displays the range of a metric. You can view the progress of the current task or if a metric will exceed its range. For example, you can use a gauge to show the inventory status of an item and replenish the item accordingly.

A gauge displays the value of a metric using a pointer that moves along a scale. The angle of the pointer is determined by a data measure, such as discount or profit amount.

## Note

For each gauge, one and only one measure must be specified to determine the angle of the pointer.

The following scenario uses the `company_sales_record` dataset as an example.

### Scenario: Use a gauge to display order amounts

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the **Gauge** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data measure.



#### Note:

The system automatically adjusts the angle of the pointer and the text displayed in the tooltip.

In the Measures list, select **order\_amt** and add it to indicator angle area or tooltip area, as shown in the following figure:

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title, layout, and tooltip of the diagram and hide the scale.
  - General Configuration: Specify the main title of the diagram, the font color, and the background color.
  - Layout: Specify whether to hide the legend.
  - Color Ranges: Configure subranges.
  - Series Setting: Specify the alias of the metric and the number of decimal places to keep for the metric value.
8. In the **Color Ranges** section, click **Add** to add a subrange and enter the start and end values of this range.

For example, you can set the start value to 100 and end value to 1000. The title of the subrange can be set to Net Profit, as shown in the following figure:

9. Click **Update** and the subrange appears in the gauge.
10. Click the **Save** icon to save the dashboard.

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.10 Radar chart

This section describes how to create a radar chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Radar charts can be used to compare multiple variables under different metrics. You can easily understand the distribution of metrics across different variables. For example, you can use a radar chart to compare sales across multiple areas.

A radar chart consists of a sequence of radius labels with varying radius. Radius labels are determined by data dimensions, such as product type. Radius are determined by data measures, such as transportation cost.

#### Note

For each radar chart, one or two dimensions can be specified to determine radius labels. The specified dimensions must contain 3 to 12 variables. At least one measure must be specified to determine Radius.

The following scenario uses the `company_sales_record` dataset as an example.

#### Scenario: Compare the order quantities and order amounts across areas

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the Radar icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data dimensions and data measures.

In the Dimensions list, select **area** and add it to radius label. In the Measures list, select **order\_number** and **order\_amt**, and add them sequentially to radius, as shown in the following figure:



#### Note:

Make sure you have changed the data type of Area from String to Location.

6. Click **Update** to generate the chart.

7. In the **Style** tab, you can change the title, layout, and legend of the chart as follows:
8. Click the **Save** icon to save the dashboard.

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.11 Scatter chart

This section describes how to create a scatter chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Scatter charts display the distribution and correlation of data.

Scatter charts use the X and Y axes to plot data points. The colors of data points are determined by data dimensions, such as product type. The X and Y axes are determined by data measures.

#### Notes

For each scatter chart, one dimension must be specified to determine the colors of data points. This dimension may contain up to 1,000 variables.

One to three data measures can be specified for the X axis.

One data measure can be specified for the Y axis.

The following scenario uses the company\_sales\_record dataset as an example.

#### Scenario: Compare the unit prices and order amounts of different products

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the company\_sales\_record dataset and click **Create Dashboard**.
4. Click the Scatter Chart icon and the corresponding information is displayed.
5. Click the **Data** tab to select the data dimension and data measures.

In the Dimensions list, select **product\_type** and add it to Color. In the Measures list, select **price** and **order\_number**, and add them to the Y axis and X axis respectively, as shown in the following figure:

6. Click **Update** to generate the chart.
7. In the **Style** tab, you can change the title, layout, and legend of the chart.
8. Click the **Save** icon to save the dashboard.

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

## 3.6.12 Funnel chart

This section describes how to create a funnel chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Funnel charts are suitable for analyzing business processes that involve a sequence of activities and span a long period of time. By comparing the business data between different stages, you can easily identify potential problems in the business process. Funnel charts can be used to show the conversion rates between stages of the business process. For example, you can see the percentage of visitors who became paying customers in a funnel chart easily.

A funnel chart consists of a number of tiers with varying labels and widths. The labels of tiers are determined by data dimensions, such as area. The widths of tiers are determined by data measures, such as order amount.

### Note

For each funnel chart, one and only one dimension must be specified to determine the labels of tiers. One and only one measure must be specified to determine the widths of tiers.

The following scenario uses the `company_sales_record` dataset as an example.

### Scenario: Compare the order amounts across multiple areas

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the Funnel Chart icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measure.

In the Dimensions list, select **area** and add it to Tier Labels. In the Measures list, select **order\_amt** and add it to Tier Area, as shown in the following figure:

6. Click **Update** to generate the chart.
7. In the **Style** tab, you can change the title, layout, and legend of the chart.
  - General Configuration: Specify the main title of the chart, the font color, and the background color.



- Layout: Change the position of the legend.
- Measure: Change the style of the measure and specify the number of decimal places to keep for the value.
- Tier: Specify the color of tiers.

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

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.13 Card chart

This section describes how to create a card chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A card chart displays business data or sales performance, which enables you to visually gain insight into the business environment and quickly make strategic adjustments to optimize sales processes. It offers an effective and direct solution to discover and fix problems.

A card chart consists of a sequence of cards with multiple labels and metrics. Labels are determined by data dimensions, such as area. Metrics are determined by data measures, such as order quantity and order amount.

#### Note

For each card chart, one and only one dimension must be specified to determine labels. 1 to 10 measures can be specified to determine metrics.

The following scenario uses the company\_sales\_record dataset as an example.

#### Scenario: Compare the order quantities, order amounts, transportation costs, and profit amounts across multiple provinces

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the company\_sales\_record dataset and click **Create Dashboard**.
4. Click the **Card Chart** icon, and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measures.

In the Dimensions list, select **province** and add it to Card Labels. In the Measures list, select **order\_number**, **order\_amt**, **shipping\_cost**, and **profit\_amt**, and add them to Card Metrics, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Province from String to Location.

6. Click **Update** to generate the chart.

7. In the **Style** tab, you can change the title and style of the chart, and the number of cards in each row.

- General Configuration: Specify the main title of the chart, the font color, and the background color.
- Card Setting: Specify the template and style of the card.
- Series Setting: Specify the alias of the metric and the number of decimal places to keep for the metric value.

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

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.14 TreeMap

This section describes how to create a treemap. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Treemaps can be used to compare the proportions between variables easily.

A treemap consists of nested rectangles of multiple different sizes and labels. The labels of rectangles are determined by data dimensions, such as package design. The sizes of rectangles are determined by data measures, such as transportation cost.

#### Note

For each treemap, one and only one dimension can be specified to determine the labels of rectangles. This dimension can have a maximum of 12 dimension values. One and only measure can be specified to determine the sizes of rectangles.

The following scenario uses the company\_sales\_record dataset as an example.

#### Scenario: Compare the order quantities of different products

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.

3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the TreeMap icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measure.

In the Dimensions list, select **Product\_type** and add it to Rectangle Label. In the Measures list, select **order\_number** and add it to Rectangle Size, as shown in the following figure:

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and legend of the treemap.
8. Click the **Save** icon to save the dashboard.

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.15 Polar chart

This section describes how to create a polar chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A polar chart can be used to display data changes over time or compare metric values. It is suitable for enumeration. For example, compare data across different regions.

Similar to [#unique\\_83](#), a polar chart consists of sectors of varying slice labels and arc radiuses. Slice labels are determined by data dimensions, such as area and product type. Arc radiuses are determined by data measures, such as order quantity and order amount.

#### Note

For each polar chart, one and only one dimension must be specified to determine slice labels. This dimension must contain 3 to 12 variables. One and only one measure must be specified to determine arc radiuses.

The following scenario uses the `company_sales_record` dataset as an example.

#### Scenario: Compare the order quantities across multiple areas

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the Polar Chart icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measure.

In the Dimensions list, select **area** and add it to Slice Label. In the Measures list, select **order\_number** and add it to Arc Radius, as shown in the following figure:

**Note:**

Make sure you have changed the data type of area from String to Location.

6. Click **Update** to generate the chart.
7. In the **Style** tab, you can change the title and legend of the chart, the style of the metric values.
8. Click the **Save** icon to save the dashboard.

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.16 Word cloud

This section describes how to create a word cloud. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A word cloud displays the frequency of words clearly. It is suitable for creating user personas and user tags.

A word cloud consists of words of varying sizes. Labels are determined by data dimensions, such as customer name and product name. Metrics are determined by data measures, such as profit amount and unit price.

**Note**

For each word cloud, one and only one dimension must be specified to determine labels. One and only one measure must be specified to determine metrics.

The following scenario uses the company\_sales\_record dataset as an example.

**Scenario: Compare the order quantities across different provinces**

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the company\_sales\_record dataset and click **Create Dashboard**.
4. Click the Word Cloud icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measure.

In the Dimensions list, select **province** and add it to Word. In the Measures list, select **order\_number** and add it to Word Size, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Province from String to Location.

6. Click **Update** to generate the chart.
7. In the **Style** tab, you can change the title of the chart.
8. Click the **Save** icon to save the dashboard.

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.17 Tornado Chart

This section describes how to create a tornado chart. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A tornado chart is the combination of a tornado diagram and a funnel chart. Tornado diagrams can be used to compare different contrast indicators between two objects, for example, the income and education levels between residents in two cities. Funnel charts can be used to show the conversion rates between stages of the business process and are suitable for business process analysis. You can see the percentage of visitors who turned into paying customers in a funnel chart easily.

A tornado chart combines the features of tornado diagrams and funnel charts. For example, when you compare the percentage of the migrant population, employment rate, and commercial housing transactions in Beijing and Shanghai, if a conversion relation exists between two items, the tornado chart can show the difference between multiple contrast indicators, and also display the conversion rates between comparisons.

If no conversion relation exists, the diagram functions the same as a tornado diagram. If a conversion relation exists between two comparisons and only one contrast indicator is defined, the diagram functions the same as a funnel chart.

A tornado chart consists of a comparison and multiple contrast indicators. Comparisons are determined by data dimensions, such as area and product type. Contrast indicators are determined by data measures, such as order quantity and order amount.

## Note

For each tornado chart, one and only one dimension must be specified to determine the comparison. At least one measure must be specified to determine contrast indicators.

The following scenario uses the `company_sales_record` dataset as an example.

**Scenario: Compare the order quantities, profits, and average profits of different types of products.**

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the tornado chart icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measures.

In the Dimensions list, select **Product\_type** and add it to Comparison. In the Measures list, select **order\_number**, **profit\_amt**, and **average\_profit**, and add them sequentially to contrast indicator, as shown in the following figure:

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and layout of the diagram and hide the conversion rate.
  - tornado charts offer two types of layouts. You can also change the layout based on your habits.
  - You can also change the position of the legend, adjust the color scheme of the diagram, and hide the conversion rates.
8. Click the **Save** icon to save the dashboard.

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

## 3.6.18 Hierarchy chart

This section describes how to create a hierarchy. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A hierarchy uses the tree structure to display and organize hierarchical data. It is an implementation of the enumeration method. For example, when reviewing the revenues of the prefecture-

level cities in one province, the relationships between the province and prefecture-level cities can be displayed as parent-child structures. Hierarchys are used for analyzing hierarchical data and creating staff organization charts and department organization charts.

A hierarchy contains a sequence of nodes with different labels and metrics. Each node label is determined by data dimensions, such as area and product type. Each node metric is determined by data measures, such as order quantity and order amount.

## Note

For each hierarchy, at least two dimensions must be specified to determine node labels. These two dimensions should have a parent-child relationship. At least one measure must be specified to determine the node metric.

The following scenario uses the `company_sales_record` dataset as an example.

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

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the hierarchy icon and the corresponding information is displayed.
5. Click the **Data** tab to select data dimensions and data measure.

In the Dimensions list, select **Area**, **Province**, and **Product Type**, and add them sequentially to Node Label. This order determines their hierarchical relationships in the diagram. In the Measures list, select **Order Quantity** and add it to Node Metric, as shown in the following figure:



#### Note:

Make sure you have changed the data type of Area and Province from String to Location.

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title, layout, and design of the diagram.
  - Hierarchys support three types of layouts. You can also change the style of tree nodes based on your habits. The root nodes are merged together by default.
  - You can edit the levels of hierarchy in the menu bar and manually enter the number of levels. You can specify a primary path based on the field information so that the primary

path has a different color to other paths. You can also add a toolbar to the diagram so that you can easily edit the diagram in preview or through the dashboard.

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

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.19 Conversion path

This section describes how to create a conversion path. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A conversion path uses metrics such as page visits, page views (PVs) and unique visitors (UVs) to calculate the conversion rates on your website. This helps you understand the overall performance of marketing campaigns and measure the sales volume of certain products. Conversion paths are suitable for analyzing digital marketing campaigns and e-commerce websites. For example, you can use conversion paths to find out which products are in great demand and what are the peak hours of your business.

Currently, conversion paths support the following three dimensions: previous page, current page, and next page, and include the following measures: PV, UV, conversion rate, and bounce rate. You need to specify the PVs or UVs for all three pages.

#### Note

For each conversion path, one and only one dimension must be specified for each of the three pages. The dimensions must have hierarchical relationship. The order of the dimensions determines the hierarchical relationship in the diagram. One and only one measure must be specified for each of the three PVs or UVs, the conversion rate, and the bounce rate.

The three dimensions, the conversion rate, and the bounce rate are required fields. You can choose to specify only the PVs or UVs for all three pages. Error messages are shown if fields are incorrectly specified when adding the dimensions and measures.

The following uses the `page_source_target_state` dataset as an example.

#### Scenario: Use PVs to demonstrate the conversion and bounce rates on different pages

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `page_source_target_state` dataset and click **Create Dashboard**.



4. Click the Conversion Path icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data dimensions and data measures.

In the Dimensions list, select the **Previous Page**, **Current Page**, and **Next Page**, and add them to the corresponding fields. This order determines the hierarchical relationship between pages in the diagram. In the Measures list, select the **Conversion Rate** and **Bounce Rate**, and add them to the corresponding fields. You also need to select three PVs or UVs for the corresponding pages.

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and layout of the diagram.

The conversion path provides three layouts and allows you to highlight the main path or popup windows.

8. Click the **Save** icon to save the diagram.

To delete the diagram, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.

### 3.6.20 LBS thermal map

**Note:**

LBS thermal maps are only available to **Quick BI Pro** users.

This section describes how to create an LBS thermal map. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [#unique\\_89](#), LBS thermal maps use the gradation of color to reflect data distribution across regions.

An LBS thermal map consists of geographic regions with different colors. Regions are determined by data dimensions, or the latitude and longitude values of the location, such as province. Colors are determined by data measures, such as order amount and profits.

**Note**

For each LBS thermal map, one and only one dimension must be specified to determine the regions. This dimension must be about geographic information. One to five measures can be specified to determine the colors of regions.

The following scenario uses the company\_sales\_record dataset as an example.

**Scenario: Compare the transportation costs and order quantities across provinces**

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

**Note:**

If you are using the **Professional** edition, you need to select between the **Standard Mode** and **Full Screen Mode**. The following example uses the **Standard Mode**.

4. Click the **LBS thermal map** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and measures.

In the Dimensions list, select **province** and add it to Geographical area/Latitude and longitude.

In the Measures list, select **order\_amt** and **shipping\_cost**, and add them to LBS Thermal depth, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Province from String to Location.

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and layout of the diagram and the style of specific fields.
  - In the **Layout** section, you can set the basemap to **Google Maps** and the updated diagram is as follows:

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

In the upper right corner, select **More > > Delete** to delete the diagram.

For more information about the administrative regions of China, see [Administrative regions of China](#).

### 3.6.21 LBS bubble map

**Note:**

LBS bubble map is only applied to **Quick BI Professional Edition**.

This section describes how to create an LBS bubble map. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [#unique\\_74](#), an LBS bubble map is a map that uses the sizes of bubbles distributed across the map to reflect data. It provides multiple basemaps 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 consists of geographic regions with bubbles of varying sizes. Regions are determined by data dimensions, such as province. LBS bubble sizes are determined by data measures, such as transportation cost and order quantity.

#### Note

For each LBS bubble map, you must only specify one dimension to determine the regions. This dimension must be about geographic information, such as area, province, and city. One to five measures can be specified to determine LBS bubble sizes.

The following scenario uses the `company_sales_record` dataset as an example.

#### Scenario: Compare the order amounts and profit amounts across provinces

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



#### Note:

If you are using the **Professional** edition, you need to select between the **Standard Mode** and **Full Screen Mode**. The following example uses the **Standard Mode**.

4. Click the **LBS Bubble Map** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select the data dimension and data measures.

In the Dimensions list, select **province** and add it to Location. In the Measures list, select **order\_number** and **profit\_amt**, and add them to LBS bubble size, as shown in the following figure:

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and layout of the diagram and the style of specific fields.
  - In the **Layout** section, you can change the basemap, resize the map, and adjust the coordinates of the longitude and latitude. For example, when the basemap is set to **GeoQ**, the updated diagram is as follows:
  - In the **Series Settings** section, you can change the number of **decimal places** of order amounts to 2. The updated diagram is as follows:
8. Click the **Save** icon to save the dashboard.

In the upper-right corner, select **More > > Delete** to delete the diagram.

### 3.6.22 LBS flying line map



**Note:**

LBS flying line map is only applied to **Quick BI Professional Edition**.

This section describes how to create an LBS flying line map. For more information, see [Dashboard overview](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

An LBS flying line map is a map that uses LBS flying line metrics to display the relations between data across two or more geographic regions.

An LBS flying line map consists of geographic regions connected with LBS flying line metrics. Regions are determined by data dimensions, such as province and city. LBS flying line metrics are determined by data measures, such as transportation cost and order quantity.

**Note**

For each LBS flying line map, two dimensions must be specified to determine regions. This dimension must be about geographic information, such as area, province, and city. One and only one measure must be specified to determine LBS flying line metrics.

The following scenario uses the `company_sales_record` dataset as an example.

**Scenario: Display the costs of transportation from areas to provinces**

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

**Note:**

If you are using the **Pro** edition, you need to select between the **Standard Mode** and **Full Screen Mode**. The following example uses the **Standard Mode**.

4. Click the **LBS flying line map** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data dimensions and data measure.

In the Dimensions list, select **area** and add it to Geographic area/Latitude and longitude (from). Select **province** and add it to Geographical area/Latitude and longitude (to). In the Measures list, select **shipping\_cost** and add it to LBS flying line metric, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Area and Province from String to Location.

6. Click **Update** to generate the diagram.
7. In the **Style** tab, you can change the title and layout of the diagram, and change series settings as follows:

In the **Layout** section, you can set the **basemap** to **AMAP** and move the **Legend** to the bottom of the map. The updated diagram is as follows:

**Note:**

A dot is moving along each LBS flying line metric to indicate the direction of traffic. You can set **Time** to adjust its speed. A greater value indicates a lower speed.

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

To delete the diagram, move the mouse to the upper-right corner and click **More > Delete** in the toolbar that appears.

### 3.6.23 Pivot table

**Note:**

Pivot tables are only applied to **Quick BI Professional Edition**.

This section describes how to create a pivot table. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A pivot table can be used to display the summary statistics of variables and allows you to drill into data in a tree structure. One variable defines the values in the header row and the other variable defines the values in the header column. The intersections of rows and columns contain the results of calculations on the data, such as the sum, average, maximum, minimum, or count of the data.

Similar to [#unique\\_94](#), a pivot table consists of rows and columns. Rows are determined by data dimensions, such as province and product type. Columns are determined by data measures, such as order quantity and profit amount.

**Note**

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

The following scenario uses the company\_sales\_record dataset as an example.

**Scenario: Compare multiple types of products with different package designs, order quantities, and order amounts across multiple provinces**

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the company\_sales\_record dataset and click **Create Dashboard**.
  - If you are using the **Professional Edition**, you need to select between the **Standard Mode** and **Full Screen Mode**. The following scenario uses the **Standard Mode** as an example.
4. Click the **Pivot Table** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data dimensions and data measures.

In the Dimensions list, select **province**, **product\_type**, and **product\_box**, and add them sequentially to Row. In the Measures list, select **order\_number** and **order\_amt**, and add them sequentially to Column, as shown in the following figure:

**Note:**

Make sure you have changed the data type of Province from String to Location.

6. Click **Update** to generate the table.

7. In the **Style** tab, you can change the title, layout, and style of the table as follows:

- In the **Layout** section, select **Show Row Numbers** and **Add Summary Statistics**. The updated table is as follows:
- In the **Set Format** section, set the number of decimal places of `order_amt` to 1. The updated table is as follows:

8. Click the **Plus** sign ahead of a value to drill into the data in a tree structure.

For example, when you click the plus sign ahead of **Shanghai**, data about product types and packet designs are displayed in a tree structure.

9. Click the **Save** icon to save the dashboard.

In the upper-right corner, select **More > Delete** to delete the table.

### 3.6.24 Progress bar

This section describes how to create a progress bar. For more information, see [#unique\\_50](#) and [#unique\\_46](#). If you need to edit or create datasets, see [Create a dataset](#).

A progress bar displays the progress of the current task.

A progress bar consists of multiple progress metrics. Progress metrics are determined by data measures, such as order quantity.

#### Note

- For each progress bar, one to five measures can be specified to determine the progress metrics.
- To use progress bars, you need to click **Style > Series Setting** to specify the maximum and minimum values of progress metrics.

The following scenario uses the `company_sales_record` dataset as an example.

**Scenario: Use a progress bar to display the order quantity**

1. Log on to the Quick BI console.
2. Click **Datasets** to open the dataset management page.
3. Select the `company_sales_record` dataset and click **Create Dashboard**.
4. Click the **Progress bar** icon and the corresponding legend is displayed.
5. Click the **Data** tab to select data measures.

In the Measures list, select **order\_number** and add it to Progress indicator/Measure, as shown in the following figure:

6. Click **Update** to generate the chart.
7. In the **Style** tab, you can change the title and legend of the diagram, and set an alias for the metric, as follows.
8. Click the **Save** icon to save the dashboard.

To delete the chart, move the mouse to the upper-right corner and click **Delete** in the toolbar that appears.