

# Alibaba Cloud Quick BI User Guide

Issue: 20190419

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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>Notice:</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 Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
<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 <i>Instance_ID</i></code>
[ ] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

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



# Contents

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Legal disclaimer.....	I
Generic conventions.....	I
<b>1 Organization management.....</b>	<b>1</b>
1.1 Manage the organization.....	1
1.1.1 Basic concepts about organization management.....	1
1.1.2 Create an organization.....	2
1.1.3 Modify the information of an organization.....	2
1.1.4 View the workspaces that a member belongs to.....	3
1.1.5 Edit the information of a member.....	4
1.1.6 Add members to an organization.....	5
Add members by the Alibaba Cloud accounts.....	5
Add members through RAM users.....	6
Add multiple members at one time.....	7
1.1.7 Search for the members of an organization.....	7
1.1.8 Remove the members of an organization.....	8
1.2 Manage workspaces.....	8
1.2.1 Concepts.....	8
1.2.2 Create a workspace.....	9
1.2.3 Modify the information of a workspace.....	10
1.2.4 Set a default workspace.....	11
1.2.5 Transfer a workspace.....	11
1.2.6 Leave a workspace.....	12
1.2.7 Add members to a workspace.....	13
1.2.8 Modify the roles of members in a workspace.....	17
1.2.9 Delete members from a workspace.....	18
1.2.10 Search for the members in a workspace.....	18
<b>2 Data modeling.....</b>	<b>19</b>
2.1 Overview of data modeling.....	19
2.2 Data source management.....	19
2.2.1 Data sources management overview.....	19
2.2.2 List of data sources.....	21
2.2.3 Create cloud data sources.....	21
2.2.4 Create a data source from external database.....	28
2.2.5 Upload local files.....	35
2.2.6 Synchronize data sources.....	39
2.2.7 Edit data sources.....	40
2.2.8 Delete data sources.....	40
2.3 Dataset management.....	41
2.3.1 Dataset overview.....	41
2.3.2 Create a dataset.....	41

2.3.3 Edit a dataset.....	41
2.3.4 Analyze a dataset.....	51
2.3.5 Rename datasets.....	51
2.3.6 Delete datasets.....	51
2.3.7 Search for datasets.....	52
2.3.8 Create dataset folders.....	52
2.3.9 Rename dataset folders.....	52
2.3.10 Delete dataset folders.....	52
<b>3 Create dashboards.....</b>	<b>53</b>
3.1 Dashboard overview.....	53
3.2 Dashboard basic operations.....	58
3.2.1 Basic dashboard operations.....	58
3.2.2 Switch datasets.....	59
3.2.3 Search for the dimensions field and the measures field.....	60
3.2.4 Configure a chart.....	60
3.2.5 Filter by fields.....	61
3.2.6 Sort data.....	63
3.2.7 Standard mode.....	63
3.2.8 Fullscreen mode.....	64
3.3 Common widgets.....	66
3.4 Create charts.....	73
3.4.1 Create charts in a dashboard.....	73
3.4.2 Line charts.....	75
3.4.3 Area charts.....	77
3.4.4 Bar charts.....	79
3.4.5 Stripe charts.....	80
3.4.6 Pie charts.....	83
3.4.7 Geo bubble charts.....	84
3.4.8 Geomap.....	85
3.4.9 Table.....	86
3.4.10 Pivot table.....	87
3.4.11 Gauge.....	89
3.4.12 Radar chart.....	91
3.4.13 Scatter chart.....	92
3.4.14 Funnel chart.....	93
3.4.15 Card chart.....	94
3.4.16 Treemap.....	95
3.4.17 Polar chart.....	96
3.4.18 Word cloud.....	97
3.4.19 Tornado chart.....	98
3.4.20 Hierarchy chart.....	100
3.4.21 Conversion path.....	101
3.4.22 LBS thermal map.....	103
3.4.23 LBS bubble map.....	104
3.4.24 LBS flying line map.....	106

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3.4.25 Progress bar.....	108
3.5 Share and publish a dashboard.....	109
<b>4 Create workbooks.....</b>	<b>110</b>
4.1 Workbook overview.....	110
<b>5 Privilege control.....</b>	<b>112</b>
5.1 Basic concepts of permission management.....	112
5.2 Configure menu permissions for the portals.....	113
5.3 Set a row-level permission.....	115
Example of row-level permission settings.....	119
Verify row-level permission settings.....	120
<b>6 Create a report.....</b>	<b>122</b>
6.1 Build reports.....	122
6.2 Manage files.....	123

# 1 Organization management

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## 1.1 Manage the organization

### 1.1.1 Basic concepts about organization management

Organization management is a feature provided by Quick BI Pro and Quick BI Enterprise Standard that allows you to develop data collaboratively with other members in the organization. Quick BI Pro and Quick BI Enterprise Standard are officially released. Users can upgrade Quick BI Basic to a higher Quick BI version in the Quick BI console. The system automatically creates an organization for you after the upgrade.

What is an organization?

Generally, organizations refer to small and medium-sized enterprises (SMEs), public institutions, schools, or departments of large companies.

If your organization values data security highly and data analysis needs to be performed collaboratively by more than 10 members, we recommend that you purchase Quick BI Pro. Quick BI Pro brings the following benefits:

- Members have different access permissions to reports based on the departments that they belong to.
- Members have different access permissions to a report based on their roles.

We recommend that you use Quick BI Basic if the number of users is fewer than 10.

Organization member management refers to adding Alibaba Cloud users that need to work collaboratively into the same organization.

Organization management includes:

- Managing organizational information
- Managing member information
- Managing workspaces

Only administrators of an organization have permissions to manage the members of the organization. The creator of an organization is set as an administrator by default.

The roles of members in an organization include administrator and user.

## 1.1.2 Create an organization

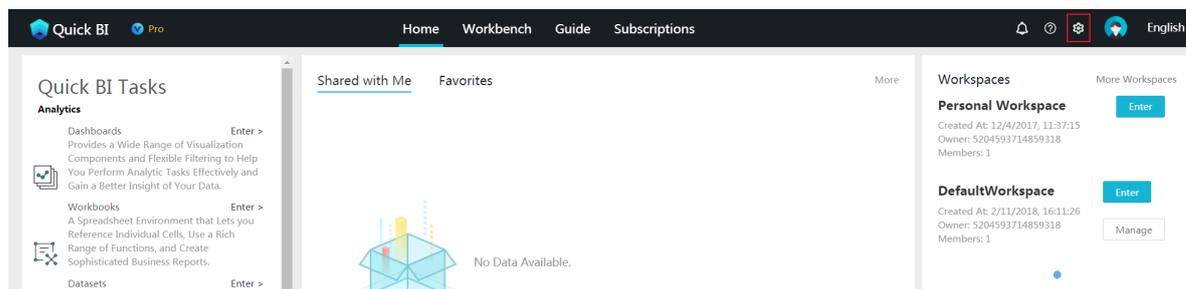
Only an Alibaba Cloud account that has not created or joined any organization is allowed to create an organization.

### Context

Each Alibaba Cloud account can only create or join a maximum of one organization.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units, and then jump to the Org Units page.



3. Click the Organization Configurations tab to jump to the Organization Configurations tab page.
4. Select the Agree check box and click Create Organization.
5. Click OK to complete the creating of the organization.

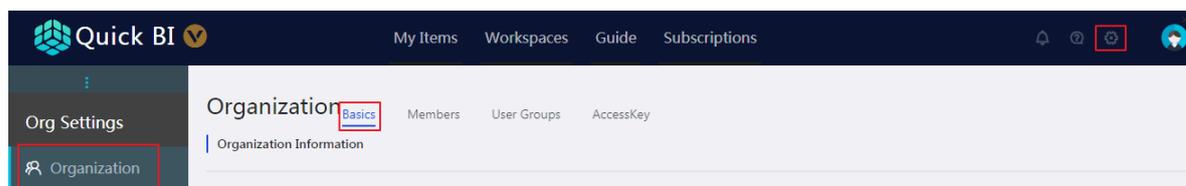
## 1.1.3 Modify the information of an organization

Administrators of an organization can modify the information of an organization.

### Context

### Procedure

1. Log on to the Quick BI console.
2. Select Settings > Organization > Basics.



3. Modify the information of the organization manually as shown in the following figure.

Organization **Basics** Members User Groups AccessKey

Organization Information

Name  Description

The name must be 1 to 50 characters in length and can contain letters, numbers, Chinese characters, underscores (\_), forward slashes (/), backslashes (\), vertical bars (|), parentheses (( )), and square brackets ([ ]).

Created At

Owner

4. Click Save to complete the modifying of the information of the organization.

### 1.1.4 View the workspaces that a member belongs to

You can view the workspaces that a member belongs to by clicking the corresponding Workspace icon.

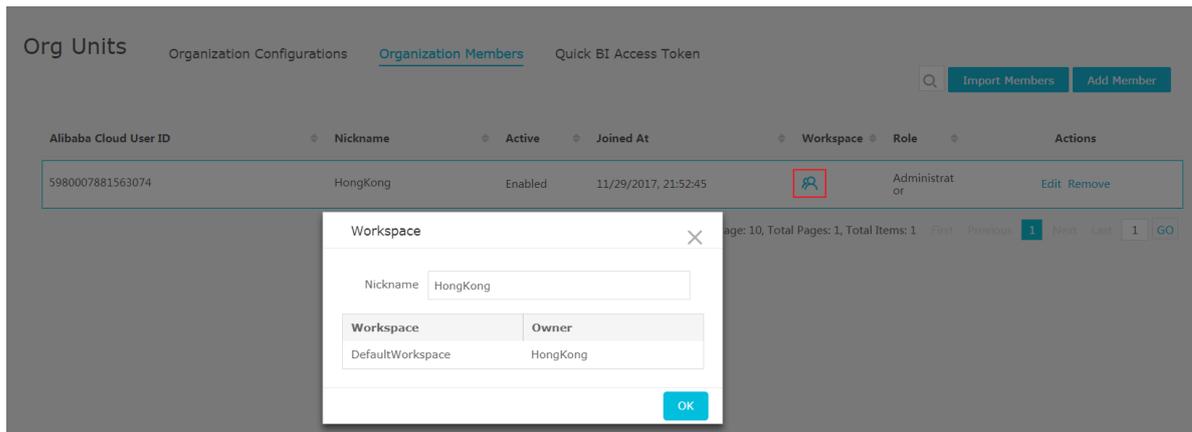
#### Context

A blue icon indicates that the member belongs to at least one workspace. A grey icon indicates that the member does not belong to any workspaces.

#### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. Select a member and click the Workspace icon (blue) in the Workspace column.

4. View the workspaces that the member belongs to as shown in the following figure.



5. Click OK to close the dialog box.

## 1.1.5 Edit the information of a member

Administrators of an organization can edit the information of members.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. Select a member and click Edit in the Actions column as shown in the following figure.

Tenant Account	Alias	Activated	Joined At	Workspaces	Role	Actions
marketing	marketing	No	8/10/2018, 17:59:16	[Icon]	User	Edit Remove

4. In the Nickname field, enter a nickname for the member. You can select the Set as Administrator check box for the member as shown in the following figure.

Dialog box titled "Edit User Info" showing fields for "Tenant Account" (marketing) and "Alias" (marketing). The Alias field includes a note: "The alias must be 1 to 50 characters in length and can contain letters, numbers, Chinese characters, underscores (\_), forward slashes (/), backslashes (\), vertical bars (|), parentheses (( )), and square brackets ([ ])." There is a checkbox for "Set as Administrator" and buttons for "Cancel" and "OK".

5. Click OK to complete editing the information for the member.

### 1.1.6 Add members to an organization

You can add members to an organization individually by the Alibaba Cloud accounts and RAM users. If you want to add a large number of members, you can upload an Excel file to import multiple members at one time.

#### Add members by the Alibaba Cloud accounts

##### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. Click Add Member.
4. Click the Add Alibaba Cloud ID tab.

5. Enter the Alibaba Cloud account and a nickname for the member. You can select the Set as Administrator check box for the member as shown in the following figure.

**Add Member** [Close]

**Add Alibaba Cloud ID** | RAM User

\* Alibaba Cloud User ID: Enter an Existing Alibaba Cloud ID  
The ID Must not Contain Colons (:)

\* Nickname: Please Enter a Unique Nickname  
Nicknames can only Contain Chinese Characters, English Letters, Numbers, and Parentheses. Nickname can Have a Maximum of 50 Characters.

Set As Administrator

OK | Cancel

6. Click OK to add the member.

## Add members through RAM users

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members > Add Member.
3. Click the RAM User tab.

4. Enter the Alibaba Cloud account, the RAM user, and a nickname. You can select the Set as Administrator check box for the member.



Note:

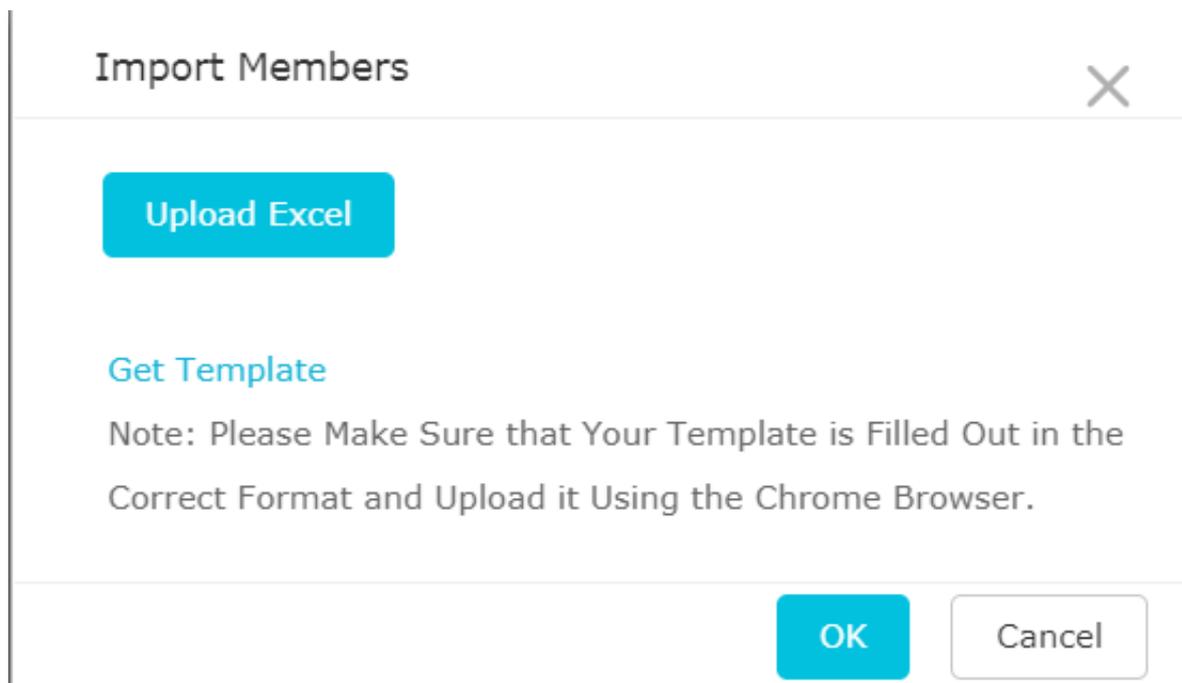
Make sure you enter an Alibaba Cloud account instead of an account ID, which is a numeric string.

5. Click OK to add the member.

## Add multiple members at one time

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. Click Import Members.
4. Click Upload Excel to upload the local file of the members-to-add list as shown in the following figure.



5. Click OK to add members one at one time.

### 1.1.7 Search for the members of an organization

You can search for the members of an organization by the Alibaba Cloud accounts and the nicknames.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. In the search bar, enter the Alibaba Cloud account or the nickname of the member.
4. Click the Search icon to search for the member.

## 1.1.8 Remove the members of an organization

Administrators can remove the members from an organization.

### Context

Removing members cannot be reversed. Therefore, administrators need to re-add members to the organization after removal. Be careful with the remove operation.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Org Units > Members.
3. Click Remove in the Actions column for the member that you want to remove.
4. Click OK to complete removing the member.

## 1.2 Manage workspaces

### 1.2.1 Concepts

In Quick BI Basic, a user's workspace is called personal space. In Quick BI Pro and Enterprise Standard, a user's workspace is divided into personal space and group space.

#### What is a group space?

A group space is a workspace where organization unit members collaborate on development. In a group space, group members can collaborate to create and modify data sources, cubes, worksheets, dashboards, and data portals based on their roles. These data objects exist in the group space they belong to. Different group spaces have different data objects.

In group space management, the organizational unit administrator adds members in the organizational unit to different group spaces based on their work scope and responsibilities.

Group spaces can correspond to actual business departments of the organizational unit. For example, administrators can create workspaces for the sales department and the HR department of the organization and then add the employees as members to the corresponding workspaces.

Workspaces are similar to DingTalk groups. For example, employees can share information and communicate with each other through the DingTalk group that is corresponding to the department that they belong to.

### Manage workspaces

A group space is managed by the group space administrator. Members of a workspace are appointed to be administrators by the administrator of the organization that creates the workspace. Administrators of a workspace have permission to set other members in the workspace to be administrators.

Workspace management includes:

- Creating a workspace
- Modifying a workspace
- Setting a default workspace

### Differences between a personal space and a group space

Main differences between a personal space and a group space are as follows:

- A personal workspace is created automatically after the first logon. A workspace is created manually by an administrator of the organization.
- The personal space cannot be deleted, and a new personal space cannot be created
- 
- You are not allowed to add other members to a personal workspace. Therefore, a personal workspace does not support collaboration or transfer.
- Workspaces can be transferred to users in a group space, and can be shared with users in an organization. Personal spaces can be shared with Alibaba Cloud users.

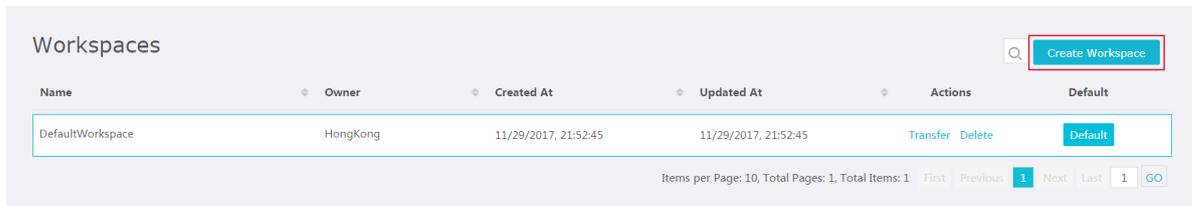
## 1.2.2 Create a workspace

You can perform the following steps to create a workspace.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.

3. Click Create Workspace as shown in the following figure.



4. In the Name field, enter a name for the workspace as shown in the following figure.

5. Click OK to complete the creating of the workspace.

### 1.2.3 Modify the information of a workspace

Only the owner of a personal workspace is allowed to modify the information of the personal workspace. Oppositely, only the administrators of a workspace are allowed to modify the information of the workspace.

#### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Click the Settings tab to jump to the Settings tab page.

4. Click Edit Workspace as shown in the following figure.

The screenshot shows the 'Settings' tab for a workspace named 'DefaultWorkspace'. The 'Edit Workspace' button is highlighted with a red box. The form includes fields for Name, Created At, Owner, Restrictions, and Field Display, along with a 'Leave Workspace' button.

5. Click OK to finish the modification.

## 1.2.4 Set a default workspace

When a member is added to an organization, the member is added to the default workspace.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Hover your mouse over a workspace. Click Set as Default as shown in the following figure.

The screenshot shows a table of workspaces. The 'Set as Default' button for the 'Test1219' workspace is highlighted with a red box. The table has columns for Name, Owner, Created At, Updated At, Actions, and Default.

Name	Owner	Created At	Updated At	Actions	Default
Test1219 <small>new</small>	HongKong	12/19/2017, 19:02:52	12/19/2017, 19:02:52	Transfer Delete	Set as Default
DefaultWorkspace	HongKong	11/29/2017, 21:52:45	11/29/2017, 21:52:45	Transfer Delete	Default

After you do that, the Default button is displayed in the Default column. Click the button to cancel the operation of setting the workspace as a default one.

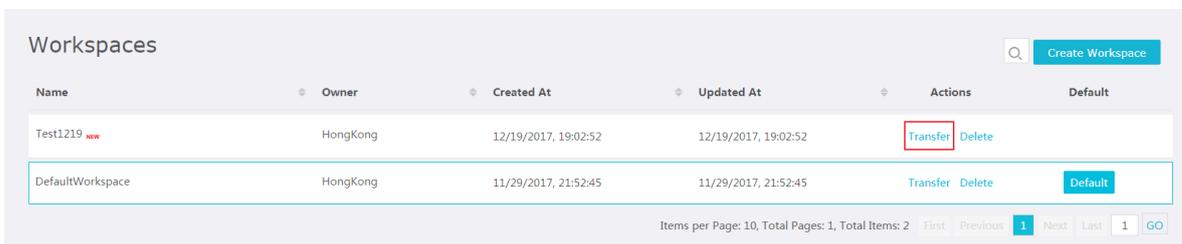
## 1.2.5 Transfer a workspace

Before leaving an organization, the owner of a workspace can transfer the workspace to another member of the organization. The new owner can be any member, not required to be an administrator.

### Procedure

1. Log on to the Quick BI console.

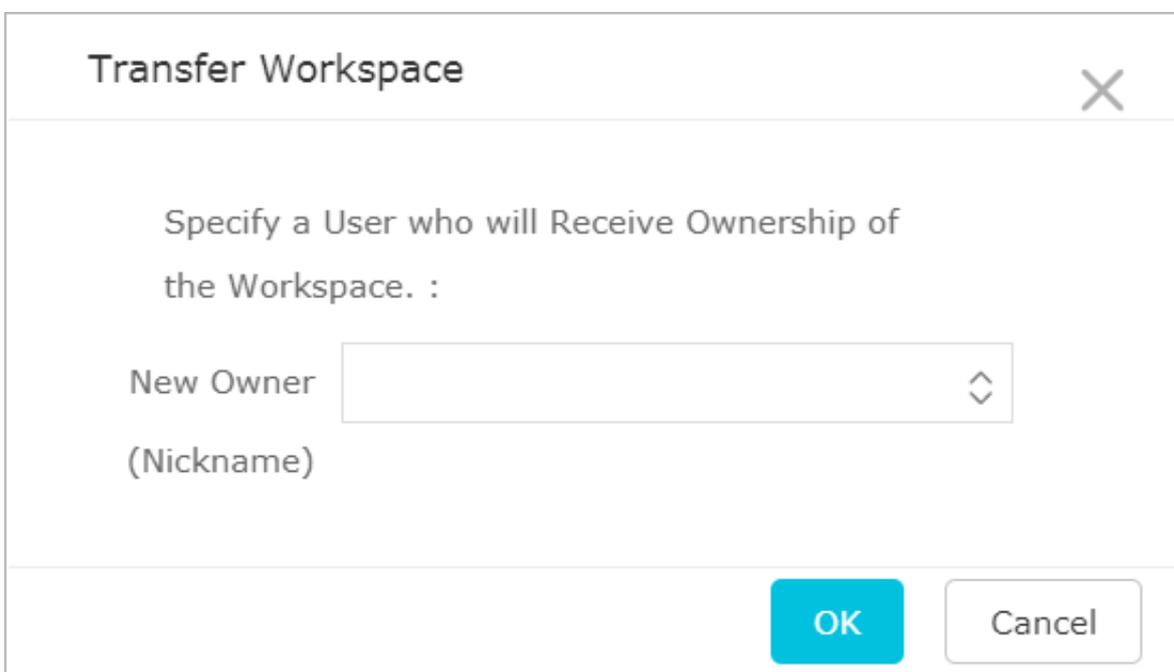
2. Choose Settings > Workspaces.
3. Click Transfer in the Actions column for the workspace to transfer as shown in the following figure.



Name	Owner	Created At	Updated At	Actions	Default
Test1219 <small>new</small>	HongKong	12/19/2017, 19:02:52	12/19/2017, 19:02:52	<span>Transfer</span> <span>Delete</span>	
DefaultWorkspace	HongKong	11/29/2017, 21:52:45	11/29/2017, 21:52:45	<span>Transfer</span> <span>Delete</span>	<span>Default</span>

Items per Page: 10, Total Pages: 1, Total Items: 2 First Previous 1 Next Last 1 GO

4. Click the drop-down arrow and select a new owner of the workspace by the nickname as shown in the following figure.



**Transfer Workspace** ✕

Specify a User who will Receive Ownership of the Workspace. :

New Owner  ▾

(Nickname)

OK Cancel

5. Click OK to complete the transferring of the workspace.

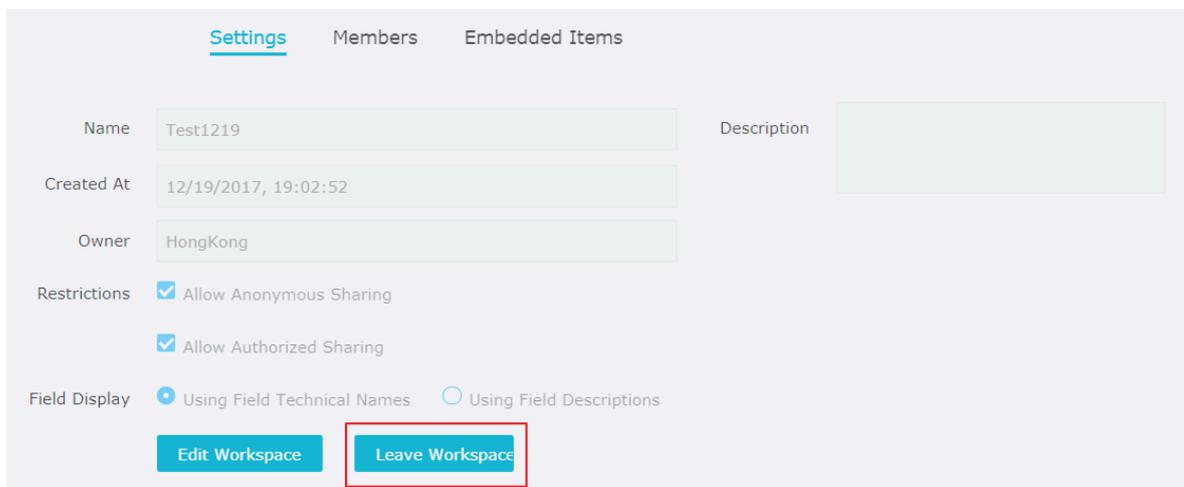
## 1.2.6 Leave a workspace

You can perform the following steps to leave a workspace.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Click the Settings tab to jump to the settings tab page.

4. Click Leave Workspace as shown in the following figure.



5. Click the drop-down arrow to select a new owner of your data objects by the nickname.

6. Click OK to leave the workspace.

### 1.2.7 Add members to a workspace

You need to assign a role to the member after you add it to a workspace. Roles have different permissions. Each member can be assigned a maximum of one role.

Roles include Space Manager, Developer, Analyst, and Viewer.

#### Mappings for roles and permissions

Mappings for roles and permissions are fixed and not modifiable. To grant permission to the member of a workspace, you only need to specify the role for the member.



**Note:**

The classic workbook feature is in beta and will not be supported in future versions. A classic workbook does not support custom grouping fields, data type conversions, dataset joins based on snowflake schemas, and joins for databases from different data sources.

Table 1-1: Function navigation entry

Permission	Developer	Analyst	Viewer
Datasets/Data sources	Supported	Not supported	Supported
Classic Workbooks/Workbooks	Supported	Supported	Supported

Permission	Developer	Analyst	Viewer
Dashboards	Supported	Supported	Supported
Portals	Supported	Supported	Supported

Table 1-2: Datasets/Data sources

Permission	Developer	Analyst	Viewer
Create Data Sources	Supported	Not supported	Not supported
Modify data sources	Only modifying own data sources is supported	Not supported	Not supported
Delete data sources	Only deleting own data sources is supported	Not supported	Not supported
Use data sources	Supported	Not supported	Not supported
Create datasets	Supported	Not supported	Not supported
Modify datasets	Only modifying own datasets is supported	Not supported	Not supported
Delete datasets	Only deleting own datasets is supported	Not supported	Not supported
Use datasets	Supported	Supported	Not supported

Table 1-3: Class workbooks

Permission	Developer	Analyst	Viewer
Create classic workbooks	Supported	Supported	Not supported
Modify classic workbooks	Only modifying own classic workbooks is supported	Only modifying own classic workbooks is supported	Not supported
Delete classic workbooks	Only deleting own classic workbooks is supported	Only deleting own classic workbooks is supported	Not supported

Permission	Developer	Analyst	Viewer
View classic workbooks	Supported	Supported	Supported
Share classic workbooks	Only sharing own classic workbooks is supported	Only sharing own classic workbooks is supported	Not supported
Reference classic workbooks	Supported	Supported	Not supported

Table 1-4: Workbooks

Permission	Developer	Analyst	Viewer
Create workbooks	Supported	Supported	Not supported
Modify workbooks	Only modifying own workbooks is supported	Only modifying own workbooks is supported	Not supported
Delete workbooks	Only deleting own workbooks is supported	Only deleting own workbooks is supported	Not supported
View workbooks	Supported	Supported	Supported
Share workbooks	Only sharing own workbooks is supported	Only sharing own workbooks is supported	Not supported
Reference workbooks	Supported	Supported	Not supported

Table 1-5: Dashboards

Permission	Developers	Analysts	Viewer
Create dashboards	Supported	Supported	Not supported
Modify dashboards	Only modifying own dashboards is supported	Only modifying own dashboards is supported	Not supported
Delete dashboards	Only deleting own dashboards is supported	Only deleting own dashboards is supported	Not supported
View dashboards	Supported	Supported	Supported

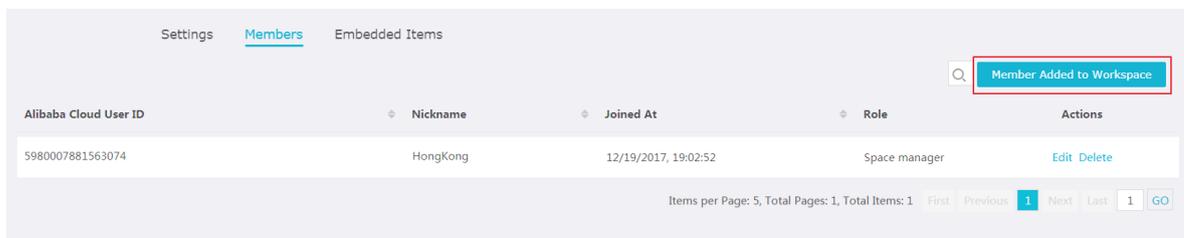
Permission	Developers	Analysts	Viewer
Share dashboards	Only sharing own dashboards is supported	Only sharing own dashboards is supported	Not supported
Reference dashboards	Supported	Supported	Not supported
Publish dashboards	Only publishing own dashboards is supported	Only publishing own dashboards is supported	Not supported

Table 1-6: Portals

Permission	Developer	Analyst	Viewer
Create portals	Supported	Supported	Not supported
Modify portals	Only modifying own portals is supported	Only modifying own portals is supported	Not supported
Delete portals	Only deleting own portals is supported	Only deleting own portals is supported	Not supported
View portals	Supported	Supported	Supported
Share portals	Only sharing own portals is supported	Only sharing own portals is supported	Not supported

Add members to a workspace

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Click the Members tab to jump to the Members tab page.
4. Click Member Added to Workspace as shown in the following figure.



5. Search for the member that you want to add by the nickname and assign a role to it as shown in the following figure.

**Member Added to Workspace** [Close]

Organization

Members

Role  Space Manager  Developer  Analyst  
 Viewer

6. Click OK to complete adding the member.

## 1.2.8 Modify the roles of members in a workspace

You can perform the following steps to modify the roles of members in a workspace.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Click the Members tab to jump to the Members page.
4. Select a member and click Edit in the Actions column.
5. Select a radio box for the role of the member.

Alibaba Cloud User ID	Nickname	Joined At	Role	Actions
5980007881563074	HongKong	12/19/2017, 19:02:52	Space manager	<a href="#">Edit</a> <a href="#">Delete</a>

Items per Page: 5, Total Pages: 1, Total Items: 1 First Previous 1 Next Last 1 GO

6. Click OK to complete the modifying of the role of the member.

## 1.2.9 Delete members from a workspace

You can perform the following steps to delete one or multiple members from a workspace.

### Procedure

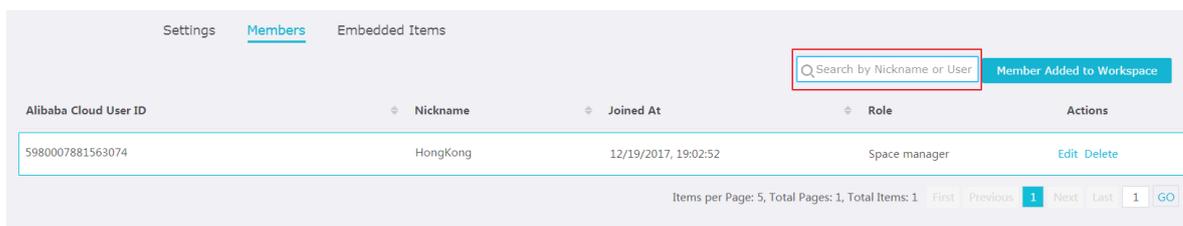
1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Select a member and click Delete in the Actions column.
4. From the New Owner drop-down list, select a member (in the same workspace) to accept the transfer of the data objects owned by the member that you want to delete.
5. Click OK to complete the deleting of the member.

## 1.2.10 Search for the members in a workspace

You can perform the following steps to search for the members in a workspace by the nicknames.

### Procedure

1. Log on to the Quick BI console.
2. Choose Settings > Workspaces.
3. Click the Members tab to jump to the Members tab page.
4. In the search bar, enter the nickname of the member you want to search for, as shown in the following figure.



5. Click the Search icon to search for the member.

## 2 Data modeling

---

### 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 by 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:

**Add MaxCompute Database**
✕

\* Name:

\* Database Address:

\* Project Name:

\* AccessKey ID:

\* AccessKey Secret:

ⓘ Note: Latency may occur while synchronizing the data source.

Close
Test Connection
Add

- **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:

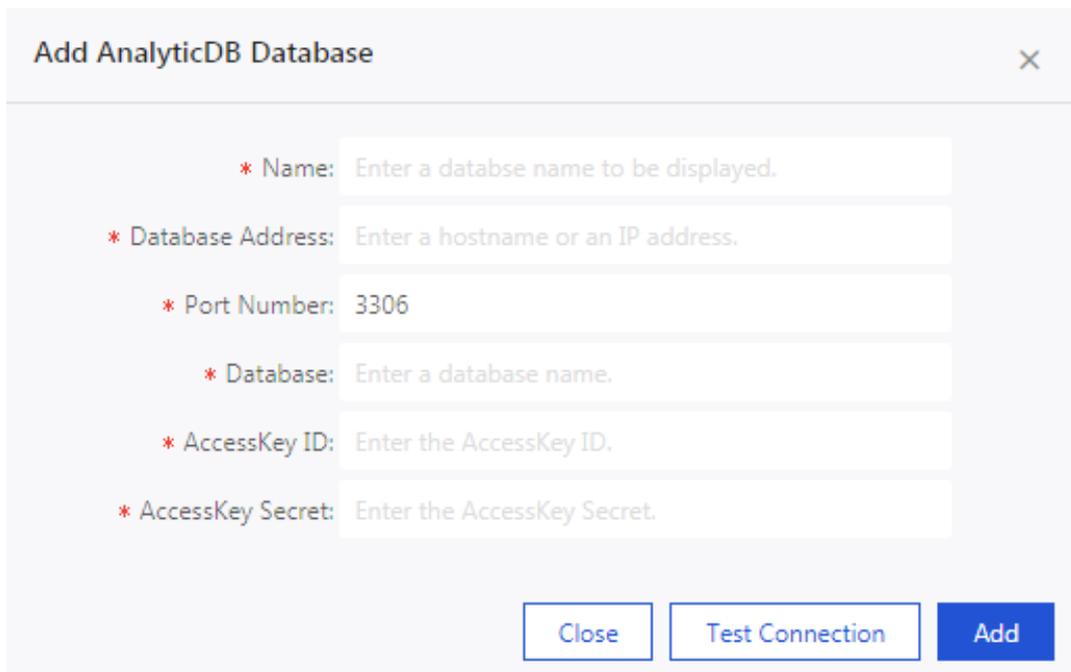
- **Name:** The display name in the data source list.
- **Database Endpoint:** The host name or IP address.
- **Port:** The port number.
- **Database:** The name of the database.
- **Schema:** dbo.
- **Username:** The username of the database.
- **Password:** The password of the database.

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:



**Add AnalyticDB Database** [X]

\* Name: Enter a database name to be displayed.

\* Database Address: Enter a hostname or an IP address.

\* Port Number: 3306

\* Database: Enter a database name.

\* AccessKey ID: Enter the AccessKey ID.

\* AccessKey Secret: Enter the AccessKey Secret.

Close Test Connection Add

- **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.

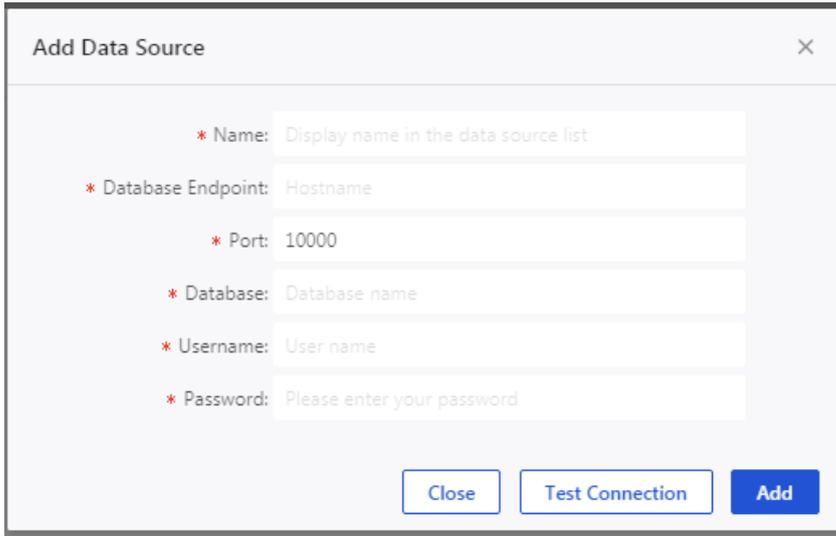
4. Click Add to add a data source.

#### 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.

- **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** ×

\*Name:

\*Database Endpoint:

\*Port:

\*Database:

Schema:

\*User Name:

\*Password:

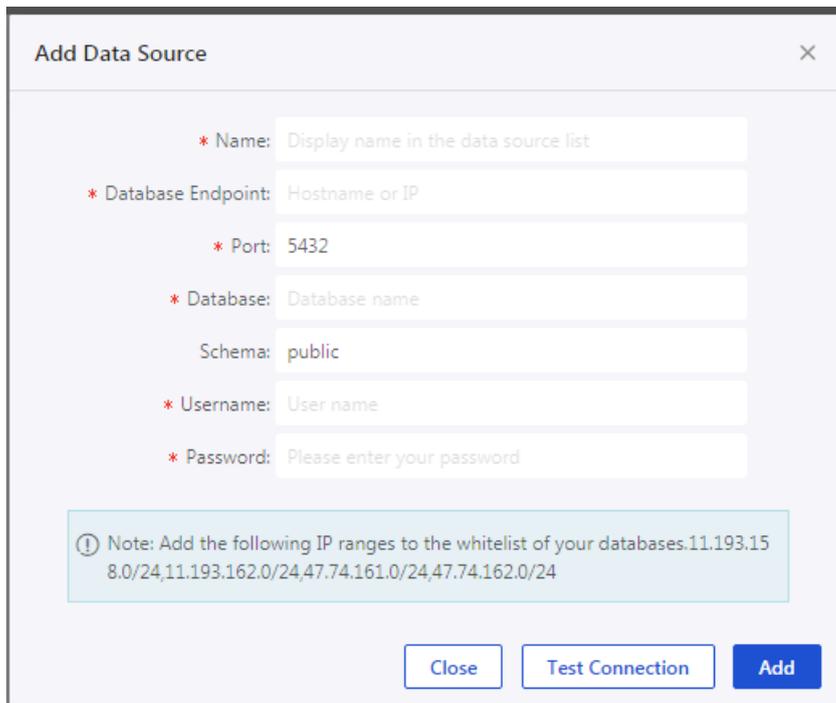
ⓘ Note: Add the following IP ranges to the whitelist of your databases. 11.193.158.0/24, 11.193.162.0/24, 47.74.161.0/24, 47.74.162.0/24

- 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:**

**\*Database Endpoint:**

**\*Port:**

**\*Database:**

**Schema:**

**\*User Name:**

**\*Password:**

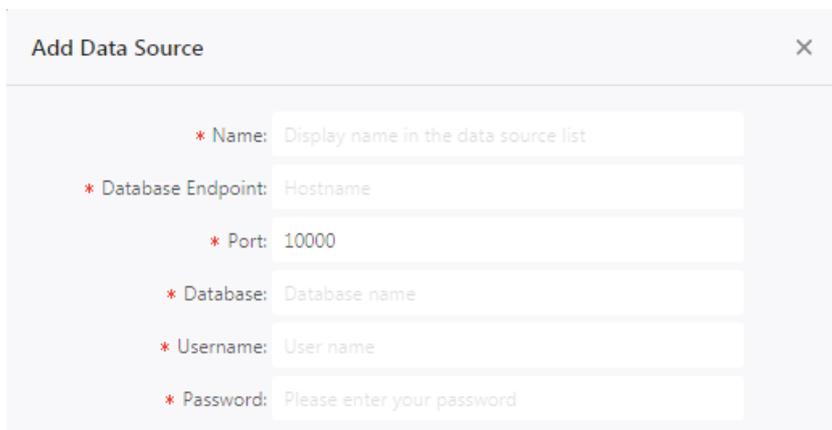
- **Display name:** list of data sources display name
  - **Database Address:** Enter the host name or IP address.
  - **Port:** Default 1521
  - **Database:** Name of the database to be connected to.
  - **Schema:** public
  - **User Name:** The user name of the database.
  - **Password:** The password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

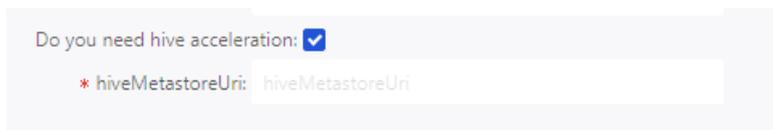
If you are using the Quick BI professional, you can add Hive data source.

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.



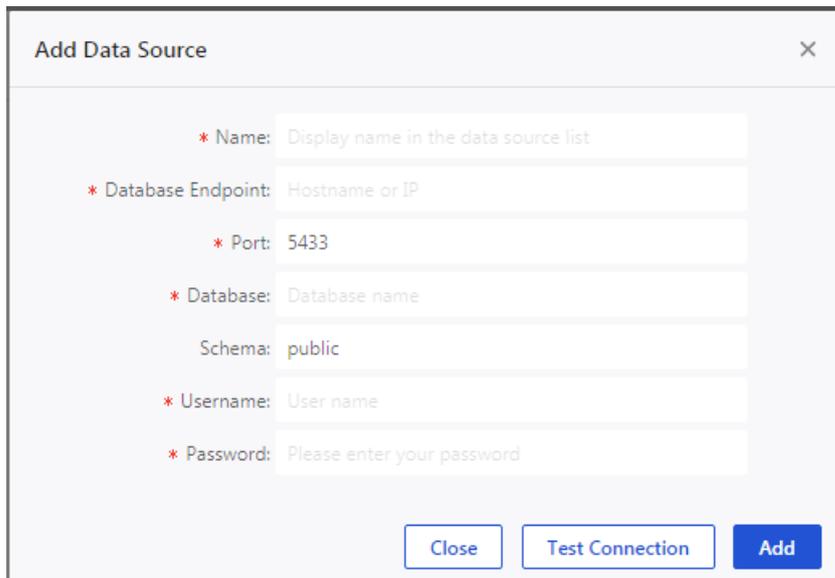
- **hiveMetastoreUri:** The address of Hive metadata.
4. Click **Connect tests** to perform a data source connectivity test.
  5. Click **Add** to complete the data source add.

### 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.



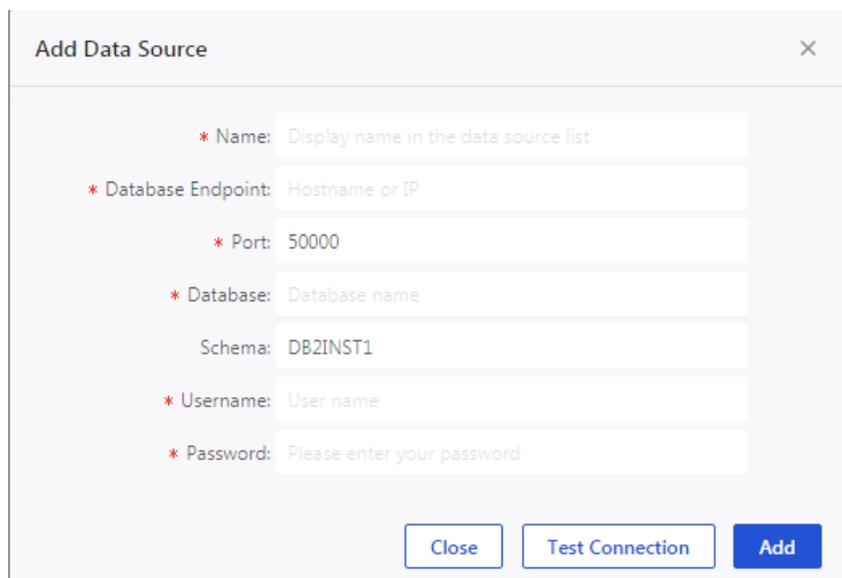
- **Display name:** List of data sources display name
  - **Database address:** Just fill in the host name or IP address.
  - **Port Number:** Default 5433
  - **Database:** The name of the database to be connected to.
  - **Schema:** public
  - **User Name:** The user name of the database.
  - **Password:**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



- **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 resources from the Data IDE.



**Note:**

The method that you upload local files through Create Data Source > Local Files is only available in personal workspaces.

## CSV file

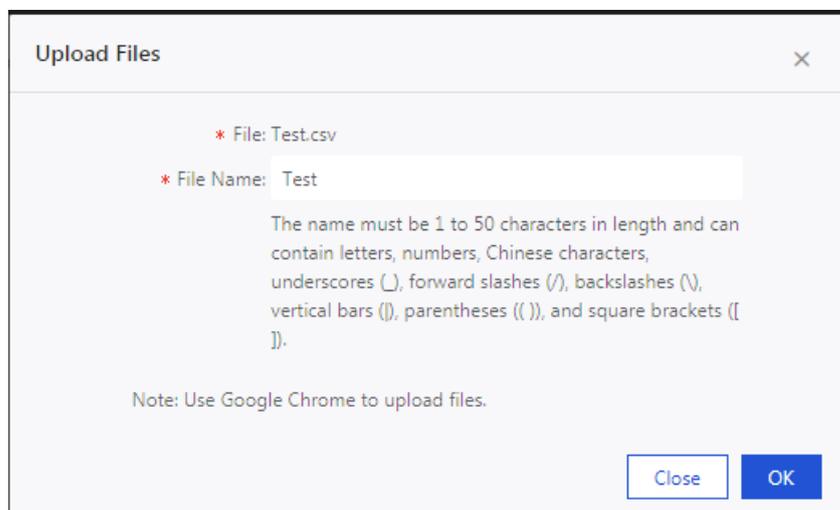
CSV files in UTF-8 format are decoded without errors. CSV files in GBK or GB2312 format are automatically decoded, but the decoding may fail in some special cases.

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. Choose Create > Local Upload > CSV file.
4. Enter a display name for the file.
5. Click Select a file to select the file to upload, as shown in the following figure.



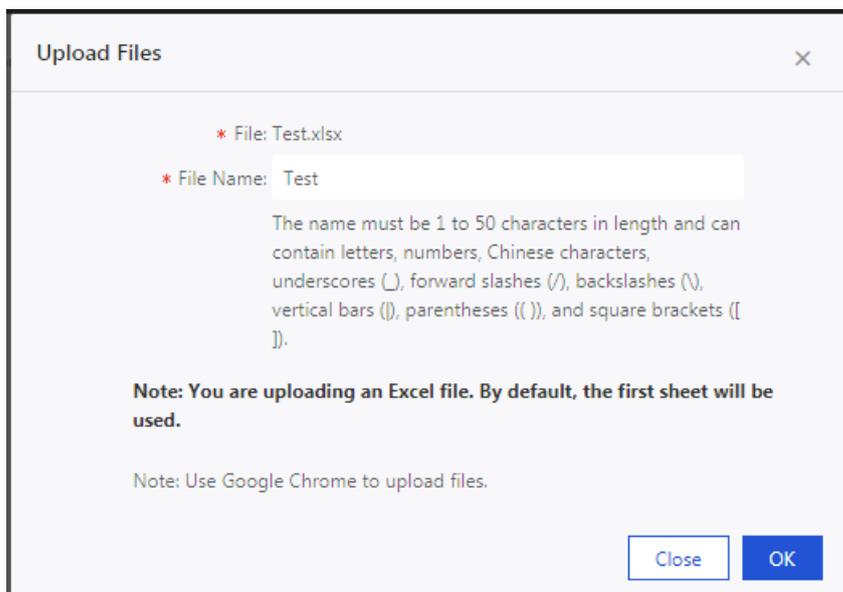
6. Click OK to upload the file.

## Excel file

When you upload Excel files, the first sheet in each excel file is uploaded by default. To make the editing and maintenance more flexible, you can only select one sheet in one Excel file at a time.

1. Choose Create > 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. Choose Create > From Other > Data IDE.
2. Select the data source from the list.
3. Click Import to complete the importing of the data source.

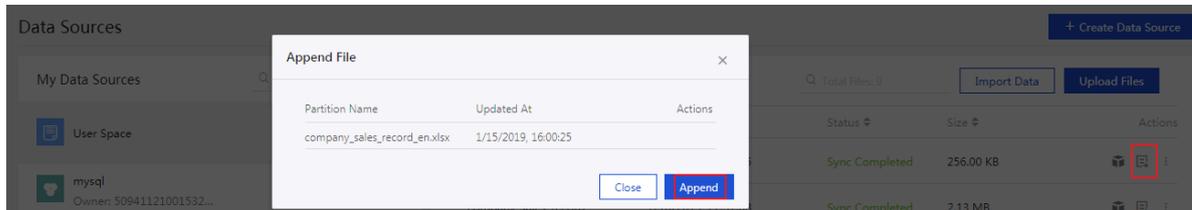
#### Update table data according to the local data source

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, as shown in the following figure.

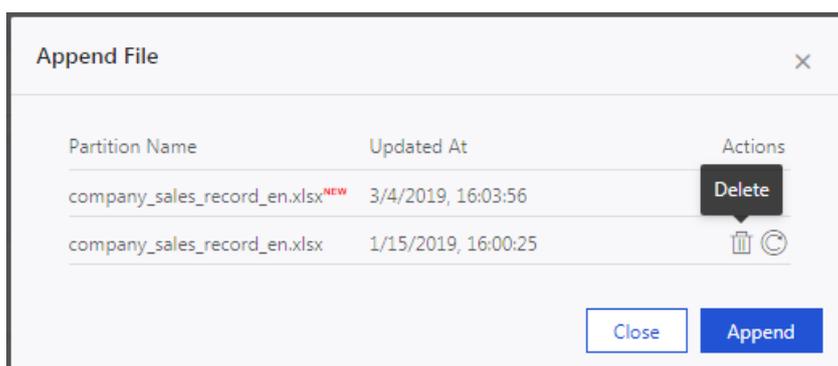


5. Click OK to append the data.

### 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.

<b>Field</b>	<b>Field type</b>	<b>Description</b>
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 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.

## 2.2.7 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.

## 2.2.8 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.

## 2.3 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.

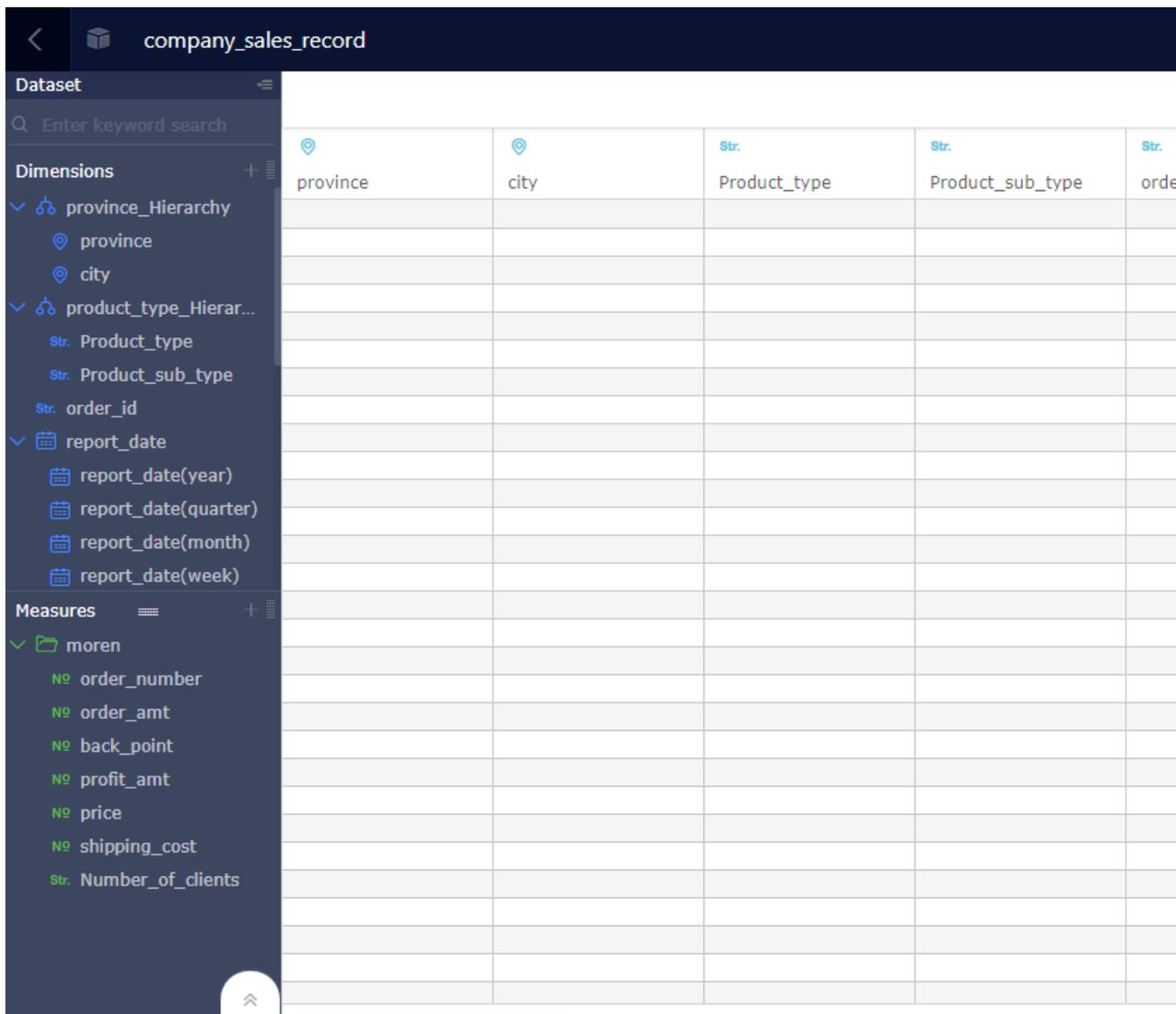
After you create a dataset, you are automatically directed to the Datasets page. The newly created dataset is labeled with the New icon. This helps you quickly find the newly created dataset.

### 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.



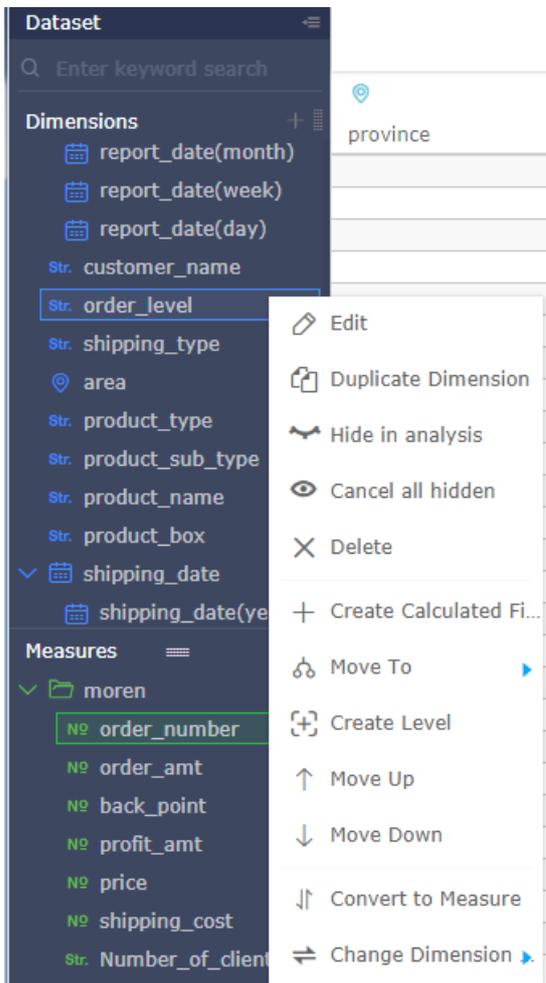
Fields in the dataset are automatically classified into dimensions and measurements. You can edit the dimension and measurement fields based on your table creation requirements. After the dataset is edited, you can save and refresh the edited data using Toolbar provided by the system.

#### 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.



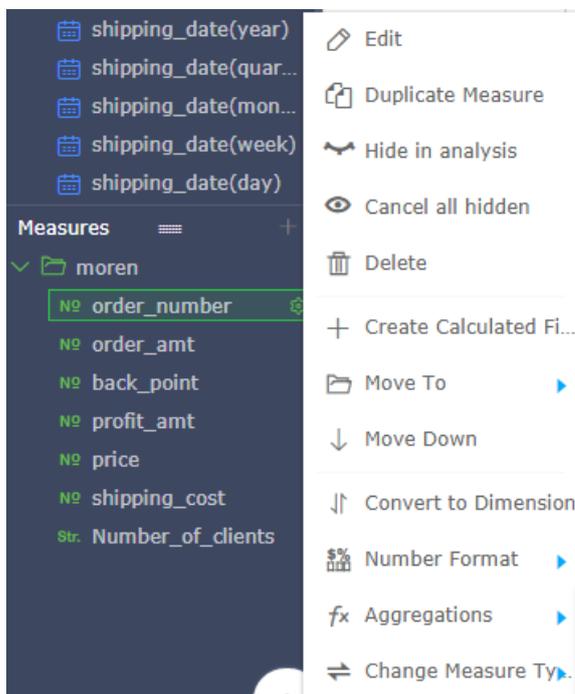
- **Edit:** To modify the display name and remarks of a dimension field.
- **Duplicate Dimension:** To quickly copy a dimension. Copy is automatically displayed for the generated dimension.
- **Hide in analysis:** Hide related dimensions.
- **Cancel all hidden:** Cancel the hide for related dimensions.
- **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

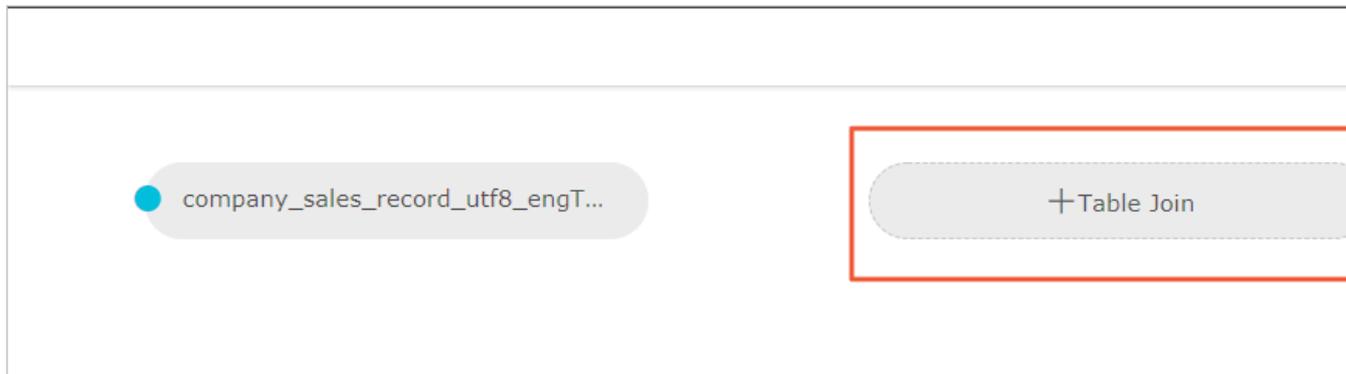
The Multi-Dataset type is not supported

The following two joining modes are supported.

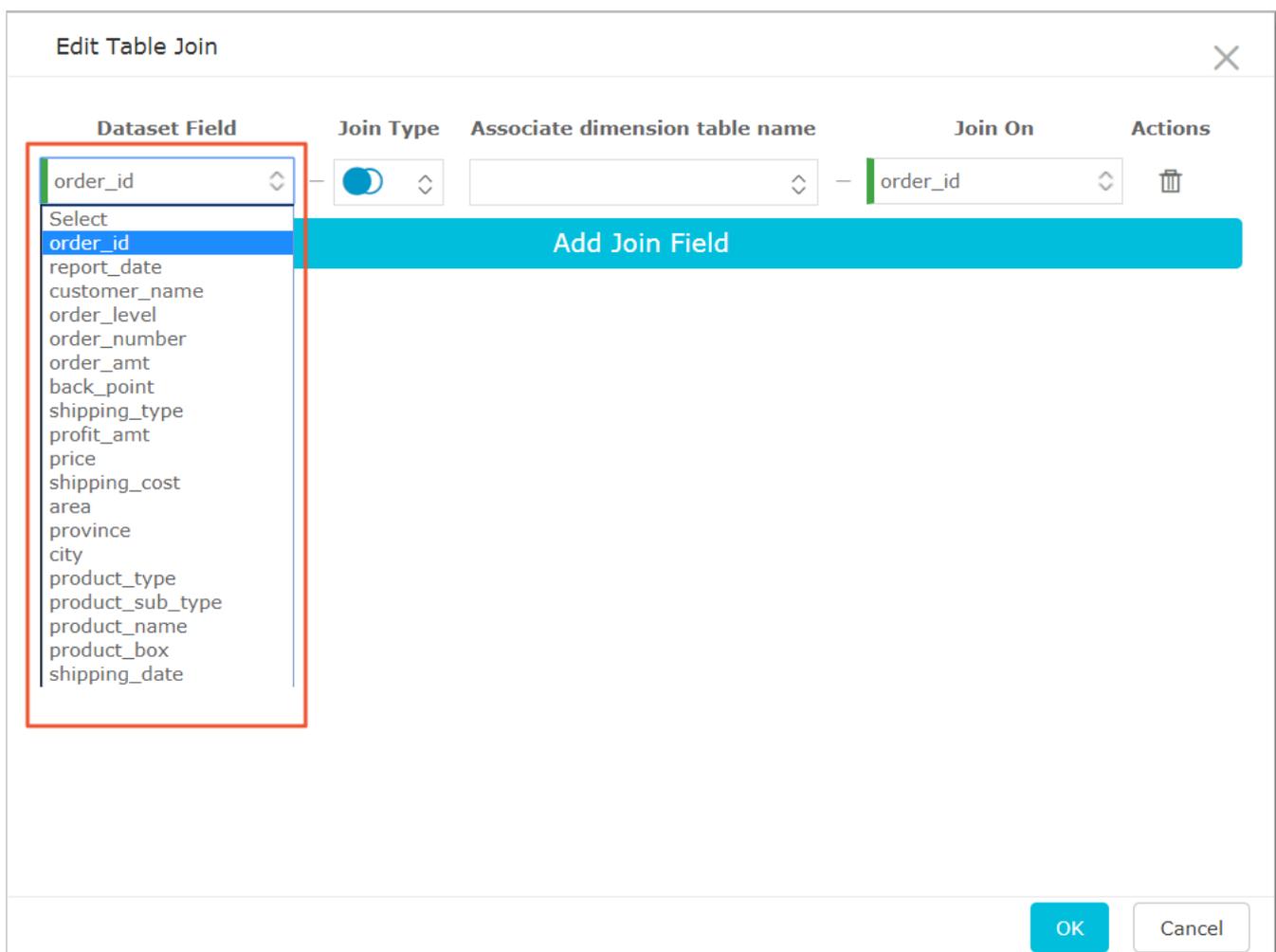
- Inner Join
- Left outer join

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.

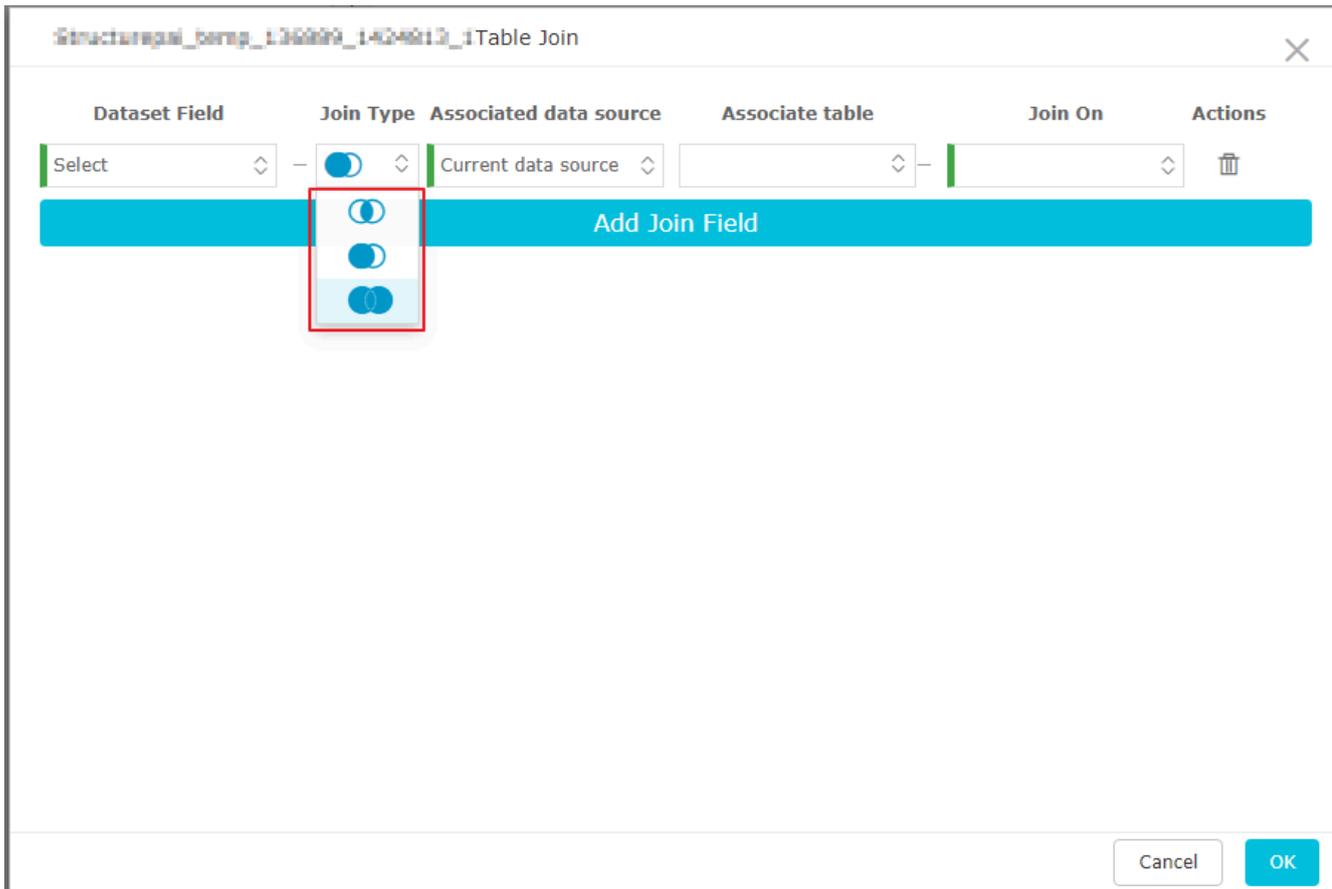
1. Click the Join Table icon. The data table joining page is displayed.



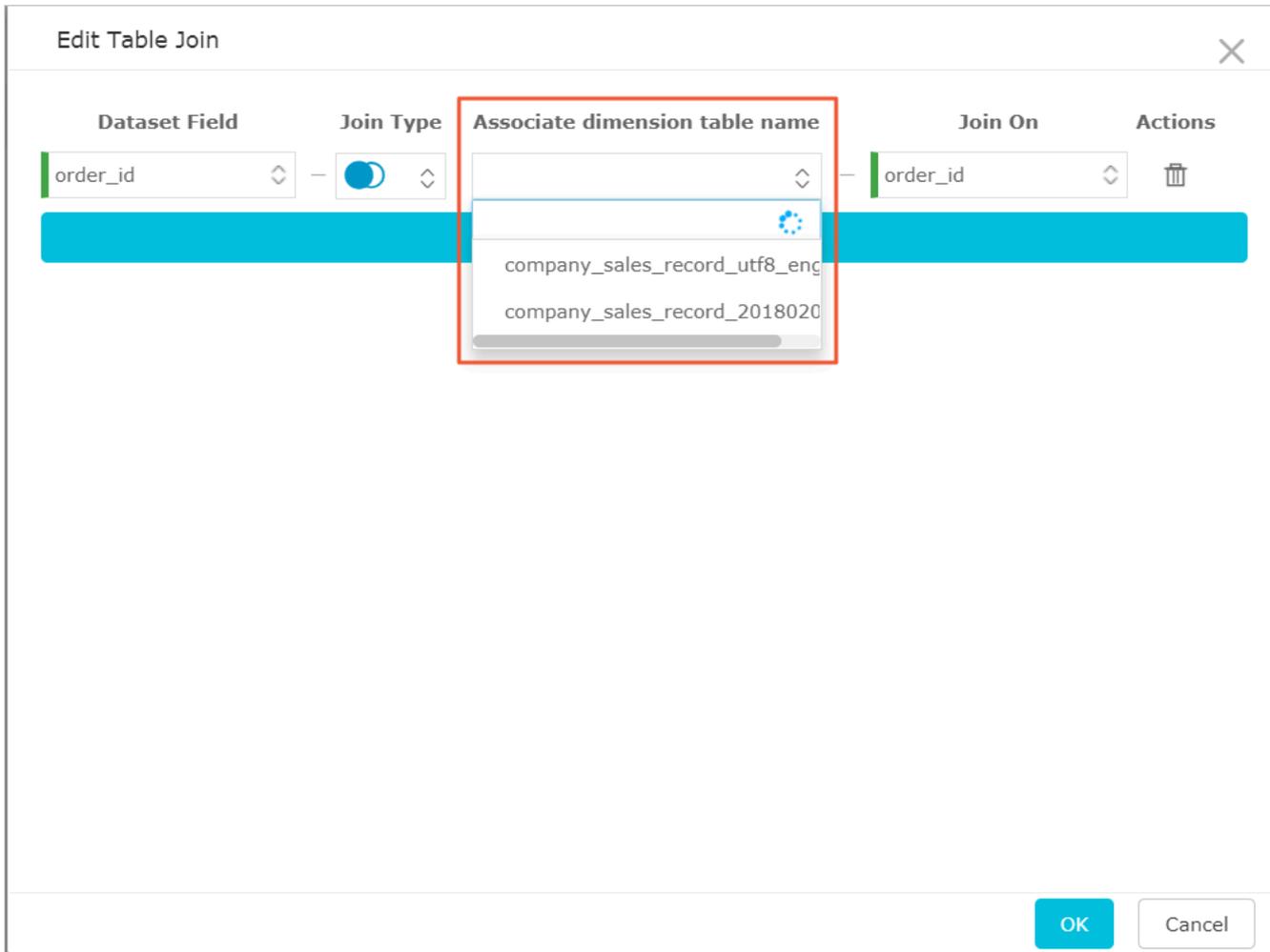
2. Click + Table Join and add the data table to be joined.
3. Click the drop-down arrow of Dataset Field and select the dataset field to be joined.



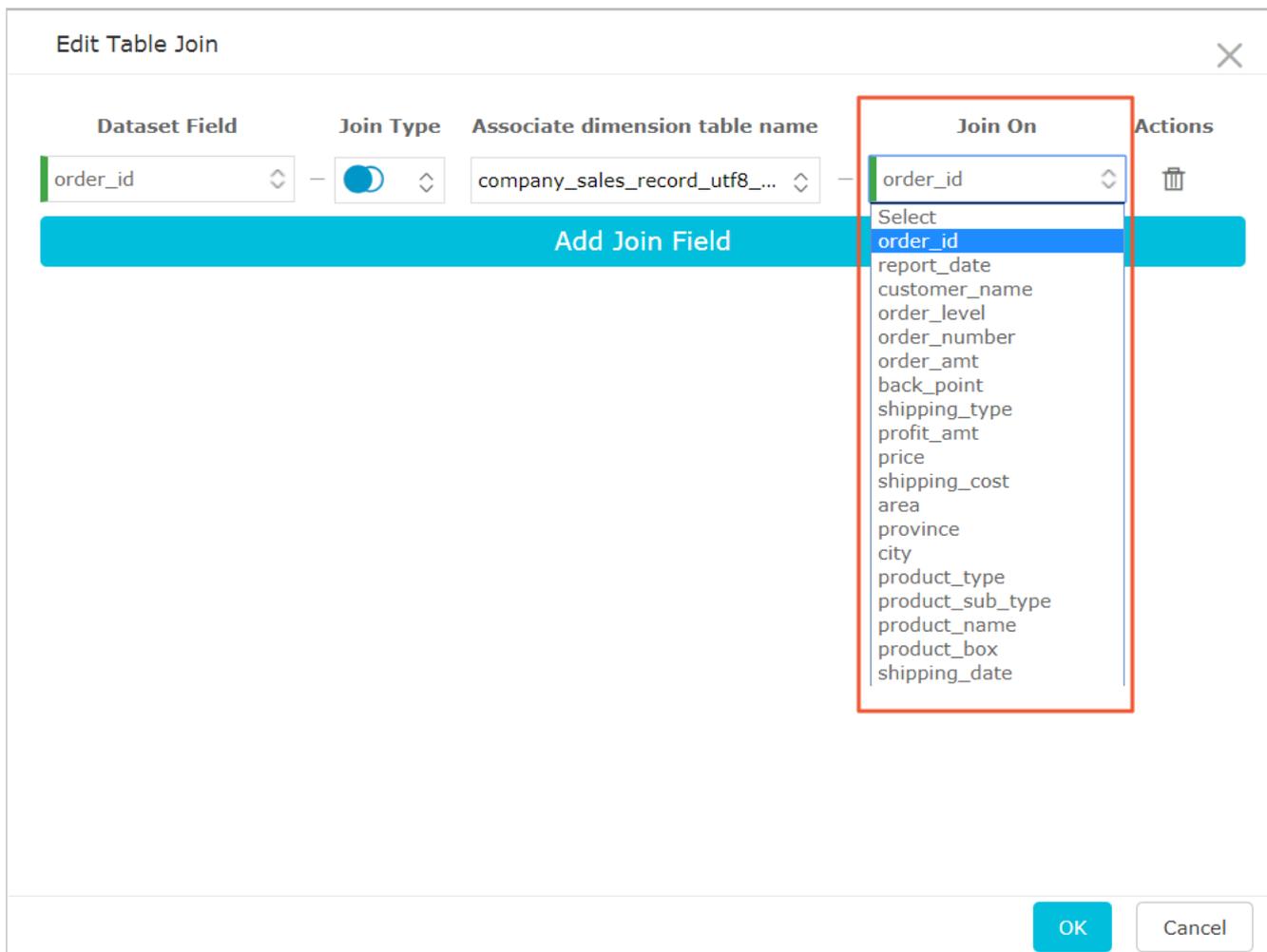
4. Click the drop-down arrow of Join Type and select the join mode.



- 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 Enterprise Standard).
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 dashboards

---

### 3.1 Dashboard overview

This topic describes the basic concepts of the dashboard, including the dashboard data types, scenarios, and data that composes the charts.

For more information about basic operations of the dashboard, see [#unique\\_58](#).

For more information about the procedure of creating various charts, see [Create charts in a dashboard](#).

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

In terms of data visualization, the dashboard guides you and allows you to drag or double-click a field to display data explicitly. In terms of data analysis, the dashboard utilizes user-friendly notifications to improve user interaction.

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

#### Data chart types and scenarios

You need to use the corresponding charts to display different types of data. Quick BI currently supports 21 types of data charts, including line charts, bars, bubble maps, and funnels.

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

Analysis types	Description	Scenarios	Applicable chart
Comparison	Compares the differences between values, or compares the measures based on the dimensions.	Compares the sales /income differences between different countries or regions.	Bar, stripe, radar, funnel, table, pivot table, polar, tornado, and word cloud.

Analysis types	Description	Scenarios	Applicable chart
Percentage	Displays the percentage of a part in the whole, or the proportion of a certain value compared to the whole.	Displays the sales of the salesperson who has the greatest percentage of total sales.	Pie, funnel, dashboard, and treemap.
Relation	Displays the relation between values, or between measures.	You can view the relation between two measures and learn the influence the first measure has on the second measure.	Gauge, treemap, card, hierarchy, conversion path, and progress.
Trends	Displays data trends (especially trends based on the date such as year/month/day), or the progress of data indicator and other possible patterns.	You can view trends in sales or revenue for a product over a period of time.	Line and area.
Regional map	Displays the relevant data and the distribution range for a country or region on the map. The datasets used must include geographic data.	You can view income information for each region in a country.	Geo bubble and geo

### The data elements of a data chart

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

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

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

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

The following table describes the core data elements of each chart.

Graph name	Data element	Data element description
Line	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Area	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Bar	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Stripe	Category axis and value axis	The category axis must have at least one dimension. The value axis must have at least one measure.
Pie	Slice label and arc angle	The slice label contains only one dimension, and the value of the dimension must be less than or equal to 12. The arc angle has only one measure.

<b>Graph name</b>	<b>Data element</b>	<b>Data element description</b>
<b>Geo bubble</b>	<b>Location and the bubble size</b>	The location contains only one dimension, which is the geographic dimension . The bubble size element can have 1-5 measures.
<b>Geo</b>	<b>Location and colorscale</b>	The location contains only one dimension, which is the geographic dimension . The colorscale element can have 1-5 measures.
<b>Table</b>	<b>Row and column</b>	The row has unlimited dimensions. The column has unlimited measures.
<b>Gauge</b>	<b>Indicator angle and tooltip</b>	The indicator angle has only one measure.
<b>Radar</b>	<b>Radius label and radius</b>	The radius label contains either one or two dimensions. The radius has at least one measure.
<b>Scatter</b>	<b>Colors, X-axis, and Y-axis.</b>	The colors element has only one dimension and the member number of the dimension can be up to 1000. The X-axis has at least one and at most three measures. The Y-axis has only one measure.
<b>Funnel</b>	<b>Tier labels and tier area</b>	The tier labels element has only one dimension. The tier area element has only one measure.
<b>Card</b>	<b>Card labels and card metrics</b>	The card labels element has at most one dimension . The card metrics element has at least one measure and at most ten measures.

Graph name	Data element	Data element description
TreeMap	Rectangle label and rectangle size	The rectangle size element has only one dimension, with a value less than or equal to 12. The rectangle size element has only one measure.
LBS map	Geographical area and LBS bubble size	The geographical area has only one dimension, which is the latitude. The LBS bubble size element can have at least one and at most five measures.
Polar	Slice label and arc radius	The slice label element has only one dimension, with a value greater than or equal to three and less than or equal to 12. The arc radius element has only one measure.
Word cloud	Word size and word	The word size element has only one dimension. The word element has only one measure.
Tornado	Comparison and contrast indicator	The comparison element has only one dimension. The contrast indicator has at least one measure.
Hierarchy	Node label and node metric	The node label has at least two dimensions. The node metric has at least one dimension.
Conversion path	Previous Page, Current Page, and Next Page. Previous Page PV, Previous Page UV, Current PV, Current UV, Next Page PV, Next Page UV, Conversion Rate, and Bounce Rate.	Each data element has only one dimension and one measure.

Graph name	Data element	Data element description
Progress	Progress Indicator	The progress indicator has at least one measure and at most five measures.
Pivot	Row and value	The row has unlimited dimensions. The value has unlimited measures.

## 3.2 Dashboard basic operations

### 3.2.1 Basic dashboard operations

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

For more information about dashboards, see [Dashboard overview](#).

To learn how to create charts, see [Create charts in a dashboard](#).

Go to the Dashboards page

Quick BI Quick BI Pro

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

Quick BI Professional edition

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

For more information about how to create standard dashboards, see [Standard dashboards](#).

For more information about how to create full-screen dashboards, see [Full-screen dashboards](#).

## Areas of a dashboard

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

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

### Dataset selection area

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

### Dashboard configuration area

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

### Dashboard display area

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

## 3.2.2 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.

### 3.2.3 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.

### 3.2.4 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\\_69](#).

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.

- a. Drag the `product_type` field to the Colors (Dimensions) area, and then click Update.
  - b. 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.

### 3.2.5 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.

### 3.2.6 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.

### 3.2.7 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 upper 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 upper 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.

### 3.2.8 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 upper-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.

## 3.3 Common widgets

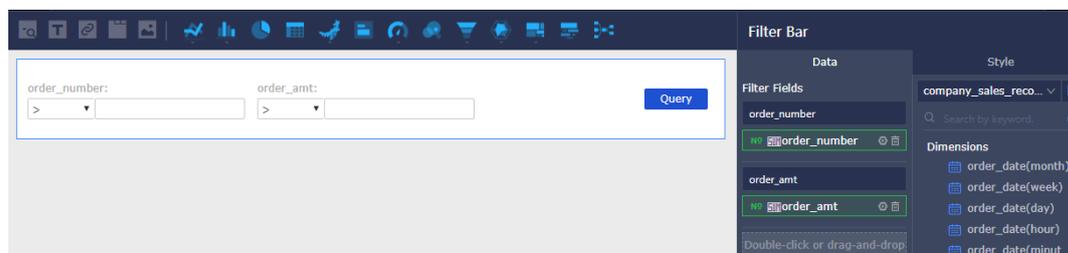
The presentation area of a dashboard supports the following widget types. You can double-click or drag a widget to add it to the presentation area of a dashboard.

- Filter bar
- Text area
- IFrame
- TAB
- Image

### Filter bar

You can use a filter bar to search data in one or more charts.

1. Click a filter bar.
2. Select a dataset, and select the fields to be added to the filter bar, as shown in the following figure.



Currently, a filter bar supports filter interactions between charts of the current dataset or charts of different datasets.

**Filter interaction example for the current dataset**

1. **Select Current Dataset.** In the current dataset field list, select the charts by the field type.
2. Click **Style** to edit the display name of the filter bar.
3. Click **Search** to filter the associated charts.

#### Filter interaction example for different datasets

Filter bars can also filter data from different datasets. However, in the associated items, the data members must have the same fields. Otherwise, the interaction does not work.

1. Select a chart, such as a table.
2. Select the required fields, and then click **Update**.
3. Click the **Style** tab, and then change the display name and layout of the table. For example, set the display name of the table to overseas data.
4. Click the icon that switches datasets to change to another dataset.
5. Select a chart, such as a table.
6. Select the required fields, and then click **Update**.
7. Click the **Style** tab, and then change the display name and layout of the table. For example, set the display name of the table to domestic data.
8. Click the **Filter Bar** icon, and then select the dataset and add filter fields to the filter bar.
9. **Select Other Dataset.** In the Other Dataset list, select the associated items based on the field type.
10. Click the **Style** tab to specify the display name of the widget.
11. Click **Search** to update the charts filtered by the fields.

#### Cascade filter example

The filter bar supports cascade filter, which simplifies the steps of setting multiple filters.

1. Create line charts on the dashboard editing page.
2. Click the filter bar widget and then select the dataset and the fields to be filtered. In this example, we select the province field as the filter.

3. Click the cascade icon. On the Configure Field Cascade page, click + Add cascading relationship to add the fields to be cascaded, and then click OK. In this example, we select the city field and the product type field.



Note:

- The cascade filter supports three-level cascades, with lines connected between the parent nodes and child nodes.
- The cascade filter supports renaming the cascade fields.

4. Click Set Filter to set the filters and then click OK. In this example, we select Tile cascade display and Multiple Select.



Note:

The cascade display supports Tree cascade display and Tile cascade display. You can select Cognate inheritance and Manually set default values.

5. In the search widget, click Search. The result is shown .



Note:

To view the detailed information of the cascade, you can hover over the cascade icon in the upper-right corner.

### Filter data in a date range

When you filter data in date type, you can select the date range of the filter, manually set default values, and customize shortcuts.

1. In the Data tab, select the dataset and the fields to be filtered, such as order date (month).
2. Select a chart that needs to be filtered, and then click Set Time Range.
3. In the Set Time Range dialog box, enable Set Time Range, specify the time range, and then click OK.
4. Select Manually set default values or Customize shortcuts to select a date range, and then click OK.



Note:

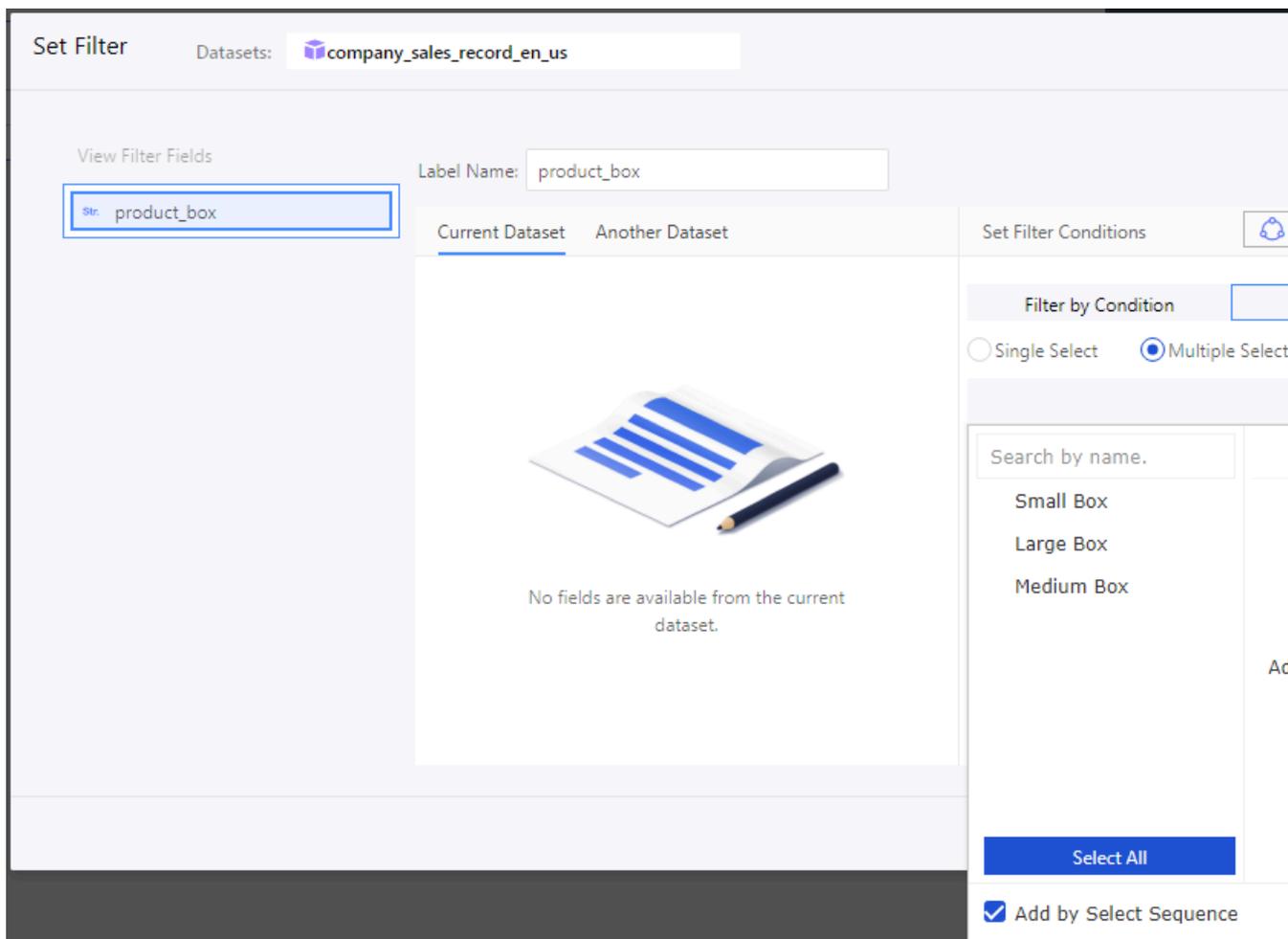
The date currently supports types of month and day for you to customize the date range.

5. Click Search. All the charts that are filtered by the widget are updated.

## Filter text data

When you filter data in text type, you can set the enumeration range.

1. In the Data tab, select the dataset and fields to be filtered, such as product package.
2. Select a chart that needs to be used, and then click Set Enumeration Range.
3. In the Enumeration Range dialog box, enable Set Enumeration Range, click Manually set values or add available values such as Small Box, Large Box, and Medium Box, and then click OK.
4. Select Filter by Enumeration and Multiple Select, and then click the drop-down menu. The system automatically adds the available values of this field to the filter bar, as shown in the following figure.

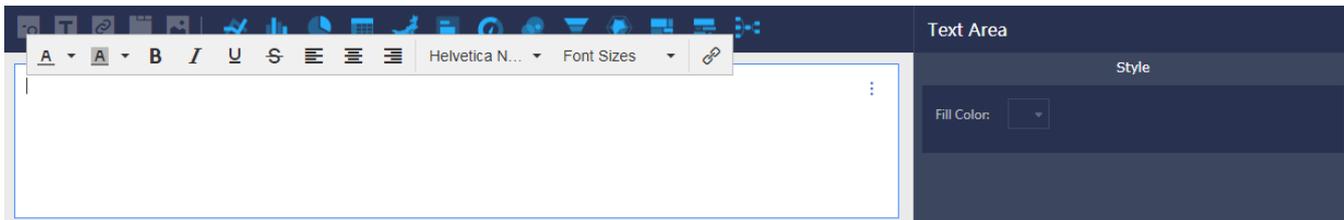


5. Manually specify the value or select the available values for the field to be filtered, and then click OK > OK.
6. Click Search. The charts that are filtered by the filter bar are updated.

## Text area

You can use a text area to enter text. For example, you can use this to create the report title.

1. Click the Text Area icon, and a text area appears in the dashboard display area.
2. Enter text, as shown in the following figure.



## IFrame

You can use iFrames to insert required web pages to filter web data and browse web pages related to the current data in real time.

1. Click the IFrame icon, and an iFrame appears in the dashboard display area.
2. In the URL input box, enter the URL.



**Note:**

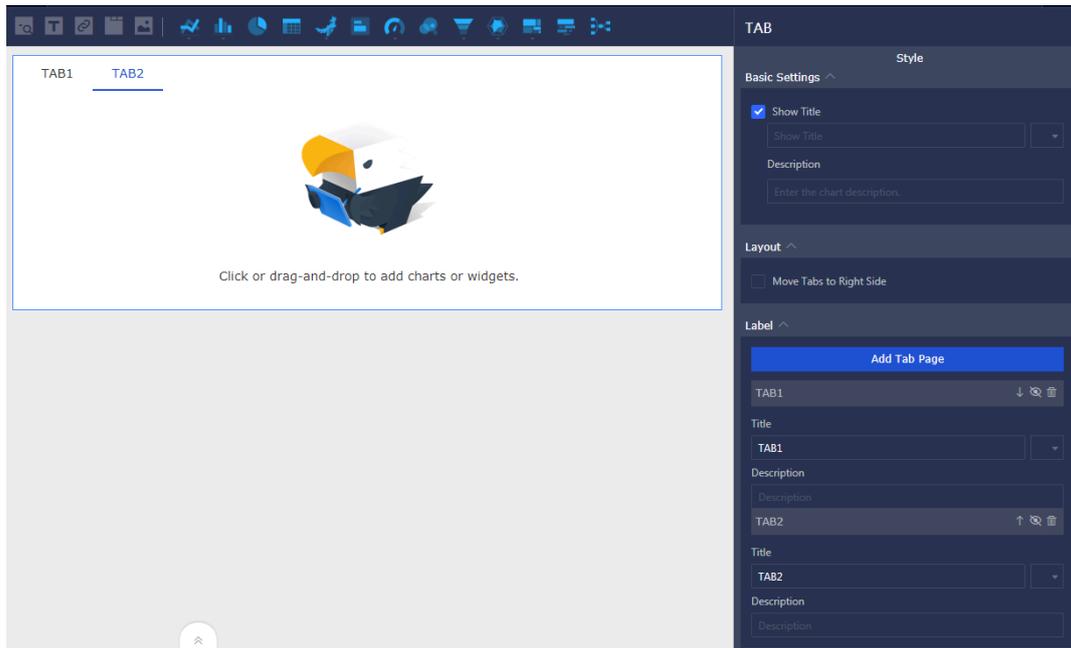
**You must use an https URL.**

## TAB

You can use TAB to present charts in the form of multiple tabs.

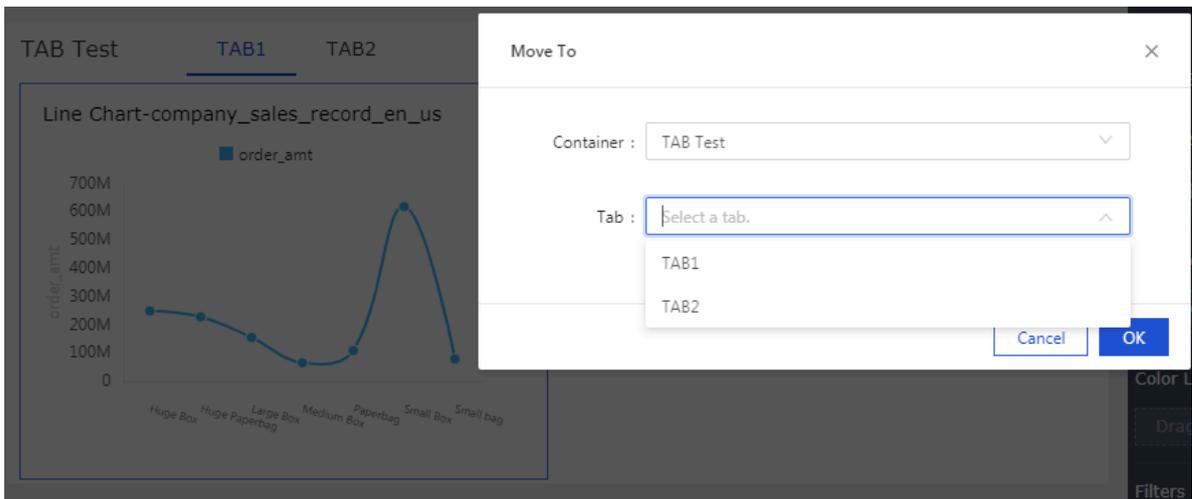
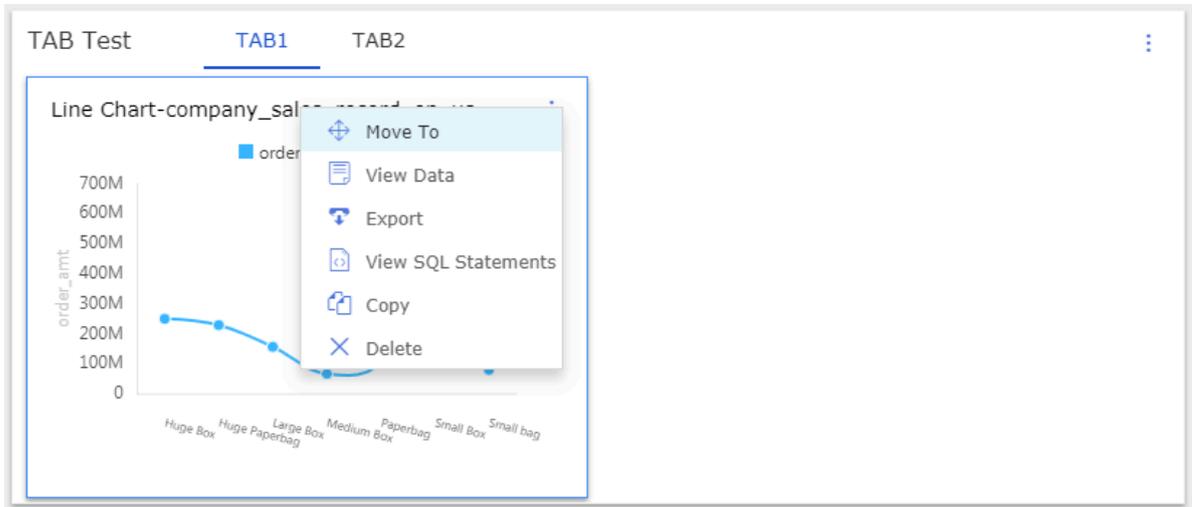
1. Click the TAB icon, and a TAB appears in the dashboard display area.

2. In the TAB editing menu, you can add, move, hide, or delete tabs, as shown in the following figure.



3. Select a TAB to insert charts. For example, click TAB1, and TAB1 is highlighted with a blue line.

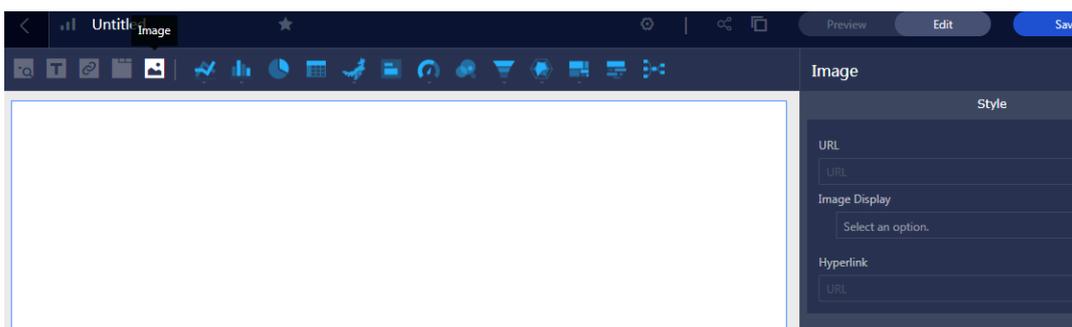
- Click a chart icon to add a chart, and the selected chart is added to TAB1.  
Alternatively, you can choose More > Move to in the upper-right corner to move the existing chart to TAB1, as shown in the following figure.



- Follow the procedure to create a chart.

**Image**

- Click the Image icon, and an image appears in the dashboard display area.
- Enter the URL of the image.
- Configure the style of the image, as shown in the following figure.



## 3.4 Create charts

### 3.4.1 Create charts in a dashboard

We recommend that you read [Dashboard overview](#) and [#unique\\_58](#) to prepare for this topic. In this topic, you will learn how to create charts on the dashboard.

You must create and edit a dataset before creating a chart. For example, you must switch the dimension field type to Location.

For more information about how to create and edit a dataset, see [Create a dataset](#).

For more information about how to switch the dimension field type, see [#unique\\_69](#).

#### Line charts

[#unique\\_77](#) display the trends in data at equal intervals or over time.

#### Area charts

Similar to [#unique\\_77](#), [#unique\\_78](#) can display the trends in data over time and the proportion of data.

#### Bar charts

[Bar charts](#) display the comparisons among discrete categories and the changes of data over a period of time.

#### Stripe charts

Similar to [Bar charts](#), [Stripe charts](#) can present data with horizontal bars with lengths proportional to the values. A stripe chart can provide comparisons between categories of data.

#### Pie charts

[Pie charts](#) display the size and proportion of each data category.

#### Geo bubble maps

[Geo bubble charts](#) display the size and distribution scope of metrics by region or country.

#### Geomaps

[#unique\\_83](#) You can use a geomap to reflect data sizes and data distributions through the shades of color.

## Tables

[#unique\\_84](#) is classic workbooks that display the values of a table field after a specified calculation, for example, sum, average, count, maximum, or minimum.

## Gauge diagrams

[#unique\\_85](#) diagrams display the range of a metric.

## Radar charts

[#unique\\_86](#) displays values or ratios obtained from an analysis.

## Scatter diagrams

[#unique\\_87](#) diagrams demonstrate the correlation and distribution of different metrics.

## Funnel diagrams

[#unique\\_88](#) indicates the reduction of data as it passes through different business phases.

## Card charts

[#unique\\_89](#) identifies the changes of data in each phase.

## TreeMap

[Treemap](#) displays hierarchical relationships through a set of rectangles, sized proportionately to each data category, clustered together into one large rectangle.

## Polar charts

[#unique\\_91](#) allows a visual comparison between several items on various features.

## Word Cloud

[#unique\\_92](#) You can use word clouds to generate user portraits and user labels.

## Tornado

[Tornado chart](#) You can use tornado funnel diagrams to compare different metrics between two objects or analyze a process with complicated steps.

## Hierarchy

[#unique\\_94](#) You can use hierarchy diagrams to display analysis results related to organization structures.

## Conversion Path

[Conversion path](#) charts illustrate the conversion rate of a web page by comparing its pageviews (PVs) and the unique visitors (UVs).

## Progress charts

Similar to [#unique\\_85](#), [#unique\\_96](#) can show the progress towards the completion of an indicator.

## Pivot table

Similar to [#unique\\_84](#), [#unique\\_97](#) can display the drill-down of data in a tree hierarchy in a classic workbook. Pivot tables also display the values of a table field after a specified calculation, for example, sum, average, count, maximum, or minimum.

## 3.4.2 Line charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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\\_69](#).

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\\_99](#).

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.

### 3.4.3 Area charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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\\_69](#).

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\\_99](#).

- 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**.

### 3.4.4 Bar charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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\\_77](#), 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\\_99](#).

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.

### 3.4.5 Stripe charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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\\_77](#), 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\\_99](#).

- 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 upper-right corner of the chart and select Delete to delete the current chart.

## 3.4.6 Pie charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.7 Geo bubble charts

Assume that you have read [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.8 Geomap

This section describes how to create a geomap. For more information, see [Dashboard overview](#) and [#unique\\_58](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [Geo bubble charts](#), 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.

### 3.4.9 Table

This section describes how to create a table. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

## 3.4.10 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 [Dashboard overview](#) and [#unique\\_58](#). 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\\_84](#), 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.

### 3.4.11 Gauge

This section describes how to create a gauge. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

## 3.4.12 Radar chart

This section describes how to create a radar chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.13 Scatter chart

This section describes how to create a scatter chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.14 Funnel chart

This section describes how to create a funnel chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.15 Card chart

This section describes how to create a card chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.16 Treemap

This section describes how to create a treemap. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.17 Polar chart

This section describes how to create a polar chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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 [Pie charts](#), 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.

### 3.4.18 Word cloud

This section describes how to create a word cloud. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.19 Tornado chart

This section describes how to create a tornado chart. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.20 Hierarchy chart

This section describes how to create a hierarchy. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

### 3.4.21 Conversion path

This section describes how to create a conversion path. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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 displayed 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.

## 3.4.22 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 [Dashboard overview](#) and [#unique\\_58](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [#unique\\_83](#), 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 >> Deleteto delete the diagram.

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

### 3.4.23 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 [Dashboard overview](#) and [#unique\\_58](#). If you need to edit or create datasets, see [Create a dataset](#).

Similar to [Geo bubble charts](#), 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.

### 3.4.24 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\\_58](#). 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.

### 3.4.25 Progress bar

This section describes how to create a progress bar. For more information, see [Dashboard overview](#) and [#unique\\_58](#). 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.

## 3.5 Share and publish a dashboard

You can share and publish a dashboard.

### Share a dashboard

1. Log on to the Quick BI (Pro or Enterprise) console.
2. Choose Workspace > Dashboards to enter the Dashboards page.
3. Select a dashboard and click Share as the following figure shows.
4. Select a validity period and a user ID to whom you want to grant access permissions as shown in the following figure.
5. Click Save to share the dashboard.

### Publish a dashboard

1. Log on to the Quick BI console.
2. Choose Workspace > Dashboards to enter the Dashboards page.
3. Right-click a dashboard, select Public as shown in the following figure.
4. Select an expiration date and select the Regenerate URL checkbox as shown in the following figure.
5. Click Public to publish the dashboard.

## 4 Create workbooks

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### 4.1 Workbook overview

The workbook applies to workspaces under Quick BI Pro and Quick BI Standard. The workbook is not supported in the personal workspace.

#### Common features

In the workbook editing page, you can undo, restore, cut, copy, and paste data, as shown in the following figure.

#### Conditional formatting

Click the Set Conditional Formatting icon in the toolbar to add conditions to data results. For example, you can highlight certain data, as shown in the following figure.

#### Add images and hyperlinks

The workbook provides you with the Images and Hyperlinks features so that you can create expressive charts, as shown in the following figure.

#### Add drop-down lists

Click the Drop Down icon to add labels to the data records.



**Note:**

Separate multiple labels with commas (,).

#### Text format

You can use the text format feature to adjust the text format in the charts.

- Specify the text font, color, and background.
- Specify the text size and style (Bold, Italic, Underline, and Strikethrough).
- Specify the cell style (text alignment, text wrapping, indenting, and cell merging).

- Specify the text formatting method (general, number, text, percentage, date, and custom settings)

### Table properties

You can use the table properties feature to adjust table properties.

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

### Global parameters

You can set global parameters in the workbook. Global parameters can be used in the parameter links of tables.

1. In the workbook editing page, click the Global Parameters icon.
2. In the Parameters page, enter the required parameters and then click OK to finish setting global parameters.

## 5 Privilege control

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### 5.1 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

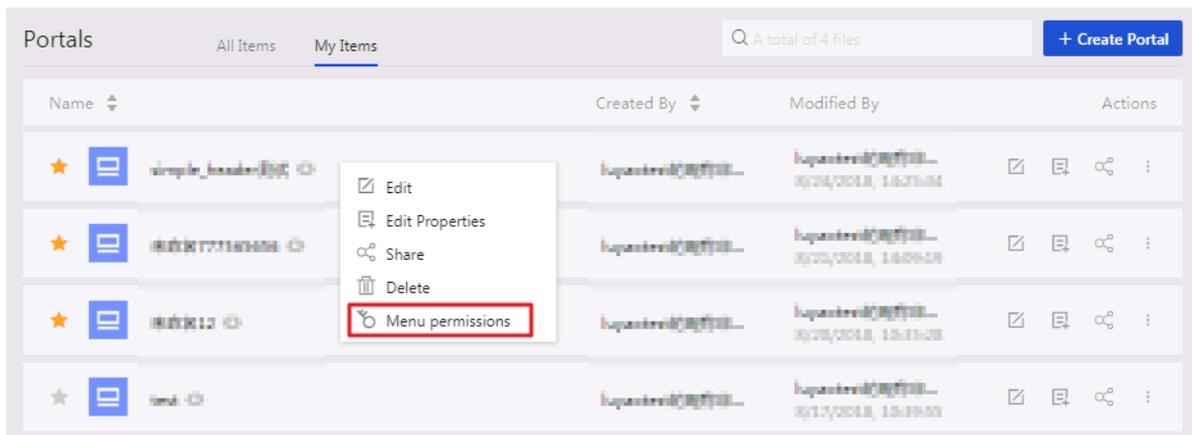
.

## 5.2 Configure menu permissions for the portals

You can configure menu permissions for the portals of a workspace.

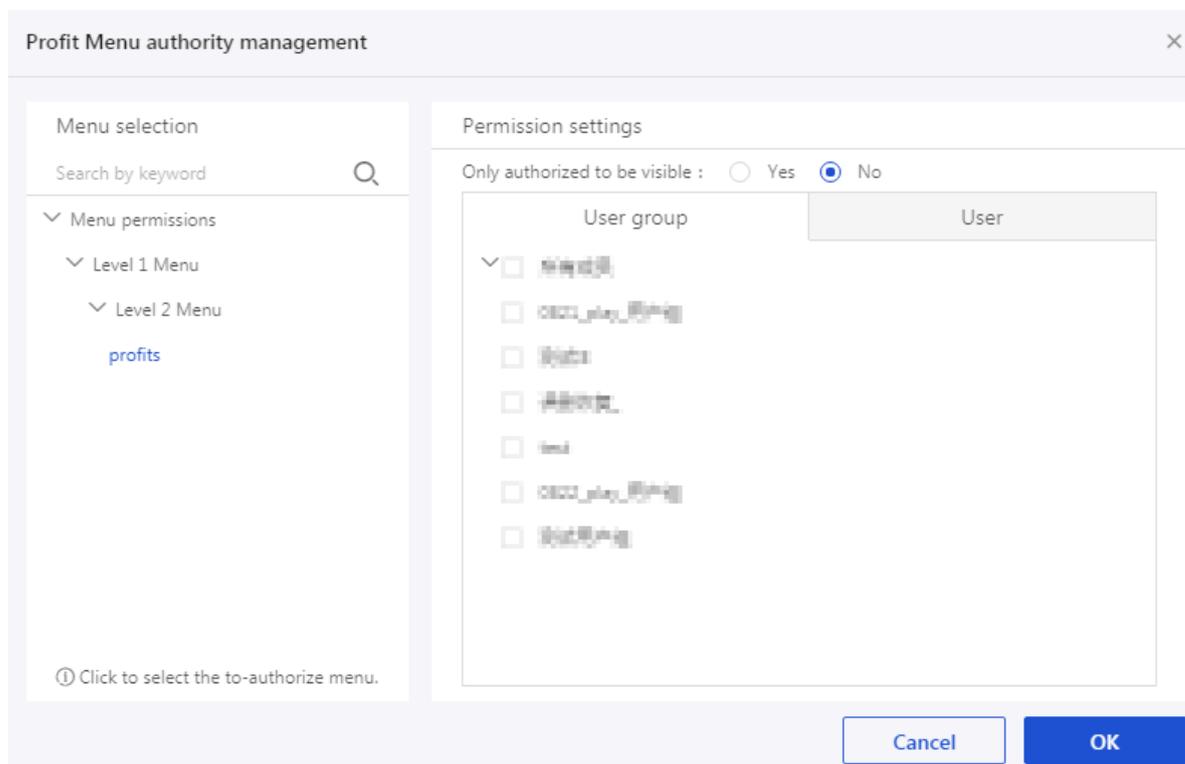
Menu permissions can be authorized to user groups and individual users. The steps to perform this operation are as follows.

1. Log on to the Quick BI console.
2. Select a workspace. For more information about creating a workspace, see [Create a workspace](#).
3. Click the Portals icon to jump to the Portals page.
4. Select a portal and click the More icon in the Actions column or right click the portal as shown in the following figure.



5. Click Menu Permission.

6. In the Menu Permission dialog box, select a menu for authorization, select a radio box to specify whether the menu is only available for authorized users, and select users and user groups that you want to authorize as shown in the following figure.



#### Note:

See the following description about the values of the Only Available for Authorized User field.

- **Yes:** Only authorized user groups and users have access permissions for this menu.
- **No:** All users have access permissions for this menu.

7. Click OK to complete configuring the menu permissions.

## 5.3 Set a row-level permission

The row-level permission setting must operate on datasets.

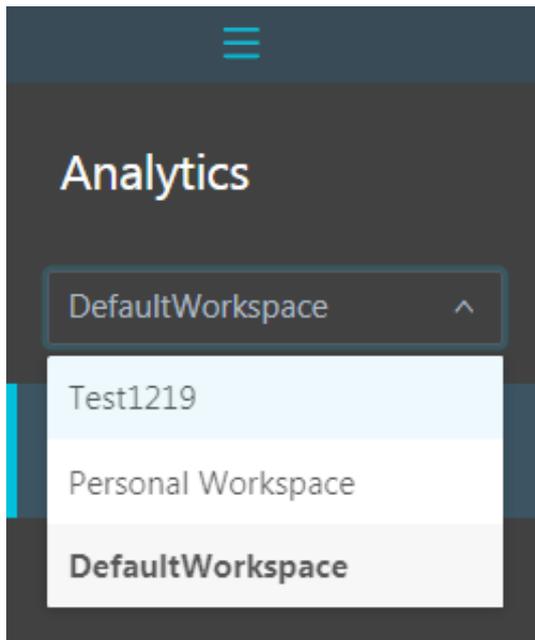
### Context

Currently, only in the workspace of Quick BI Pro can perform the row-level permission setting. The function in personal workspace is invalid.

### Procedure

1. Log on to the Quick BI console.

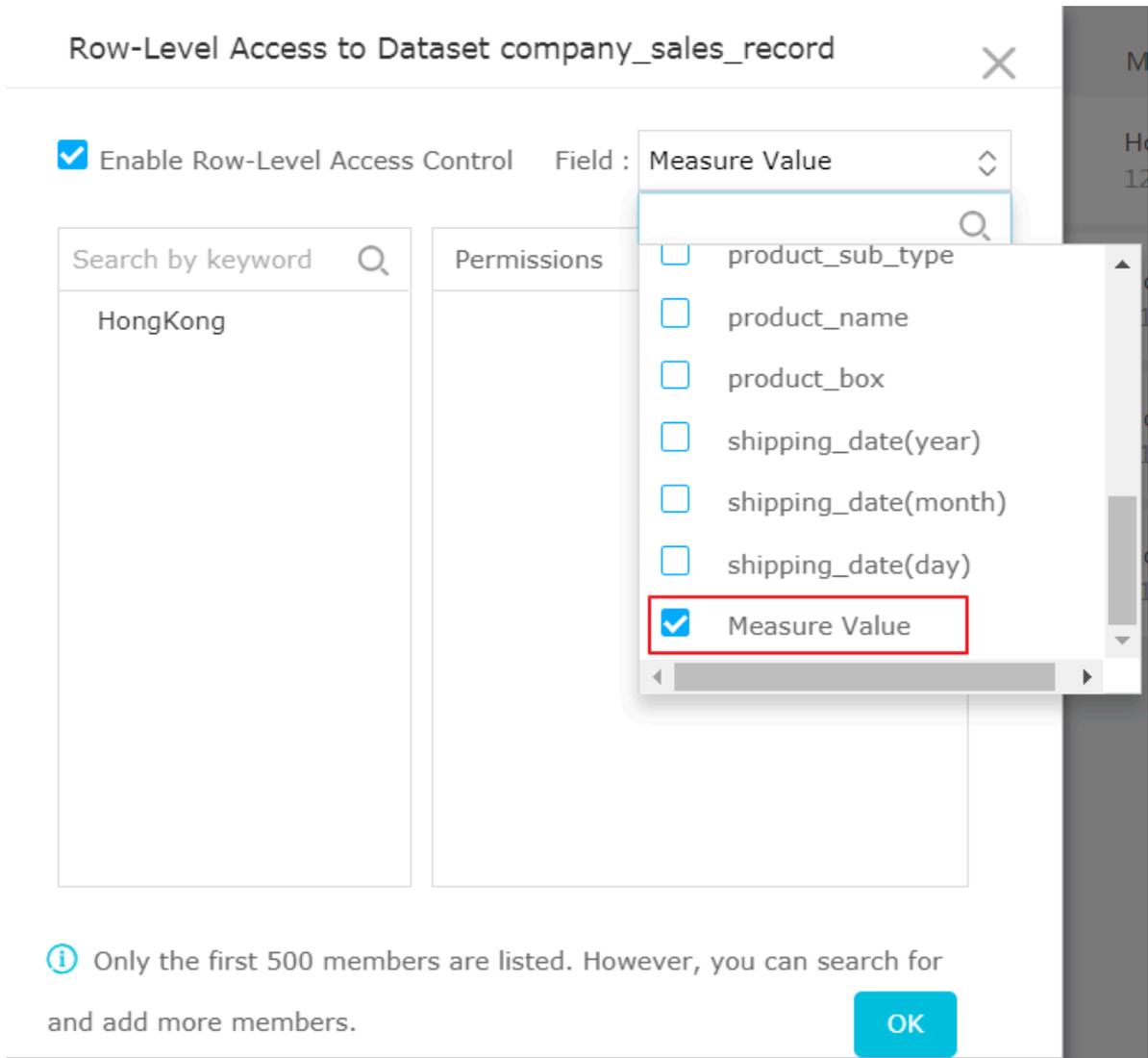
2. Select a workspace, as shown in the following figure.



To create a new workspace, see [Create a workspace](#).

3. Click Datasets icon to enter the dataset management page.
4. Select a dataset and right-click or click the Ellipsis icon.
5. Select Row-Level Permissions.
6. Select Enable Row-level Permission Control.

7. Select fields, which are required to set row-level permission, as shown in the following figure.



Measure value is all the measurement fields in the dataset. By controlling the measurement fields, different users can see different measurement results.

8. In the Permissions list, click province. The province items are listed automatically, as shown in the following figure.

Row-Level Access to Dataset company\_sales\_record

Enable Row-Level Access Control    Field : province

Search by keyword

HongKong

Permissions

province

Select    Specify

Search by keyword

- All
- Anhui
- Beijing
- Fujian
- Gansu
- Guangdong
- Guangxi

Add

**i** Only the first 500 members are listed. However, you can search for and add more members.

OK

9. Select a member and set row-level permissions from the province item list, as shown in the following figure.

Row-Level Access to Dataset company\_sales\_record
✕

Enable Row-Level Access Control    Field : province

Search by keyword 🔍

HongKong

Permissions ✎

✓ 📁 province ✎

Select    Specify

Search by keyword 🔍

All

Anhui

Beijing

Fujian

Gansu

Guangdong

Guangxi

Add

📘 Only the first 500 members are listed. However, you can search for and add more members.

OK

This member can only see the data in Beijing and Guangdong, and the data from other provinces are not visible to this member.



**Note:**

Even only one field of a dataset requires row-level permission control, you must set the list of field members who have the permission to access the controlled field on the controlled field of the dataset for all users in the organizational unit. If the list of field members is not set, the member is not allowed to access any data reports that generated by the dataset by default.

10. Click OK to complete the row-level permission setting.

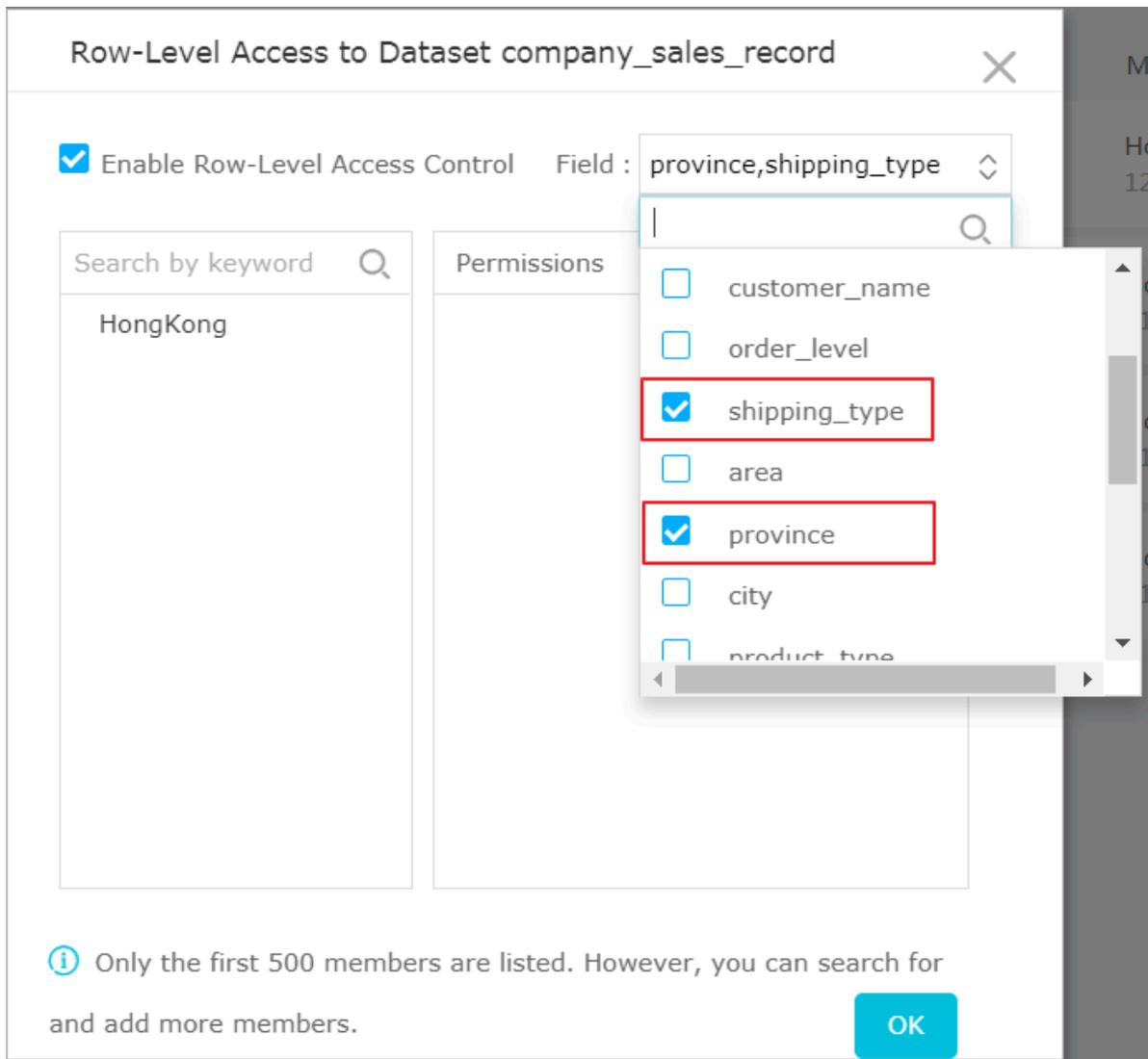
## Example of row-level permission settings

### Context

Select shipping\_type and province to perform the row-level permission settings.

### Procedure

1. Enable the row-level permission function.
2. Select `shipping_type` and `province` from the drop-down list, as shown in the following figure.



3. Select a member, for example, user1.  
Set row-level permissions from `shipping_type` items and `province` items.
4. Select a member, for example, user2.  
Set row-level permissions from `shipping_type` items and `province` items.
5. Click OK to complete the row-level permission setting.

## Verify row-level permission settings

Different users can view different data in a same dashboard due to the row-level permission setting is performed.

If an organizational unit member has not been assigned with a dimension member that can be viewed, the report cannot be executed, and a message indicating that the member has no permission on a controlled field is displayed.

## 6 Create a report

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### 6.1 Build reports

The Report Building Service (RBS) supports the What You See Is What You Get (WYSIWYG) feature for designing data applications. You can use widgets and templates to generate charts for PC users and mobile users. Charts such as the dashboard, workbook, and classic workbook can be shared, published, and transferred to allow readers to see the created charts.



**Note:**

The classic workbook is a beta feature and is not supported in future releases. Additionally, the classic workbook does not support custom group fields, data type conversion, snowflake schemas association, or database data association across different sources.

#### Service components

##### Create and manage dashboards

Create an interactive dashboard style chart. Dashboard charts include the following features:

- Supports dividing the dashboard into 12 sections.
- Supports 35 types of charts including bar, pie, dashboard, radar, polar, funnel, and card, and 5 types of widgets including the filter bar, text area, iFrame, TAB, and image.
- Supports global parameters, linkage, link (only for tables and scatters), drilling, and linkage query.
- Supports row-level permissions

##### Create and manage data applications

Data applications are the collections of the pre-defined dashboards. It provides you with an interactive selection feature that is similar to a menu, including the following features:

- Create and edit data applications based on templates.
- List, view, and delete data applications.

## Share and transfer data works, and manage permissions

The system allows you to share and transfer charts you have created to readers with the following features:

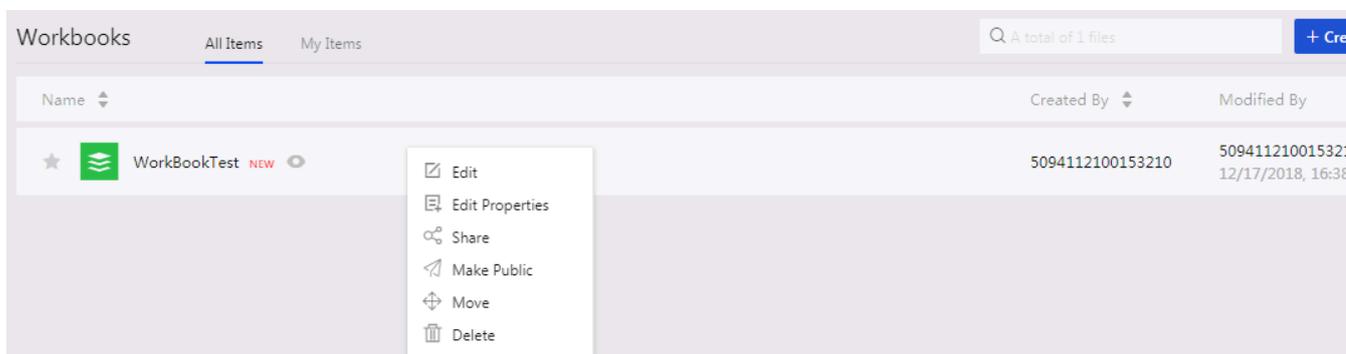
- Transfer and share dashboards and data applications.
- Manage permissions for accessing dashboards and data applications.
- Use the permission hierarchy and inheritance to control access for dashboards and data applications.

## 6.2 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.



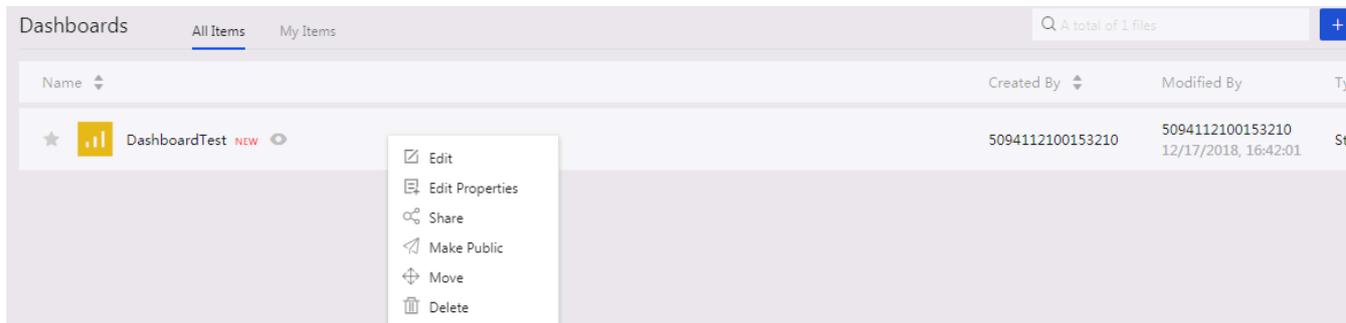
- **Edit:** Edit the workbook.
- **Edit Properties:** Edit the workbook name.
- **Share:** Share the workbook with other users in a specific period.
- **Make Public:** Allows visitors to access the workbook through a generated link without logging on to the system.
- **Move:** Move the workbook to another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