Alibaba Cloud
Quick BI

Quick Start

Issue: 20190221

Legal disclaimer

Alibaba Cloud reminds you to carefully read and fully understand the terms and conditions of this legal disclaimer before you read or use this document. If you have read or used this document, it shall be deemed as your total acceptance of this legal disclaimer.

1. **You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloud-authorized channels, and use this document for your own legal business activities only. The content of this document is considered confidential information of Alibaba Cloud. You shall strictly abide by the confidentiality obligations. No part of this document shall be disclosed or provided to any third party for use without the prior written consent of Alibaba Cloud.**
2. **No part of this document shall be excerpted, translated, reproduced, transmitted, or disseminated by any organization, company, or individual in any form or by any means without the prior written consent of Alibaba Cloud.**
3. **The content of this document may be changed due to product version upgrades , adjustments, or other reasons. Alibaba Cloud reserves the right to modify the content of this document without notice and the updated versions of this document will be occasionally released through Alibaba Cloud-authorized channels. You shall pay attention to the version changes of this document as they occur and download and obtain the most up-to-date version of this document from Alibaba Cloud-authorized channels.**
4. **This document serves only as a reference guide for your use of Alibaba Cloud products and services. Alibaba Cloud provides the document in the context that Alibaba Cloud products and services are provided on an "as is", "with all faults " and "as available" basis. Alibaba Cloud makes every effort to provide relevant operational guidance based on existing technologies. However, Alibaba Cloud hereby makes a clear statement that it in no way guarantees the accuracy, integrity , applicability, and reliability of the content of this document, either explicitly or implicitly. Alibaba Cloud shall not bear any liability for any errors or financial losses incurred by any organizations, companies, or individuals arising from their download, use, or trust in this document. Alibaba Cloud shall not, under any circumstances, bear responsibility for any indirect, consequential, exemplary, incidental, special, or punitive damages, including lost profits arising from the use**

or trust in this document, even if Alibaba Cloud has been notified of the possibility of such a loss.

5. By law, all the content of the Alibaba Cloud website, including but not limited to works, products, images, archives, information, materials, website architecture, website graphic layout, and webpage design, are intellectual property of Alibaba Cloud and/or its affiliates. This intellectual property includes, but is not limited to, trademark rights, patent rights, copyrights, and trade secrets. No part of the Alibaba Cloud website, product programs, or content shall be used, modified , reproduced, publicly transmitted, changed, disseminated, distributed, or published without the prior written consent of Alibaba Cloud and/or its affiliates . The names owned by Alibaba Cloud shall not be used, published, or reproduced for marketing, advertising, promotion, or other purposes without the prior written consent of Alibaba Cloud. The names owned by Alibaba Cloud include, but are not limited to, "Alibaba Cloud", "Aliyun", "HiChina", and other brands of Alibaba Cloud and/or its affiliates, which appear separately or in combination, as well as the auxiliary signs and patterns of the preceding brands, or anything similar to the company names, trade names, trademarks, product or service names, domain names, patterns, logos, marks, signs, or special descriptions that third parties identify as Alibaba Cloud and/or its affiliates).
6. Please contact Alibaba Cloud directly if you discover any errors in this document.

Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus , page names, and other UI elements.	Click OK.
`Courier font`	It is used for commands.	Run the `cd /d C:/windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *[-all|-t]*

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

Contents

1 Preparations

1.1 Connect Quick BI to RDS for MySQL

This topic uses MySQL database as an example to describe how to connect Quick BI to RDS MySQL.

Assume that you already have a MySQL database running properly and the data in this database can be used.

Prerequisites

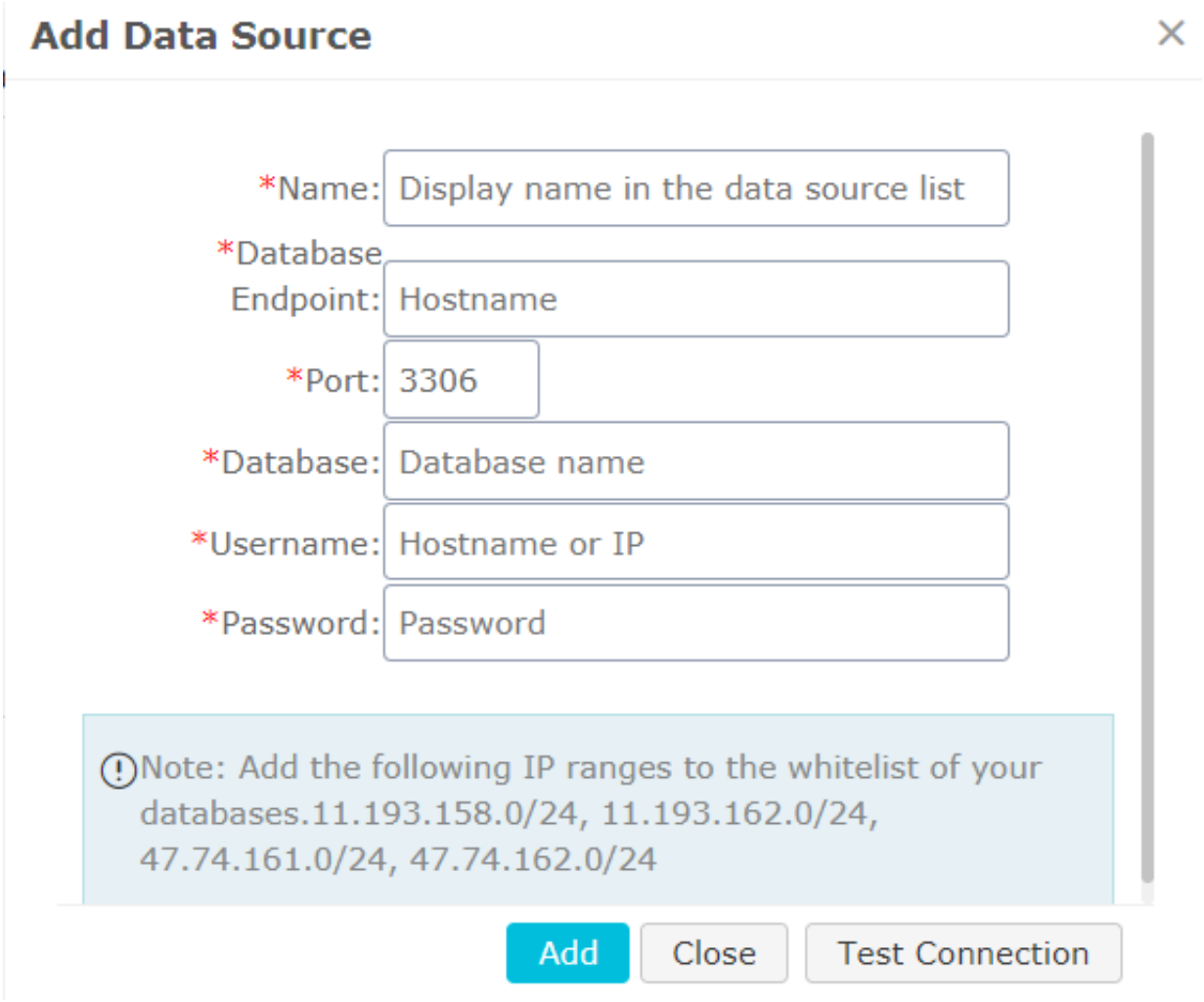
- You have access permissions to the MySQL database. For more information, see *Create accounts and databases*.
- Obtain a free trial for Quick BI or a purchased edition. For more information, see *Purchase, upgrade, and renew Quick BI services*.

Configure Quick BI

Copy the IP address from Quick BI

1. Log on to the Quick BI console.
2. Click Workspace > Data Sources to go to the data source management page.
3. Click Create Data Source > Cloud Database > MySQL to create a MySQL data source.

4. Copy the IP address displayed in the blue area, as shown in the following figure.



Obtain the endpoint of the MySQL database from RDS

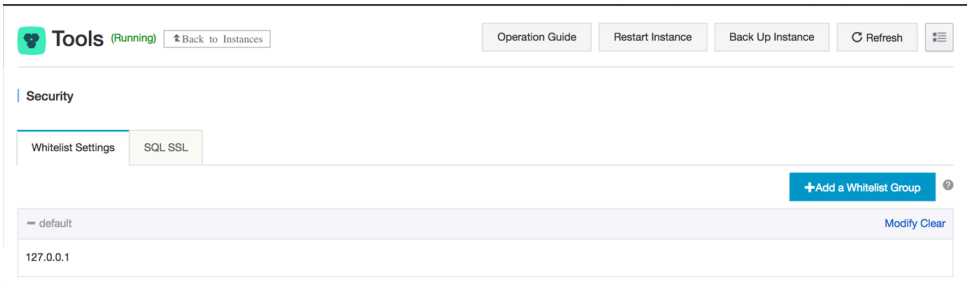
1. Log on to the RDS console.
2. Select the region where the target instance is located.
3. Click the name of the instance to go to the Basic Information page.

   The IP address is the database endpoint.

Set the IP address whitelists on RDS

1. In the left-side navigation pane, click Data Security to go to the data security management page.

2. On the Whitelist Settings tab page, click Modify, as shown in the following figure.



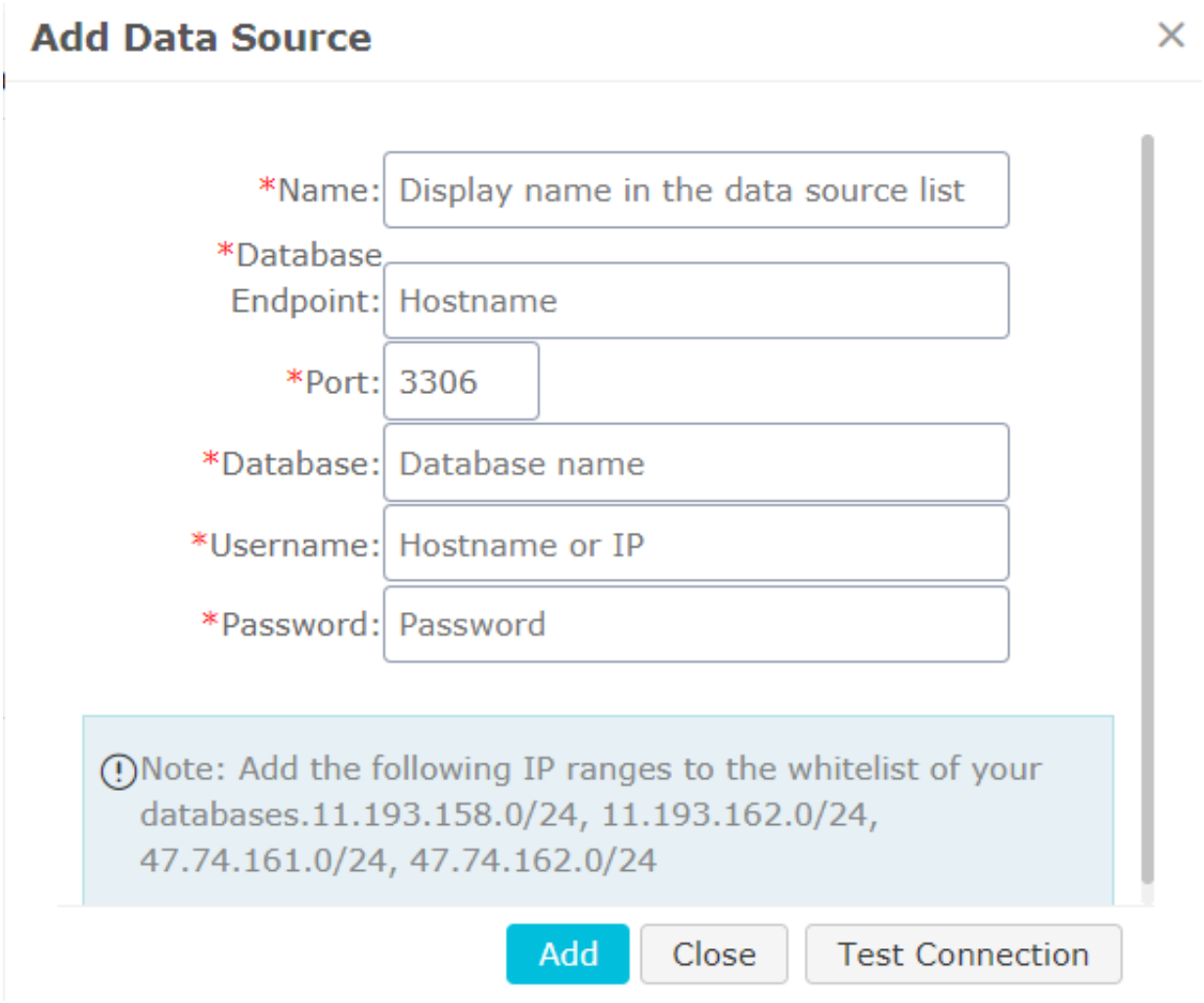
3. Click Clear to delete the IP address 127.0.0.1.
4. Click Add Whitelist Group to add a new whitelist group.
5. Enter a new group name and paste the IP address in the whitelist area.
6. Click OK to complete the whitelist settings.

   For more information, see *Set whitelists*.

Verify the data source connection

1. Go back to the Quick BI data source management page.
2. Click Create Data Source > Cloud Database > MySQL.

3. Enter the data source connection information as shown in the following figure.



   - Name: The display name of the data source.
   - Database Endpoint: The IP address of the database.
   - Port: The port number.
   - Database: The database name.
   - User Name: The name of the database user.
   - Password: The database password.
4. Click Test Connection to verify that the data source connection is functioning properly.

   If the connection functions properly, a prompt message is displayed.
5. Click Add. The data source is added.

   For more information, see *Create a cloud data source*, *Create a data source from external database*, and *Upload local files*.

More information

You can obtain more detailed information about Quick BI and RDS from the following links.

- *ApsaraDB for RDS*
- *Quick BI*

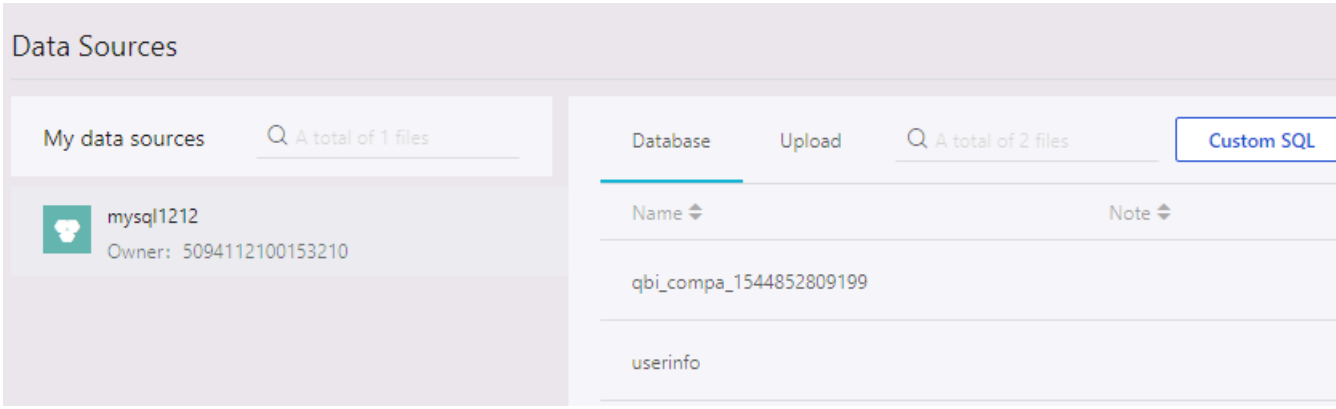
1.2 Example: Create datasets

Create datasets

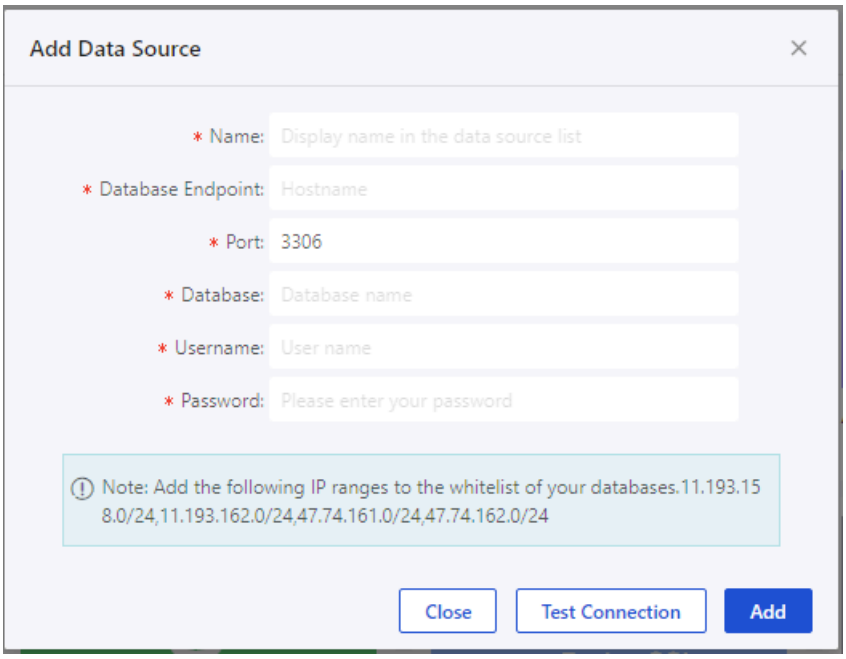
You must prepare a dataset before creating a dashboard. To create a dataset, you must first specify a data source. This chapter describes how to create a data source.

This chapter uses a MySQL data source as an example.

1. Log on to the Quick BI console.
2. Click Workspace > Data Sources to go to the data source management page.
3. Click Create Data Source and select a data source type. For example, you can click the Cloud Database tab, as shown in the following figure.



4. Enter the connection information, and click Test Connection to check whether the data source has been connected, as shown in the following figure.



If the data source cannot be connected, a corresponding message is returned. For more information about how to address this issue, see *How to diagnose a data source connection exception*.

5. Click Add to add the data source to the data source list.
6. Select a table, for example, company_sales_record, and click the Create Dataset icon, as shown in the following figure.

The created dataset is labeled as new dataset and is automatically stored in folder My Dataset. This label allows you to quickly locate newly-created datasets.

Edit datasets

After you have created a dataset, you can edit the dataset based on your needs. For example, you can change field types or add calculated fields.

Take company_sales_record as an example.

1. Click Datasets to go to the Datasets page.

2. Select a target dataset, for example, company_sales_record, and click Edit to go to the dataset editing page, as shown in the following figure.

   To create a map chart, such as a geo bubble map or a geomap, select dimension fields containing geographical information and change the dimension type from String to Location. Otherwise, the map cannot be displayed.
3. In the dimension list, locate the area option.
4. Right-click the dimension and choose Change Dimension Type > Location > Region, as shown in the following figure.

   Note:
   When the dimension type is changed to geographical information, the selected geographical information must match with the field. For example, if the field is area, you must select Region in the geographical information list. Otherwise, the dimension type cannot be changed.

5. You can change to Province/Municipality or City in the same way, as shown in the following figure.

6. After the dataset is edited, click Save, as shown in the following figure.

7. Click Refresh Preview. The data is automatically displayed in the table, as shown in the following figure.

For more information about how to edit a dataset, see *Edit a dataset*.

2 Create a report

2.1 Example: Create dashboards

This topic describes how to create a dashboard and how to use the dashboard to create a report. This example involves only some of the chart types. For more information about basic dashboard operations and chart creation procedures, see *Basic dashboard operations* and *Use dashboard to create charts*.

Dashboard only supports two display modes.

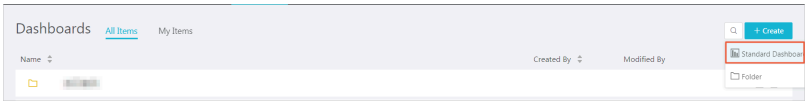
- Standard mode
- Full-screen mode (only available for Quick BI Enterprise)

Create a dashboard using the dataset named company_sales_reco. For more information about basic dataset operations, see *Example: Create datasets*.

Create dashboards

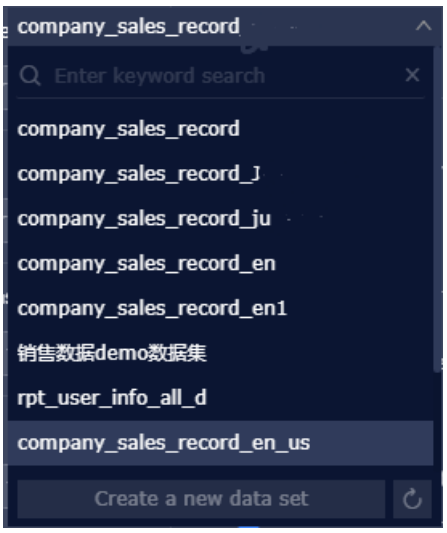
1. Log on to the Quick BI console, and click Workspace.
2. In the left-side navigation pane, click Dashboards to go to the dashboard management page.
3. Click Create Dashboard to go to the dashboard editing page.
4. Select a display mode, as shown in the following figure.

> **Note:**
> The full-screen mode is only available in the Workspace of Quick BI Pro or Quick BI Enterprise. The Personal Space only supports the standard mode. Quick BI Basic does not support the full-screen mode.

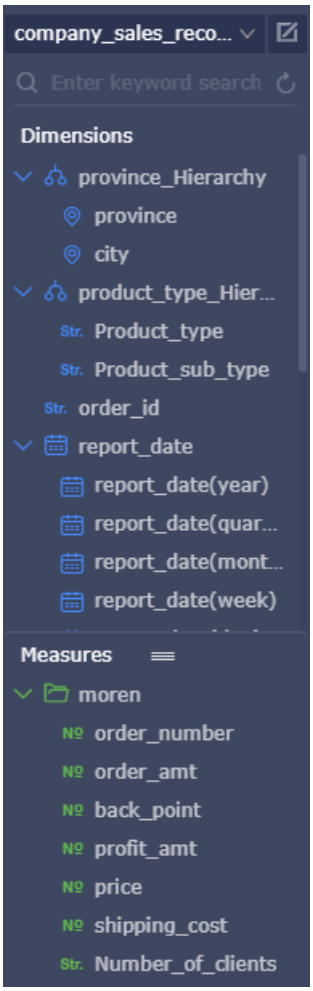


Add datasets to a dashboard

1. Click the Switch icon, and select a dataset, as shown in the following figure.



2. Click the workbook company_sales_record. The data in the workbook is listed in the dimension list and the measure list respectively, as shown in the following figure.



If the dataset list is empty, click Datasets to return to the dataset management page and check whether the dataset has been successfully created.

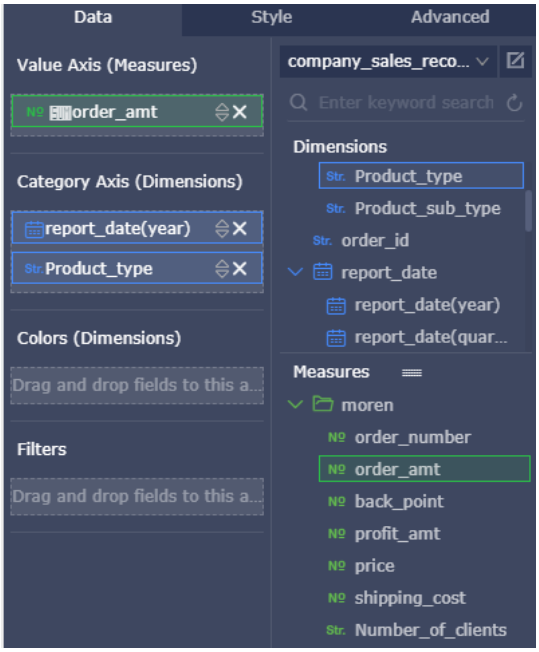
Create charts (standard mode)

This topic only describes how to create a column chart in standard mode. For more information about how to create other charts, see *Use dashboard to create charts*.

For more information about the data elements and applicable scenarios of each chart, see *Dashboard overview*.

For more information about basic dashboard operations, see *Basic dashboard operations*.

1. Click the column chart icon.
2. Double-click a field on the Data tab page. The field data is automatically filled in a specified area, as shown in the following figure.

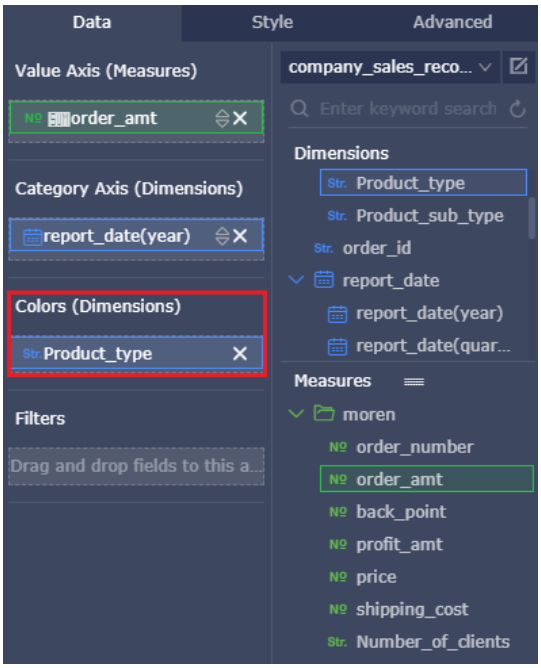


3. Click Update. The system automatically draws a chart.

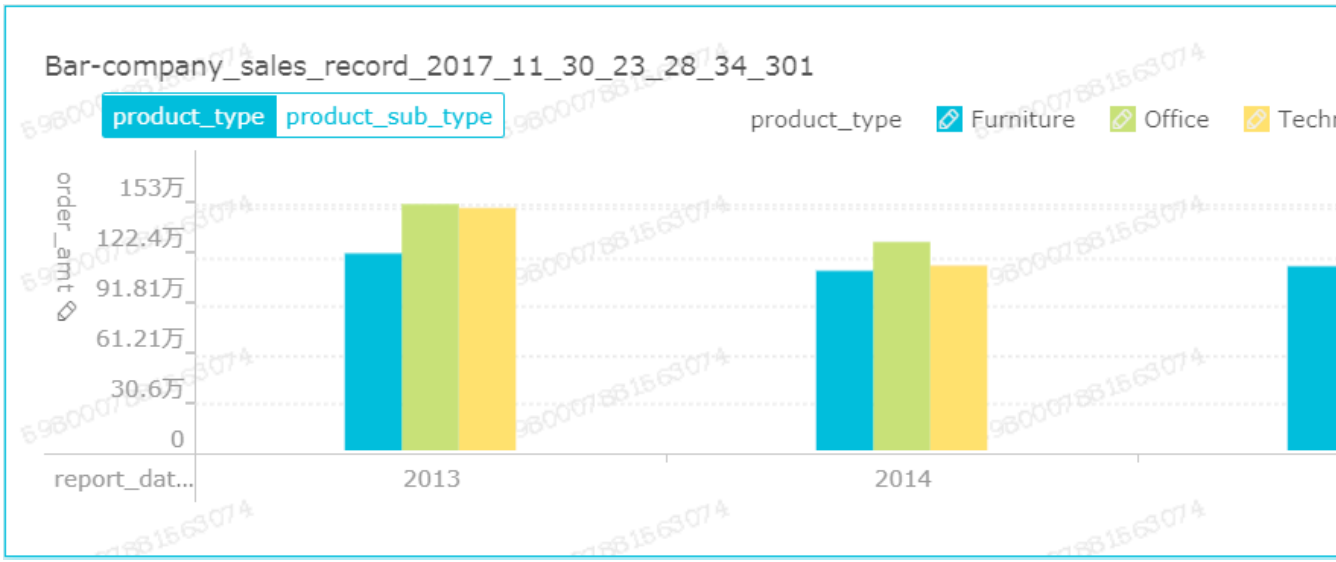
   If a large amount of data needs to be displayed, you can enable theColor Legend feature. Drag and drop a dimension field to the color legend area. Information of this field is displayed in different colors in the chart.

> Note:
> This feature is only available when the Value Axis area is filled with only one measure field. When the color legend is unavailable, the system automatically

provides prompts and reasons. You can manually adjust the dimension fields and measure fields as prompted.

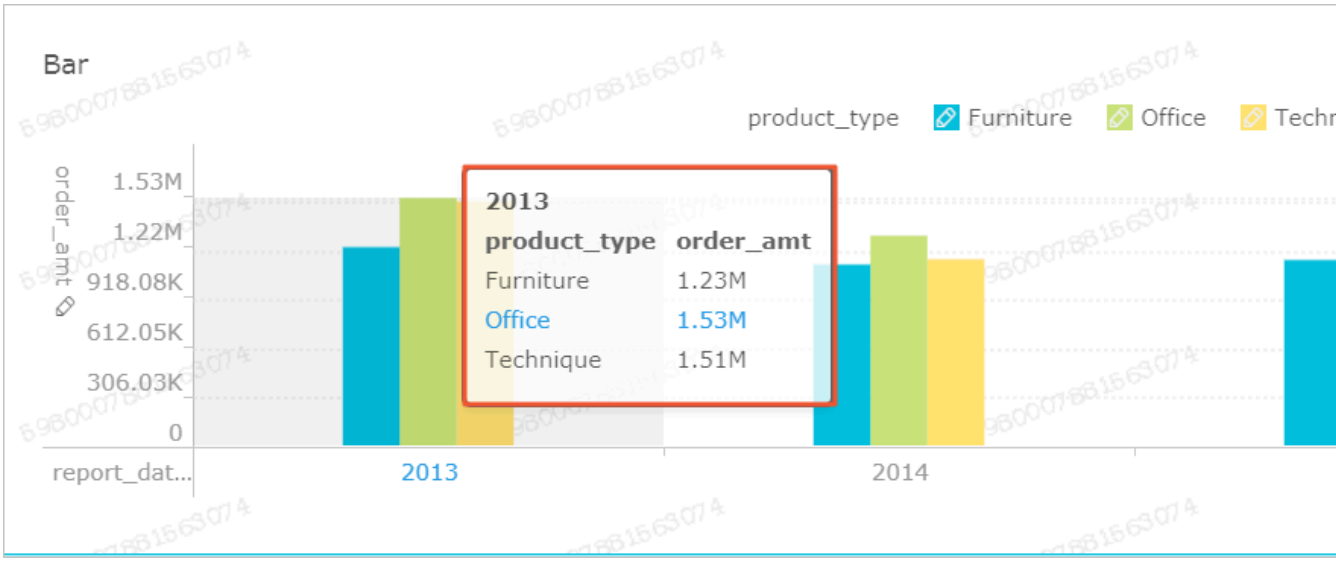


4. Click Update. The updated chart is shown in the following figure.

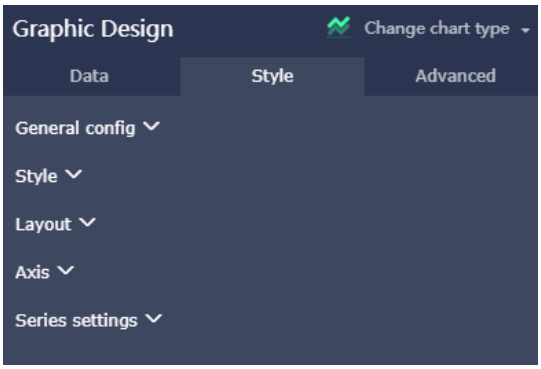


5. When you hover your mouse cursor over a set of data, the details of the data (ToolTip) are listed automatically, as shown in the following figure.

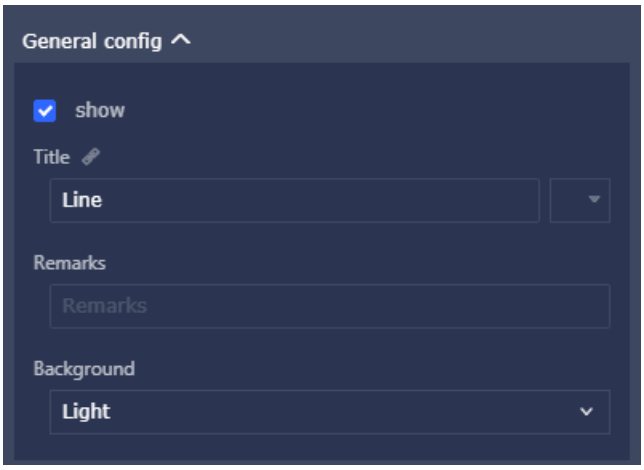
   You can choose Style > Layout > Tooltip to clear the Tooltip option.



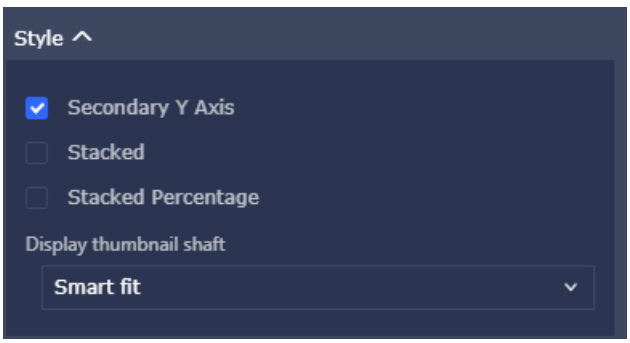
6. On the Style tab page, you can modify the titles, layouts, formats, and axis styles, and select a legend type, as shown in the following figure.



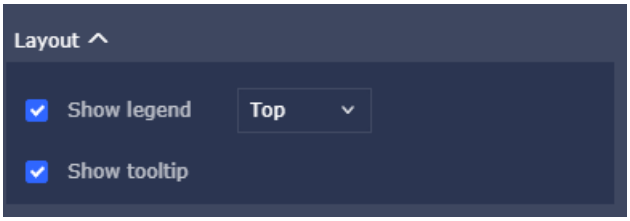
- General configuration: You can set the title and the background color of the chart, as well as the font and the color of the title, as shown in the following figure.



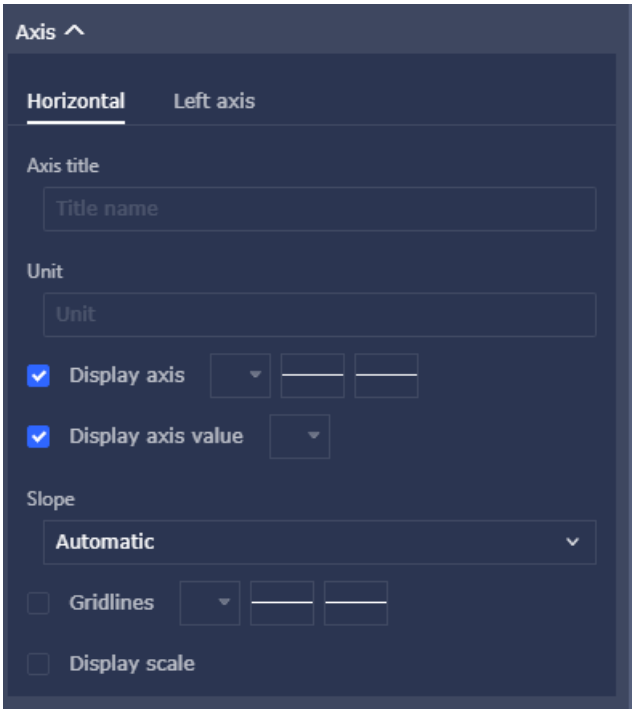
- Style: You can set the display style of the chart on the Style tab page. For example, you can select Secondary Y Axis, Stacked Percentage, or Stacked, as shown in the following figure.



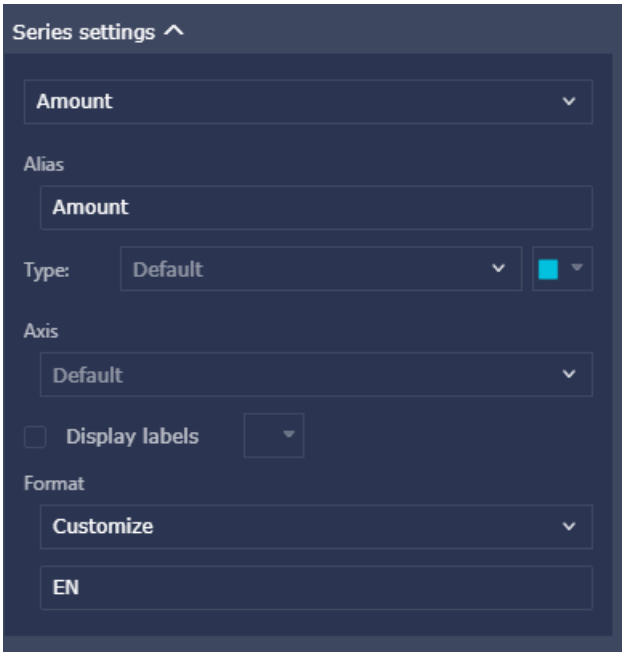
- Layout: You can set the legend type and whether to show the tooltip of the chart, as shown in the following figure.



- Axis: You can set the title and the display style of axes, the display mode of axis values, and the coefficient, as shown in the following figure.



- Series Settings: You can set the alias, display type, and color for a series of data. You can also set the format, decimal digits of the values, and decide whether to display the labels.



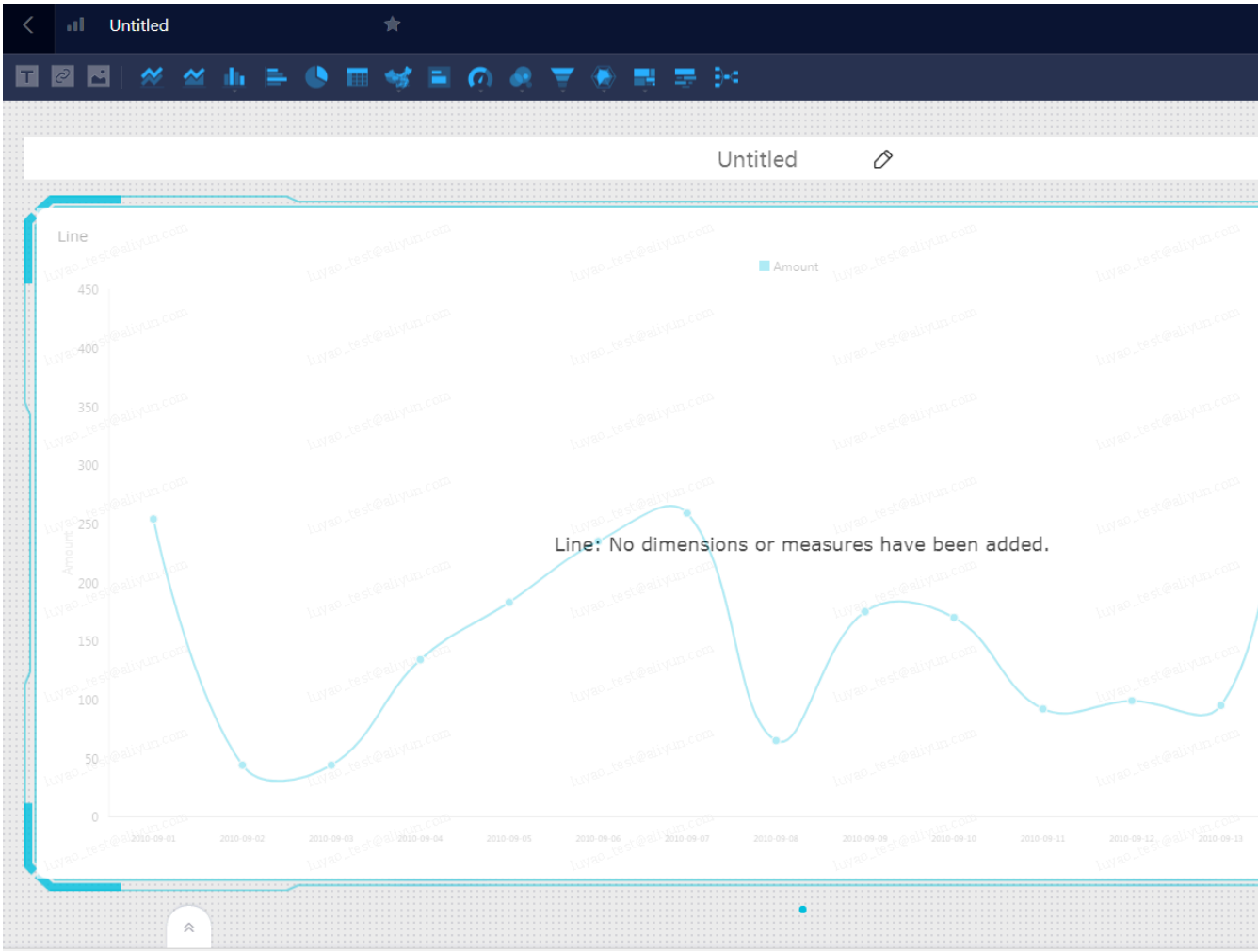
To delete the current chart, click More > Delete to delete the chart.

Create charts (full-screen mode)

This topic only describes how to create a geo bubble chart in full-screen mode.

1. Click the Geo Bubble icon, as shown in the following figure.

   The map contains global map components and can display data outside China.

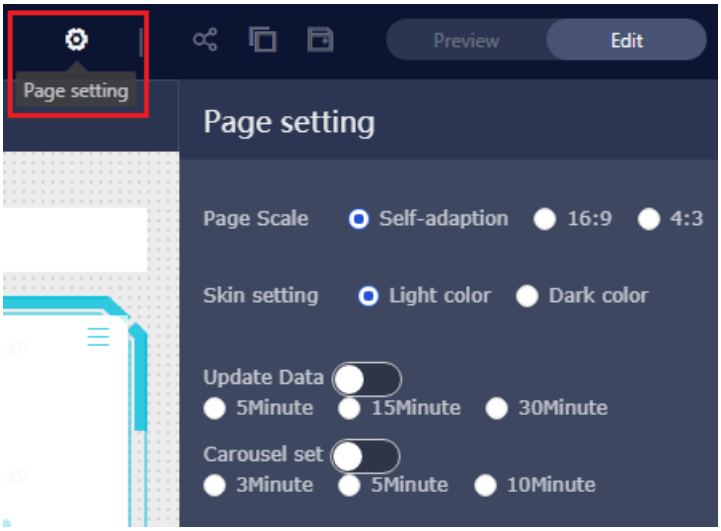


2. Double-click a field on the Data tab page. The field data is automatically filled in a specified area.

   Note:

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

3. Click Update, and the system automatically updates the chart.
4. Click the Style tab to edit the title and legend of the chart.
5. Click Page Setting to set the page scale, the background color, the time interval of data update, and the time interval of data carousel, as shown in the following figure.



To delete the current chart, click the Delete icon in the lower right corner of the chart.

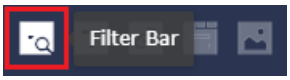
Add widgets

A dashboard supports the following five widgets.

- Standard mode
  - Filter Bar
  - Text Area
  - IFrame
  - TAB
  - Image
- Full-screen mode
  - Text Area
  - IFrame
  - Image
- Add filter bars

  You can click Filter Bar to search one or more charts for specific data.

  1. Click the Filter Bar icon, as shown in the following figure.

  2. Click the Filter Bar widget to open the editing menu.
  3. Select a dataset that can be operated, for example, company_sales_record.
  4. Select a field to be searched, for example, product_type.

     The filter bar supports filter interactions for datasets from different sources or from the same source. This example uses the datasets from the same source. For more information about filter interactions for datasets from different sources, see *Common widgets*.
  5. Click the Set Filter icon, select Current Dataset, and then select a chart.
  6. Click Style to edit the title of the widget.
  7. In the Set Filter Criteria dialog box, click Filter by Enumeration and select Ratio or Multiple Select.
  8. Click the drop-down arrow and select the item to be searched.

     Note:

If you have selected Ratio, you can select only one item. Otherwise, you can select multiple items.

9. Click Search, and the charts that contain the queried items are updated.

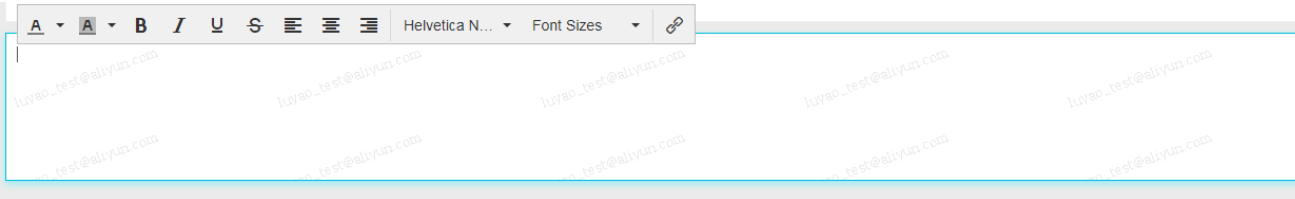
To delete the current widget, click More > Delete to delete the current widget.

You can also search a field by date or value. For more information about how to use the Filter Bar widget, see *Common widgets*.

- Add Text Area

  You can enter a text in Text Area to specify content such as a report title.

  1. Click the Text Area icon.
  2. Enter a text, as shown in the following figure.



  To delete the current widget, click More > Delete to delete the current widget.

- Add IFrame

  You can use IFrame to insert required webpages to query web data in real time and browse webpages related to the data on the current dashboard.

  1. Click the IFrame icon.
  2. Enter a web address, as shown in the following figure.

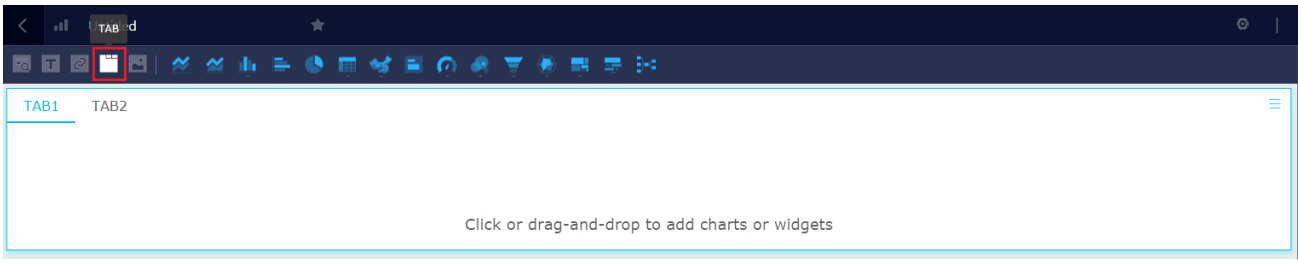
  Note:
  The web address must start with https.

  To delete the current widget, click More > Delete from the shortcut menu.

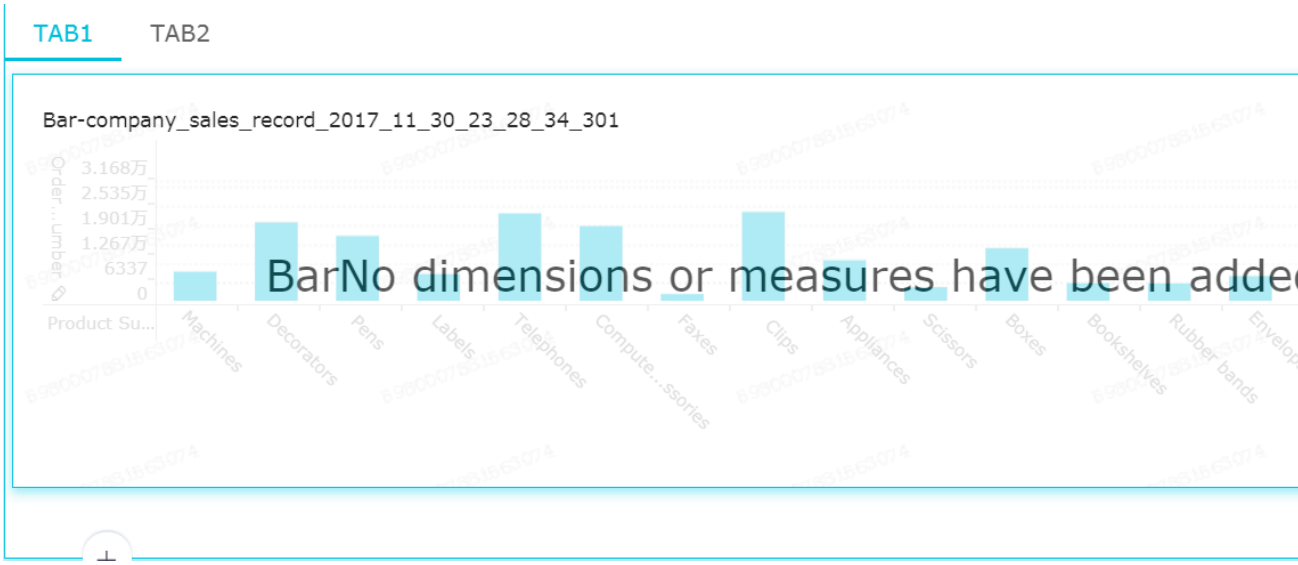
- Add TAB

  You can use TAB to display multiple charts on different tab pages.

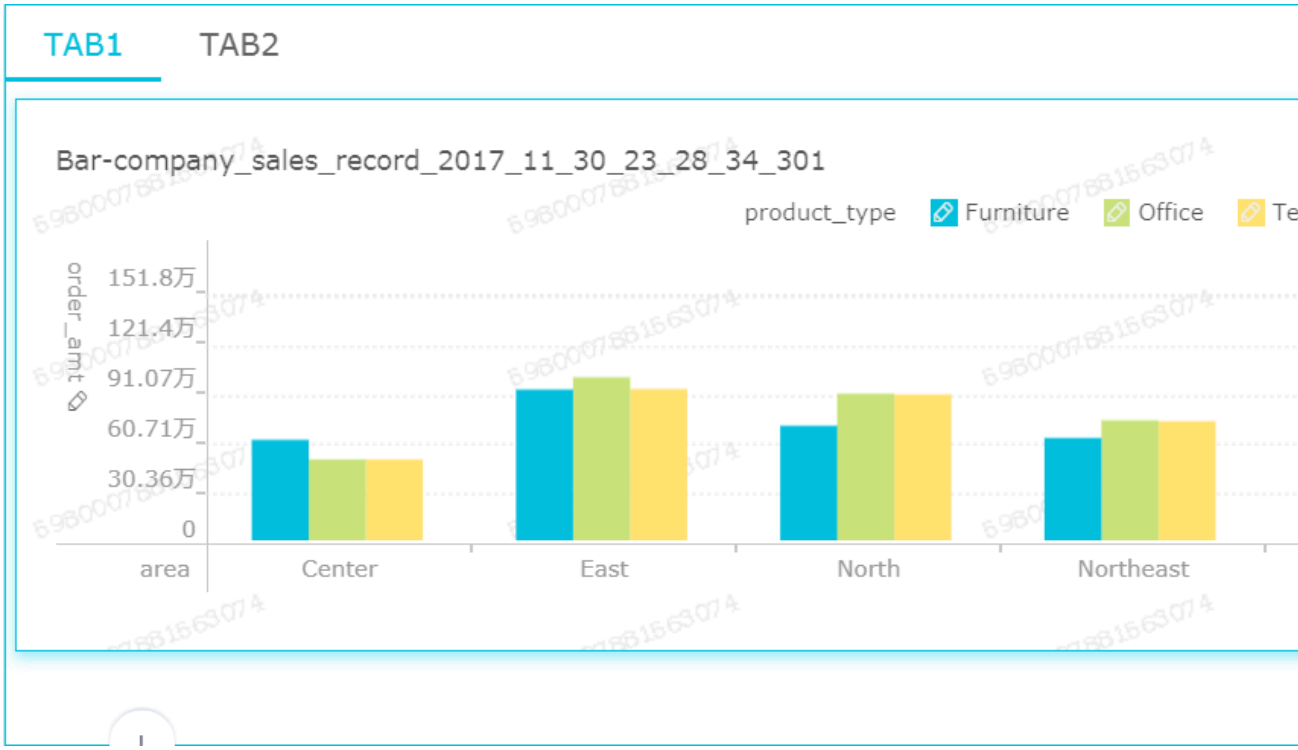
  1. Click the TAB icon.
  2. Click Add TAB Page to add a new tab page, as shown in the following figure.



  3. Click a tab to open a tab page and insert a chart to the page. For example, click TAB1, and the color of TAB1 turns blue, as shown in the following figure.



  4. Click the required chart icon, and a chart is automatically inserted to the TAB1 tab page.
  5. Create the chart by following the chart creation process. After the chart is created, the created TAB widget is shown in the following figure.

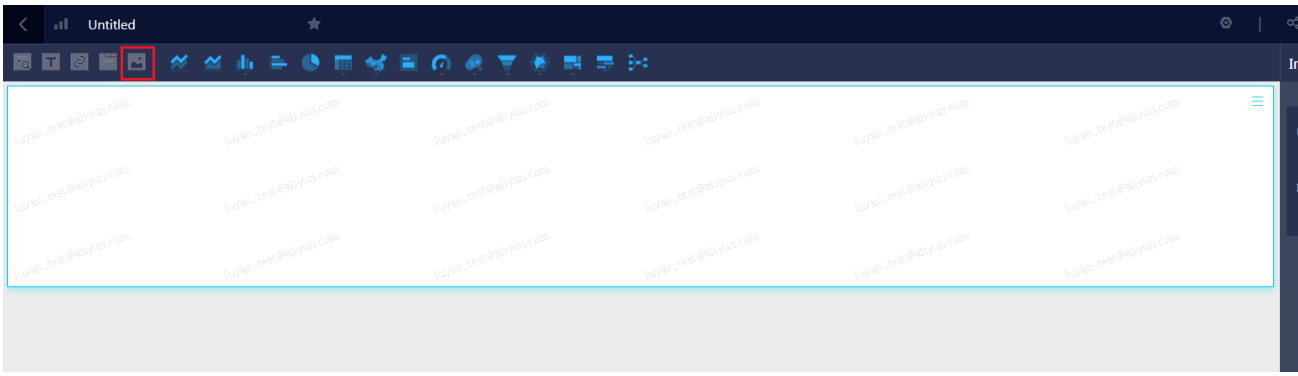


To delete the current widget, click More in the upper-right corner of the widget, and choose > Delete to delete the current widget.

- Add pictures

  You can use the PIC function to insert a picture as required.

  1. Click the picture icon.
  2. Enter the picture URL.
  3. Click the drop-down arrow and select the picture display style, as shown in the following figure.



To delete the current widget, click More > Delete from the shortcut menu.

Preview a dashboard

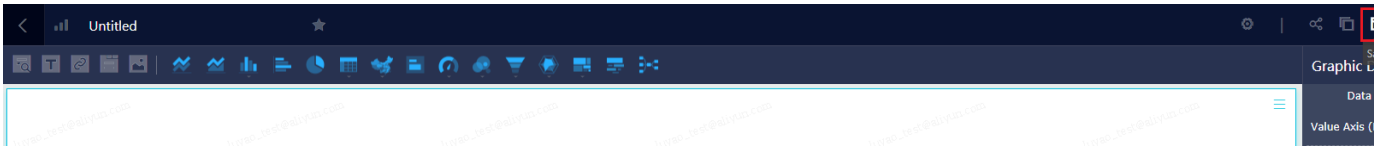
After a dashboard is edited, you can preview the charts in the dashboard.

Click Preview, choose PC Preview or Mobile Preview, as shown in the following figure.

Save dashboards

After the dashboard is edited, you can click Save to save the dashboard.

Click Save, as shown in the following figure.



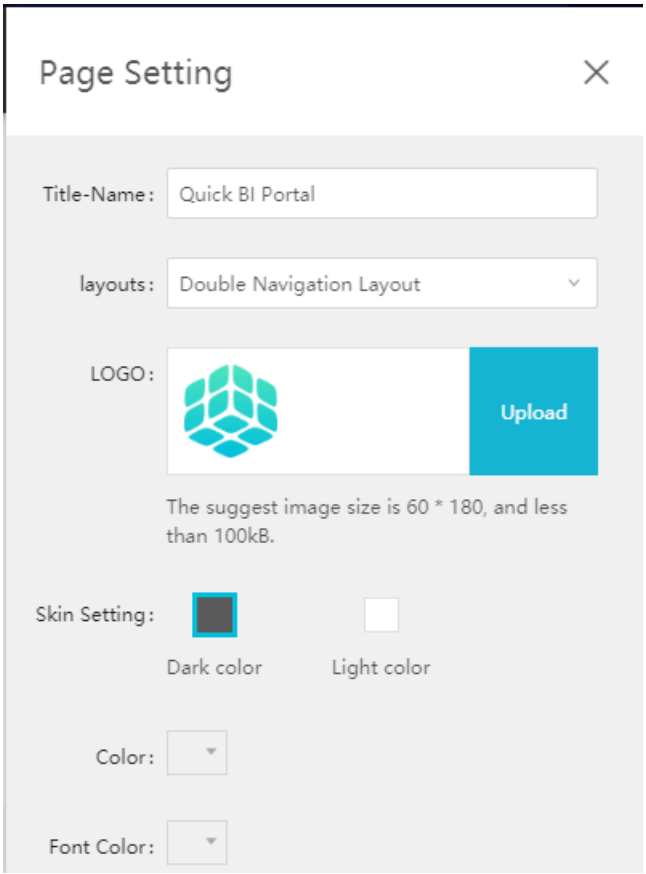
2.2 Example: Create portals

A portal, also known as a data product, is a set of dashboards that contain menus. You can use a portal to perform complex topic-based data analysis with a navigation pane.

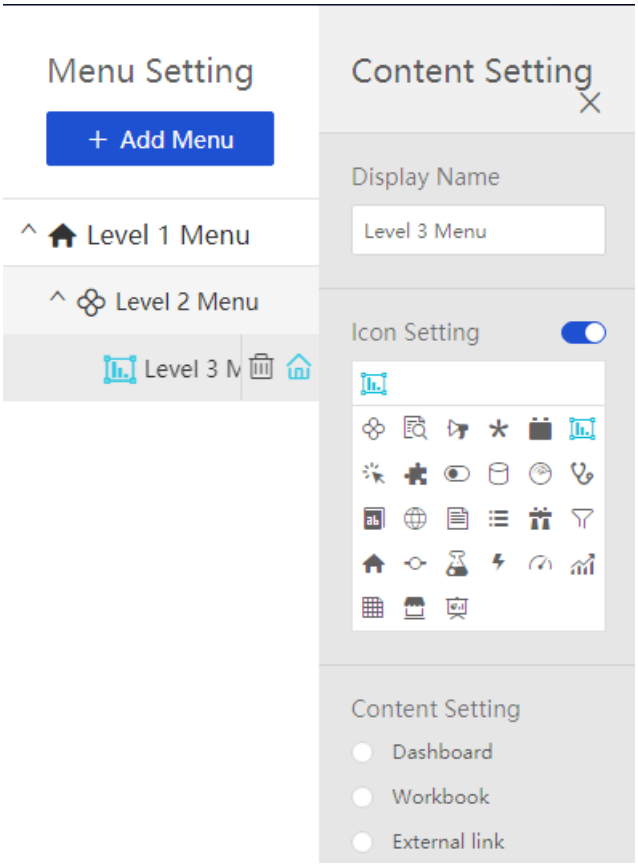
Create portals

1. Log on to the Quick BI console.
2. Click Workspace > Portals to go to the portal management page.
3. Click Create Portal to go to the portal editing page.

4. On the Page Setting tab page, set the title name, background color, and navigation bar color. You can also upload a logo and edit the footer, as shown in the following figure.



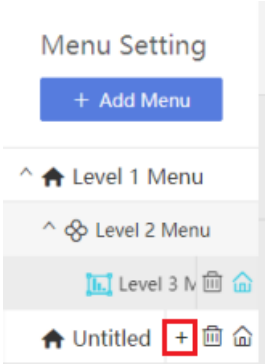
5. Click the Close icon to close the setting page and the Menu Setting tab page displays, as shown in the following figure.



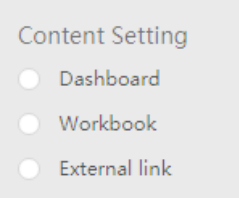
6. On the Menu Setting tab page, set the menu structure, menu levels, and menu homepage.
7. On the Content Setting tab page, set the display name, external link, icon, and view type of each menu.
8. Click the Preview icon to view the portal.

Menu settings

- Click Add Menu to add a level-one menu in the navigation bar.
- Click + to add a submenu.



- References to dashboards, workbooks, and external links are supported.



2.3 Example: Create workbooks

Context

You can only create workbooks in the Workspace of Quick BI Enterprise or Quick BI Pro. The workbook feature is unavailable in Personal Space. This example uses a dataset named company_sales_record to create a commodity sales and trading table.

Create workbooks

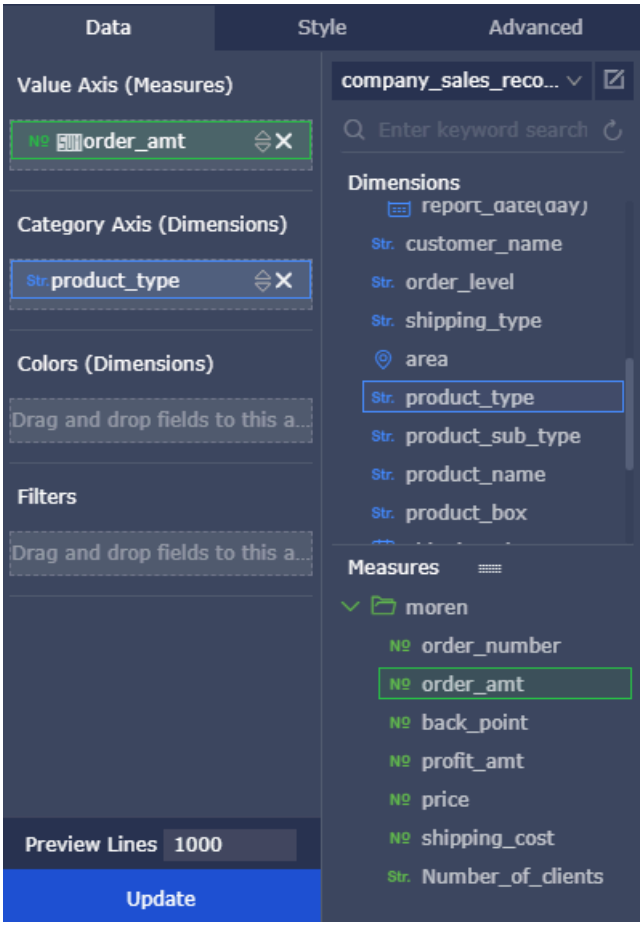
Quick BI categorizes data in a dataset into dimensions and measures based on certain rules. In most cases, data of String type falls into the category of dimensions, while data of Double type or Bigint type falls into the category of measures. You can select proper fields from the dimensions and measures to place them in rows or columns, and perform data analysis with proper filtering conditions.

Procedure

1. Log on to the Quick BI console, and click Workspace.
2. Click Workbooks to go to the workbook management page.
3. Click Create Workbook to go to the workbook editing page.
4. Click the All icon, or the data cannot be displayed normally.

   You can also specify the scope of data to be displayed on the workbook. The data can be displayed in partitions.

5. Locate the company_sales_record dataset. Double-click the product_type field and the order_amt field, as shown in the following figure.



6. Click Update to update the data.
7. Click Save and select a location to save the workbook.

   You can also save the workbook to a local disk.
8. Enter Commodity sales and trading table as a table title, and click OK.

Insert charts (for Quick BI Enterprise)

If you use Quick BI Professional Edition, you can insert charts and a filter bar in the workbook.

Workbook supports eight charts and one filter bar. You can insert charts and widgets to display data based on your needs.

Procedure

1. Click the chart icon or click More. Select a chart type. For example, you can select a column chart, as shown in the following figure.

2. In the workbook, select the data source used to make a chart, as shown in the following figure.
3. Click OK. A chart is automatically displayed in the workbook, as shown in the following figure.
4. In the chart, click the icon in the upper right corner, and you can select Refresh, Settings, or Delete, as shown in the following figure.
5. You can drag and drop the chart to any position.

Insert filter bars (for Quick BI Enterprise)

Procedure

1. Click Filter Bar.
2. Click +Add Correlated Datasets to add a filter.
3. Click the drop-down arrow and select a data source from the drop-down list.
4. Select a field to be queried, for example, the shipping-cost field. Double-click or drag and drop the field to Filter Fields.
5. Click the Set Filter icon, select the query scope and the target chart, and click OK.

   The filter bar supports the association of datasets from different sources or from the same source. This example uses the Current Dataset association.
6. Click Filter, and the data in the table with shipping costs above 1,000 will be automatically filtered.
7. Click the Delete icon to delete the current field.
8. Click the close button to delete the current filter bar.

3 Share reports

3.1 Publish the data objects in the personal workspace

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

Procedure

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

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

3.2 Share the data objects in the personal workspace

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

Context

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

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

Procedure

1. Log on to the Quick BI console.

2. Click the Dashboards icon to jump to the Dashboards page.
3. Select a dashboard and click the Share icon in the Actions column as shown in the following figure.

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

5. Click Save to finish the authorization.

3.3 Publish the data objects in a workspace

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

Procedure

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

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

3.4 Share data objects in a workspace

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

Context

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

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

Procedure

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

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

6. Click Save to complete sharing the data objects.