Alibaba Cloud
Quick BI

Product Introduction

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Generic conventions

Table -1: Style conventions

Style	Description	Example
⛔	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⛔ **Danger:** Resetting will result in the loss of user configuration data.
⚠️	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	⚠️ **Warning:** Restarting will cause business interruption. About 10 minutes are required to restore business.
📋	This indicates warning information, supplementary instructions, and other content that the user must understand.	📋 **Note:** 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]`
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich {stand | slave}`

Contents

1 What is Quick BI

Quick BI is a flexible and lightweight business analytics platform built on cloud.

It provides a suite of intelligent tools to enable users to connect to multiple data sources. You can Create a cloud data source by using Alibaba Cloud services such as MaxCompute, ApsaraDB for RDS, Analytic DB, HybridDB, and your MySQL database on ECS. You can also Upload local files or Create a data source from external database to provide data to Quick BI.

To connect a data source, see *Create a cloud data source*、*Create a data source from external database*.

Get business insights with low costs. Taking advantage of cloud computing, Quick BI provides a cost-efficient, fast, and stable way for you to analyze your data. For more information, see *Quick BI billing methods*.

Realize real-time analysis of massive data fast. Quick BI's query acceleration engine saves the time of data pre-processing, and helps you to get quick answers from your data.

Get started quickly. With Quick BI's intelligent analytic tools and visualization components, you can drag-and-drop to get data sources, create datasets, add filters and analytic dimensions and measures for Quick BI, then let Quick BI deep dive into your data, create reports, and build portals for you. The intuitive design of Quick BI enables everyone to become a data analyst, and helps enterprises to achieve the data-driven operation.

Where can I access Quick BI services

On the Quick BI homepage, click **Buy Now**.

2 Basic concepts

Key procedures

1. Create data sources

2. Create datasets

3. Create workbooks and dashboards

4. Create portals

Basic objects

- Data source

- Dataset

- Workbook (for Quick BI Pro and Quick BI Professional Edition)

- Dashboard

- Portal (for Quick BI Pro and Quick BI Professional Edition)

Data source

When you use Quick BI for data analysis, you must first specify the data source of the raw data. A data source stores your raw data. You can use multiple methods to add data sources:

- Add data sources from cloud database services

- Add data sources from user-created database systems

- Upload local files (only available for Personal Space)

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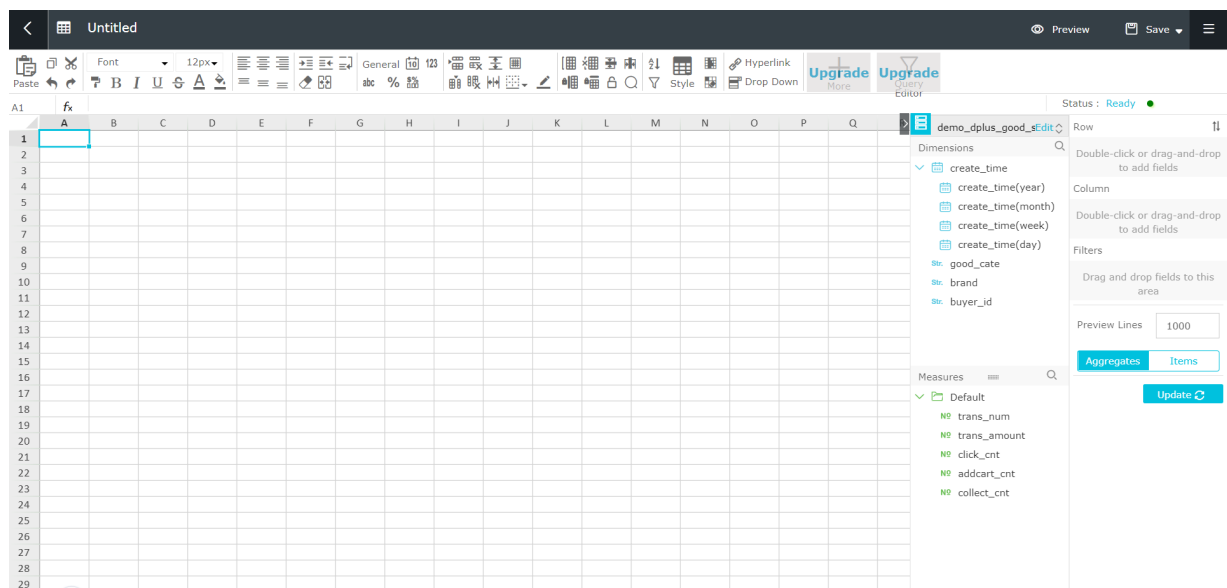
Dataset

You can create datasets by using tables from different data sources. You can edit, move, or delete a dataset in the dataset list.

For more information about datasets, see *Create a dataset*.

Workbook

Workbooks are available for Workspace. You can obtain a workbook by analyzing and processing a dataset. Select a dataset for data analysis.

For more information about creating workbooks, see *Create a workbook*.

Dashboard

Dashboard provides you a more flexible tile layout to create interactive reports with visual analytics. Dashboard supports data filtering, data query, and multiple data display modes to highlight the key fields of data.

Dashboards support two display modes.

- Standard mode (for Quick BI Pro and Quick BI Professional Edition)
- Full-screen mode (only for Quick BI Professional Edition)

The standard mode supports multiple charts and five layout widgets.
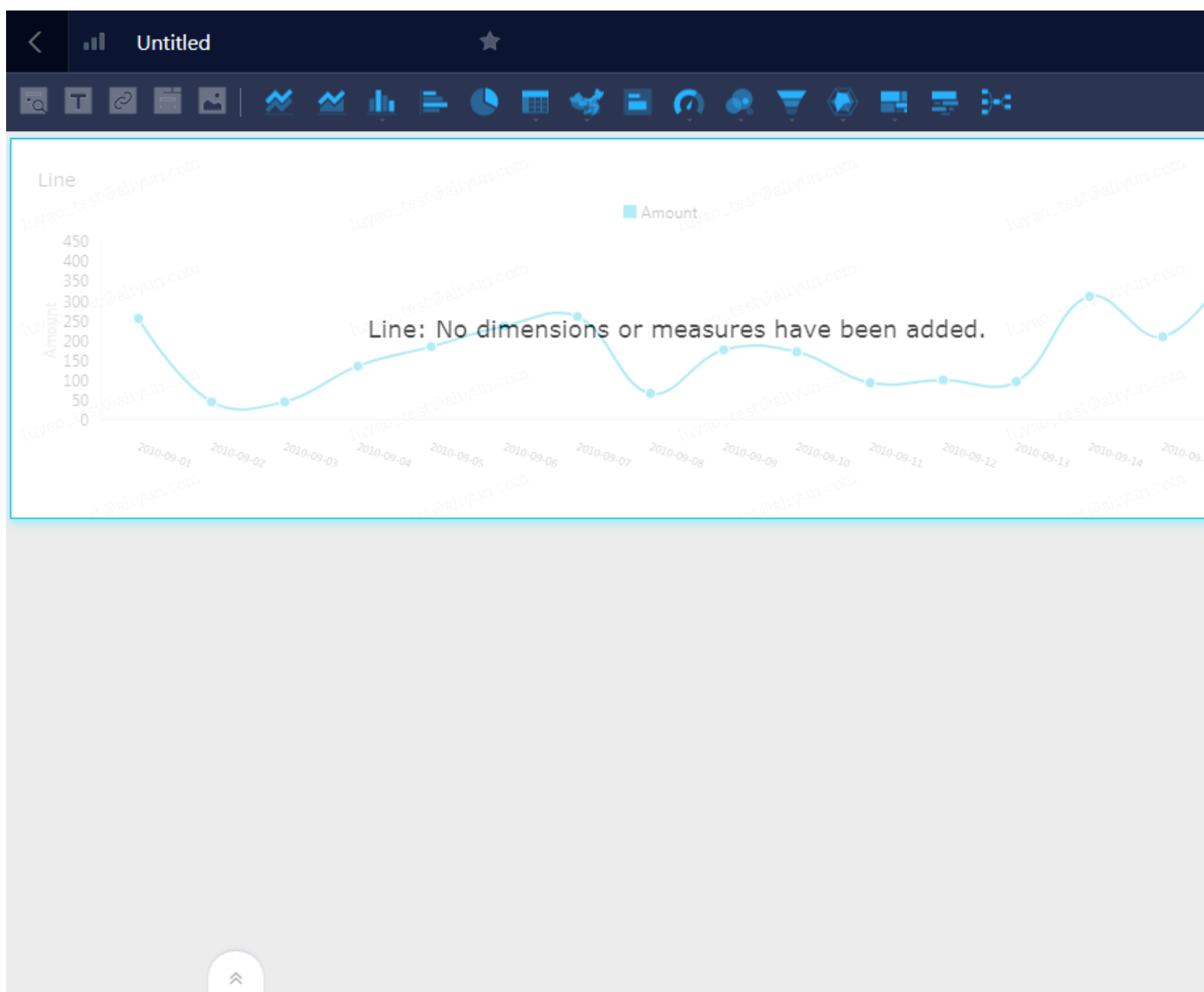
The full-screen mode supports multiple charts and three layout widgets, as shown in the following figure.

For more information about how to create a dashboard, see *Use dashboard to create charts*.

Portals

A portal is also known as a data product. You can use the portal to build applications such as a sales analysis system. In addition to using native visual artifacts created in Quick BI, you can also link external resources in a portal.

Portals are only available for Quick BI Pro and Quick BI Professional Edition.

For more information about portals, see *Example: Create portals*.

3 Product architecture

The product architecture of Quick BI is shown in the following figure.
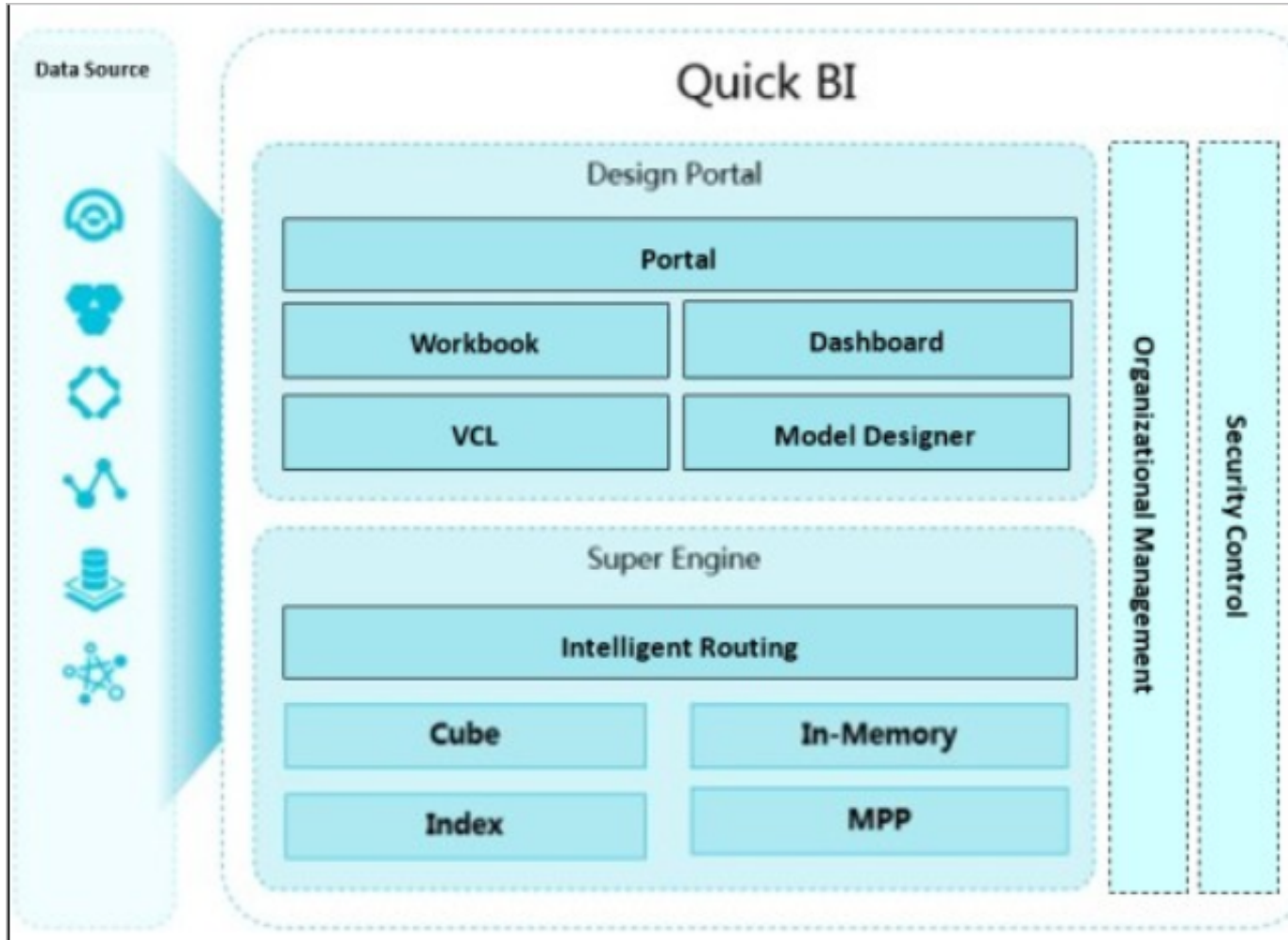
Modules and functions of Quick BI:

- Data connection module

  Quick BI accesses data from multiple supported data sources, including MaxCompute, ApsaraDB for RDS (MySQL, PostgreSQL, SQL Server), Analytic DB, and HybridDB (MySQL, PostgreSQL). Quick BI provides an encapsulation of the standard APIs that are used for querying the schema and data of these data sources.

- Data processing module

  ━ QUERY engine: You can use the QUERY engine to perform queries and retrieve data from data sources.

━ Data pre-processing: This feature provides lightweight solutions to extract, transform, and load data (ETL processing). Currently, only the custom MaxCompute SQL queries are supported, with more data sources to be supported in the future.

━ Data modeling: This module provides data modeling features for online analytical processing (OLAP). It converts data sources to multi-dimensional analysis models. Data modeling supports common semantic objects, such as dimensions (such as date and location), measures, and star schema. This module supports calculated fields. Additionally, it allows you to edit dimensions and measures using the SQL syntax supported by the current data source.

- Data visualization module

  ━ Workbook: The data visualization module provides analytics functions for you to operate workbooks with ease. These functions include row filtering, column filtering, advanced filtering, subtotals, AutoSum, conditional formatting, data export, text processing, and table processing.

  ━ Dashboard: In Quick BI, you can easily author dashboards with widgets and rich visuals . Quick BI provides 33 charts and diagrams, including line charts, pie charts, bar charts , funnel charts, tree diagrams, geo bubble maps, geomaps, and card charts. Supported widgets include Filter Bar, TAB, IFrame, Image, and Text Area. Quick BI supports filter interactions that allow you to filter data across multiple charts.

  ━ Portal: You can drag and drop components on a dashboard to assemble a portal. Quick BI supports embedded links (linked dashboards) and basic settings of the template and the menu bar.

  ━ Share/Publish: You can share workbooks, dashboards, and portals with other logged-in users, and publish dashboards on the Internet for non-logged-in users to access the dashboards.

- Permission management module

  ━ Organization permission management: This feature allows you to manage permissions at workspace level and organization level. It also supports role-based permissions in a workspace. With these mechanisms, you can assign users different levels of access to view different reports.

  ━ Row-level permission management: This feature allows you to restrict access to individual rows in a table, and allows users who access a report to view different parts of the report.

4 Benefits and features

Benefits

- Integrated: Supports multiple Alibaba Cloud data sources such as HybridDB for MySQL, MaxCompute, and Analytic DB.

- Fast: Analyzes massive data and generates visuals in seconds.

- Plenty of analysis tools: Fulfills your requirement of different types of report.

- Intelligent: Based on the feature of your data, generates the visualization charts that give you the insight of the data in the most simplified and effective way.

Key features

- Visualization chart 33 built-in types of charts to meet various analytic scenarios. Intelligently recommends visualization based on the data feature.

- Realize real-time analysis of massive data fast Quick BI supports HybridDB for MySQL, Maxcompute (formerly ODPS), and Analytic DB Quick BI's query acceleration engine saves the time of data pre-processing, and helps you to get quick answers from your data.

- Multidimensional data analysis Based on the work environment of web pages, one key import , and real-time analysis. You can flexibly switch the perspective of data analysis, without remodeling the data.

- Acceleration One-key operation to accelerate the processing of billions of lines of data.

- Integration Reports created in Quick BI can be embedded into your own system, so you can access the reports without having to log on to Quick BI.

- Secure Granular permission control built on a three layer hierarchy.

5 Scenarios

Quick BI has numerous customers around the world. The dynamic features meet the requirements in different scenarios.

Dynamic data analysis and effective decision-making

In data-driven business operations and management, we often need to create analysis reports based on data such as the customer retention rate and the active customer rate. Quick BI is easy to use and provides multiple data presentation techniques that support dynamic data analysis and effective decision-making. The following customer issues are resolved:

• Inconvenience to obtain data

  For better decision-making, business managers often need to ask technical staff to write SQL statements for querying data based on different conditions.

• Difficulty to generate and maintain reports

  The data of the backend analysis system changes frequently, the development cycle is long, and it is difficult to develop and maintain the system.

• The design of charts is unfriendly and costs large amounts of effort

  Reports that are created with tools such as HighChart have a plain visualization and require large amounts of effort.

Recommended services:

RDS + Quick BI
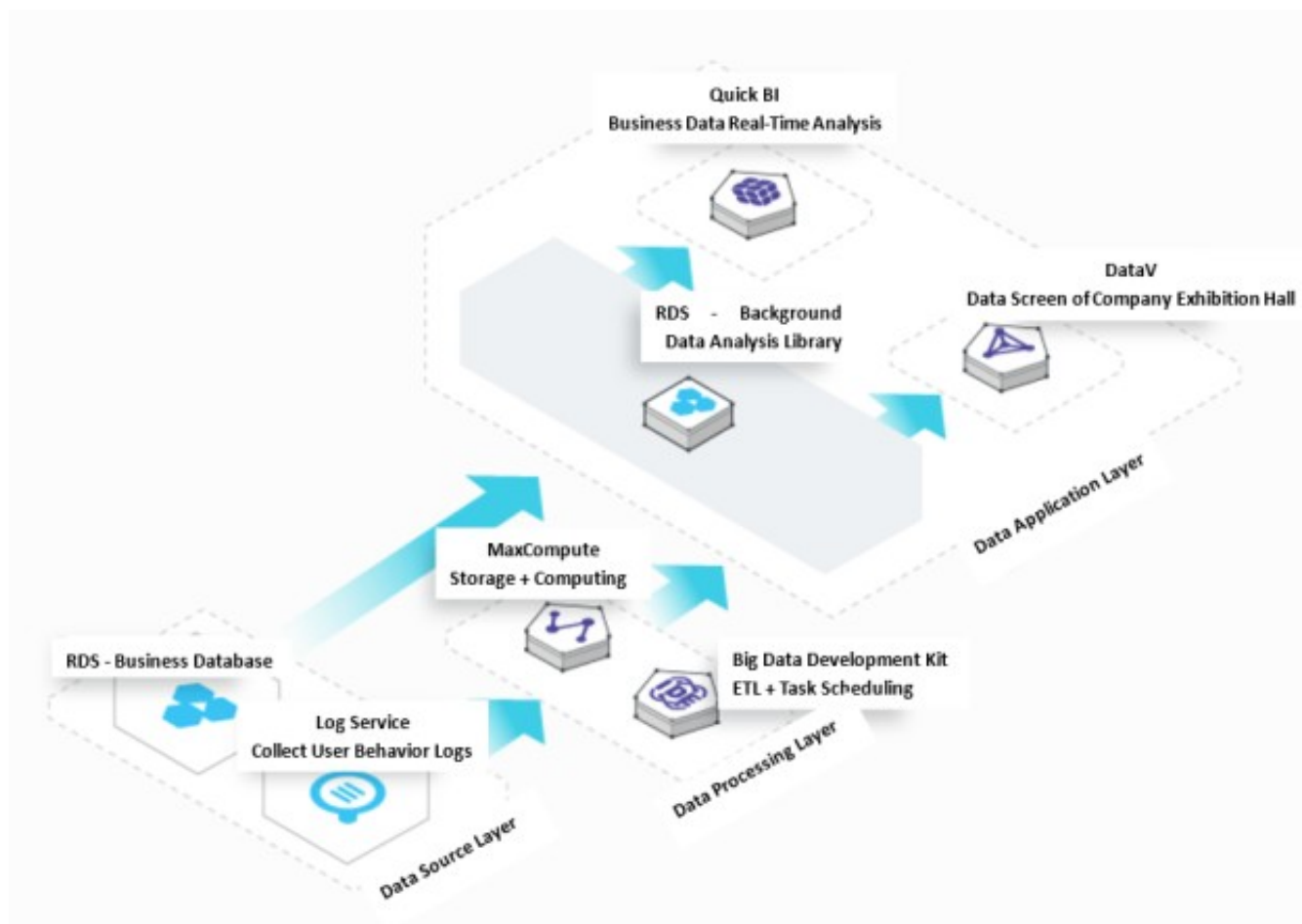
Reports integrated with your own system

A shipping service provider wants to build a simple BI platform that supports data visualization and analysis at the lowest possible cost and in the shortest possible time. The platform is supposed to integrate important business data into the management system of the company and provide employees in different departments and regions with data support. Quick BI resolves the issues of users and provides the following features:

- Easy to use

  The system is quick and easy to use. It meets the data requirements for all and is easy to get started.

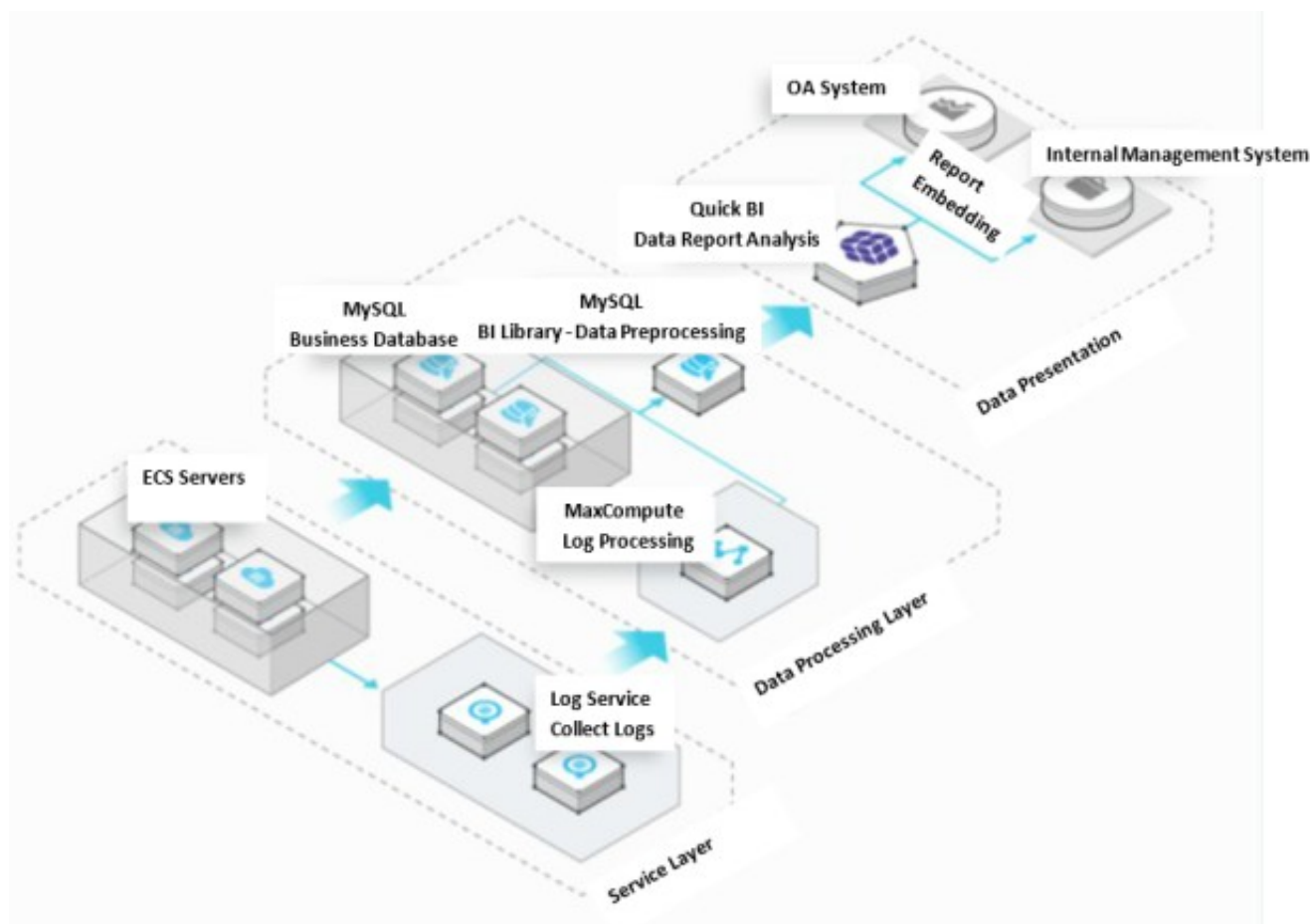- Significantly improved efficiency for data presentation

  Integrated with your system to perform data analysis. Significantly improves the efficiency of data visualization and analysis.

- Single entry point

  Staff no longer need to switch between multiple systems.

Recommended services:

RDS + Quick BI

Permission management of transaction data

Data is significant to each city manager of a certain payment platform. The managers need transaction data to measure the development of the business in different cities. It is vital that we identify risks in time, drill down to locate the issues, and then resolve them. Data access control is as important as data analysis to a data team. Based on this requirement, Quick BI provides you with the following features:

- Row-level permissions

  The same report is displayed differently for each user role. The Shanghai city manager can only view data that is related to the Shanghai marketplace.

- Dynamic business requirements

  Statistical indicators constantly change with the growth of a business. When the server cannot handle all the requests, the server response slows down.
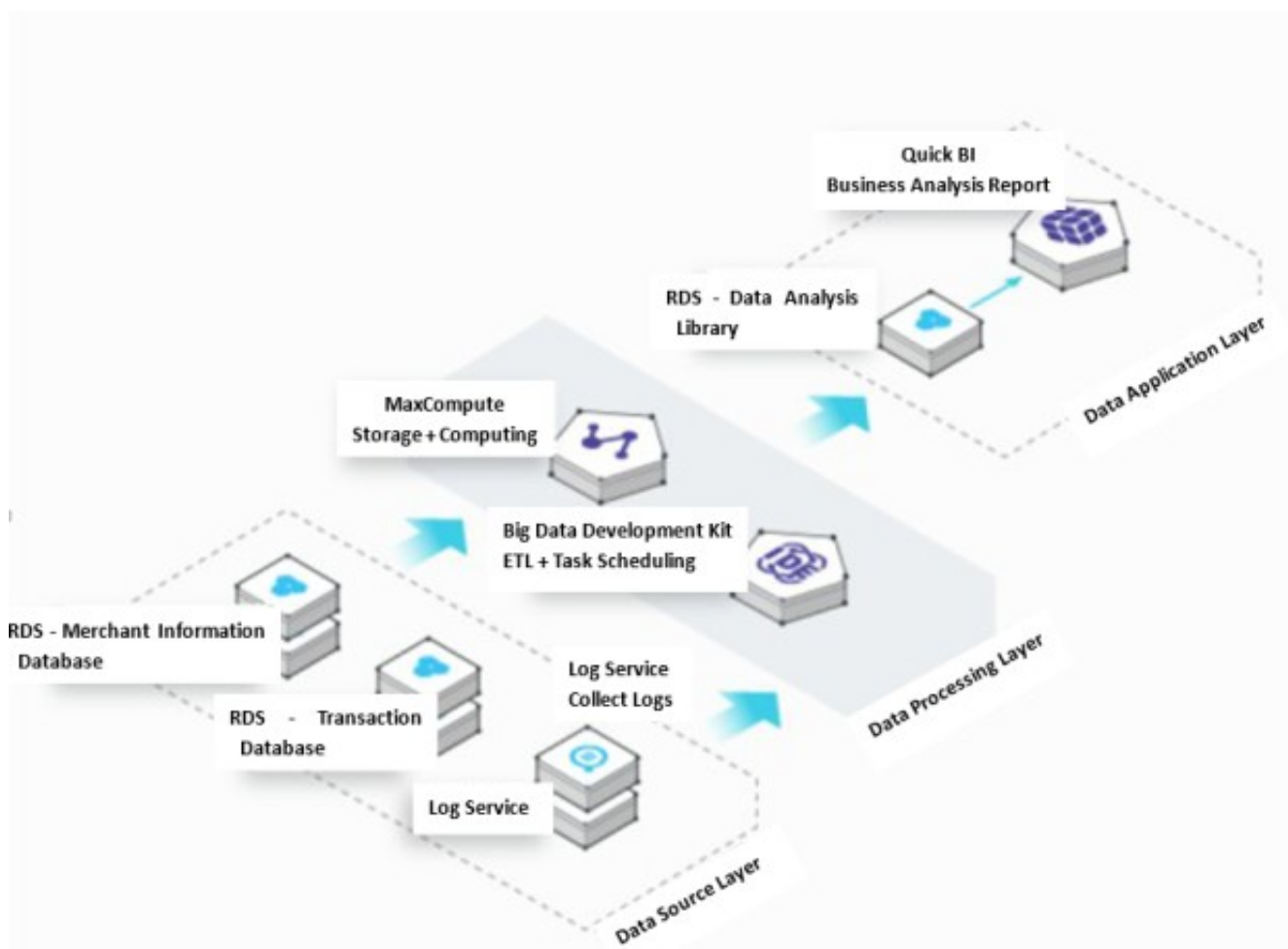
- Data integration across sources and high computing performance

  You can leverage the BI capabilities of Alibaba Cloud to resolve the issues of data analysis

  across multiple sources and the computing performance bottleneck.

Recommended services:

Log + RDS + Quick BI + MaxCompute

6 Version history

Quick BI v2.4.0

The Quick BI Chinese version features are updated as follows:

- Dashboard layout updates.

- Table and pivot table support jump and linkage functionality.

- Support dragging to add query components and charts.

- Professional Edition: Add the support for external database Vertica and IBM DB2 LUW.

- Professional Edition: Minutes and seconds in time data are recognized, and the filtering of time data is accurate to seconds.

Quick BI v2.3.0

The Quick BI international version features are updated as follows:

- The UI of Quick BI has updated.

- Professional Edition: Add support for Hive, Oracle database as data source.

- Professional Edition: Data Modeling supports cross-source database connections for MaxCompute, MySQL, and Oracle data sources.

Quick BI v2.0 Edition

1. Product interaction process

The Quick BI interaction is upgraded to support the use of full links, and it is divided into Home, Workspace, Guide, and Subscription.

- Home: The Home page includes the areas of Shared with Me and Favorites. A new user can quickly view resources in the workspace through the Report demos, and they also can join a workspace to view the resources in that workspace.
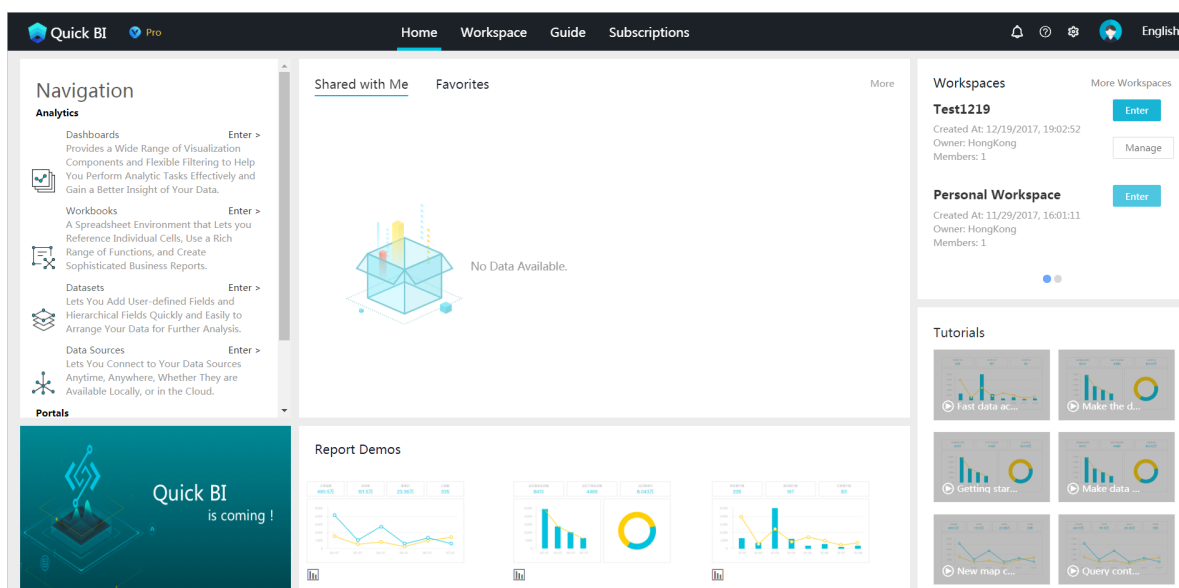
- Workspace: You can manage the data source, dataset, dashboard, and workbook, meanwhile, the display style of dashboard component is optimized, and the function of widgets is enhanced.
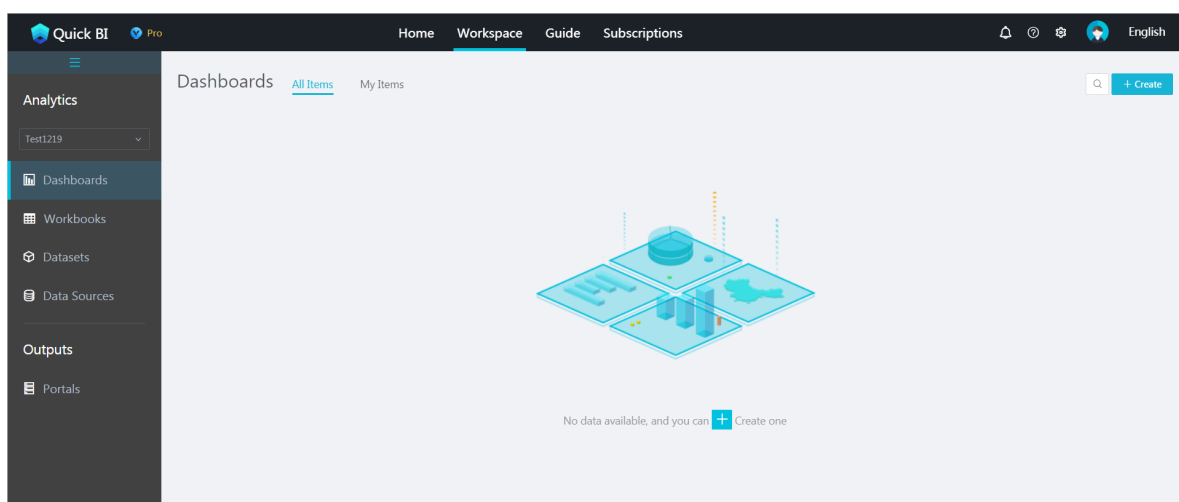
- Guide: The Guide provides a product process through a process chart.
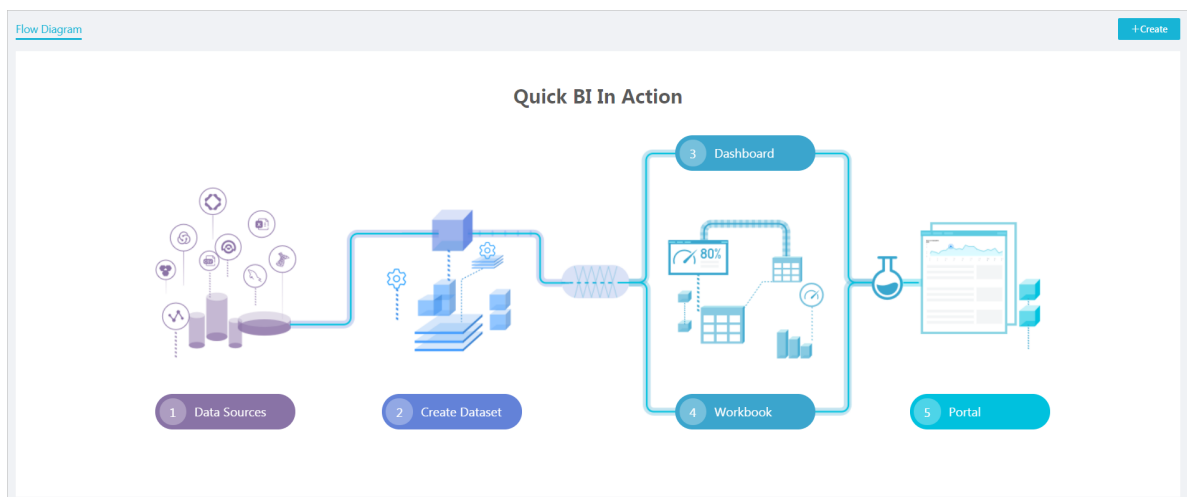
- Subscription: You can create, manage, and monitor appropriate mail tasks through the Subscription function.

New Standard Edition

- Added PostgreSQL, PPAS, and Oracle data sources
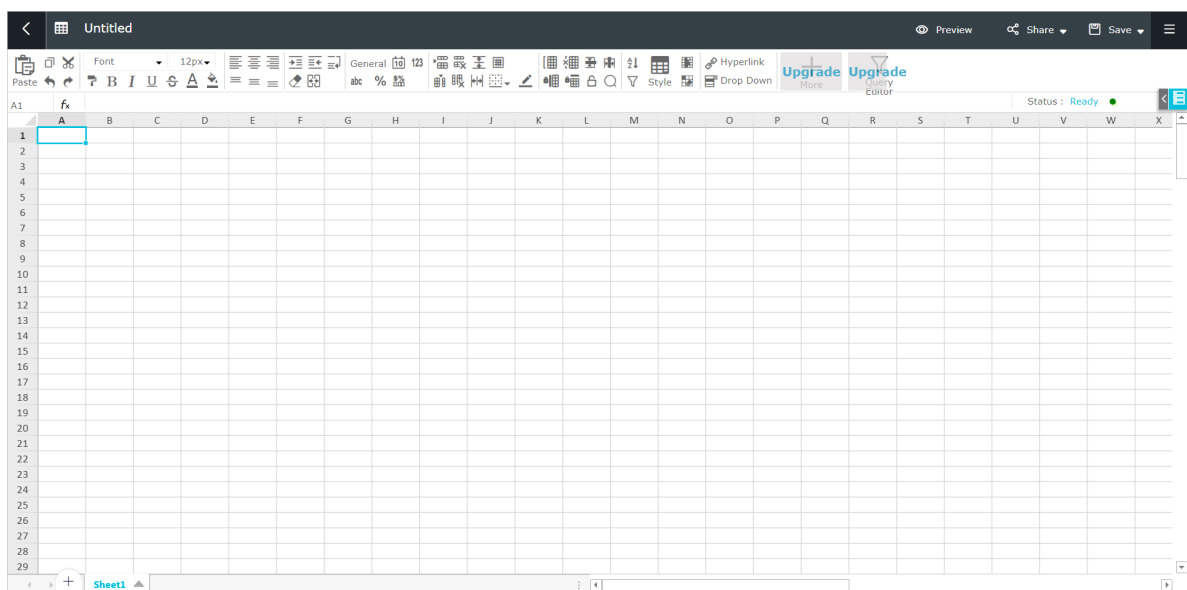- Add an image widget

New in advanced Edition

- Workbook

  Added a data analysis method for a workbook. The workbook supports cell-level counting, displaying data from different data sources, and processing them at the same time. It also supports more than 200 data processing functions.

- Subscription

Added mail subscription management lists to support mail task in dashboard.

- Supports collaboration within a team

Allows other members of the workspace to work together to edit a dashboard or spreadsheet.

- New permission request and approval flow

Support for dashboard, spreadsheet, portal permission requests, and message approval, helps users to take the initiative to obtain report permissions.

Four, the trial function embedded report changes

The Quick BI pro supports 20 reports embedded, and the Quick BI Basic closes third-party embedded entry, but the reports which are already embedded still can be edited.

Quick BI v1.12

The features are updated as follows:

- Add the HybridgeDB for MySQL data source.
- The management control page of third-party embeddable system reports is added to the personal space. You can add and embed third-party system reports for easy use. For more information, see *Help*.
- Add View function in SQL server data sources.
- You can add notes for fields.

Quick BI v1.11

The features are updated as follows:

- Added the following widgets in dashboard:

  ▬ Five charts: Polar chart, Cloud chart, Tornado chart, Hierarchy chart, and Conversion chart.
  ▬ The one content control is the iFrame control.

  Quick BI supports more dashboard creation methods.

- Added new rules in Table chart: You can use different colors and marks to display specified values or value ranges. Display of business data is clearer.
- New dashboard chart filter new detail filter feature: Metric filter in chart, not only support, filter by after-aggregation metric, filtering is now also supported based on the fine-grained metric of the pre-aggregation details. Quick BI supports more filtering methods.

Quick BI V1.10

The new dashboard product is released, and features are updated as follows:

- The new dashboard uses the mainstream tile layout, users can easily adjust the size and location of the chart.

- The new dashboard provides 12 charts and 2 widgets to optimize chart functionality. For example, the scattered chart supports to 1000 dimension values, the date widget is combined into the Filter, chart color is more beautiful and so on.

- The new dashboard interaction logic is updated according to the user's habits, and the chart configuration is configured according to the chart elements. Users easy to learn and easy to use.

- The new dashboard supports setting dimension and measurement filtering at the chart level, and the query condition is more flexible.

- The Filter bar of the new dashboard supports both Single-Dataset and Multi-Dataset. The functions are more powerful.

- The new dashboard's chart supports canceling the association between charts.

- The new dashboard supports searching data during the report editing.

Quick BI v1.9

The features are updated as follows:

- SQL Server data sources of ECS are supported.

- Local Excel file uploading is supported: Quick BI supports upload of XLS and XLSX files. This function meets users' requirements of uploading and creating reports through Excel files.

- Table schema updating and data content updating of the exploration space are supported: The new version supports adding fields to the table schema and updating of table data content. You can add data files to the table and delete existing data files from the table.

- Dashboard watermark display is optimized: BaseID of the user is displayed in the watermark of the earlier version, which has no intuitive meanings for users. The new version uses the logon name as the watermark.

- The calculated field function is strengthened: A calculated field is a new column that is constructed by a user using the existing fields and functions supported by SQL and meets the definition syntax rules of the SQL column of the current data source. If you want to perform calculation based on existing data in the data source, you can add calculated fields. The

calculated field function can provide flexible data analysis, such as user attribute group analysis and price range analysis.

- Quick BI Basic version release: The Basic edition supports the following features: Connect to multiple data sources; use a worksheet for data analysis; create a dashboard with a variety of data charts; create data portals; data downloads, share a worksheet, dashboard, portal, dashboard that can be embedded in a third-party system.(Number <=2 of visits per account month <= 10 thousand per dashboard), local files are uploaded to exploration space (capacity <= 100 m per account).

- Dashboard data download is supported: Data corresponding to chart controls of the dashboard can be downloaded as XLSX files.

- Data row-level permission setting interface is optimized: The extra column display box on the row-level permission setting interface in the earlier version is removed. Operations of query member values are added to each selected controlled field. The interaction optimization makes operations of row-level permissions more smooth and convenient.

- Added Analyst roles in the workspace: The analyst is a role between the developer and the viewer. This role can use data sources and datasets to create reports, but the analyst cannot create or edit data sources and datasets. The requirement comes from the user's proposal, it is a role requirement that is refined from the user's real usage scenario.

- Batch upload of users in organizational unit management is supported: Earlier versions only allow the organizational unit administrator to manually add members. The batch user upload function is required for organizational unit that has a large number of members. This function enables the organizational unit administrator to add users in batches by filling in the workbook with Alibaba Cloud accounts and nicknames according to the template requirements. A maximum of 3000 users can be added at a time.

- Users who choose to share and transfer in a drop-down box in support of cluster space: previous versions used to share and transfer reports in cluster space when selecting users through a fuzzy search. way, only the match to keyword displays a list of the corresponding users, and currently supports the selection of users in the form of a drop-down box, it is easier for users to use.

Quick BI v1.8

The features are updated as follows:

- Data modeling optimization: Previous maintenance of the data set can only be performed in the worksheet, multiple work sheets affect each other and are error prone, the new release

centrally manages the maintenance of the data set from the worksheet, supporting a table of facts. from a fact table. It makes the dataset editing is easier to use.

- Terms of data objects and use general terms in the industry are unified. Metering is changed to measurement, and drilling group is changed to layer schema.

Quick BI v1.7

The features are updated as follows:

- CSV file data sources are supported. CSV files can be uploaded to exploration spaces, so that users can freely analyze their data.

- The main navigation bar is optimized. Data sources and datasets are integrated into a single data tag.

Quick BI v1.6

The features are updated as follows:

- Publishing datasets speed-up function: Based on Quick Bi built-in Acceleration Engine allows users to create extreme-speed data sets in the form, make the tables in maxcompute into extreme-speed data sets, and greatly increase the query speed.

- Add greenplum Data source Database open source database project, features such as OSS storage, JSON data types, hyperloglog Prediction and Analysis are supported by the Ali cloud depth extension. Complying with SQL 2008 standard query syntax and OLAP aggregate functions, ApsaraDB HybridDB offers a flexible hybrid analyzing capability.

- The function of sharing works to any member is provided. The original share function can only share a work with members in the same organizational unit. The updated function helps easy collaboration and share.

Quick BI v1.5

The features are updated as follows:

- The dashboard release function is provided.

- The scenario analysis - HiChina log analysis template goes live.

Quick BI v1.4

The features are updated as follows:

- The distributed execution layer framework is optimized and upgraded.

- Deletion of data sources is supported.

- SQLServer is supported.

Quick BI v1.3

The features are updated as follows:

- User demos are added.

- The process of creating a file is optimized.

Quick BI v1.2

The features are updated as follows:

- Tenant models, management of data sources, file share area, authorization, and application are simplified.

- Dashboards can be embedded into a third-party system.

Quick BI v1.1

The features are updated as follows:

- The problem about user's data source network connection is solved.

- Implement the sharing function.

Quick BI v1.0

The features are updated as follows:

- Basic BI functions are provided. Quick BI supports developing and creating datasets, worksheets, and dashboards.