Navicat BI

Version 3 User Guide

PremiumSoft™
PremiumSoft CyberTech Ltd.

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Chapter 1 - Getting Started

Navicat BI is a powerful business intelligence (BI) solution designed to help users analyze and visualize data from various sources, uncover critical insights, and make data-driven, informed business decisions.

Key Benefits & Features

- **Diverse Chart Types** - Support more than 20 professional chart types to meet any data visualization need.
- **Customizable Multi-Page Dashboards** - Design and tailor complex, multi-page dashboards to present a comprehensive view of your data.
- **Live Data Visualization** - Connect directly to live data sources for dynamic, real-time visual updates.
- **Seamless Cloud Collaboration** - Enjoy full integration with Navicat Cloud and Navicat On-Prem Server to streamline team sharing and security.
- **Cross-Platform Compatibility** - Fully available across three major operating systems: Microsoft Windows, macOS, and Linux.

For further assistance, video tutorials, and technical support, please visit our official website at https://www.navicat.com.

Requirements

Navicat BI is designed to deliver high performance across a wide range of operating systems and database environments. Please ensure your system meets the following specifications.

Supported Operating Systems

Platform	Supported Versions
Windows	Microsoft Windows 8, Windows 8.1, Windows 10, Windows 11, Server 2012, Server 2012 R2, Server 2016, Server 2019, Server 2022, Server 2025
macOS	macOS 14 Sonoma, macOS 15 Sequoia, macOS 26 Tahoe, macOS 14 Sonoma, macOS 27 Golden Gate
Linux	**Flatpak:** Flatpak supported distributions. **AppImage (x86_64):** Debian 10, Debian 11, Debian 12, Debian 13, Ubuntu 20.04, Ubuntu 22.04, Ubuntu 24.04, Ubuntu 26.04, Fedora 44, Linux Mint 20, Linux Mint 21, Linux Mint 22, Deepin 20, Deepin 23, Deepin 25, KylinOS Desktop 10, Pop!_OS 20.04, Pop!_OS 22.04 **AppImage (aarch64):** Debian 11, Debian 12, Debian 13, Ubuntu 22.04, Ubuntu 24.04, Ubuntu 26.04, Fedora 44, Linux Mint 20, Linux Mint 21, Linux Mint 22, Deepin 23, Deepin 25, KylinOS Desktop 10, Pop!_OS 20.04, Pop!_OS 22.04

Supported On-Premises Databases

Database Category	Supported Servers & Versions
Relational (SQL)	MySQL 3.23 or later PostgreSQL 7.3 or later Oracle 8i or later SQL Server 2000 or later MariaDB 5.1 or later SQLite 2 and 3
NoSQL	MongoDB 3.0 or later
Enterprise & Distributed	GaussDB 3.2 or later, openGauss OceanBase Community and Enterprise 3.1.0 or later TiDB 7 or later Dameng 8 or later KingbaseES V8R6 or later Fujitsu Enterprise Postgres 9.5 or later IvorySQL 1 or later **Note:** GaussDB, openGauss, Dameng and OceanBase Enterprise Oracle Mode is currently unavailable in the macOS Edition.
Specialized & Forks	Drizzle, OurDelta, Percona Server

Supported Cloud Databases

Provider & Vendor	Supported Services
Amazon AWS	Amazon Redshift Amazon Aurora for MySQL Amazon Aurora for PostgreSQL Amazon RDS for MySQL Amazon RDS for PostgreSQL Amazon RDS for Oracle Amazon RDS for SQL Server Amazon RDS for MariaDB Amazon DocumentDB
Google Cloud	Google Cloud SQL for MySQL Google Cloud SQL for PostgreSQL Google Cloud SQL for SQL Server
Oracle Cloud	Oracle Database Cloud Service Oracle MySQL Cloud Service
Microsoft	Microsoft Azure SQL Database Microsoft Azure Database for MySQL Microsoft Azure Database for PostgreSQL Microsoft Azure Database for MariaDB

	Azure Cosmos DB for MongoDB
MongoDB Cloud Services	MongoDB Atlas
Redis Enterprise Cloud	Redis Enterprise Cloud
Alibaba Cloud	Alibaba Cloud ApsaraDB RDS for MySQL Alibaba Cloud ApsaraDB RDS for PostgreSQL Alibaba Cloud ApsaraDB RDS for SQL Server Alibaba Cloud ApsaraDB for MongoDB Alibaba Cloud ApsaraDB for OceanBase (MySQL Mode) Alibaba Cloud ApsaraDB for OceanBase (Oracle Mode) Alibaba Cloud PolarDB for MySQL Alibaba Cloud PolarDB for PostgreSQL Alibaba Cloud PolarDB for Xscale **Note:** Alibaba Cloud ApsaraDB for OceanBase (Oracle Mode) is currently unavailable in the macOS Edition.
Tencent Cloud	Tencent Cloud TencentDB for MySQL Tencent Cloud TencentDB for PostgreSQL Tencent Cloud TencentDB for SQL Server Tencent Cloud TencentDB for MariaDB Tencent Cloud TencentDB for MongoDB
Huawei Cloud	Huawei Cloud RDS for MySQL Huawei Cloud RDS for PostgreSQL Huawei Cloud RDS for SQL Server Huawei Cloud Document Database Service Huawei Cloud GaussDB Centralized Huawei Cloud GaussDB Distributed Huawei Cloud GaussDB(DWS) **Note:** Huawei Cloud GaussDB Centralized, Huawei Cloud GaussDB Distributed and Huawei Cloud GaussDB(DWS) are currently unavailable in the macOS Edition.
Snowflake	Snowflake

Installation

Setting up Navicat BI on your system is a quick and straightforward process. Following a few simple steps will have your database management environment up and running in no time.

We strongly suggest that you shut down any opened applications. This will help ensure a smooth installation.

Installation for Download Version

1. Download Navicat BI macOS version.

2. Open the **.dmg** file.

3. Drag Navicat BI to your Applications folder to install.

Registration

When the trial period is finished, Navicat BI requires a license key or a subscription plan to continue using the features.

Note: Perpetual License and Subscription Plan cannot be used at the same Navicat BI. Before changing the registration method, you need to deactivate the license key or sign out your Navicat ID.

Perpetual License

If you have purchased a perpetual license, you will receive a license key for activating Navicat BI.

In the **Perpetual License** section, paste your license key (16 digits) and click the **Activate** button. Navicat BI contacts our licensing server to activate the license key. If the activation process is successful, the license key details are displayed.

Manual Activation

Manual activation is available when your computer does not have an internet connection. You will need another computer with an internet connection to complete this activation process.

1. If the online activation is failed, click **Manual Activation**.

2. Copy the Request Code in the **Copy the Request Code Here:** box.

3. Open web browser on a computer with an internet connection and then go to https://customer.navicat.com/manual_activate.php.

4. Paste/Enter the Request Code into the left box.

5. Click **Get Activation Code**.

6. Copy the generated Activation Code in the right box.

7. Go back to the computer where you are activating Navicat BI.

8. Paste the Activation Code into the **Paste the Activation Code Here:** box.

9. Click **Activate**.

Subscription Plan

If you have subscribed a plan, you can sign in your Navicat ID to use Navicat BI during the subscription term.

Note: Navicat ID is the Email address that you used to subscribe the plan.

In the **Subscription** section, provide your **Navicat ID** and **Password**. After signed in, the subscription plan details are displayed.

Navicat BI contacts our licensing server once per hour to auto reload the plan by default. If you have updated your plan in the portal site, you can use the **Reload Plan** button to force reloading the new plan.

Note: Each Navicat ID can connect to only one Navicat BI. If you sign in your Navicat ID in another Navicat BI, you will be signed out from the current Navicat BI.

Migration / Upgrade

Migrate Navicat BI to New Computer

If you are moving to a new workstation, follow these steps to transfer your license seamlessly:

1. In Navicat BI, choose **Navicat BI** -> **Registration**.
2. [Perpetual License] Click **Deactivate** to online deactivate the license key.
3. [Subscription Plan] Click **Sign Out** to sign out your Navicat ID.
4. Uninstall Navicat BI from the existing computer.
5. Re-install Navicat BI in the new computer.

Upgrade Navicat BI

If you want to upgrade an installed copy of Navicat BI to the latest release, please choose **Navicat BI** -> **Check for Updates** to start the Updater. It will automatically check your installed version. If there is a new version, simply follow the steps in the Updater to upgrade your Navicat BI. It will replace your previous Navicat BI and your current settings will remain unchanged.

Or, you can submit your registered email address on the Customer Center to download the latest version installer.

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Note: For the License Agreement of Navicat Cloud service, please click here.

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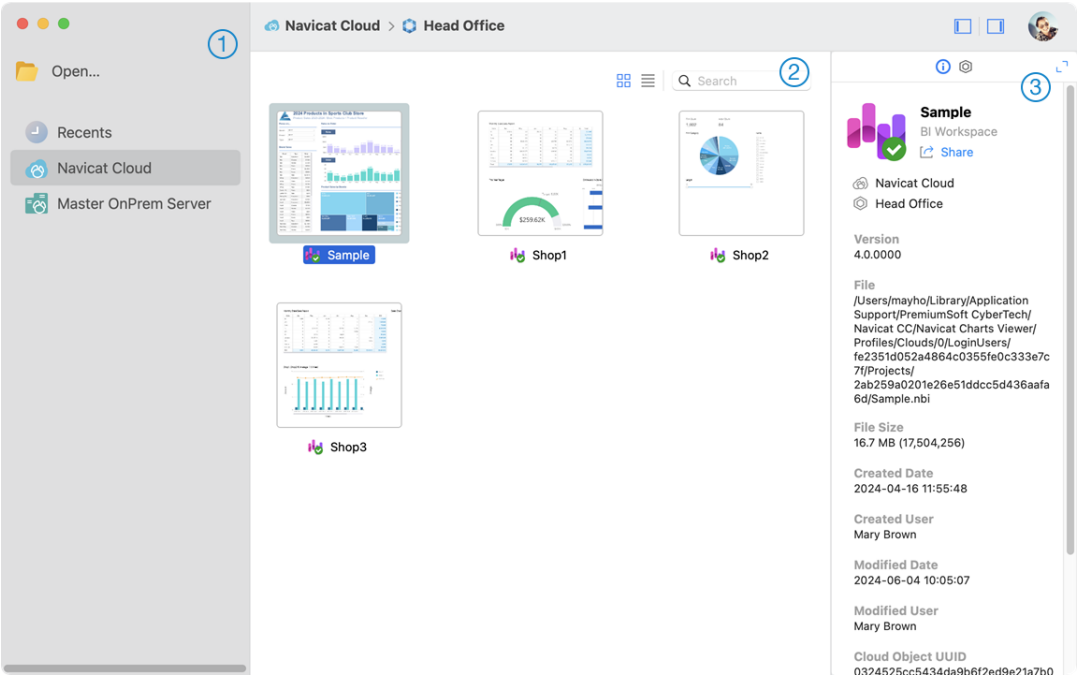
Chapter 2 - Main UI

This section details the layout, core components, and functional panes of the Main Window within Navicat BI, helping you seamlessly navigate your business intelligence projects and track asset dependencies.

Main Window

The main interface is divided into three primary structural areas:



① Navigation Pane

The Navigation pane acts as your primary hub, allowing you to open local workspace files, quickly access recently opened workspaces, or retrieve files stored securely in Navicat Cloud or Navicat On-Prem Server. If the pane is hidden, choose **View** -> **Navigation Pane** -> **Show Navigation Pane**.

② Content Pane

The Content pane displays all the available workspaces contained within your currently selected Navigation pane section. To change the view, click the **Detail** or **Icon** buttons.

③ Information Pane

The Information pane provides context-specific metadata divided into two dedicated sections.

The **General** tab displays core information and properties regarding the active workspace or selected item.

The **Project** tab outlines current project members and logs recent team activities. Click **+** to add members to the project.

If the pane is hidden, choose **View** -> **Information Pane** -> **Show Information Pane**.

Chapter 3 - Collaboration

Navicat Cloud

Navicat Cloud is a cloud service provided by PremiumSoft for synchronizing connection settings, queries, aggregation pipelines, snippets, model workspaces, BI workspaces, virtual group information, as well as your personalized configuration profiles.

Navicat Cloud could not connect and access your databases. By which it means, it could only store your settings and files; your database passwords and data (e.g. tables, views, etc) will not be stored in Navicat Cloud.

Note: You can only sign in to one Navicat Cloud account in the software. PremiumSoft will keep all synchronized files strictly confidential, and all employees are prohibited from viewing/accessing content of files you may store in your Navicat Cloud account.

Create Navicat Cloud Account

1. At the top right, click **Manage Cloud**.
2. In the Manage Cloud window, select **Navicat Cloud**.
3. Click **Create Navicat ID**.
4. Enter the required information and click **Sign Up**. A verification email will send to your email address.
5. Click the link in the email to verify the new account.

Hint: You can sign in with the same Navicat ID you use for the Navicat Customer Center.

Sign In Navicat Cloud

1. At the top right, click **Manage Cloud**.
2. In the Manage Cloud window, select **Navicat Cloud**.
3. Enter your **Navicat ID** and **Password**.
4. Click **Sign In**.
5. If you enabled two-step verification in Navicat Cloud Portal, a code will be sent to your phone via your mobile app. Enter the received code to sign in.

Sign Out Navicat Cloud

1. Close all workspaces in Navicat Cloud.
2. At the top right, click your avatar.

3. In the Manage Cloud window, select **Navicat Cloud**.

4. Click **Sign Out**.

View Usage

1. At the top right, click your avatar.

2. In the Manage Cloud window, select **Navicat Cloud**.

3. Your usage and current plan will be shown.

Change Your Picture

1. At the top right, click your avatar.

2. In the Manage Cloud window, select **Navicat Cloud**.

3. Click your avatar.

4. Choose an image file.

Manage Your Account

You can change your password, enable Two-Step Verification, upgrade Cloud Plan, etc in Navicat Cloud Portal.

1. At the top right, click your avatar.

2. In the Manage Cloud window, select **Navicat Cloud**.

3. Click **Manage Account**.

4. A web browser will automatically open up to Navicat Cloud Portal.

On-Prem Server

Navicat On-Prem Server is an on-premise solution that provides you with the option to host a cloud environment for storing Navicat objects (connection settings, queries, aggregation pipelines, snippets, model workspaces, BI workspaces, virtual group information, as well as your personalized configuration profiles) internally at your location.

Before you can add an On-Prem Server, you must first set up Navicat On-Prem Server in your environment.

Note: You can add multiple On-Prem Server in the software.

Add New On-Prem Server

1. At the top right, click **Manage Cloud**.

2. In the Manage Cloud window, click **+ New On-Prem Server** -> **New On-Prem Server**.

3. Enter your On-Prem Server login information.

Option	Description
Host	The host name or IP address of your On-Prem Server.
Port	The port number of your On-Prem Server.
Verify Server Certificate	Enable this option to verify the server certificates.
Enable Push Synchronization	Navicat BI receives a silent push notification whenever its files stored in your On-Prem Server changes.

4. Click **OK**.

Add New On-Prem Server with URI

1. At the top right, click **Manage Cloud**.
2. In the Manage Cloud window, click **+ New On-Prem Server** -> **New On-Prem Server with URI**.
3. Paste your On-Prem Server URI.
4. Click **OK**.

Note: The URI can be copied from your On-Prem Server portal site.

Sign In On-Prem Server

1. At the top right, click **Manage Cloud**.
2. In the Manage Cloud window, select the On-Prem Server.
3. Enter your **Username** and **Password**.
4. Click **Sign In**.
5. If you enabled two-step verification, a code will be sent to you via the verification method you have selected. Enter the received code to sign in.

Sign Out On-Prem Server

1. Close all workspaces in your On-Prem Server.
2. At the top right, click your avatar.
3. In the Manage Cloud window, select the On-Prem Server.
4. Click **Sign Out**.

Edit On-Prem Server

1. Close all workspaces in your On-Prem Server.

2. At the top right, click your avatar.
3. In the Manage Cloud window, select the On-Prem Server.
4. Click **Sign Out**.
5. Control-click your server and select **Edit On-Prem Server**.
6. Edit the On-Prem Server information.
7. Sign in your server.

Rename On-Prem Server

1. Close all workspaces in your On-Prem Server.
2. At the top right, click your avatar.
3. In the Manage Cloud window, select the On-Prem Server.
4. Click **Sign Out**.
5. Control-click your server and select **Rename**.
6. Enter the name to describe your On-Prem Server.
7. Sign in your server.

Remove On-Prem Server

1. Close all workspaces in your On-Prem Server.
2. At the top right, click your avatar.
3. In the Manage Cloud window, select the On-Prem Server.
4. Click **Sign Out**.
5. Control-click your server and select **Remove On-Prem Server**.
6. Click **Delete**.

View Usage

1. At the top right, click your avatar.
2. In the Manage Cloud window, select the On-Prem Server.
3. Your usage will be shown.

Change Your Picture

1. At the top right, click your avatar.
2. In the Manage Cloud window, select the On-Prem Server.
3. Click your avatar.
4. Choose an image file.

Manage Your Account

You can change your password, enable Two-Step Verification, etc in your On-Prem Server web portal.

1. At the top right, click your avatar.
2. In the Manage Cloud window, select the On-Prem Server.
3. Click **Manage Account**.
4. A web browser will automatically open up to your On-Prem Server web portal.

Push & Cache Management

Push Synchronization

Push Synchronization keeps your local client instantly updated by receiving silent notifications whenever the synchronized files are modified.

Enable Push Synchronization

1. At the top right, click your avatar.
2. In the Manage Cloud window, control-click Navicat Cloud or your On-Prem Server.
3. Turn on **Enable Push Synchronization**.

Disable Push Synchronization

1. At the top right, click your avatar.
2. In the Manage Cloud window, control-click Navicat Cloud or your On-Prem Server.
3. Turn off **Enable Push Synchronization**.

Cache and Local Copies

When you logged into Navicat Cloud or your On-Prem Server, Navicat BI saves the cloud object files and some information in the local computer. The cache and local copies use to make sure your changes are saved in the cloud.

Clear Cache and Local Copies

1. At the top right, click your avatar.
2. In the Manage Cloud window, select Navicat Cloud or your On-Prem Server.
3. Click **Sign Out**.
4. Control-click Navicat Cloud or your On-Prem Server and select **Clear Cache and Local Copies**.
5. Click **Clear**.

Show In Finder

1. In the main window, select Navicat Cloud or your On-Prem Server.
2. Open your project.
3. Control-click anywhere in the project and select **Show In Finder**.

Work With Projects

A project is a way to structure and organize Navicat objects. You can put related objects in one project, and then share the project with other accounts for collaboration if necessary.

Create New Projects

1. In the main window, select **Navicat Cloud** or your On-Prem Server.
2. Click **+ New Project**.
3. Enter the name of the new project.
4. Click **OK**.

Manage Existing Projects

To rename a project

1. In the main window, control-click the project and select **Rename**.
2. Enter a new project name.

Note: Only the project owner and the members with the *Can Manage & Edit* right can rename the project.

To delete a project

1. In the main window, control-click the project and select **Delete Project**.
2. Click **Delete**.

Note: Only the project owner can delete the project.

Note: Before you delete the project, you must remove all objects in the project.

To quit a project

1. In the main window, control-click the project and select **Quit Project**.
2. Click **Quit**.

Add Members

1. In the main window, control-click the project and select **Manage Members**.
2. Click **Add Members**.
3. [Navicat Cloud] Enter the member's Navicat ID and press ENTER.
4. [On-Prem Server] Check the boxes of the users that you want to add.
5. Select the member right.
6. Click **Add**.

Member Rights	Privileges
Can Manage & Edit	Read Objects, Write Objects, Manage Members and Rename Projects
Can Edit	Read Objects and Write Objects
Can View	Read Objects

Manage Existing Members

To edit the right of a member

1. In the main window, control-click the project and select **Manage Members**.
2. Use the drop-down list next to the member to change the right.
3. Click **Apply**.

To remove a member from a project

1. In the main window, control-click the project and select **Manage Members**.
2. Click the **X** icon next to the member.
3. Click **Apply**.

Manage Connections

You can manage the connections that are synchronized to Navicat Cloud or your On-Prem Server. In the menu bar, choose **Tools** -> **Manage Cloud Connections**.

Create New Connection

1. In the Manage Cloud Connections window, select a project.
2. Click **New** and select **New Connection**, and then select the server type.
3. Enter the server login information in the New Connection window.

Edit Connection

1. In the Manage Cloud Connections window, control-click a connection and select **Edit Connection**.
2. Change the connection settings.
3. Click **OK**.

Delete Connection

1. In the Manage Cloud Connections window, control-click a connection and select **Delete Connection**.
2. Click **Delete** in the confirm dialog.

Manage Virtual Groups

Virtual Group aims to provide a platform for logical grouping objects by categories, so that all objects are effectively preserved. It can be applied on connections and workspaces in Navicat Cloud / On-Prem Server.

Connections

Create a new group

1. In the menu bar, choose **Tools** -> **Manage Cloud Connections**.
2. In the Manage Cloud Connections window, control-click a project and select **New Group**.
3. Enter a name for the new group.

Move a connection to a group

1. In the Manage Cloud Connections window, control-click a connection and select **Manage Group** -> **Move To**.
2. Select an existing group.

Move a connection to the top-level

1. In the Manage Cloud Connections window, control-click a connection and select **Manage Group** -> **Exclude From Group**.

Hint: You can also use the drag and drop method to move objects.

Workspaces

Create a new group

1. In the main window, select Navicat Cloud or your On-Prem Server.
2. Open a project.
3. Control-click anywhere in the project and select **New Group**.
4. Enter a name for the new group.

Move a workspace file to a group

1. In the main window, control-click a workspace and select **Manage Group** -> **Move To**.
2. Select an existing group.

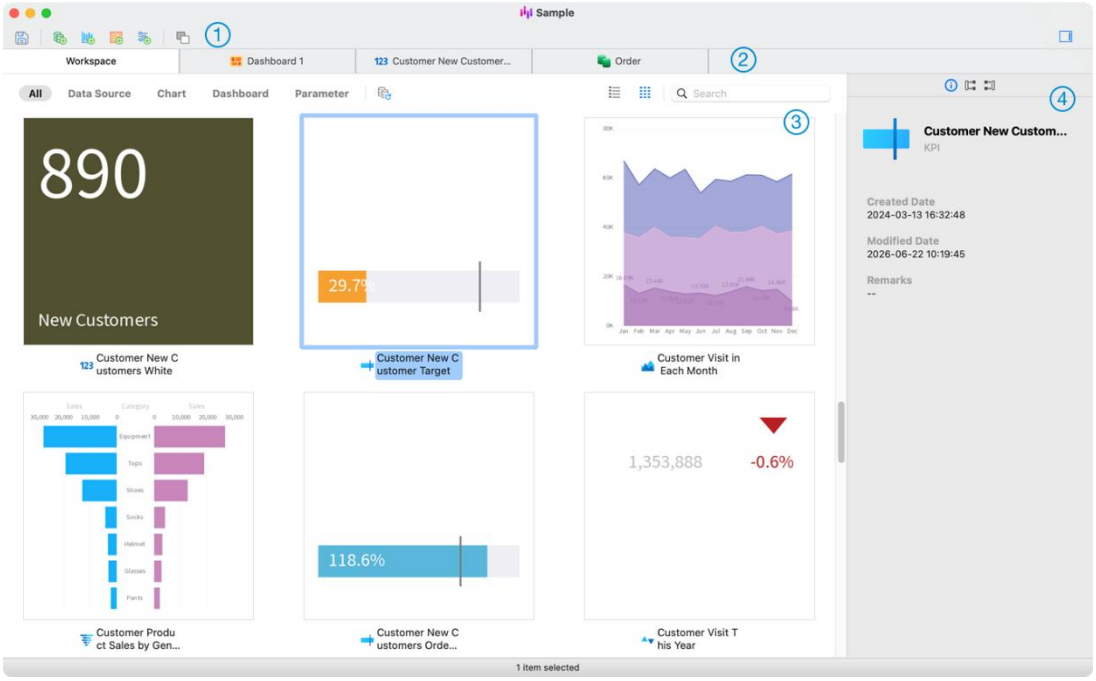
Move a workspace file to the top-level

1. In the main window, control-click a workspace and select **Manage Group** -> **Exclude From Group**.

Hint: You can also use the drag and drop method to move objects.

Chapter 4 - Workspace

A workspace is a central repository that comprises dashboards, charts, data sources and parameters. You can create and manage multiple items within a single workspace.



Workspace Components

① Workspace Toolbar

The Workspace Toolbar provides quick-access controls to easily create new data sources, charts, dashboards, and parameters.

② Tab Bar

The Tab Bar tracks your active views, allowing you to switch seamlessly among various opened items.

③ Content Pane

The Content pane displays all design assets stored within the workspace. It includes quick-filter categories (All, Data Source, Chart, Dashboard, Parameter) to instantly narrow down your asset list. To change the view, click the **Detail** or **Icon** button.

Detail View lists items in a structured text layout with extended metadata. You can click any column header to sort your assets by that specific attribute.

Icon View displays your items visually as a grid of thumbnail images.

④ Properties Pane

The Properties pane offers deeper dependency tracking and metadata for your assets.

The **General** tab displays core structural information for the workspace or selected item.

The **Using** tab shows the items that the selected item depends on.

The **Used By** tab shows the items that depend on the selected item.

If the pane is hidden, choose **View** -> **Show Properties**.

Create Local Workspace File

The essential steps to create a workspace are:

1. In the main window, click **New Workspace**.
2. Create data sources, charts and dashboards.
3. Choose **File** -> **Save**.
4. Enter the file name and choose the save path.
5. Click **Save**.

Create Cloud Workspace File

If you have logged into Navicat Cloud / On-Prem Server, you can store the workspace in a project.

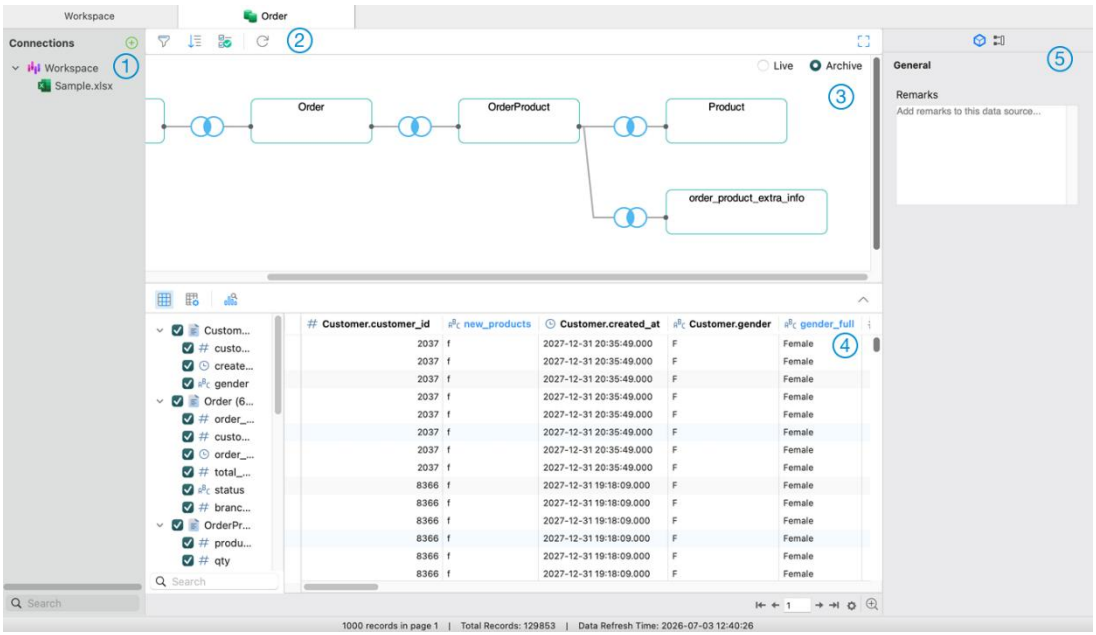
The essential steps to create a workspace are:

1. In the main window, click **New Workspace**.
2. Create data sources, charts and dashboards.
3. Choose **File** -> **Save to Cloud**.
4. Enter the workspace name and choose the project.
5. Click **Save**.

Chapter 5 - Data Source

Create Data Source

Data sources reference tables in your connections or data in files/ODBC sources, and can select data from tables on different server types. The fields in the dataset can be used to construct a chart. When building a chart, you will need to specify the data source that the chart uses.



① Connections Pane

The Connections pane is the basic way to navigate with connections, databases, tables, queries.

② Data Source Toolbar

The Data Source Toolbar provides controls that you can use to manipulate the data.

③ Design Pane

The Design pane allows you to build the data source visually.

Navicat BI provides two modes for connecting your data: Live and Achieve.

Live mode retrieves data from your servers whenever the data source is being used / loaded. It offers the convenience of real-time updates, with any changes in the underlying data reflected.

Archive mode retrieves data from your servers during the data source creation, and stored the retrieved data in the workspace for later use by building charts.

④ Preview Pane

The Preview pane displays the data of the data source. You can click to show or hide the columns.

⑤ Properties Pane

The **Properties** tab shows the general information of the data source. You can add a remark to the data source.

The **Used By** tab shows the charts that depend on the data source.

If the Properties pane is hidden, choose **View** -> **Show Properties** from the menu bar.

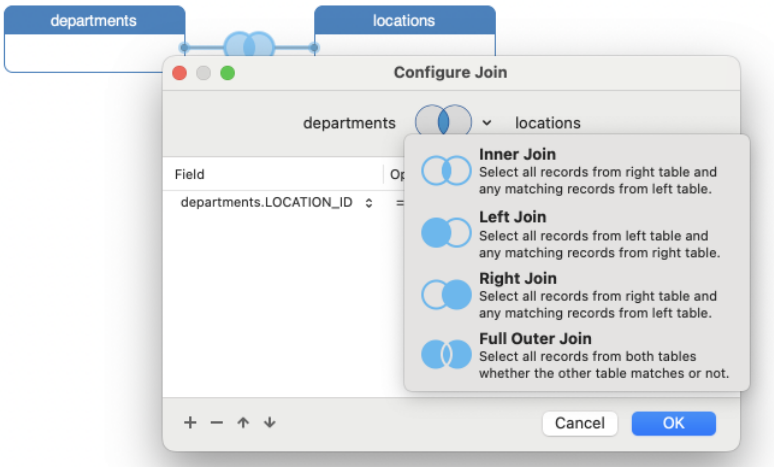
Add New Data Source

The essential steps to create a data source are:

1. In the Workspace window, click .
2. Enter the name of the data source and select the desired connections, files or existing data sources.

Option	Description
Database	Create data source using existing connections in Navicat Cloud or On-Prem Server, or create a new connection in the workspace. For more information about connection settings, see Connect to Database Server.
File/ODBC	Import data to the workspace, or link the data source to the data in a supported external file or ODBC source. For more information about import steps, see Import Data from File/ODBC.
Recent Connections	Choose the connections used in other existing data sources in the workspace.

3. Click **OK**.
4. A tab will open for you to edit the data source.
5. If you want to add more connections, click **+** and follow the steps.
6. Drag and drop tables from the Connections pane to the Design pane. You can view the table data by clicking .
7. Drag and drop a node to another to create the join.
8. Configure the join type and join fields if necessary.



Hint: After creating the join, you can change the join settings at any time by clicking the join icon on the connector.

9. Choose **Live** mode or **Archive** mode.

10. Click **Apply and Refresh Data** to view the data.

Add Query to Database Connection

For database connections, you can save query results to create a new dataset.

To create a new query

1. On the Connections pane, double-click **New Data Source Query**.

2. Write the statement in Query Editor. You can also use Query Builder to build the query visually.

3. Click **Save Query**.

4. Enter the name of the query and click **Save**.

Add Aggregation Pipeline to Database Connection

For MongoDB database connections, you can save aggregation pipeline results to create a new dataset.

To create a new pipeline

1. On the Connections pane, double-click **New Data Source Aggregation Pipeline**.

2. Build the pipeline using Pipeline Builder.

3. Click **Save Pipeline**.

4. Enter the name of the pipeline and click **Save**.

Database Connection

Connect to Database Server

Navicat BI supports connections to remote servers across multiple platforms (including Windows, macOS, Linux, and UNIX) and supports advanced authentication methods such as PAM, Kerberos, and LDAP.

Create Standard Connection

1. In the New Data Source window, select the server type and click **Next**.
2. Choose **New connection in workspace**.
3. Enter the necessary information.
4. Click **OK**.

Create Connection with URI

1. In the New Data Source window, select the server type and click **Next**.
2. Choose **New connection in workspace**.
3. Click **Import Settings** -> **URI**.
4. Paste your Navicat URI or MongoDB URI.
5. Click **Apply**.
6. Navicat BI automatically fills out the options in the connection window. Modify your connection information if necessary.
7. Click **OK**.

Hint: The Navicat URI can be copied from the Edit Connection window.

Use Connection from Project

1. In the New Data Source window, select the server type and click **Next**.
2. Choose **Use connection from project**.
3. Select the connection you wish to use.
4. Click **OK**.

Create Connection Using Other Connections in Project

1. In the New Data Source window, select the server type and click **Next**.

2. Choose **New connection in workspace**.

3. Click **Import Settings** -> **Import Connection Settings from Project**.

4. Select the connection whose configuration you want to copy.

5. Click **OK**.

General Settings

To successfully establish a new connection to a local or remote server, you must configure the primary login parameters within the **General** tab. If your Internet Service Provider (ISP) restricts direct access to the server, Navicat BI provides alternative routing solutions such as Secure Tunneling Protocol (SSH) or HTTP tunneling depending on the database.

Below are the configuration options available for each supported database system.

MySQL / MariaDB

Support SSL, SSH, and HTTP Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Host	A host name where the database is situated or the IP address of the server.
Endpoint	The Endpoint for connecting to the Amazon Web Services instance.
Port	A TCP/IP port for connecting to the database server.
User Name	User name for connecting to the database server.
Password	Password for connecting to the database server.

Oracle

Support SSH Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Connection Type	**Basic** - In Basic mode, it connects to Oracle through the Oracle Call Interface (OCI). **TNS** - In TNS mode, it connects to Oracle server using an alias entry from a tnsnames.ora file through the Oracle Call Interface (OCI).

Host	A host name where the database is situated or the IP address of the server.
Endpoint	The Endpoint for connecting to the Amazon Web Services instance.
Port	A TCP/IP port for connecting to the database server.
Service Name	Enter the Service Name or SID. Select the corresponding radio button.
Role	Indicate that the database user is connecting with either the Default, SYSOPER or SYSDBA system privilege.
OS authentication	Use OS user login credentials to authenticate database users.
User Name	User name for connecting to the database server.
Password	Password for connecting to the database server.

Note: OCI is an application programming interface that allows an application developer to use a third-generation language's native procedure or function calls to access the Oracle database server and control all phases of SQL statement execution. OCI is a library of standard database access and retrieval functions in the form of a dynamic-link library. See also: OCI options

PostgreSQL

Support SSL, SSH, and HTTP Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Host	A host name where the database is situated or the IP address of the server.
Endpoint	The Endpoint for connecting to the Amazon Web Services instance.
Port	A TCP/IP port for connecting to the database server.
Initial Database	Set the initial database which user connects when making connection.
User Name	User name for connecting to the database server.
Password	Password for connecting to the database server.

SQL Server

Support SSH Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Host	A host name where the database is situated or the IP address of

	the server.
Endpoint	The Endpoint for connecting to the Amazon Web Services instance.
Initial Database	Set the initial database which user connects when making connection.
Authentication	**SQL Server Authentication** - Use login records to validate the connection. **Windows Authentication** - When a user connects through a Windows user account, SQL Server validates the account name and password using the Windows principal token in the operating system. **Windows Authentication (Kerberos)** - Validate credentials over Windows user domains leveraging Kerberos security principal tokens. **Microsoft Entra - Password** - Use an identity and password in Microsoft Entra ID to connect the server. **Microsoft Entra - Integrated** - Use Windows identity federated with Microsoft Entra ID to connect the server. **Microsoft Entra - Managed Identity** - Authenticate to the database in SQL Database or SQL Managed Instance with Microsoft Entra managed identities. **Microsoft Entra - Service Principal** - Authenticate to the database in SQL Database or SQL Managed Instance with Microsoft Entra service principals (Microsoft Entra applications).
User Name	User name for connecting to the database server.
Password	Password for connecting to the database server.

SQLite

Support HTTP Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Type	**Existing Database File** - Connect to an existing database in the **Database File**. **New SQLite 3** - Create a new SQLite 3 database in the **Database File**. **New SQLite 2** - Create a new SQLite 2 database in the **Database File**.
Database File	Specify the initial database file. If the HTTP Tunnel is enabled, you need to enter an absolute file path of the database file in your web

	server.
User Name	User name for connecting to the database.
Password	Password for connecting to the database.

MongoDB

Support SSL and SSH Tunneling.

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Type	The type of your MongoDB server: Standalone, Shard Cluster or Replica Set.
SRV Record	Check this option to connect the server using an SRV Record.
Host	A host name where the database is situated or the IP address of the server.
Endpoint	The Endpoint for connecting to the Amazon Web Services instance.
Port	A TCP/IP port for connecting to the database server.
Member	Add or remove the members of replica set or the instances of sharded cluster to the connection.
Read Preference	Choose the replica set read preference for this connection.
Replica Set	The name of the replica set.
Authentication	**None** - No authentication. **Password** - Specify the **Authentication Database** name associated with the **User Name** and **Password**. **LDAP** - Specify the **User Name** and **Password**. **Kerberos** - Set the Kerberos **Service Name** and the user **Principal**. **X.509** - x.509 certificate authentication.

Use MongoDB URI

You can also use a MongoDB URI to connect your MongoDB server. Simply click **Import Settings** -> **URI** and paste the URI. Navicat BI will automatically fill out the options in the General, SSL and SSH tabs.

Snowflake

Option	Description
Connection Name	Enter a friendly name to best describe your connection.
Add To	After you logged in Navicat Cloud or On-Prem Server, you can choose to save the connection to My Connections or a project.
Configuration Method	Choose the configuration method of the database server. Either

	using user credentials (Default), data source names (DSN), Native SSO or Browser-Based SSO.
Host	A host name where the database is situated or the IP address of the server.
Warehouse	The warehouse to use once connected.
Role	The default access control role to use.
Port	A TCP/IP port for connecting to the database server.
User Name	User name for connecting to the database server.
Password	Password for connecting to the database server.
Use MFA passcode	Check this option if your user account has multi-factor authentication (MFA) enabled.
Data Source	Choose the data source you have set.
Native SSO URL	The Okta URL endpoint for your Okta account.

Advanced Settings

While basic login credentials get you connected, complex networks and strict security policies often require deeper customization. The **Advanced** tab provides granular control over timeouts, security, and driver configurations.

Note: The following options depend on the connection server type and sort in ascending order.

Option	Description
Cipher Name	Choose the encryption algorithm when connecting to an encrypted SQLite database.
Client Character Set	Choose the session client character set used in Navicat BI.
Client Driver Version	Choose the client driver used to connect the server. If the default driver does not work, you can change this setting to Legacy.
Compatibility	Enable the Compatibility tab for setting the compatibility mode for MySQL connection.
Connection Parameters	Enter advanced parameters that don't have an equivalent option exposed in any other tab, e.g. Trusted_Connection=yes;ApplicationIntent=ReadOnly;
Connection Timeout	Specify the amount of time to wait for a connection to be established before timing out.
Encoding	Choose a codepage for converting data to display in Navicat UI.
Encrypt	Enable this option and provide **Password** when connecting to an encrypted SQLite database.
Execution Timeout	Specify the amount of time to wait before execution of a task is completed on the server.
Initial Queries	Specify the initial query commands to be executed when connecting to the server.
Keepalive interval	Keep the connection with the server alive by pinging it. You can set the period between pings in the edit box.

Limit connection sessions	Specify the maximum number of concurrent connections that the server allows.
Read Timeout	Specify the amount of time to wait for more data from a connection before aborting the read.
Retryable Reads	Disable this option to specify "retryReads=false" in the connection string.
Retryable Writes	Disable this option to specify "retryWrites=false" in the connection string.
Server Selection Timeout	Specify the amount of time to block for server selection before throwing an exception.
Socket Timeout	Specify the amount of time to wait for an inactive socket before closing it.
Trust Server Certificate	Skip the step that validates the server certificate. The server certificate is automatically trusted.
Use compression	Use compression protocol. It is used if both client and server support zlib compression, and the client requests compression.
Use encryption	Use encryption for SQL Server connection.
Use named pipe, socket	Use socket file for localhost connection.
Write Timeout	Specify the amount of time to wait for a block to be written to a connection before aborting the write.

Compatibility Settings

If your server is a variant of MySQL or has proxy middleware installed, you can enable compatibility mode and set the corresponding settings for the connection.

Option	Description
Force lower_case_table_names as	Set the value of the lower_case_table_name system variable.
Force sql_mode as	Set the value of the sql_mode system variable.
Force NDB cluster support as	Include or exclude the support for the NDBCLUSTER storage engine.
Force database listing method as	Use the SHOW DATABASES statement to retrieve the information for listing databases, or select the information from the INFORMATION_SCHEMA database.
Force view listing method as	Use the SHOW FULL TABLES statement to retrieve the information for listing tables, or select the information from the INFORMATION_SCHEMA database.

Databases Settings

Navicat BI provides flexible options to manage how databases are displayed and accessed within your connection environment. Depending on your server type, you can either filter which databases appear in your connection pane or link external database files to your connection.

MySQL, Oracle, PostgreSQL, SQL Server, MariaDB, MongoDB

In the **Databases** tab, you can set which databases will be shown in the Connections pane when connecting to your server. It is not obligatory.

Enable custom database settings

1. Check the **Use custom database list** option.
2. Check your preferred databases within the **Database** column.

Add a hidden database to the list

1. Click the **+** button.
2. Enter the database name.
3. Check the newly added database in the database list.

Remove a database from the list

1. Select the database in the database list.
2. Click the **-** button.

Note: The database will be just removed from the database list box, it will still exist in the server.

SQLite

In the **Databases** tab, you can attach SQLite database files to the connection.

Attach a database

To attach a database, click the **+** button and enter the information:

Option	Description
Database File	Choose the file path of a database file.
Database Name	Enter the database name which displays in Navicat BI.
Encrypt	Check this option and provide the **Password** if the database file is encrypted.

Detach a database

To detach a database, select it from the list and click the **-** button.

SSL

Secure Sockets Layer(SSL) is a protocol for transmitting private documents via the Internet. To get a secure connection, the first thing you need to do is to install OpenSSL Library and download Database Source.

Note: Available only for MySQL, PostgreSQL, MariaDB and MongoDB. Support from PostgreSQL 8.4 or later.

MySQL / MariaDB

To provide authentication details, enable **Use authentication** and fill in the required information:

Option	Description
Client Key	The SSL key file in PEM format to use for establishing a secure connection.
Client Certificate	The SSL certificate file in PEM format to use for establishing a secure connection.
CA Certificate	The path to a file in PEM format that contains a list of trusted SSL certificate authorities.
Verify server certificate against CA	Check the server's Common Name value in the certificate that the server sends to the client.
Specified Cipher	A list of permissible ciphers to use for SSL encryption.

PostgreSQL

Choose the **SSL Mode**:

Mode	Description
allow	First try a non-SSL connection; if that fails, try an SSL connection.
prefer	First try an SSL connection; if that fails, try a non-SSL connection.
require	Only try an SSL connection.
verify-ca	Only try an SSL connection, and verify that the server certificate is issued by a trusted CA.
verify-full	Only try an SSL connection, verify that the server certificate is issued by a trusted CA and that the server hostname matches that in the certificate.

To provide authentication details, enable **Use authentication** and fill in the required information:

Option	Description
Client Key	The path of the client private key.
Client Certificate	The path of the client certificate.
Root Certificate	The path of the trusted certificate authorities.
Certificate Revocation List	The file path of the SSL certificate revocation list (CRL).

MongoDB

To provide authentication details, enable **Use authentication** and fill in the required information:

Option	Description
Client Key	The SSL key file in PEM format to use for establishing a secure connection.

Client Key Password	The password of the key file.
Allow any server SSL certificates	Check this option if your MongoDB server allows any server SSL certificates.
CA Certificate	The path to a file in PEM format that contains a list of trusted SSL certificate authorities.
Certificate Revocation List	The file path of the SSL certificate revocation list (CRL).
Allow invalid host names	Check this option to allow invalid hostnames in SSL certificates.

SSH Tunneling

Secure SHell (SSH) is a program to log in into another computer over a network, execute commands on a remote server, and move files from one machine to another. It provides strong authentication and secure encrypted communications between two hosts, known as **SSH Port Forwarding (Tunneling)**, over an insecure network. Typically, it is employed as an encrypted version of Telnet.

In a Telnet session, all communications, including username and password, are transmitted in plain-text, allowing anyone to listen-in on your session and steal passwords and other information. Such sessions are also susceptible to session hijacking, where a malicious user takes over your session once you have authenticated. SSH serves to prevent such vulnerabilities and allows you to access a remote server's shell without compromising security.

Note: Available only for MySQL, Oracle, PostgreSQL, SQL Server, MariaDB and MongoDB.

Server Configuration

Please make sure that the parameter - "AllowTcpForwarding" in the Linux server must be set to value "yes", otherwise, the SSH port forwarding will be disabled. To look for the path: /etc/ssh/sshd_config. By default, the SSH port forwarding should be enabled. Please double check the value settings.

Even the server support SSH tunnel, however, if the port forwarding being disabled, Navicat BI cannot connect via SSH Port 22.

SSH Configuration Settings

To establish an SSH tunnel, enable **Use SSH tunnel** and fill in the required information:

Option	Description
Host	A host where SSH server is activated. **Note:** The host name in the General tab should be set relatively to the SSH server which provided by your database hosting company.
Port	A port where SSH server is activated, by default it is 22.
User Name	A user on SSH server machine. (It is not a user of database server.)
Authentication Method	Password - Authenticate using a password for the SSH server

	user. Public Key - Authenticate using a cryptographic key pair. Password & Public Key - Authenticate using both password and cryptographic key pair.
Password	Provide the password for the SSH server user.
Private Key	It is used together with your public key. The private key should be readable only by you.
Passphrase	A passphrase is exactly like a password, except that it applies to the keys you are generating and not an account.

Note: HTTP Tunnel and SSH Tunnel cannot be function simultaneously. The SSH Tunnel is disabled when you select the HTTP Tunnel and vice versa.

HTTP Tunneling

HTTP Tunneling is a method for connecting to a server that uses the same protocol (http://) and the same port (port 80) as a web server does. It is used while your ISPs do not allow direct connections, but allows establishing HTTP connections.

Note: Available only for MySQL, PostgreSQL, SQLite and MariaDB.

Upload Tunneling Script

To use this connection method, first thing you need to do is to upload the tunneling script to the web server where your server is located.

Note: Click the **Export Tunnel Script** button to extract the script file, **ntunnel_mysql.php** (for both MySQL and MariaDB), **ntunnel_pgsql.php** or **ntunnel_sqlite.php**.

Set Up HTTP Tunnel

The following instruction guides you through the process of configuring a HTTP connection.

1. Select the HTTP tab and enable **Use HTTP tunnel**.

2. Enter URL of the tunneling script.
   e.g. http://www.navicat.com/ntunnel_mysql.php

3. If the tunneling script is hosted in a password protected server, you can provide the required authentication details.

4. If your server installed a Web Application Firewall, you can check the **Encode outgoing query with base64** option.

5. If you have to access internet over a proxy server, click the **Proxy Settings** button and provide the details.

Note: HTTP Tunnel and SSH Tunnel cannot be function simultaneously. The SSH Tunnel is disabled when you select the HTTP Tunnel and vice versa.

File/ODBC Connection

You can import data to the workspace or link the data source to the data in a supported external file or ODBC source.

Import Data

Navicat BI provides a step-by-step wizard for you to complete the task:

1. In the New Data Source window, select the file format and click **Next**.
2. Choose the file you want to import.
3. Change the table name if needed and click **Next**.
4. Select the source file and configure your file-specific settings.
5. Select the target destination table, map your fields or adjust field structures as needed.
6. Preview the data and click **OK**.

Import from ODBC

Importing data via ODBC requires a two-part setup:

Set up an ODBC Data Source Connection

1. To setup the connection of the data source, you need to install the corresponding driver.
2. Then, setup the DSN (Data Source Name) using the ODBC Administrator.

Connect to ODBC Data Source in Navicat BI

1. In the New Data Source window, select **ODBC** and click **Next**.
2. Choose the data source and provide valid username and password.
3. All available tables will be shown if the connection is success.

Source File Settings

When importing data, you can configure how Navicat BI parses and reads your source files. The available options adapt dynamically depending on your selected file format.

Option	Description
TXT, CSV	
Record Delimiter	Specify the record separator of the file.
Delimited	Import the text file with delimited format.
Fixed Width	Import the text file with fixed-width format. To delimit the source

	column bounds, click on the desired position to create a break line. Simply drag it to move it or double-click it to remove it.
Field Delimiter	Specify the field separator.
Text Qualifier	Specify the character that encloses text values.
XML, JSON	
Tag that identifies a table row / Tag that identifies a collection row	Define a tag to identify rows.
Consider tag attributes as table field / Consider tag attributes as collection field	For example: <row age="17"> <id>1</id> <name>sze</name> </row> With this option is on, Navicat BI will recognize "age" as a field together with "id" and "name", otherwise, only "id" and "name" will be imported as fields. **Note:** Navicat BI does not support multiple level of XML file.
Common	
Field Name Row	Indicate which row should Navicat BI recognize as field names.
First Data Row	Indicate which row should Navicat BI start reading the actual data.
Last Data Row	Indicate which row should Navicat BI stop reading the actual data. If no field names are defined for the file, enter 1 for First Data Row and 0 for Field Name Row.
Date Order	Specify the sequence format for dates (e.g., YMD, DMY, MDY).
Date Time Order	Specify how the date, time, and time zone values are ordered and arranged when combined within a single data field.
Date Delimiter	Specify the separator character used inside dates (e.g., / or -).
Year Delimiter	Specify the separator character used inside year (e.g., :).
Time Delimiter	Specify the separator character used inside time (e.g., :).
Decimal Symbol	Specify the decimal separator used for fractional numbers (e.g., . or ,).
Binary Data Encoding	Determine how raw binary blocks are imported from your file (e.g., parsed as Base64 encoded strings or handled with no encoding).

Add Query

Query Editor

Query Editor is a robust environment that allows you to write, edit, and refine SQL scripts. Navicat BI provides a robust development environment equipped with specialized code editing capabilities and direct SQL layout formatting tools.

Real-time Error Detection

Navicat BI continuously analyzes your query as you type to identify potential issues before you execute the query. When the editor detects a mistake (for example, a syntax error or an invalid column reference), it immediately underlines the problematic code. You can hover over the marked code to view a detailed error description, allowing you to catch and fix mistakes instantly.

Hover Info

The Hover Info feature helps you stay in the flow of writing and refining your queries. By simply hovering your cursor over any table or column name in your query text, you can instantly view essential metadata without ever having to switch tabs.

When the information popup appears, it offers several interactive tools to speed up your workflow:

- **Breadcrumb Navigation** - Display the object's full path within your database hierarchy.
- **View DDL** - Quickly inspect the Data Definition Language (DDL) for the hovered object.

Go to Declaration

You can press COMMAND and click on an identifier (e.g. a table name or field name) to instantly jump to its parent, or locate and highlight it within the connection pane.

Note: You can set the preferred default jump action in Settings.

Clipboard Stack

The Clipboard Stack acts as an extended memory for your "Copy" and "Cut" actions, storing up to 10 items using Last-In-First-Out (LIFO) logic.

- **Paste** - Press COMMAND-SHIFT-V.
- **Cycle** - Press COMMAND-SHIFT-V repeatedly to rotate through the items in the stack until you find the desired code block.

Code Folding

Code folding allows you to collapse long blocks of code so you can focus on specific sections of your code. You can click the icon to toggle between collapsing and expanding the code.

- **Foldable Blocks** - Indicated by ⊟ in the gutter to the right of the line numbers. A vertical line shows the extent of the foldable block.
- **Collapsed Blocks** - Indicated by ⊞.

Syntax Highlighting

To improve readability, Navicat BI applies color coding to text fragments based on the specific database type associated with the query. Highlighting changes based on the reserved keywords of the target database.

Note: You can personalize these colors in Settings to suit your visual preferences.

Brace Highlighting

Navicat BI automatically identifies and highlights matching pairs of braces, such as () , [], {} and BEGIN…END. Simply place your cursor on or immediately next to a brace to see its matching partner highlighted.

Note: The cursor must be positioned on a brace for the matching highlight to appear.

Find and Replace

Find

The Find bar provides a quick way to search for text within the editor. You can access this feature by choosing **Edit** -> **Find** -> **Find** from the menu or by pressing COMMAND-F.

Once you enter a search string, the search starts at the cursor's current position and proceeds to the end of the file. To locate the next occurrence of the text, simply click the **>** button.

Replace

To open the Replace bar, simply choose **Replace**. Then, enter the text you want to search and replace.

Click the **Replace** button to replace the first occurrence.

Click the **Replace All** button to replace all occurrences automatically.

Advanced Search Options

To access additional search options, click the icon or the associated drop-down menu:

Option	Description
Highlight All	Highlight all matches in the editor.
Incremental Search	Find matched text for the search string as each character is typed.
Match Case	Enable case sensitive search.
Regular Expression	Search regular expressions.
Whole Word	Return the objects that match the entire word of the search string.

Copy with Quotes

To copy a statement formatted with quotes for use in programming code, control-click the highlighted code in the editor, select **Copy with Quotes**, and choose your preferred language.

Zoom In and Out

Navicat BI provides the ability to adjust the magnification of the text size within the editor for better visibility or navigation. Keyboard shortcuts are:

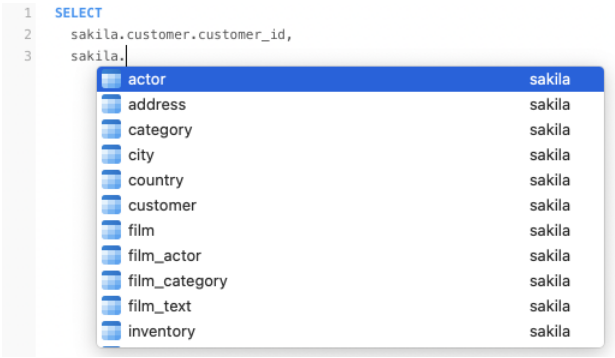
- Zoom In: COMMAND-+

- Zoom Out: COMMAND--
- Reset: COMMAND-0

Code Completion

The Code Completion feature provides accurate, context-aware suggestions by analyzing your code and lexical scopes. It streamlines the writing process by offering the following:

- **Database Object Suggestions** - Provide a list of tables, views, and fields relevant to your current scope, displayed alongside their corresponding icons and metadata for easy identification.
- **JOIN Condition Completion** - Automatically suggest the appropriate ON clause conditions by identifying foreign key relationships or matching column names between joined tables.
- **Statement Assistance** - Assist with SQL keywords and general statement structure to reduce syntax errors and increase productivity.



Use Code Completion

There are several ways to invoke and interact with the suggestion list:

- Press . after a database object name to view its available properties or child objects.
- Type a character or press ESC to show a list of SQL keywords and database objects relevant to the current cursor position.
- If you select a saved snippet name from the list, the associated code block will be inserted directly into the editor.

When the suggestion list appears, use the following shortcuts to insert code:

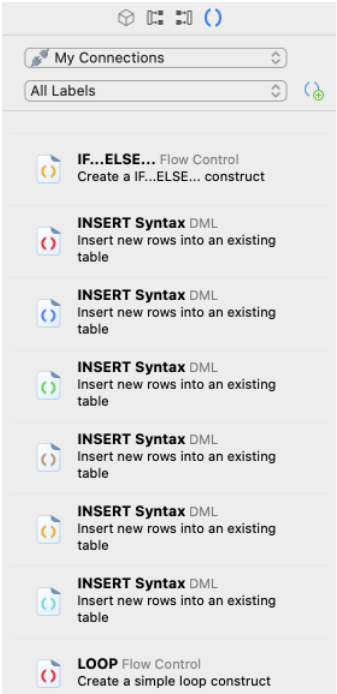
- Press TAB to immediately insert the first item in the list. You can change this behavior in Settings.
- Use the UPPER ARROW or DOWN ARROW to navigate the list, then press TAB or ENTER to insert your selection.

Note: To enable or disable this feature, go to Settings and adjust the Code Completion settings.

Code Snippets

Code Snippets provide an easy way for you to insert reusable code into editor when writing statements or scripts. The Code Snippet pane is on the right side of the editor. You can click the icon to open the library.

The library includes built-in and user-defined snippets. Choose a label from the drop-down menu or enter a search string in the Search box to filter the list. If you want to show the available snippets according to your database type, you can control-click anywhere on the library and disable **Show Snippets For Other Database Type**.

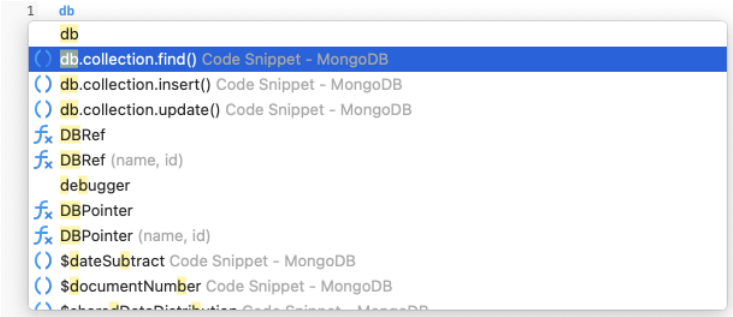


Built-in snippets are non-editable. If you want to hide the built-in snippets, you can control-click anywhere on the library and disable **Show Preset Snippets**.

Use Code Snippets

There are two ways to insert a snippet into the editor.

- You can start typing the name of a snippet in the editor. Smart code completion will pop up a list of suggestions for the word completion automatically. Select a snippet name from the list, the saved code will be inserted to the editor.



- You can simply drag and drop a snippet from the library into the editor.

After inserting the snippet with placeholders to the editor, you can easily navigate to them by clicking on one of the placeholders, and then using the TAB key and entering the information.

```
1 CASE case_value
2   WHEN when_value THEN
3     statement_list
4   ELSE
5     statement_list
6 END CASE;
7
```

Create Code Snippets

You can create your own code snippets and add them to the library. To create a code snippet, select your desired code in the editor, then control-click and select **Create Snippet**, or simply drag and drop the selected code to the Code Snippet pane.

Alternatively, click in the Code Snippet pane. If you use this method, you must manually enter the code in the New Snippet window; code selected in the editor is not automatically added to the Code box.

Hint: Code snippets (.nsnippet) are stored under the default path, e.g. ~/Library/Application Support/PremiumSoft CyberTech/Navicat CC/Common/Snippet.

Option / Button	Description
Untitled text box	Enter the name of the snippet that displays in the library and the code completion list.
Database Type	Choose the database server type of the snippet.
Label	Choose an existing label or enter a new label name for the snippet.
Remarks	Enter a description for the snippet that displays in the library.
Code	Enter the code.
	Add a placeholder by highlighting any words in the code and click this button. The placeholder will be highlighted in light green.
	Remove a placeholder by highlighting it in the code and click this button.

Move / Copy Snippet To Project

If you have logged in to Navicat Cloud or On-Prem Server, you can synchronize the custom snippet in My Connections to a project.

1. Control-click a snippet and select **Move Snippet To** or **Copy Snippet To**.
2. Select an existing project.
3. The snippet will be moved or copied to the project.

Hint: You can move / copy a snippet in a project to My Connections in a similar way.

Query Builder

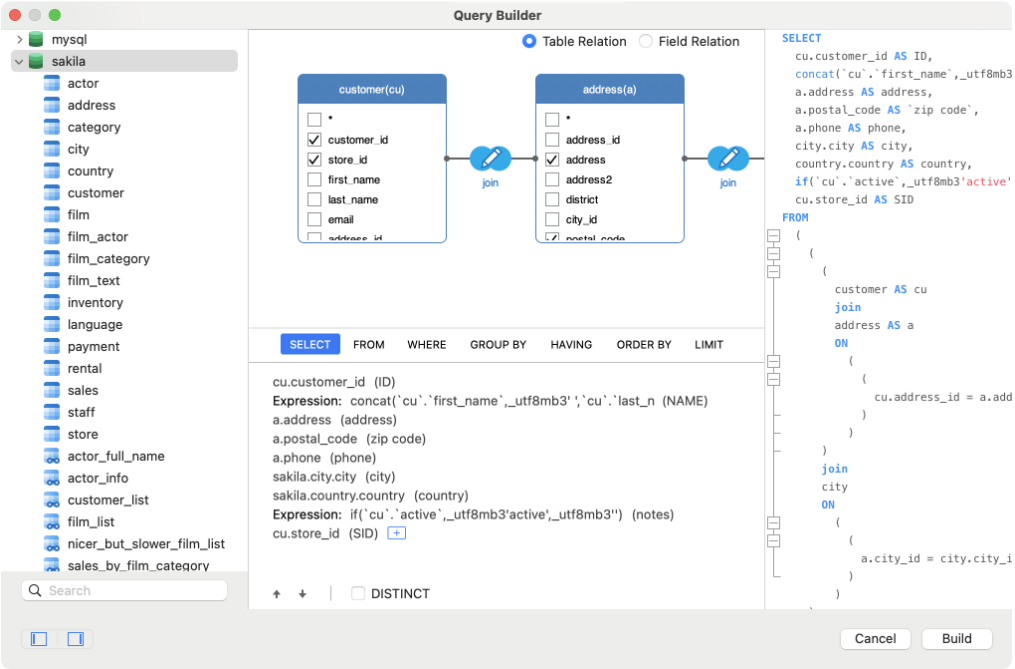
The Query Builder is a visual tool designed for creating and editing queries without requiring extensive knowledge of SQL. Even for experienced developers, its graphical interface provides a fluent way to visualize relationships and build complex queries quickly.

Note: Available only for MySQL, Oracle, PostgreSQL, SQLite, SQL Server, MariaDB and Snowflake.

To launch the tool, click the button located within the Query Designer. The graphical interface is structured into three primary components:

- **Left Pane** - Display a comprehensive directory of all available database objects for immediate selection and inclusion in your query.
- **Middle Pane** - Vertically split into two functional areas. The upper pane serves as a canvas for visual query construction and entity relationship mapping. The lower pane categorizes SQL clauses into interactive tabs for precise query refinement and configuration.
- **Right Pane** - Display a read-only, real-time preview of the auto-generated SELECT statement as you build your query visually.

Note: The Query Builder is exclusively designed for constructing SELECT statements. To execute data manipulation operations such as INSERT, UPDATE, or DELETE, please utilize the Query Editor.



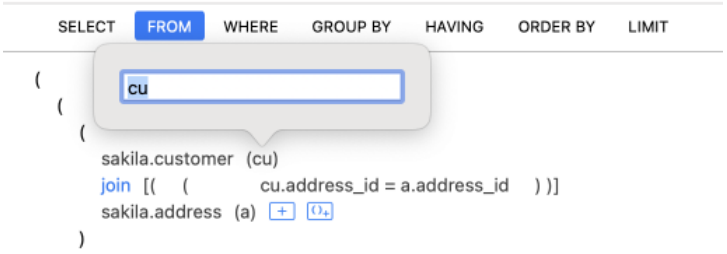
Add Objects to Query

To initiate your query construction, you must first add the required tables or views to the upper section of the middle pane. You can accomplish this by either dragging the objects directly from the left pane or by double-clicking them.

Once an object is placed within the diagram, you can easily assign it an alias by double-clicking its title header and entering the desired name.

The **FROM** tab, located in the middle pane, provides additional configuration options:

- **Adjust Identifier** - Click the identifier to change it.
- **Assign Alias** - Click the **<Alias>** placeholder to input a custom alias for your tables or views.
- **Configure Join** - Modify the join type and edit the specific fields used to establish relationships between objects.



To remove an object from your workspace, control-click the target object and select **Remove**, or select it in the diagram and press the DELETE key.

Note: Removing an object from the diagram will automatically delete any join relationships associated with that object.

Choose Output Fields

To include specific fields in your query results, check the box next to a field name within the diagram. For broader selections, you can check the * checkbox on a specific object to include all of its fields, or choose **All fields (*)** directly from the SELECT tab to include every field from all added objects.

Once your fields are selected, you can use the **SELECT** tab located in the lower section of the middle pane to further refine your output:

- **Force Unique Results** - Check the **DISTINCT** box to eliminate duplicate records from your results.
- **Assign Alias** - Click the **<Alias>** placeholder to define a custom display name for the output field.
- **Apply Aggregate Function** - Click the field's identifier to apply an aggregate function (such as SUM, COUNT, or AVG) to your data.
- **Reorder Fields** - Use the up and down arrow icons to adjust the final display sequence of your output fields.

Set Field Associations

The Query Builder automatically establishes joins between tables based on their existing foreign key relationships. To create associations manually, drag a field from one object in the diagram and drop it onto the corresponding field in another object. A connector line will appear between the two objects to visually represent the relationship.

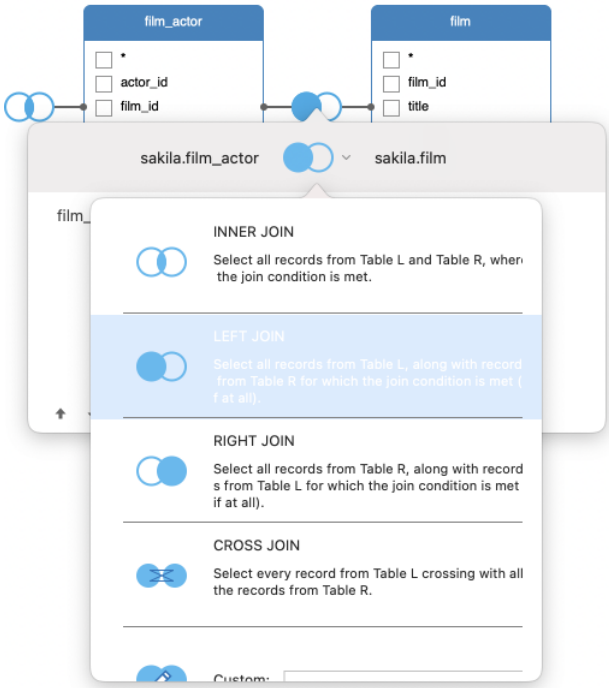
You can manage and customize these joins using the following options:

- **Toggle Views** - Switch between the **Table Relation** view (which displays the overall relationship with a join type icon) and the **Field Relation** view (which draws the connector line directly between the specific matching fields).

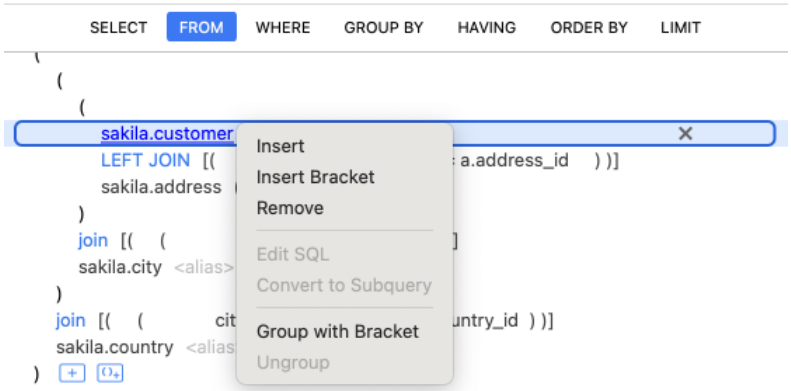
- **Modify Join Type** - All joins are created as an INNER JOIN by default. To change this, click the connector line within the diagram or click the JOIN keyword located on the FROM tab.

- **Edit Join Condition** - To modify the logic of the join condition, click the connector line, or adjust the condition directly on the FROM tab.

- **Remove Join** - To delete an existing join, control-click the corresponding connector line and select **Remove**.



For more advanced control over your join logic, you can control-click a condition on the **FROM** tab to access the following menu options:



The pop-up menu options of the FROM tab:

Option	Description
Insert	Add an identifier, an expression or a subquery.

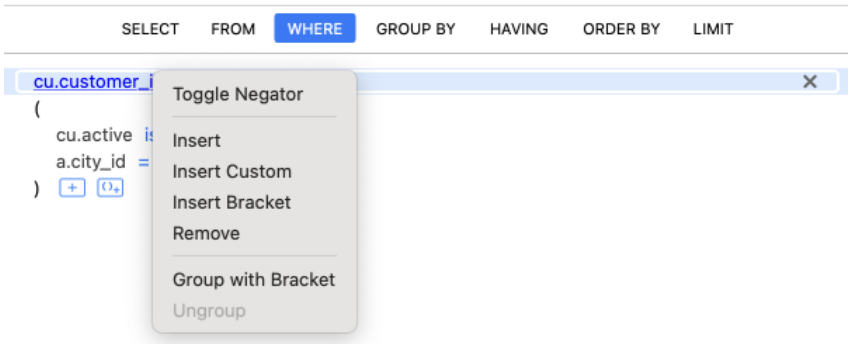
Insert Bracket	Add a pair of parentheses.
Remove	Remove the identifier, expression or subquery.
Edit SQL	Edit the subquery.
Convert to Subquery	Convert the condition to a subquery.
Clear and Convert to USING Clause	Remove the ON condition and convert it to a USING clause.
Clear and Convert to ON Clause	Remove the USING condition and convert it to an ON clause.
Group with Bracket	Add parentheses to logically group the selected conditions together.
Ungroup	Remove existing parentheses from a previously grouped condition.

Set Filter Criteria

To filter the data returned by your query, control-click a target field in the diagram, select **Add Field To -> WHERE**, and select the desired operator.

Once the field is added, navigate to the **WHERE** tab located in the lower section of the middle pane to configure your filtering logic:

- **Define Criteria** - Click the **<Value>** placeholder to input your specific condition or threshold.
- **Toggle Operators** - When combining multiple conditions, click the logical operator to seamlessly toggle between AND and OR.
- **Reorder Conditions** - Use the up and down arrow icons to adjust the sequence of your filtering rules as needed.



For more advanced control over your filter criteria, you can control-click a condition on the **WHERE** tab to access the following menu options:

Option	Description
Toggle Negator	Reverse the logical meaning of the condition.
Insert	Add a condition.
Insert Custom	Add a custom condition.
Insert Bracket	Add a pair of parentheses.

Remove	Remove the condition.
Group with Bracket	Add parentheses to logically group the selected conditions together.
Ungroup	Remove existing parentheses from a previously grouped condition.

Group Resulting Data

You can define conditions for grouping your query records by control-clicking a target field in the diagram and selecting **Add Field To** -> **GROUP BY**.

Once added, the condition appears on the **GROUP BY** tab located in the lower section of the middle pane. You can easily adjust the sequence of your grouped fields by using the up and down arrow icons.

To filter these summarized or grouped results, navigate to the **HAVING** tab. Here, you can configure your criteria by selecting identifiers, operators, and aggregate functions, or by entering custom expressions. As with the GROUP BY tab, use the up and down arrow icons to adjust the order of your conditions.

For more advanced control over your grouped filter criteria, you can control-click a condition on the **HAVING** tab to access the following menu options:

Option	Description
Toggle Negator	Reverse the logical meaning of the condition.
Insert	Add a condition.
Insert Custom	Add a custom condition.
Insert Bracket	Add a pair of parentheses.
Remove	Remove the condition.
Group with Bracket	Add parentheses to logically group the selected conditions together.
Ungroup	Remove existing parentheses from a previously grouped condition.

Sort Resulting Data

To organize the sequence in which your query records are displayed, control-click a target field in the diagram and select **Add Field To** -> **ORDER BY**, then choose either **ASC** (Ascending) or **DESC** (Descending) order. The selected sorting condition will then be added to the **ORDER BY** tab, where you can further manage it.

Limit Resulting Data

If you need to restrict your query results to a specific range, navigate to the **LIMIT** tab. Here, you can configure the following parameters:

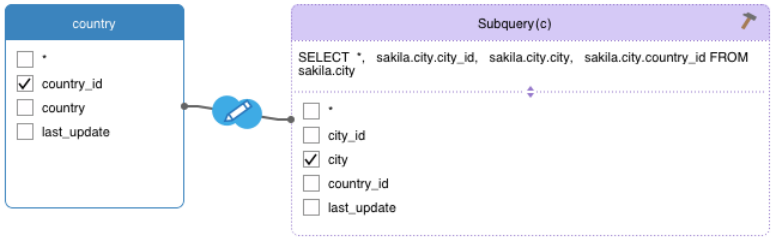
- **Offset** - Specify the number of initial records to skip before beginning to return results. (This value is optional).
- **Limit** - Specify the maximum number of records to be displayed in your final result set.

Note: Available only for MySQL, PostgreSQL, SQLite, MariaDB and Snowflake.

Add Expressions and Subqueries

You can introduce an expression or a subquery to further refine your query results. Navigate to the **FROM** tab, click the icon, and select the **Expression/Subquery** tab to begin.

Once you have entered your expression or subquery, confirm your edits by pressing the ENTER key. The new element will appear in the diagram, visually indicating its inclusion in the SQL statement and identifying the associated columns.



By clicking the icon, you will transition to a dedicated visual layer. This environment allows you to construct and manage the subquery visually, utilizing the same intuitive tools and layout as the main query.

You can seamlessly return to the primary query workspace at any time by clicking **(Main Query)**.

View Generated SQL

The right pane presents a read-only, formatted representation of the SQL code automatically generated by the Query Builder. You can easily copy the SQL text displayed here for use in other applications or tools. When working within a subquery layer, you can enable the **Show Current Layer Only** option to isolate and display solely the SQL associated with that specific subquery.

Zoom In and Out

Navicat BI provides the ability to adjust the magnification of your visual diagram for better visibility or navigation. To do this, control-click anywhere within the diagram and select **Zoom -> Zoom In/Zoom Out/100%**.

Alternatively, you can achieve the exact same effect using the following keyboard shortcuts:

- Zoom In: COMMAND-+
- Zoom Out: COMMAND--
- Reset: COMMAND-0

Find Builder

The Find Builder is used to visually construct queries for selecting documents within a collection or view, bypassing the need to manually write complex *find* command.

Note: Available only for MongoDB.

Use Find Builder

1. In Query Designer, click the button to open the visual interface.
2. Select the name of the collection or view to query from the **Collection/View** drop-down list.
3. Edit the settings in the corresponding configuration tabs.

Configuration Tabs

Use the following tabs to define the specifics of your query:

Tab	Description
Filter	Specify selection filters for the query. Only documents that meet these conditions will be returned. If you do not specify a filter, all documents will be returned. See Filter & Sort for details.
Projection	Choose which specific fields to include or exclude in the returned documents. If no projection is specified, all fields will be returned.
Sort	Sort the returned documents by specific fields in either ascending or descending order.
Limit	Limit the maximum number of documents to return and set the number of documents to skip.

Add Aggregation Pipeline

Aggregation Pipeline is a specific flow of operations that processes and transforms data, performs complex calculations, and generates aggregated results.

Note: Available only for MongoDB.

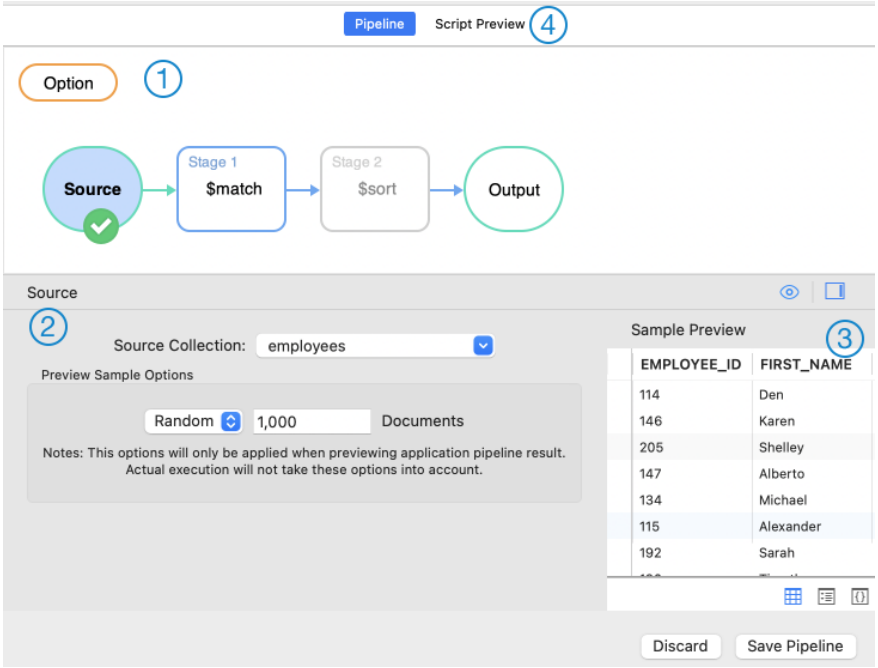
Aggregation Pipeline Designer

Aggregation Pipeline Designer is the basic Navicat tool for working with aggregation pipelines. The toolbar provides the following functions:

Button	Description
	Import a script file to build the pipeline.
	Import an existing aggregation pipeline to build the pipeline.
	Preview All - Preview the output. **Preview All with Reload** - Reload the sampled documents and preview the output.
	Stop the executing pipeline.

Pipeline Builder

Pipeline Builder allows you to build a simple aggregation pipeline by defining stage operators. It consists of the following sections: Pipeline, Stage Editor, Input/Output Preview, Script Preview.



① Pipeline

A diagram to illustrate the aggregation pipeline. You can see all stages at a glance and add, delete, and move them as needed.

② Stage Editor

The Stage Editor is where you edit the selected stage.

③ Input/Output Preview Pane

The Input Preview and Output Preview panes allow you to view the input documents and results at each stage.

④ Script Preview

You can view the aggregation pipeline script.

Choose Source Collection

The source input of the pipeline is a single collection or view. Select **Source** in the pipeline and fill in the following options.

Option	Description
Source Collection	Choose a collection or view as the source.
Preview Sample Options	Set the limit on the number of sampled documents.

Work with Aggregation Pipeline Stage

You can break down a complex query into easier stages. In each stage, you complete a different operation on the data, such as filtering, grouping, sorting, and transforming. You can check whether your query is functioning properly at

every stage by examining both its input and output. There is no limit to the number of stages used in the query, or how you combine them.

Add Stage

1. Hover over an arrow.
2. Click the icon.

Move Stage

1. Hover over a stage.
2. Click and hold the icon.
3. Move it to the desired location.

Enable / Disable Stage

1. Hover over a stage.
2. Turn on or off the stage.

Check Stage Input / Output

1. Hover over a stage.
2. Click **Preview**.

Delete Stage

1. Control-click a stage and select **Delete**.

Modify Pipeline Settings

You can click **Option** to view and change pipeline settings.

Modify Data Source Connections

Project Connection

To change a project connection to a workspace connection

1. On the Connections pane, control-click a connection and select **Convert to Workspace Connection**.
2. The connection will be moved to the "Workspace" section.

To recreate a not found connection

If the server connection in the project was removed, it will be moved to the "Not Found in Project" section. You may need to recreate the connection in order to connect the server.

1. On the Connections pane, control-click a connection and select **Recreate Connection in Project**.
2. Enter the connection properties.
3. Click **OK**.

Workspace Connection

To edit the settings of a database connection

1. On the Connections pane, control-click a database connection and select **Edit Connection**.
2. Follow the steps to edit the connection.

To change the user password of a database connection

1. On the Connections pane, control-click a database connection and select **Change Connection Password**.
2. Enter the database user password.
3. Click **OK**.

To edit the settings of a file connection

1. On the Connections pane, control-click a file connection and select **Edit File Connection Settings**.
2. Follow the steps to edit the connection.

To change the path of a linked file connection

1. On the Connections pane, control-click a file connection and select **Change Linked File Path**.
2. Follow the steps to edit the connection.

To recreate a not found connection

If Navicat BI cannot find the connection in the workspace, it will be moved to the "Not Found in Navicat BI" section. You may need to recreate the connection in order to connect the server.

1. On the Connections pane, control-click a connection and select **Recreate Connection in Workspace**.
2. Enter the connection properties.
3. Click **OK**.

View Data

After applying and refreshing the data source, the data is displayed in the bottom data grid.

Use Navigation Bar

You can navigate among the records/pages using the **Navigation Bar** buttons.

Button	Description
⇤	**First Page** - move to the first page.
←	**Previous Page** - move to the previous page.
→	**Next Page** - move to the next page.
⇥	**Last Page** - move to the last page.
⚙	**Setting** - set number of records showing on each page.
⊕	**Zoom** - magnify or reduce the text and cell size within the data grid.

Use the **Setting** ⚙ button to enter to the edit mode.

Limit ☐ **records per page**

Check this option if you want to limit the number of records showed on each page. Otherwise, all records will be displayed in one single page. And, set the value in the edit box. The number represents the number of records showed per page.

Note: This setting mode will take effect on current data source only. To adjust the global settings, see Settings.

Show/Hide Columns

If there are many columns in the data source and you want to hide some of them from the grid, just simply click ▦. Select the columns that you would like to hide.

The hidden columns will disappear from the grid.

To unhide the columns, just simply click ▦. Select the columns that you would like to redisplay.

Filter / Sort / Project Data

If your data source has many data or fields, you may find it easier to limit the data or fields to just the ones you want so you can simplify the data selections.

Filter Data

Filter pane allows you to facilitate creating and applying filter criteria that you specify for the data. Click ▽ from the toolbar to activate the Filter pane.

1. To add a new condition to the criteria, just simply click [+]. If you want to add a condition with parentheses, click [()+].

   Hint: To add parentheses to existing conditions, simply control-click on the selected conditions and select **Group with Bracket**. To remove the parentheses, control-click a bracket and select **Delete Bracket** or **Delete Bracket and Conditions**.

2. Click on the field name (next to the checkbox) and choose a field from the list.

3. Click on the operator (next to the field name) and choose a filter operator.

Filter Operator	Operator Description
=	The field is equal to 'value'.
!=	The field is not equal to 'value'.
<	The field is less than 'value'.
<=	The field is less than or equal to 'value'.
>	The field is greater than 'value'.
>=	The field is greater than or equal to 'value'.
contains	The field contains 'value'.
does not contain	The field does not contain 'value'.
begin with	The field starts with 'value'.
does not begin with	The field does not start with 'value'.
end with	The field ends with 'value'.
does not end with	The field does not end with 'value'.
is null	The field is NULL.
is not null	The field is NOT NULL.
is empty	The field is empty.
is not empty	The field is not empty.
is between	The field is between 'value1' and 'value2'.
is not between	The field is not between 'value1' and 'value2'.
is in list	The field is in the list of ('value1','value2',...).
is not in list	The field is not in the list of ('value1','value2',...).

4. Click on **<?>** to activate the appropriate editor and enter the criteria values. The editor used in the criteria values box is determined by the data type assigned to the corresponding field.

5. Click on the logical operator (next to the criteria values) to choose **and** or **or**.

6. Repeat step 1-5 to add another new condition.

7. Click **Apply and Refresh Data** to see the result of the filtering you made.

Hint: If you want to reverse the meaning of the conditions, control-click the selected conditions and select **Toggle Negator**.

Sort Data

Navicat BI offers the ability to sort and order data. Click from the toolbar to activate the Sort pane.

1. To add a new criteria, just simply click .
2. Click on the field name (next to the checkbox) and choose a field from the list.
3. Click on the sorting order to choose **ASC** or **DESC**.
4. Repeat step 1-3 to add another new criteria.
5. Click **Apply and Refresh Data** to see the result of the sorting you made.

Project Data

You can choose which fields to include or exclude in the data source. Click from the toolbar to activate the Projection pane.

1. Choose to **Include** or **Exclude** fields.
2. To add a new criteria, just simply click .
3. Click on the field name (next to the checkbox) and choose a field from the list.
4. Repeat step 2-3 to add another new criteria.
5. Click **Apply and Refresh Data** to see the result of the projection you made.

Add Custom Fields

You can extend your data with customized fields. New fields can be created by changing the field type, concatenating other fields, mapping to other values or sorting based on another field/customized order.

Create Custom Field

Type-Changed Field

Field types (String, Number, Date/Time) are assigned to every field based on the actual data type of the field. If the field was not interpreted correctly, you can adjust the field type.

1. In the bottom data grid, select a field and click -> **Type-Changed Field** to get started.
2. In the pop-up window, enter the **Target Field Name**.
3. Choose the **Target Field Type**.
4. Choose the **Source Field Name**.

5. Set the **Source Field Data Format** if necessary.

6. Click **OK**.

Concatenated Field

You can add a new field and concatenate the data from two already existing fields.

1. In the bottom data grid, select a field and click -> **Concatenated Field** to get started.

2. In the pop-up window, enter the **Name** of the target field.

3. Double-click a field on the **Source Fields** pane to add it to the body.

4. Edit the body and enable the **Set null if all field values are null or empty** option if necessary.

5. Click **OK**.

Mapped Field

You can create a new field populated with the results of applying a mapping rule on every value in the source field.

1. In the bottom data grid, select a field and click -> **Mapped Field** to get started.

2. In the pop-up window, enter the **Target Field Name**.

3. Choose the **Source Field Name**.

4. Click **Add** to create a new mapping rule.

5. Enable the **Compare source values with case sensitive** option if necessary.

6. Choose the action for the values that are not in the mapping rules.

7. Click **OK**.

Custom-Sorted Field

You can create a new field to rearrange the order of the values, based on another field, or a custom order. When you sort this new field in the chart, it will be sorted in the order you set.

1. In the bottom data grid, select a field and click -> **Custom-Sorted Field** to get started.

2. In the pop-up window, enter the **Target Field Name**.

3. Choose the **Source Field Name**.

4. [Reference Field] Choose the field which the sort order of the target field will be based on.

5. [Custom Sort] Customize the order of the field values by moving the values to the **Sorted Values** list.

6. Click **OK**.

Calculated Field

You can create a new field with a custom expression. You can use functions, fields and operators in the expression.

1. In the bottom data grid, select a field and click -> **Calculated Field** to get started.
2. In the pop-up window, enter the **Target Field Name**.
3. Enter an expression in the **Body** text box.
4. Click **OK**.

Edit Custom Field

1. In the bottom data grid, control-click on the customized field and select **Edit field_name**.
2. In the pop-up window, modify the field properties.
3. Click **OK**.

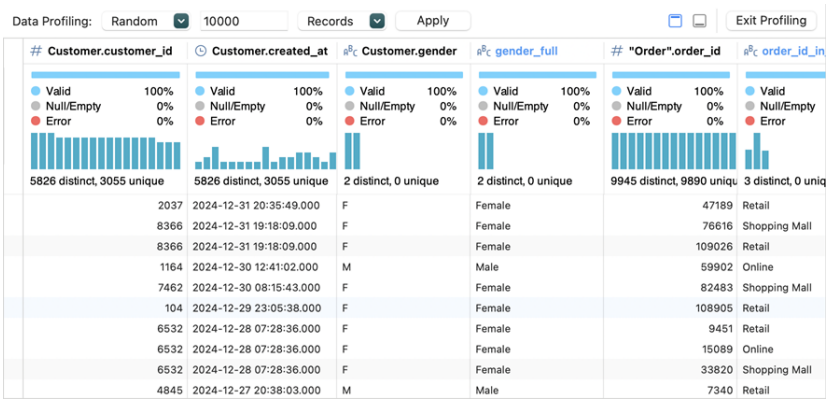
Delete Custom Field

1. In the bottom data grid, control-click on the customized field and select **Remove field_name**.

Examine Data Source Using Data Profiling

You can profile a data source to unveil intricate patterns, trends, and relationships in the data, and identify discrepancies and errors in custom fields, enabling a meticulous examination of data integrity and accuracy. To initiate the profiling process, simply click . In the Data Profiling bar, choose the number of records you want to profile and click **Start**.

After the profiling finished, the data profile results appear. The results show all the columns and their statistics in the profile run. You can modify the number of records and then re-profile the data.

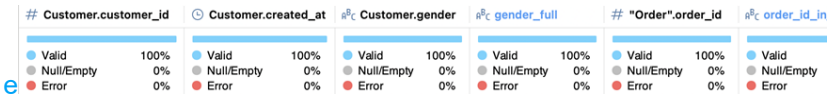


Column Quality & Distribution

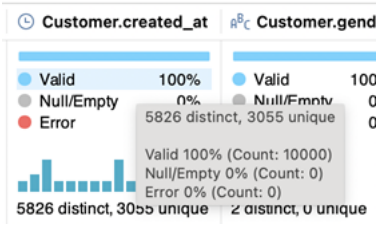
The Column Quality & Distribution pane provides the quality of the data in terms of distinct values, unique values, NULL values and non-NULL values, also it displays column distribution charts associated with the column values.

Column Quality

The column quality includes a small bar chart and column quality categories (displayed as percentages). It displays directly underneath the column name.



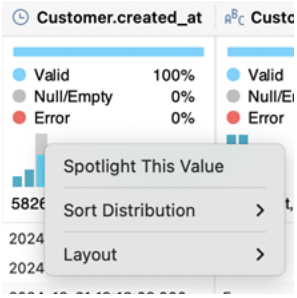
By hovering over any category, it will show you the numerical distribution of the value qualities throughout the column.



Column Distribution

In column distribution charts, you can see the frequency and distribution of the values in each of the columns as in histogram.

By default, the data in these visualizations is sorted in ascending order of the values. You can change the sorting order and category by control-clicking the chart and select **Sort Distribution**.



By hovering over any bar, it will show you the value and the numerical distribution of the quality of that value throughout the column.

You can change the display style that works best for you by control-clicking a bar and choosing **Compact** or **Detailed**. Compact View hides Column Quality information, while Detailed View shows both Column Quality & Distribution information.

Add Spotlight

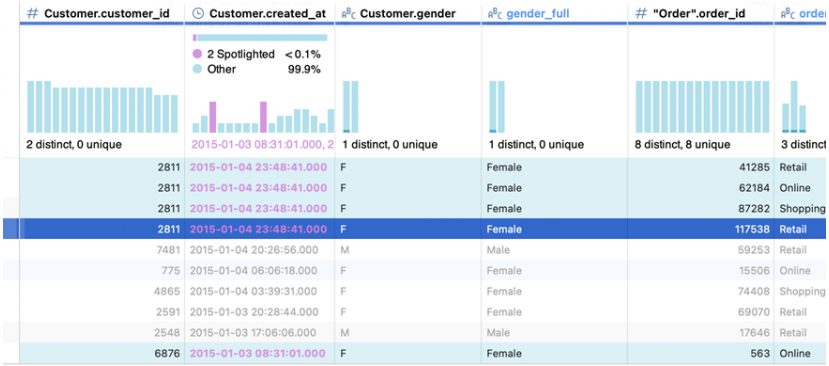
Use spotlights to draw attention to specific values on the result. To spotlight values, use one of the following methods:

- Click a column quality category or a bar in the Column Quality & Distribution pane.

- Control-click a bar in the Column Quality & Distribution pane and select **Spotlight This Value** or **Add Spotlight**.

- Control-click a value in the grid and select **Spotlight This Value** or **Add Spotlight**.

Hint: Remove the spotlighted values in the same way.

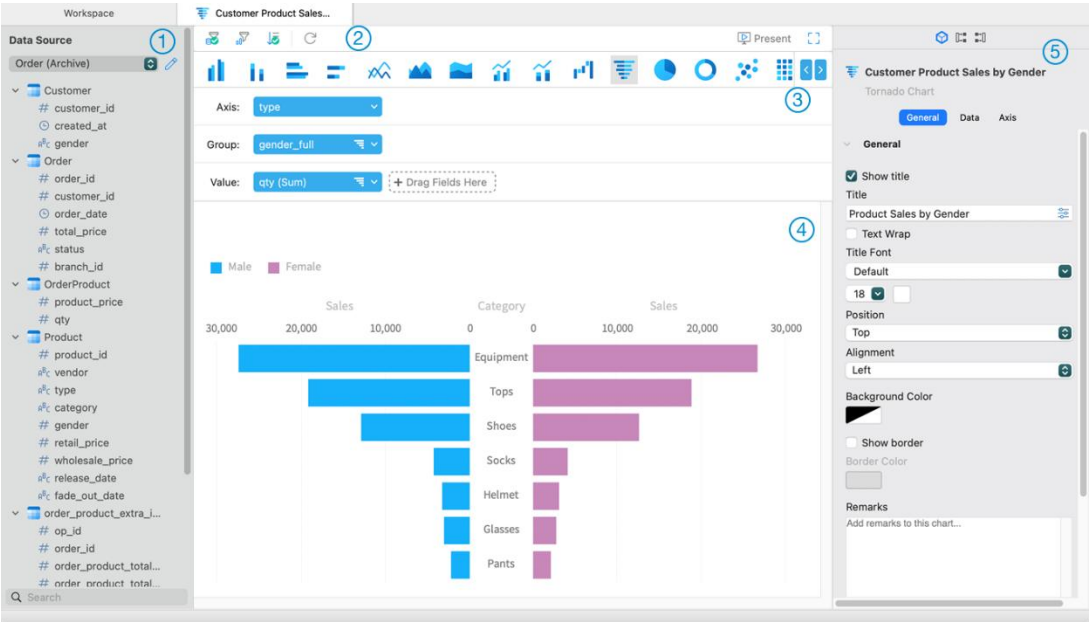


Chapter 6 - Chart

Build Chart

A chart provides visual representations of the data in your data source. It maps to a single data source, and can display correlations between several fields in the data. You can even make the chart interactive by adding a control chart.

Note: You must add a data source before you can begin building charts.



① Data Source Pane

The Data Source pane is the basic way to navigate with the data sources. If the Data Source pane is hidden, choose **View** -> **Show Data Source** from the menu bar.

② Chart Toolbar

The Chart Toolbar provides controls that you can use to manipulate the data.

③ Metric Pane

The Metric pane allows you to choose the chart type and add fields to the shelves from the Data Source Pane. If the pane is hidden, choose **View** -> **Show Metric**.

④ Preview Pane

The Preview pane displays the chart.

⑤ Properties Pane

The **Properties** tab includes the basic layout settings, data format settings and so on. The properties vary with the type of the chart.

The **Using** tab shows the data sources that the chart depends on.

The **Used By** tab shows the dashboards that depend on the chart.

If the pane is hidden, choose **View** -> **Show Properties**.

Create New Chart

The essential steps to create a chart are:

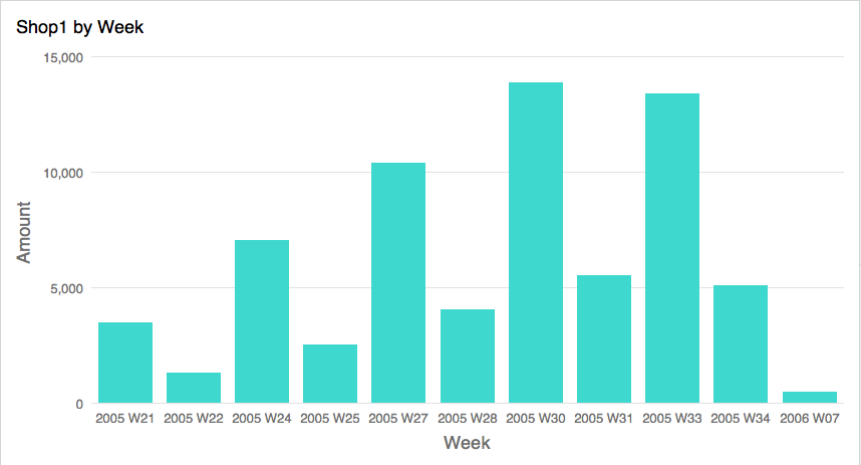
2. In the Workspace window, click .
3. Select the data source and enter the name of the chart.
4. A tab will open for you to edit the chart.
5. Choose the chart type on the middle pane.

   Hint: The type of chart you will use is normally determined by the type of the data.

6. Drag fields to the corresponding shelf in the Metric pane to set axis, values, etc.
7. Select the properties on the right pane which can be further customized for your chart.

   Hint: Each chart type has different properties.

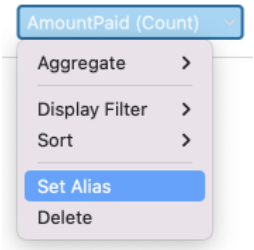
8. The chart shows on the Preview pane.



Set Field Alias

You can create aliases for fields so that their labels appear differently in the chart.

1. Click the down arrow in the field box.
2. Select **Set Alias**.

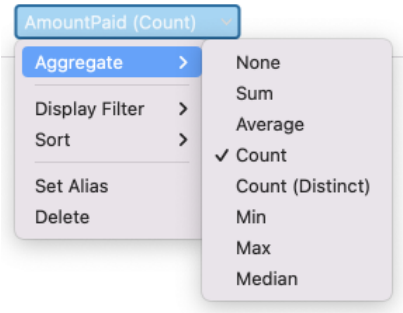


3. Enter the alias name.

Apply Aggregate Function

Aggregate functions allow you to summarize or change the granularity of your data.

1. Click the down arrow in the field box.



2. Select **Aggregate** and choose an aggregate function.

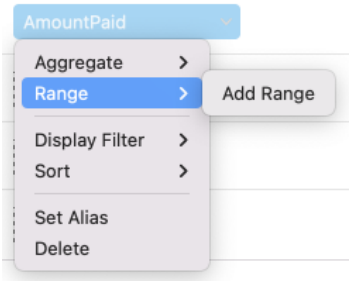
Function	Description
Number	
Sum	Return the sum of all values. Null values are ignored.
Average	Return the average of all the values. Null values are ignored.
Count	Return the number of items. Null values are not counted.
Count(Distinct)	Return the number of distinct items. Null values are not counted.
Min	Return the minimum value across all records. Null values are ignored.
Max	Return the maximum value across all records. Null values are ignored.
Median	Return the median value across all records. Null values are ignored.
DateTime	
Count	Return the number of items. Null values are not counted.
Count(Distinct)	Return the number of distinct items. Null values are not counted.
Year	Return the year of the date (0000-9999).
Quarter	Return the year of the date (0000-9999) and the quarter of

	the year (Q1-Q4).
Month	Return the year (0000-9999) and the month (01-12) of the date.
Week	Return the year of the date (0000-9999) and the week of the year (W01-W52, start of week is Sunday).
Day	Return the date.
Hour	Return the date and the hour of the time (00-23).
Minute	Return the date, the hour of the time (00-23) and the minute of the time (00-59).
Second	Return the datetime.
Quarter (Extract)	Return the quarter of the year (Q1-Q4).
Month (Extract)	Return the month of the date (01-12).
Week (Extract)	Return the week of the year (W01-W52, start of week is Sunday).
Day (Extract)	Return the day of the date (01-31).
Hour (Extract)	Return the hour of the time (00-23).
Minute (Extract)	Return the minute of the time (00-59).
Second (Extract)	Return the second of the time (00-59).
Text	
First	Return the value of the first record.
Last	Return the value of the last record.
Count	Return the number of items. Null values are not counted.
Count(Distinct)	Return the number of distinct items. Null values are not counted.

Add Range

You can aggregate data into ranges without the need to create any additional calculations in the data source.

1. Click the down arrow in the field box.



2. Select **Add Range**.

3. Edit the range settings.

Option	Description
Range Type - Fixed	
Bin Size	Either enter the size of a bin or click **Calculate** to let

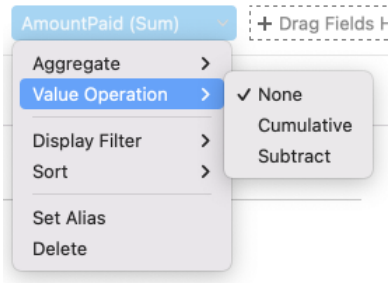
	Navicat calculate a value for you.
Range Type - Custom	
Stop Values	Add the bin boundaries.

4. Click **OK**.

Set Value Operation

You can create a chart that shows a running total as values are added or subtracted.

1. Click the down arrow in the field box.



2. Select **Value Operation** and choose an operation.

Operation	Description
Cumulative	Sum the values cumulatively.
Subtract	Subtract the value with its previous value.

Filter / Sort Data

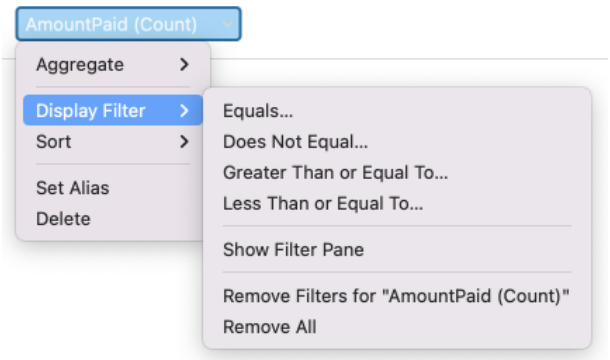
Filter Source Data in Chart

You can use the Data Filter pane to filter the source data in the current chart.

Filter Display Data in Chart

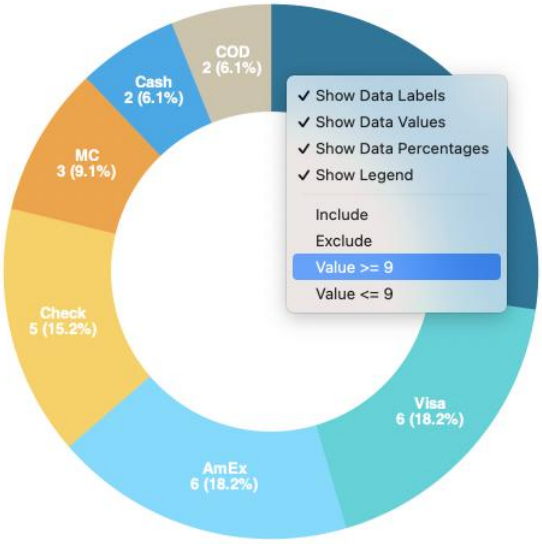
You can filter the display data in 3 ways:

- Click the down arrow in the field box and select **Display Filter**.



- Use the Display Filter pane.

- Control-click a series / data points on the chart.

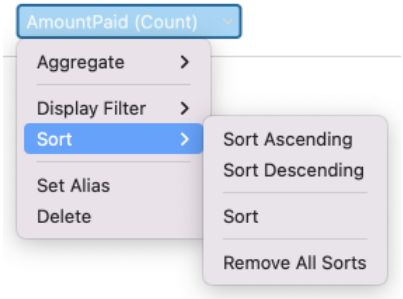


Hint: If you want to clear the filter, you need to use the Display Filter pane.

Sort Data

You can sort the data in 2 ways:

- Click the down arrow in the field box and select **Sort**.



- Use the Sort pane.

Present Chart

You can present the chart using the whole screen. The title bar, toolbars, tab bar, Data Source pane, Metric pane and Properties pane will be hidden while in this mode. To open a chart in present view, click **Present**.

To exit present view, press the ESC key and the workspace window will be returned to its previous state.

Sort Chart

In presentation mode, you can organize your data in a chart with one click. You can sort data series by a value. Simply click the Icon to sort on a different value and select the sorting order.

Use Parameter

If you assigned a parameter, BI will automatically render a functional control during presentation mode. You can then dynamically adjust the value of that specific measure on during presentation.

To change the parameter value:

1. In presentation mode, control-click the page and select **Modify Parameter Value**.
2. Select your desired parameter from the list.
3. Change the value manually.

Hint: If you assigned a numeric range rule to your parameter, you can dynamically adjust the value of that specific measure by dragging the interactive slider.

Chart Types

Comparison & Trends

Navicat offers a versatile collection of charts designed specifically to help you analyze how your data evolves over time and to evaluate differences across various categories. Whether you need to track ongoing performance metrics, compare regional data, or break down the step-by-step factors influencing a final total, these visualization tools provide clear, actionable insights to drive your decision-making.

Bar Chart

A bar chart provides high-level overviews of data trends by comparing values within a specific category.

- Vertical Bar Chart
- Vertical Stacked Bar Chart
- Horizontal Bar Chart
- Horizontal Stacked Bar Chart

Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Show Bar Labels	Display the data labels of the selected series.
Bar Label Contains	Display the data values or/and the percentages on the labels.
Bar Label Position	Set the position of the bar labels.
Use 100% stacked	Use 100% stacked bars to show values for hierarchical data. (Each bar height is 100%, and the colored bar segments represent the components' relative contributions to the total bar.)

Bar Label Font	Set the font style of the bar labels.
Use custom data value color	Customize the color of the labels of the data values.
Positive Data Value Color	Set the color of the positive value labels.
Negative Data Value Color	Set the color of the negative value labels.
Show only top #	Only the top # data are displayed.
Fill missing values	Use a continuous axis. The data series are positioned according to their domain value.
Group values less than	Aggregate smaller values below a specified percentage or fixed threshold into a single bar segment.
Group Name	Specify the label assigned to the aggregated smaller values (e.g., "Others")
Group Color	Set the color for the aggregated data group segment.
Style	Plot discrete or continuous data series on the chart.
Density	Choose the density of the data series.
Color	Set the color palette of the data series.
All Data Colors	Allow setting the color for each series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
X-Axis Title	Specify the title of X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Font / Bold	Set the font style of X-Axis labels.
X-Axis Label Rotation	Rotate X-Axis labels.
X-Axis Label Interval	Change the interval between X-Axis labels.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Y-Axis	

Show Y-Axis title	Display the title of Y-Axis.
Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.
Show Y-Axis title at the end of axis	Display the title at the end of Y-Axis.
Show Y-Axis labels	Display labels on Y-Axis.
Font / Bold	Set the font style of Y-Axis labels.
Show Y-Axis	Display Y-Axis line.
Y-Axis Color	Set the color of Y-Axis line.
Show grid line	Display the grid line of Y-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on Y-Axis.
Tick Interval	Set the interval of the tick marks in axis units.
Assistant Line	
⊕	Add an assistant line to the chart to show visual data trends, averages, normal distributions, etc.
⊖	Remove the selected assistant line.
✎	Rename the selected assistant line.
Value	Select a data series for the assistant line.
Group Value	Select a group value for the assistant line.
Type	Choose the type of assistant line you want.
Show R^2 value	Display the R^2 value on the chart.
Forward Forecast / Backward Forecast	Specify the number of periods to include in a forecast.
Align with other lines	Align the assistant line with others.
Period	Specify the number of data points used to average the point value.
Smooth	Smooth the angles of the line.
Use custom color	Customize the color of the line.
Line Color	Set the color of the line.
Cap Style	Choose the cap style of the line.
Dash Style	Choose the dash style of the line.
Join Style	Choose the join style of the line.
Visible	Check this box to show the line.

Line / Area Chart

A line or area chart displays information as a series of data points connected by straight line segments.

- Line Chart
- Area Chart

- Stacked Area Chart

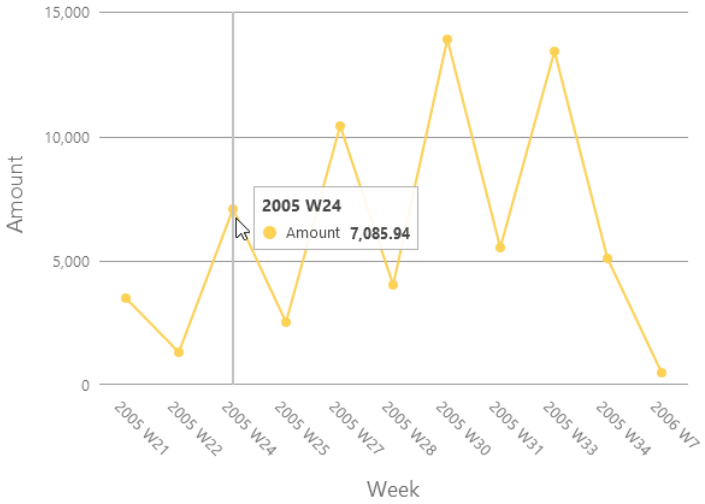


Chart Properties

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General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Use smoothed line	Plot a smooth line through the data points.
Show Line Labels / Show Area Labels	Display the data labels of the selected series.
Line Label Contains	Display the data values or/and the percentages on the labels.
Line Label Pattern	Select the values that will be displayed on the chart.
Show markers	Display the marker points on the line / area.

Use 100% stacked	Use 100% stacked areas to show values for hierarchical data. (The area height is 100%, and the colored area segments represent the components' relative contributions to the total area.)
Use custom data value color	Customize the color of the labels of the data values.
Positive Data Value Color	Set the color of the positive value labels.
Negative Data Value Color	Set the color of the negative value labels.
Show only top #	Only the top # data are displayed.
Fill missing values	Use a continuous axis. The data series are positioned according to their domain value.
Density	Choose the density of the data series.
Color	Set the color palette of the data series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
X-Axis Title	Specify the title of X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Font / Bold	Set the font style of X-Axis labels.
X-Axis Label Rotation	Rotate X-Axis labels.
X-Axis Label Interval	Change the interval between X-Axis labels.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Y-Axis	
Show Y-Axis title	Display the title of Y-Axis.
Font / Bold	Set the font style of Y-Axis labels.
Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.
Show Y-Axis title at the end of	Display the title at the end of Y-Axis.

axis	
Show Y-Axis labels	Display labels on Y-Axis.
Show Y-Axis	Display Y-Axis line.
Y-Axis Color	Set the color of Y-Axis line.
Show grid line	Display the grid line of Y-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on Y-Axis.
Tick Interval	Set the interval of the tick marks in axis units.
Assistant Line	
⊕	Add an assistant line to the chart to show visual data trends, averages, normal distributions, etc.
⊖	Remove the selected assistant line.
✎	Rename the selected assistant line.
Value	Select a data series for the assistant line.
Group Value	Select a group value for the assistant line.
Type	Choose the type of assistant line you want.
Show R^2 value	Display the R^2 value on the chart.
Forward Forecast / Backward Forecast	Specify the number of periods to include in a forecast.
Align with other lines	Align the assistant line with others.
Period	Specify the number of data points used to average the point value.
Smooth	Smooth the angles of the line.
Use custom color	Customize the color of the line.
Line Color	Set the color of the line.
Cap Style	Choose the cap style of the line.
Dash Style	Choose the dash style of the line.
Join Style	Choose the join style of the line.
Visible	Check this box to show the line.

Bar and Line Chart

Mixing bar and line chart in the same visual is a good way to emphasize the difference between series while still maintaining their relationship.

- Bar and Line Chart
- Stacked Bar and Line Chart

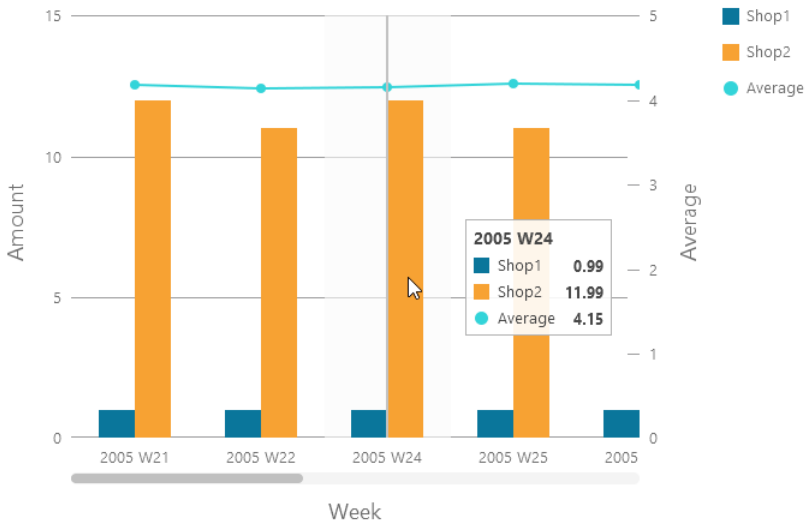


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Use smoothed line	Plot a smooth line through the data points.
Show Labels	Display the data labels of the selected series.
Bar Label Contains	Display the data values or/and the percentages on the labels.
Bar Label Position	Set the position of the bar labels.
Bar Label Font	Set the font style of the bar labels.
Use 100% stacked bar	Use 100% stacked bars to show values for hierarchical data. (Each bar height is 100%, and the colored bar segments represent the

	components' relative contributions to the total bar.)
Line Label Contains	Display the data values or/and the percentages on the labels.
Line Label Pattern	Select the values that will be displayed on the chart.
Show line markers	Display the marker points on the line.
Use custom data value color	Customize the color of the labels of the data values.
Positive Data Value Color	Set the color of the positive value labels.
Negative Data Value Color	Set the color of the negative value labels.
Show only top #	Only the top # data are displayed.
Fill missing values	Use a continuous axis. The data series are positioned according to their domain value.
Style	Plot discrete or continuous data series on the chart.
Density	Choose the density of the data series.
Color	Set the color palette of the data series.
All Bar Data Colors	Allow setting the color for each series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
X-Axis Title	Specify the title of X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Font / Bold	Set the font style of X-Axis labels.
X-Axis Label Rotation	Rotate X-Axis labels.
X-Axis Label Interval	Change the interval between X-Axis labels.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Y-Axis / Secondary Y-Axis	
Show Y-Axis title / Show Secondary Y-Axis title	Display the title of Y-Axis.

Y-Axis Title / Secondary Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.
Show Y-Axis title at the end of axis / Show Secondary Y-Axis title at the end of axis	Display the title at the end of Y-Axis.
Show Y-Axis labels / Show Secondary Y-Axis labels	Display labels on Y-Axis.
Font / Bold	Set the font style of Y-Axis labels.
Show Y-Axis / Show Secondary Y-Axis	Display Y-Axis line.
Y-Axis Color / Secondary Y-Axis Color	Set the color of Y-Axis line.
Show grid line	Display the grid line of Y-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on Y-Axis.
Tick Interval	Set the interval of the tick marks in axis units.
Assistant Line	
⊕	Add an assistant line to the chart to show visual data trends, averages, normal distributions, etc.
⊖	Remove the selected assistant line.
✎	Rename the selected assistant line.
Value	Select a data series for the assistant line.
Group Value	Select a group value for the assistant line.
Type	Choose the type of assistant line you want.
Show R^2 value	Display the R^2 value on the chart.
Forward Forecast / Backward Forecast	Specify the number of periods to include in a forecast.
Align with other lines	Align the assistant line with others.
Period	Specify the number of data points used to average the point value.
Smooth	Smooth the angles of the line.
Use custom color	Customize the color of the line.
Line Color	Set the color of the line.
Cap Style	Choose the cap style of the line.
Dash Style	Choose the dash style of the line.
Join Style	Choose the join style of the line.
Visible	Check this box to show the line.

Waterfall Chart

A waterfall chart is a special type of bar chart. It is useful for understanding how the starting value is affected by a series of changes (increase or decrease).

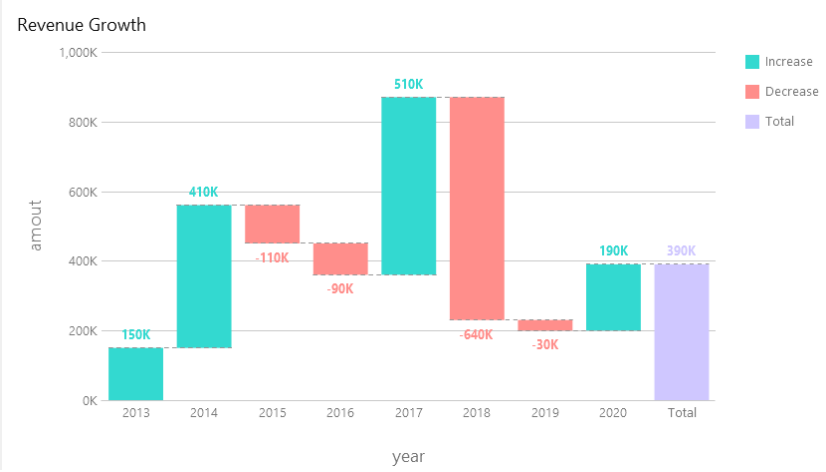


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Show data values	Display the values of the data series.
Bar Label Position	Set the position of the bar labels.
Bar Label Font	Set the font style of the bar labels.
Total Bar Color	Set the color of the Total bar.
Subtotal Bar Color	Set the color of the Subtotal bar.
Total Bar Title	Specify the title of the Total bar.

Use increase and decrease color	Color the bars with Increase Color and Decrease Color.
Increase Color	Set the color of the bar when the value increases.
Decrease Color	Set the color of the bar when the value decreases.
Use custom data value color	Customize the color of the labels of the data values.
Positive data value color	Set the color of the positive value labels.
Negative data value color	Set the color of the negative value labels.
Show only top #	Only the top # data are displayed.
Style	Plot discrete or continuous bars on the chart.
Density	Choose the density of the bars.
Group Value Sorting	Sort the group values (from Decrease to Increase, or from Increase to Decrease).
Color	Set the color palette of the data series.
All Data Colors	Allow setting the color for each series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
X-Axis Title	Specify the title of X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Font / Bold	Set the font style of X-Axis labels.
X-Axis Label Rotation	Rotate X-Axis labels.
X-Axis Label Interval	Change the interval between X-Axis labels.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Y-Axis	
Show Y-Axis title	Display the title of Y-Axis.
Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.

Show Y-Axis title at the end of axis	Display the title at the end of Y-Axis.
Show Y-Axis labels	Display labels on Y-Axis.
Font / Bold	Set the font style of Y-Axis labels.
Show Y-Axis	Display Y-Axis line.
Y-Axis Color	Set the color of Y-Axis line.
Show grid line	Display the grid line of Y-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on Y-Axis.
Tick Interval	Set the interval of the tick marks in axis units.

Tornado Chart

A tornado chart is a special type of bar chart. It is useful for comparing data among different types of data or categories.

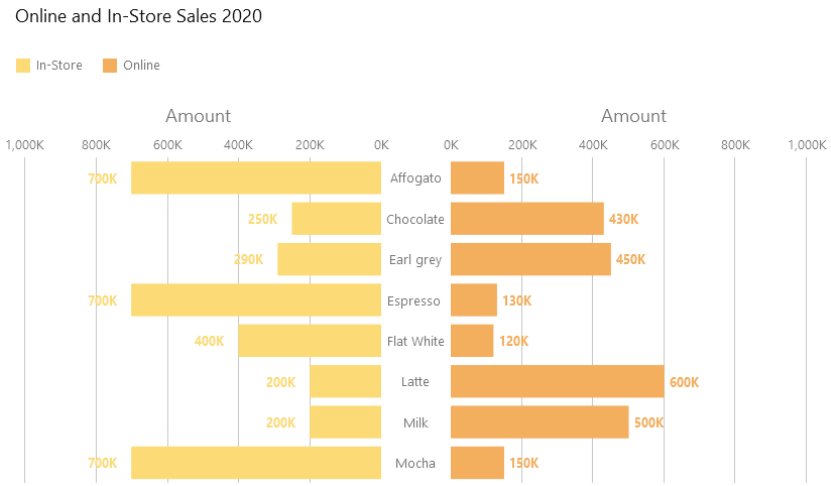


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.

Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Show Bar Labels	Display the data labels of the selected series.
Bar Label Contains	Display the data values or/and the percentages on the labels.
Bar Label Position	Set the position of the bar labels.
Bar Label Font	Set the font style of the bar labels.
Use stack	Use stacked bars to show values.
Use 100% stacked	Use 100% stacked bars to show values for hierarchical data. (Each bar height is 100%, and the colored bar segments represent the components' relative contributions to the total bar.)
Stacked Bar Style	Determine how the stacked section is displayed.
Negative Data Bar Background Color	Set the color of the negative data bars.
Minimum Value	Set the minimum value of the bar.
Data Label Color	Set the color of the data labels on the bars.
Use custom data value color	Customize the color of the labels of the data values.
Positive data value color	Set the color of the positive value labels.
Negative data value color	Set the color of the negative value labels.
Show only top #	Only the top # data are displayed.
Fill missing values	Use a continuous axis. The data series are positioned according to their domain value.
Style	Plot discrete or continuous bars on the chart.
Density	Choose the density of the bars.
Color	Set the color palette of the data series.
All Data Colors	Allow setting the color for each series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.

Custom	Customize the date and time format.
Y-Axis	
Axis position	Set the position of Y-Axis.
Show Y-Axis title	Display the title of Y-Axis.
Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.
Y-Axis Label Interval	Change the interval between Y-Axis labels.
Show Y-Axis labels	Display labels on Y-Axis.
Y-Axis Color	Set the color of Y-Axis line.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
Left X-Axis Title	Specify the title of the left X-Axis.
Right X-Axis Title	Specify the title of the right X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Show grid line	Display the grid line of X-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on X-Axis.
Tick Interval	Set the interval of the tick marks in axis units.

Part-to-Whole Relationships

Part-to-whole charts are highly effective for illustrating how individual data points contribute to a complete dataset. By visually breaking down a total into its constituent parts, these charts make it easy to quickly grasp proportions, market shares, and hierarchical distributions at a glance.

Pie / Donut Chart

A pie or donut chart displays data in a series of segments of a circle, with larger segments representing larger data values.

- Pie Chart
- Donut Chart

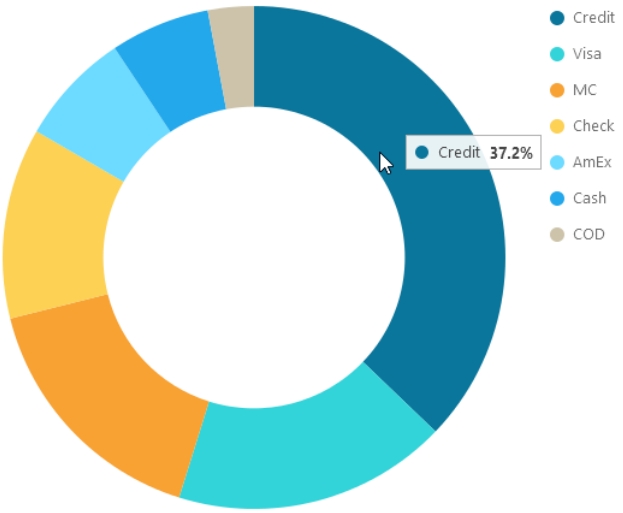


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Show data labels	Display data labels that clarify the data series.
Show data values	Display the values of the data series.
Show data percentages	Display the data percentages of the slices.
Show label inside slice	Position the slice labels inside the slice. Labels for smaller slices are hidden.
Show label over other slices	All labels are shown. Labels for smaller slices will overlap other slices.
Show slice separator	Add white borders between pie / donut slices.

Data Label Color	Set the color of the data label.
Show only top #	Only the top # data are displayed.
Slice	Group the small slices to a single slice (called Others).
Color	Set the color palette of the data series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
Group	
Show group title	Display the title of the group.
Group Title	Specify the title of the group.
Group Title Font	Set the font style of the group title.

Treemap

A treemap is an alternative way of visualizing the hierarchical structure while also displaying quantities for each category via area size.

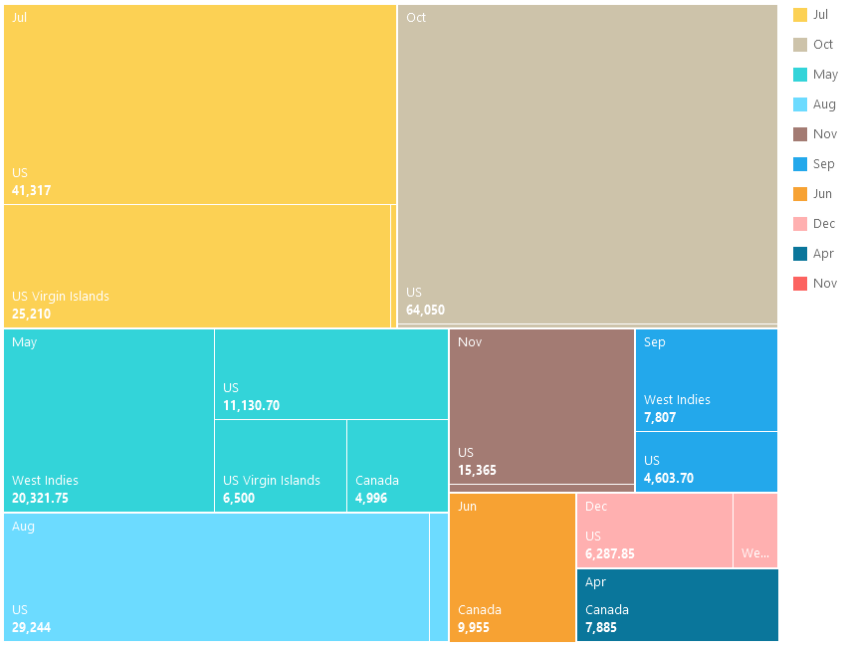


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.
Label Color	Set the color of the legend labels.
Data	
Show data point names	Display the names of the data points.
Show data values	Display the values of the data points.
Show data percentages	Display the data percentages of the data points.
Data Label Color	Set the color of the data label.
Tile	Group the small tiles to a single tile (called Others).
Color	Set the color palette of the data points.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.

Relationships & Patterns

Charts that highlight relationships and patterns are ideal for uncovering correlations, distributions, and concentrations within your data. Whether plotting individual variables on a coordinate plane or using color intensity to map out dense data clusters, these visualizations help identify trends that might be missed in raw data tables.

Scatter Chart

A scatter chart plots data with individual data points placed along the X and Y axes.

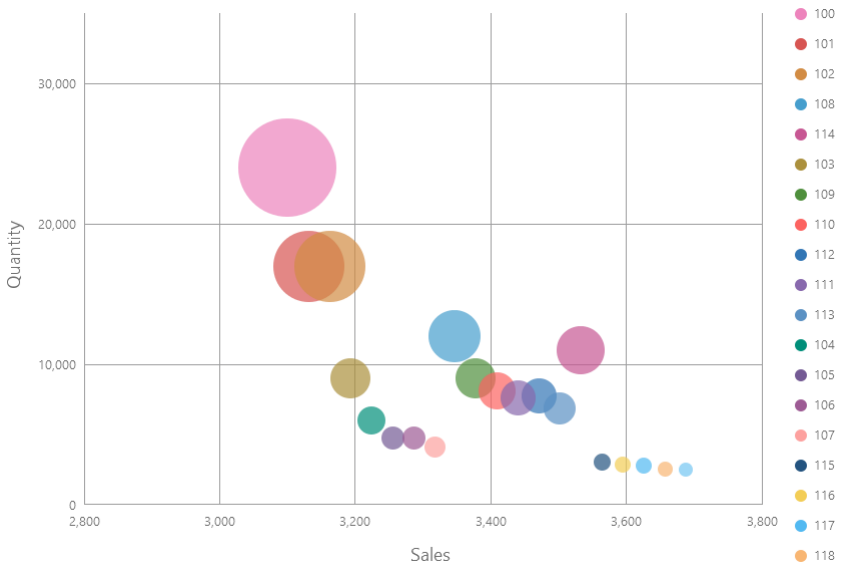


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Alignment	Set the vertical or horizontal alignment of the legend.

Label Color	Set the color of the legend labels.
Data	
Show size values	Display the size of the bubbles.
Density	Choose the density of the data series.
Color	Set the color palette of the data series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
X-Axis	
Show X-Axis title	Display the title of X-Axis.
X-Axis Title	Specify the title of X-Axis.
Font	Set the font style of X-Axis title.
Show X-Axis title at the end of axis	Display the title at the end of X-Axis.
Show X-Axis labels	Display labels on X-Axis.
Font / Bold	Set the font style of X-Axis labels.
X-Axis Label Rotation	Rotate X-Axis labels.
X-Axis Label Interval	Change the interval between X-Axis labels.
Show X-Axis	Display X-Axis line.
X-Axis Color	Set the color of X-Axis line.
Show grid line	Display the grid line of X-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on X-Axis.
Tick Interval	Set the interval of the tick marks in axis units.
Y-Axis	
Show Y-Axis title	Display the title of Y-Axis.
Y-Axis Title	Specify the title of Y-Axis.
Font	Set the font style of Y-Axis title.
Show Y-Axis title at the end of axis	Display the title at the end of Y-Axis.
Show Y-Axis labels	Display labels on Y-Axis.

Font / Bold	Set the font style of Y-Axis labels.
Show Y-Axis	Display Y-Axis line.
Y-Axis Color	Set the color of Y-Axis line.
Show grid line	Display the grid line of Y-Axis.
Use custom range	Set the range of the grid lines. Enter values in **Start** and **End**. The graph drawing beyond this range will be clipped off.
Use custom interval	Change the Interval on Y-Axis.
Tick Interval	Set the interval of the tick marks in axis units.
Assistant Line	
⊕	Add an assistant line to the chart to show visual data trends, averages, normal distributions, etc.
⊖	Remove the selected assistant line.
🖉	Rename the selected assistant line.
Value	Select a data series for the assistant line.
Group Value	Select a group value for the assistant line.
Type	Choose the type of assistant line you want.
Show R^2 value	Display the R^2 value on the chart.
Forward Forecast / Backward Forecast	Specify the number of periods to include in a forecast.
Align with other lines	Align the assistant line with others.
Period	Specify the number of data points used to average the point value.
Smooth	Smooth the angles of the line.
Use custom color	Customize the color of the line.
Line Color	Set the color of the line.
Cap Style	Choose the cap style of the line.
Dash Style	Choose the dash style of the line.
Join Style	Choose the join style of the line.
Visible	Check this box to show the line.

Heatmap

A heatmap represents data in a tabular format as a range of color. A more intense color represents a larger aggregated value for a particular data point.

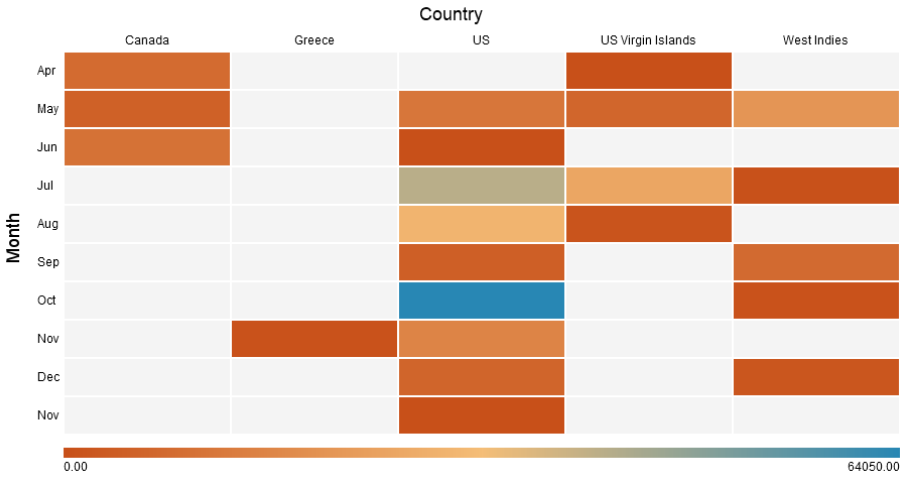


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show Border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Legend	
Show legend	Display the legend container.
Position	Set the position for the legend.
Label Color	Set the color of the legend labels.
Data	
Show data values	Display the values of the data series.
Show data percentages	Display the percentages of the data series.
Font	Set the font style of data labels.
Diverging	Use diverging color scale.
Use custom min/max values	Customize the color of the min, center, and max values. Navicat calculates the cell color based on the color of these values.
Min Color	Set the color of the minimum value in the colormap.
Center Color	Set the color of the value at which to center the colormap.
Max Color	Set the color of the maximum value in the colormap.

Min Value	Specify the minimum value.
Max Value	Specify the maximum value.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
Column	
Show column title	Display the title of the column.
Column Title	Specify the title of the column.
Column Title Font	Set the font style of the column title.
Show column label	Display the column label.
Column Label Color	Set the color of the column label.
Row	
Show row title	Display the title of the row.
Row Title	Specify the title of the row.
Row Title Font	Set the font style of the row title.
Show row label	Display the row label.
Row Label Color	Set the color of the row label.

Performance, Targets & Summary Metrics

Charts in this category are designed to give you an immediate, high-level overview of key metrics. By distilling complex datasets into single aggregated values, tracking period-over-period changes, or measuring progress against specific goals, these visualizations provide the essential insights needed for performance dashboards.

Value

A value displays a single aggregated value from a data field, e.g. total.

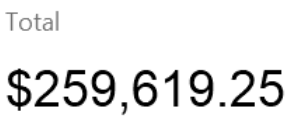


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Data Label Font	Set the font style of the data label.
Negative Font Color	Set the color of the negative value.
Alignment	Set the horizontal alignment of the data label.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.

Trend

A trend displays that the current value is trending up or down compared to the previous value, and the percentage change.

Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description

General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Show previous value	Display the previous value.
Show difference	Display the **Value** / **Percentage** difference between the current value and the previous value.
Show indicator	Display the up or down indicator.
Main Label Font	Set the font style of the main label.
Previous Value Color	Set the color of the previous value.
Target Met Color	Set the color of the indicator and the percentage when the value is trending up.
Target Missed Color	Set the color of the indicator and the percentage when the value is trending down.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.

KPI

A KPI displays a comparison between a key value and its target value with a progress bar.

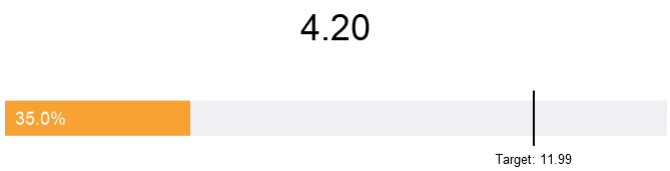


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Main Label Displayed	Display the **Actual** value or the **Comparison** percentage in the main label.
Main Label Font	Set the font style of the main label.
Indicator Thickness	Set the font size of the sub-label on the bar.
Sub Label Color	Set the color of the sub-label on the bar.
Target Caption	Specify the caption of the target label.
Use custom target value	Set the target value.
Target Label Color	Set the color of the target label.
Target Met Color	Set the color of the bar when the value reaches the target.
Target Missed Color	Set the color of the bar when value does not reach the target.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.

Gauge

A gauge is a meter type chart. It has a circular arc and displays a single value which measures the progress toward the target value (the goal).

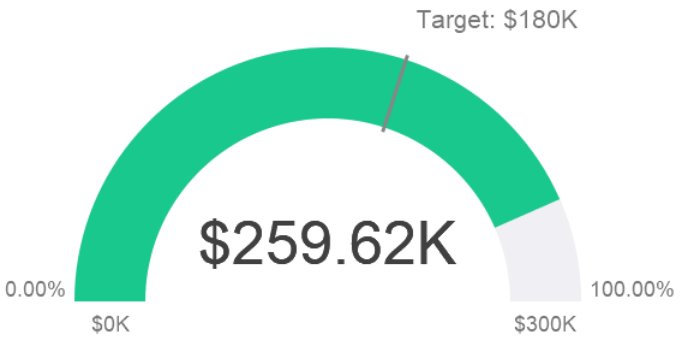


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Show pointer	Display the needle.
Pipe Width Percentage	Set the percentage that the scale occupies the gauge area.
Background Color	Set the background color of the scale when the needle is not displayed.
Target Color	Set the color of the target line.
Pointer Color	Set the color of the needle.
Value Display	Display the actual data or the comparison percentage of the value.
Value Font	Set the font style of the value.
Target Display	Display the actual data or the comparison percentage of the target value.
Target Caption	Specify the caption of the target label.
Use custom target value	Set the target value.
Target Font	Set the font style of the target value.
Min/Max Displayed	Display the actual data or the comparison percentages of the minimum and maximum values.
Use custom min value	Set the value that the scale starts at.

Use custom max value	Set the value that the scale ends.
Min/Max Font	Set the font style of the minimum and maximum values.
Partition Label Displayed	Display the actual data or the comparison percentages of the partition labels.
Partition Label Font	Set the font style of the partition labels.
Partition (Max. 8)	Divide the scale into number of partitions.
Partition Style	Divide the scale equally or custom the starting percentage of each partition.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.

Tabular Data & Controls

Tabular visualizations and interactive controls provide highly structured, detailed views of your datasets and allow users to actively filter and manipulate dashboard information during presentations.

Table

A table represents data in a tabular view and calculates the total at the end of each column.

Job Title	No. of Employees
AC_ACCOUNT	31
AC_MGR	31
AD_ASST	31
AD_PRES	31
AD_VP	62
FI_ACCOUNT	155
FI_MGR	31
HR_REP	31
IT_PROG	155
MK_MAN	31
MK_REP	31
PR_REP	31
PU_CLERK	155
PU_MAN	31
SA_MAN	155
SA_REP	930
SH_CLERK	620
ST_CLERK	620
ST_MAN	155
	3317.00

Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description

General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Font	Set the font style of the field names and data.
Show alternate row colors	Apply color to alternate rows.
Show vertical grid line	Display the vertical grid line.
Show horizontal grid line	Display the horizontal grid line.
Color	Set the color palette of the data series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
Databar	
Style	Format the cells by using data bars.
Show bar only item	Only show the data bars in the cells, without the numbers.
Custom min/max values	Customize the min and max values of the data bars.
Min value	Specify the minimum value of the data bar.
Max value	Specify the maximum value of the data bar.
Positive bar color	Set the color of the data bars with positive values.
Negative bar color	Set the color of the data bars with negative values.
Axis color	Set the color of the axis for separating the positive bar and the negative bar.
Total	

Show total	Display totals in the last row of the table.
Total Color	Set the color of the total values.

Pivot Table

A pivot table shows measure values for the intersection of two dimensions and represents data in a tabular view.

Monthly State Sales Report

State	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
BC	$7,885		$9,955					17840.00
CA						$971.70		7259.55
Corfu								766.80
FL		$2,814.70	$0	$32,793	$10,712			46319.70
GA			$0		$18,532			18532.00
HI		$3,115		$8,524			$64,050	91054.00
Jamaica		20,321.75		$343.80		$7,807	$787.80	31070.20
OR		$5,201	$0			$3,632		8833.00
Ontario		$4,996						4996.00
St. Croix	$0	$6,500		$25,210	$1,238			32948.00
Total	7885.00	42948.45	9955.00	66870.80	30482.00	12410.70	64837.80	259619.25

Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the backgro6und color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Font	Set the font style of the field names and data.
Show alternate row colors	Apply color to alternate rows.
Show vertical grid line	Display the vertical grid line.
Show horizontal grid line	Display the horizontal grid line.
Color	Set the color palette of the data series.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.

Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.
Databar	
Style	Format the cells by using data bars.
Show bar only item	Only show the data bars in the cells, without the numbers.
Custom min/max values	Customize the min and max values of the data bars.
Min value	Specify the minimum value of the data bar.
Max value	Specify the maximum value of the data bar.
Positive bar color	Set the color of the data bars with positive values.
Negative bar color	Set the color of the data bars with negative values.
Axis color	Set the color of the axis for separating the positive bar and the negative bar.
Total	
Show row total	Display totals in the last row of the table. Enter the name of the row total, and set the color of the values and the background color.
Show column total	Display totals in the last column of the table. Enter the name of the column total, and set the color of the values and the background color.
Show row subtotal	Display totals in the last row of the group. Enter the name of the row subtotal, and set the color of the values and the background color.
Show column subtotal	Display totals in the last column of the group. Enter the name of the column subtotal, and set the color of the values and the background color.

Control

A control allows you to filter the data series of all charts in the dashboard that have the same data source during the presentation.

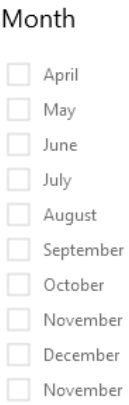


Chart Properties

Once you have selected a chart type, you can customize the chart by changing its properties:

Option	Description
General	
Background Color	Set the background color of the chart area.
Show border	Display the outer chart border.
Border Color	Set the color of the outer chart border.
Show title	Display the chart's main title.
Title	Specify the title of the chart.
Text Wrap	Enable text wrapping for long title strings so they automatically wrap onto multiple lines.
Title Font	Set the font style of the title.
Position	Set the position of the title.
Alignment	Set the vertical or horizontal alignment of the title.
Remarks	Enter remarks for the chart.
Data	
Data Label Color	Set the color of the data label.
Style	Show the data as a list, a range or a combo box.
Data Formats - Number	
Prefix	Add prefix characters to all the numeric data on the chart.
Unit	Choose the unit to shorten the numeric data.
Suffix	Specify the suffix to label the customized unit.
Divider	Specify the divider for the customized unit.
Thousand Separator	Choose the thousands separator for numeric data.
Decimal Separator	Choose the decimal separator for numeric data.
Decimal Places	Specify decimal places for numeric data.
Negatives	Choose the format negative numbers are displayed.
Data Formats - DateTime	
Date / Time	Choose the date and time format of the data.
Custom	Customize the date and time format.

DateTime Formats

When presenting time-series data or date-based metrics, raw database timestamps can quickly clutter your visualizations. Applying custom format specifiers allows you to control exactly how date and time values are rendered across the different visual components of your charts.

Available Specifiers

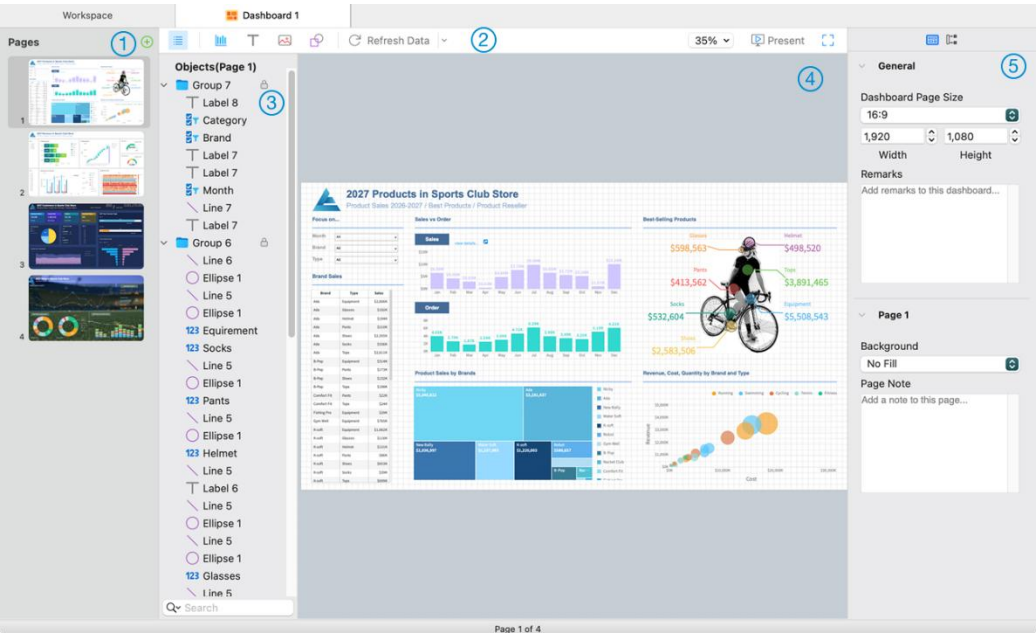
The following table shows specifiers you can use to create user-defined data formats for DateTime fields in a chart.

Specifier	Description
D	Display the day as a number without a leading zero (1-31).
DD	Display the day as a number with a leading zero (01-31).
M	Display the month as a number without a leading zero (1-12).
MM	Display the month as a number with a leading zero (01-12).
MMM	Display the month as an abbreviation (Jan-Dec).
MMMM	Display the month as a full month name (January-December).
MMMMM	Display the month as a narrow name (J-D).
YY	Display the year in two-digit numeric format with a leading zero (00-99).
YYYY	Display the year in four-digit numeric format (0000-9999).
h	Display the hour as a number without a leading zero using the 12-hour clock (1-12).
hh	Display the hour as a number with a leading zero using the 12-hour clock (01-12).
H	Display the hour as a number without a leading zero using the 24-hour clock (0-23).
HH	Display the hour as a number with a leading zero using the 24-hour clock (00-23).
m	Display the minute as a number without a leading zero (0-59).
mm	Display the minute as a number with a leading zero (00-59).
S	Display the second as a number without a leading zero (0-59).
SS	Display the second as a number with a leading zero (00-59).
wd	Display the day as a single letter abbreviation (S-S).
Wd	Display the day as an abbreviation (Sun-Sat).
WD	Display the day as a full name (Sunday-Saturday).
w	Display the week of the year (1-52, start of week is Sunday).
WW	Display the week of the year (W01-W52, start of week is Sunday).
q	Display the quarter of the year (1-4).
QQ	Display the quarter of the year (Q1-Q4).
p	Display an uppercase AM with any hour before noon; display an uppercase PM with any hour between noon and 11:59 P.M.

Chapter 7 - Dashboard

Build Dashboard

Dashboard is a collection of charts which allows you to create and view your data visualizations. When you modify a chart, any dashboards containing it will reflect the changes.



① Pages Pane

The Pages pane shows thumbnail images of each page in the dashboard. If the Pages pane is hidden, choose **View -> Show Pages** from the menu bar.

② Dashboard Toolbar

The Dashboard Toolbar provides controls that you can use to refresh the data and present the dashboard.

③ Object List

The Object List shows all elements inside the current dashboard page. If the list is hidden, click the icon.

④ Design Pane

You can design your dashboard on the Design pane. All added objects can be moved (by dragging them with mouse or by keyboard), resized, aligned to the grid, etc.

⑤ Properties Pane

The **Dashboard Properties** tab includes the basic layout settings. The properties vary with the type of the object.

The **Using** tab shows the charts and data sources that the dashboard depends on.

If the pane is hidden, choose **View -> Show Properties**.

Create New Dashboard

The essential steps to create a dashboard are:

1. In the Workspace window, click .
2. Enter the name of the dashboard.
3. Click **OK**.
4. A tab will be opened for your newly created dashboard.
5. Design your dashboard.
6. Select the properties on the right pane which can be further customized for your dashboard.

   Note: Each object has different properties.

Refresh Dashboard Data

To ensure your visualizations display accurate metrics, you can trigger data updates to pull the latest information directly from your underlying data sources.

- **Manual Refresh** - Click the **Refresh Data** to instantly update all charts on the current dashboard view.
- **Auto Refresh** - Click the down arrow located next to the **Refresh Data** to open the timing menu. From here, you can select a specific automated refresh interval (e.g., 1 minute) to keep your dashboard dynamically up to date without manual intervention.

Working with Grids

Show Grid

To turn the grid on in the dashboard, choose **View** -> **Show Grid** from the menu bar.

Snap to Grid

To align objects on the dashboard with the grid, choose **View** -> **Snap to Grid** from the menu bar.

Design Dashboard

Navicat BI provides a comprehensive suite of design tools to help you build interactive and visually appealing dashboards. From adding multiple pages and integrating interactive charts to customizing your layout with descriptive text, images, and shapes, these elements give you complete control over how you present your data.

Add Dashboard Pages

The Pages pane shows all pages in the dashboard. It displays thumbnails of your dashboard pages.

To add a new page

1. On the Dashboard tab, click the **+** button on the Pages pane.

2. A blank page will be added and selected.

The available properties of a page:

Option	Description
General	
Dashboard Page Size	Customize the size of pages in the dashboard.
Remarks	Enter remarks for the dashboard.
Page #	
Background	Set the background color of the page. If you choose **Image Fill**, you can choose the image file and the scaling option.
Opacity	Set the opacity of the image.
Page Note	Enter the reference, comment, or explanation of the page.

Add Charts

Charts provide visual representations of the data in your data source.

To add a chart

1. On the Dashboard tab, click .

2. All available charts in the workspace will be shown as thumbnails. If no charts are available, click to create one. For detailed instructions on creating charts, see Build Charts.

3. Drag a chart to the Design pane.

The available properties of a chart:

Option	Description
Position	Customize the position of the chart.
Size	Customize the size of the chart.
Target Charts	Choose which charts in the dashboard the chart can control.
Chart Interaction	
As an interaction control	Set the chart as an interaction control.
Related charts	**None** - Disable the interaction behavior of the chart. **Highlight** - Cross-highlight the chart on the dashboard by the selected data point. The unrelated data is still visible but dimmed. **Filter** - Cross-filter the chart on the dashboard by the selected data point. The unrelated data isn't visible.

Add Text Labels

Text labels are typically used to help document the dashboard, such as adding a dashboard title, URL links.

To add a text label

1. On the Dashboard tab, click T.
2. Place it on the dashboard.
3. Enter the caption.

The available properties of a text label:

Option	Description
Position	Customize the position of the label.
Size	Customize the size of the label.
Caption	Enter the caption of the label.
Horizontal Alignment / Vertical Alignment	Specify the text alignment of the label caption.
Padding	Set the horizontal and vertical padding for the text.
Font	Set the font style of the label caption.
Bold	Apply a bold style to the label caption.
Italic	Apply an italic style to the label caption.
Background Color	Set the background color of the label.
URL	Enter URL path to set the text as a hyperlink.
Page Navigation	Configure the label to open a different page within the dashboard when clicked.

Add Images

You can insert images (BMP, JPG, JPEG or PNG files) to your dashboard for design or identification purposes.

To add an image

1. On the Dashboard tab, click .
2. Select an image file in the Open dialog box.

The available properties of an image:

Option	Description
Opacity	Set the opacity of the image.
Position	Customize the position of the image.
Size	Customize the size of the image.
Original Size	Reset the image to its original size.
URL	Enter URL path to set the image as a hyperlink.
Page Navigation	Configure the image to open a different page within the dashboard

	when clicked.

Add Shapes

Navicat includes some pre-defined shapes for creating a dashboard: line, arrow, rectangle, ellipse, triangle, right triangle, right arrow, database, cloud, trigger, server, desktop, mobile, man, woman.

To add a shape

1. On the Dashboard tab, click and choose a shape type.
2. Place it on the dashboard.

To add a vertex on a line or an arrow

1. Select a line or an arrow on the dashboard.
2. Press and hold the SHIFT key and click on it.

To delete a vertex on a line or an arrow

1. Select a line or an arrow on the dashboard.
2. Press and hold the SHIFT key and click on the vertex.

The available properties of a shape:

Option	Description
Position	Customize the position of the shape.
Size	Customize the size of the shape. Only for rectangle, ellipse, triangle, right triangle, right arrow, database, cloud, trigger, server, desktop, mobile, man and woman.
Color	Set the color of the shape.
Show border	Display the outer shape border. Only for rectangle, ellipse, triangle, right triangle, right arrow, database, cloud, trigger, server, desktop, mobile, man and woman.
Border Color	Change the color of the shape's border. Only for rectangle, ellipse, triangle, right triangle, right arrow, database, cloud, trigger, server, desktop, mobile, man and woman.
Border Width	Choose the thickness of the border. Only for rectangle, ellipse, triangle, right triangle, right arrow, database, cloud, trigger, server, desktop, mobile, man and woman.
Line Width	Choose the thickness of the shape.
Cap Style	Choose the cap style of the line/arrow.
Dash Style	Choose the dash style of the line/arrow.
Join Style	Choose the join style of the line/arrow.

Begin Arrow Style	Choose the style of the arrow's back.
End Arrow Style	Choose the style of the arrow's front.
URL	Enter URL path to set the shape as a hyperlink.
Page Navigation	Page Navigation

Add Tile Layers

Tile layers act as structural layouts within your dashboards, allowing you to group, organize, and neatly partition different visualization elements.

To add a tile layer

1. On the Dashboard tab, click .
2. Place it on the dashboard.

To place an element into a tile layer

1. Drag your target chart, text label, image, or shape and drop it directly within the boundaries of the tile layer container.

The available properties of a tile layer:

Option	Description
Position	Customize the position of the tile layer.
Size	Customize the size of the tile layer.
Color	Set the color of the tile layer.
Layout	Control how embedded elements are arranged inside the layer. Horizontal - Arrange items side-by-side in a row. Vertical - Stack items sequentially top-to-bottom in a column. Floating - Allow absolute positioning, letting items overlap or sit anywhere freely.
Distribution	Define how space is dynamically allocated among items in the layer. None - No automatic scaling; elements retain their custom dimensions. Fill Equally - Uniformly resize all contained items to occupy identical space. Fill Proportionally - Space out items relative to their original dimension ratios.

Arrange Objects

You can arrange the objects on a dashboard page in the following ways:

- Move objects forward and backward to layer them.

- Align an object with other objects.
- Distribute the objects horizontally or vertically.
- Group objects to more easily move them as a single unit and synchronize the axis of the related charts.
- Lock objects to prevent them from moving, modifying, or deleting.

Move Objects Forward / Backward

To send an object to the back of the dashboard, control-click it and select **Send to Back**.

To bring an object to the front of the dashboard, control-click it and select **Bring to Front**.

Align Objects

Select multiple objects, then control-click and select **Alignment** -> **Align Left**, **Align Center**, **Align Right**, **Align Top**, **Align Middle** or **Align Bottom**.

Change Objects Distribution

Select multiple objects, then control-click and select **Distribute** -> **Horizontal** or **Vertical**.

Group Objects

Select multiple objects, then click **Group** on the Properties pane and enable the following properties if necessary.

Option	Description
Link Scrolling	Synchronize the scrollbar of all charts.
Link Highlight	Hover over a data point on one of the charts will highlight the same data points on the others.
Show Hints When Highlight	Pop up the hint labels when hovering over a data point on one of the charts.

Ungroup Objects

Select the group, then click **Ungroup** on the Properties pane.

Lock Objects

Select an object, then click **Lock** on the Properties pane.

Unlock Objects

Select the locked object, then click **Unlock** on the Properties pane.

Show Alignment Guide

To display dynamic alignment smart guides when dragging or moving an object on the page, choose **View** -> **Alignment Guide** -> **Show Alignment Guide** from the menu bar.

You can toggle 4 distinct alignment options to control how objects snap and reference one another:

Option	Description
Show Guides at Object Center	Display guidelines when the center point of the object you are moving aligns horizontally or vertically with the center point of another object.
Show Guides at Object Edges	Display guidelines when any outer edge (top, bottom, left, or right) of the object you are moving aligns flush with the edge of another object.
Show Guides for Relative Sizing	Display visual indicators when the width or height of the object you are resizing matches the dimensions of an adjacent object.
Show Guides for Relative Spacing	Display dynamic spacing markers to ensure equal padding or gaps between a series of consecutive objects.

Resize Objects

After selecting an object on the canvas, you have multiple ways to adjust its size.

To freely resize an object

1. Select the object.
2. Move your mouse pointer over one of the handles, then click and drag.

To resize an object while keeping its original proportions intact

1. Select the object.
2. Press and hold down SHIFT.
3. Move your mouse pointer over one of the handles, then click and drag.

Present Dashboard

You can present the dashboard using the whole screen. The title bar, toolbar, tab bar, Pages pane, Control List and Properties pane will be hidden while in this mode. To open a dashboard in present view, click **Present**.

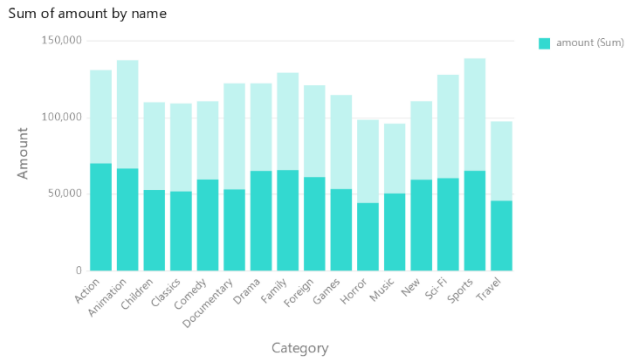
Use the arrow keys to navigate between pages.

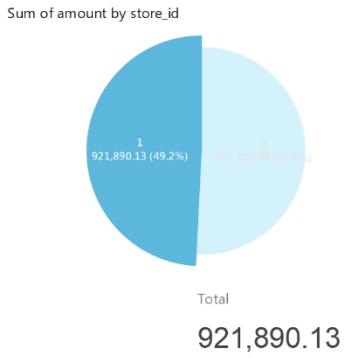
To exit present view, press the ESC key and the workspace window will be returned to its previous state.

Chart Interaction

All charts on a dashboard with the same data source can be interconnected. If you select a data point on one of the charts, all the other charts on the dashboard page that contain the same data will change based on your selection.

You can turn off chart interaction, or change the behavior to cross-filtering or cross-highlighting in the dashboard properties.





If you have added a control chart to your dashboard, you can filter the data series of all charts by using the control.

Sort Chart

In presentation mode, you can organize your data in a chart with one click. You can sort data series by a value.

1. Hover over a chart until you see the icon in the upper-right corner.
2. Click the icon to sort on a different value and select the sorting order.

Use Parameter

If you assigned a parameter, BI will automatically render a functional control during presentation mode. You can then dynamically adjust the value of that specific measure on during presentation.

To change the parameter value:

1. In presentation mode, control-click the page and select **Modify Parameter Value**.
2. Select your desired parameter from the list.
3. Change the value manually.

Hint: If you assigned a numeric range rule to your parameter, you can dynamically adjust the value of that specific measure by dragging the interactive slider.

Print & Export Dashboard

After crafting your ideal dashboard, you will likely need to share your insights with colleagues. Navicat provides straightforward options to directly print physical copies of your dashboard pages or export them into versatile digital formats for reports and presentations.

Print Dashboard

To send your dashboard pages directly to a physical printer:

1. Choose **File** -> **Print**.

2. Configure your specific printing preferences in the pop-up window that appears.

Export Dashboard to File

To save your dashboard pages as a digital document or image:

1. Choose **File** -> **Export To**.

2. Select your desired file format to create a PDF, PNG, SVG, or JPG file of your dashboard pages.

Chapter 8 - Parameter

Parameters provide a powerful way to visualize, quantify, and dynamically interact with key values inside your BI workspace. Once created, a parameter becomes a global variable available across your entire workspace.

You can implement parameters within the following functional layers:

- Data Source: Query Editor, Filter, and Custom Field
- Chart: Data Filter, Display Filter, and Chart Title
- Dashboard: Text Label Caption, Text Label URL, Image URL, and Shape URL

Add New Parameter

The essential steps to create a parameter are:

1. In the Workspace window, click .
2. Enter a unique, recognizable name for your parameter.
3. Choose which layers are permitted to reference this parameter.
4. Select the parameter's data type.
5. Define the **Allowed Value** rule using one of the three options below:

Rule Type	Description
Any	Accept any manual input that matches the assigned data type.
List	Restrict selections to a rigid, predefined list. **Value** - Enter the underlying data literal. **Description** - (Optional) Add a user-friendly description.
Range	Restrict values to a sliding numeric or date scale. **Minimum** - Define the lower boundary. **Maximum** - Define the upper boundary. **Step Size** - Set the specific incremental jump value.

6. Provide a **Current Value** to serve as the parameter's default initialization state.
7. Click **OK**.

Use Parameter

Once you have created a parameter, you can integrate it across different layers of your BI workspace to drive dynamic data filtering, custom query inputs, and reactive dashboard labels.

Set Parameter in Query

1. In the Query Editor, click the icon on the right pane.
2. Drag and drop your desired parameter into the editor.

Set Parameter in Filter

1. In the Filter pane, add a new filtering condition.
2. Click the default field name to choose the target identifier column.
3. Click the operator drop-down to select your comparison operator.
4. Click <?> and choose your parameter from the list.
5. Click **OK**.

Set Parameter in Title, Caption, and URL

1. Click the icon inside any supported title, caption, or URL text input box.
2. Drag and drop the chosen parameter into the left configuration box.
3. Click **OK**.

Use Parameter when Presenting

If you assigned a parameter, BI will automatically render a functional control during presentation mode. You can then dynamically adjust the value of that specific measure on during presentation.

To change the parameter value:

1. In presentation mode, control-click the page and select **Modify Parameter Value**.
2. Select your desired parameter from the list.
3. Change the value manually.

Hint: If you assigned a numeric range rule to your parameter, you can dynamically adjust the value of that specific measure by dragging the interactive slider.

Chapter 9 - Other Advanced Tools

Switch Theme

While Navicat BI allows you to set a global Light or Dark theme for the main application interface, your BI workspace operates independently. This separation ensures that your data visualizations always look exactly how you intend them to be presented, regardless of your personal UI preferences.

Switching the theme of your charts and dashboards can help enhance the contrast of your data points, reduce eye strain during extended analysis sessions, or better align your visuals with your company's branding for exported reports.

Change Chart & Dashboard Theme

To manually adjust the appearance of your visualizations:

1. Open your BI workspace.
2. Click to choose between the available themes for your current visual elements.

Share via URI

Navicat BI allows you share a workspace with your teammates by the URL of the workspace. Navicat users can use the generated URI to access the workspace.

Obtain URI

You can obtain the URI of a workspace in the General tab of the Information pane. Simply click **Share** and copy the URI in the popup window. You can enable **Hide host info** to remove the connection host parameter in the URI.

Open Object via URI

1. In the main window, choose **File** -> **Open with Navicat URI**.
2. Paste the URI.
3. Click **OK**.
4. Change the connection mapping by clicking **Other Options** if necessary.

Option	Description
Mapped Connection	Automatically map the connection in the URI to the connection with the most similar information in Navicat.
Existing Connection	Choose an existing connection in Navicat.
New Connection	Create a new connection in Navicat.

5. Open the object.

Workspace Organization & Customization

Navicat BI offers intuitive tools to help you manage, structure, and personalize your workspace environments. By utilizing visual themes, and distraction-free modes, you can easily navigate complex workspaces and ensure you are always working efficiently.

Focus Mode

Focus is a feature that helps you reduce distractions and set boundaries. It removes everything from the screen except the form you are working and enters the full screen mode.

When you want to concentrate on a specific activity, you can turn it on by simply clicking the icon.

To exit Focus Mode, you can simply click the icon at the top right.

Dark Theme

In Dark Theme, Navicat BI uses a darker color palette for all windows, views, menus, and controls.

To change your theme, choose **Navicat BI** -> **Settings** -> **General**. Then, select **Dark**.

Search Filter

Navicat BI provides search filters to help you quickly locate specific objects or items:

- Using the Search Box - Simply enter your search string directly into the **Search** text box to filter and display matching objects or items.

Chapter 10 - Configurations

Navicat BI provides a comprehensive Settings window to customize the user interface, optimize database performance, configure file locations, and manage external environment integrations.

To open the Settings window, choose **Navicat BI** -> **Settings** from the menu bar.

General

These settings govern core workspace behaviors, interface themes, hierarchical navigation layouts, and protective confirmation dialogs to streamline your daily workflow.

Option	Description
Appearance	Change the appearance of Navicat BI: System Default, Light or Dark.
Confirm Dialog	
Use safe confirm dialog	With this option is on, Navicat BI prompts a double confirmation dialog for safe deletion when deleting objects in the main window.
Show SQL preview before saving	Display the generated SQL statements for your modifications in the Save dialog.
Usage Data	
Share Usage Data	Allow Navicat BI to securely transmit anonymous usage analytics from your device to assist developers with stability and feature improvements. Click the **Usage Data** button to inspect exactly what telemetry data is shared.
Update	
Automatically check for updates	Allow Navicat BI to automatically ping update servers on launch to check for newer version releases.

Code Insight

The Code Insight settings allow you to customize the behavior of the editor's intelligent auto-suggestion and syntax highlighting features.

Option	Description
Use code completion	Automatically trigger an intelligent suggestion drop-down window when you type a character or a dot (.) separator in the editor.
Auto update code completion info	Instruct Navicat BI to automatically scrape the latest database structural schema updates from the server the moment you open a connection.
Include system objects when updating code completion info	Include core system tables and internal dictionaries in the suggestion database. **Hint:** Only available for MySQL, MariaDB, and PostgreSQL. Including massive system objects may degrade code completion

	performance.
Auto select first suggestion	Automatically highlight the top suggestion in a pop-up list. When active, pressing ENTER or TAB instantly inserts the selected item. If disabled, you must manually use the arrow keys to navigate choices.
Show details when hovering over SQL elements	Display informative tooltips when resting your cursor over specific SQL elements in the editor.
Hover Delay (ms)	Set the exact delay time (in milliseconds) before the hover tooltip appears on the screen.
Cmd-click Default Action	Choose the specific action that is triggered when you hover over or press COMMAND and click on database identifiers.
Cmd-click resolve identifier references locally first	Prioritize resolving referenced identifiers within your query when you press COMMAND and click on a database identifier.
Clear Code Completion Info	Purge all locally cached code completion information stored on your local machine.

Editor

The Editor settings help you configure the visual layout, typography, and code-formatting rules for all script editing windows.

Option	Description
Disable syntax highlight and code completion if SQL larger than: MB	Restrict resource-heavy parsing features by setting a maximum file size threshold (e.g., 10 MB). Disabling these features on massive scripts significantly increases editor performance and prevents lagging.
Show	
Show line number	Render progressive line numbering on the left-hand margin of the editor.
Use code folding	Enable code blocks to collapse cleanly down into a single visible line.
Use brace highlighting	Visually mark corresponding pairs of brackets or parentheses whenever your text cursor rests on one of them.
Use syntax highlighting	Color and format keywords, strings, values, and comments uniquely.
Text Layout	
Insert spaces when pressing Tab	Convert tab characters directly into regular space formatting sequences based on your defined tab width.
Tab Width	Set the character span spacing mapped to a single press of the TAB key.
Use word wrap	Automatically break long single lines of SQL code horizontally to fit within the visible boundaries of the editor window.
Font and Colors	

Font	Define the font and its size used across all editors.
Use default font	Check this option to use the default font settings.
Colors	Format your queries in the editor with colored syntax highlighting to improve readability. Set font colors to mark out different text fragments: Common, Keyword, String, Number, Comment and Background.

Records

The Records settings govern how data is fetched, displayed, and manipulated within the data grid.

Option	Description
Records	
Limit records ☐ records per page	Control global pagination by restricting how many rows load at once inside the data grid. If disabled, all table rows attempt to pull simultaneously into a single view page. **Note:** To override this for distinct data grids, see View Data.
Grid	
Font	Define the font and its size used inside the data grids of the Data Editor.
Use default font	Check this option to use the default font settings.
Row Shading	Apply shading to alternate rows or every third row in the grid for viewing data clearly. Choose **None** if you do not want to apply shading.
Zoom	Adjust the default zoom scaling level for the data grid display.
Data Profiling	
Colors	Customize colors for data bars, spotlight tracking flags, and valid NOT NULL visualization elements.
Pending Records Color	Choose the color of the pending changes in the data editor.
MongoDB Time Zone Offset	Specify the local time zone offset used when displaying MongoDB date/time values in the grid (as MongoDB inherently stores all datetime values in UTC).

Auto Recovery

Protect your work from unexpected application closures or crashes by configuring automated background backup tasks.

Option	Description
Autosave Modified BI Workspaces	Define your frequency threshold to regularly save draft changes made to BI workspaces.

Environment

The Environment settings let you map runtime libraries to support specific database connections.

Option	Description
Executables	
SQLite3 Dynamic Library Path	Specify the location of SQLite3 Dynamic Library.
SnowSQL Executable Path	Specify the location of SnowSQL.
OCI Environment	
OCI library (libclntsh.dylib)	Specify the location of the Oracle Call Interface runtime library (libclntsh.dylib). Oracle Instant Client is the simplest way to deploy a full Oracle Client application built with OCI, OCCI, JDBC-OCI, or ODBC drivers. It provides the necessary Oracle Client libraries in a small set of files. Download the appropriate Instant Client packages for your platform and the CPU. All installations REQUIRE the Basic or Basic Lite package. Unzip the packages and set the path points to it.
Use bundled OCI library	OCI library is already included in Navicat BI. Check this option to use the bundled library.
ORACLE_HOME	Specify the location of ORACLE_HOME for full client only. Instant client should leave it blank.
TNS_ADMIN	Specify the location of the tnsnames.ora file (e.g. ORACLE_HOME/network/admin). It is optional. Required when using TNS connection.

Logging

Logging preferences help you track operational history and troubleshoot application issues by writing data directly to your local machine.

Option	Description
Logs Location	Define the system output folder where Navicat BI writes performance logs, import histories, and application diagnostics.
Show in Finder / Export Logs	Open the physical directory on your local machine where log files are stored, or export your active log files into a compressed file.
Logging	
Enable history logging	Store the statements or scripts of all operations executed over databases and database objects inside your designated Logs location. You can set the maximum number of files to keep and the file size of each file.
Enable diagnostic logging	Generate diagnostic execution scripts directly inside your designated Logs location to trace underlying errors and troubleshoot runtime application issues. You can set the maximum number of files to keep and the file size of each file.

Advanced

The Advanced settings control core application behavior within your host operating system.

Option	Description
Navicat URI Protocol	
Register Navicat URI Protocol	Bind the Navicat URI network communication protocol handler across the macOS environment. Once registered, clicking a structured navicat:// web hyperlink pattern will automatically launch your local Navicat program and parse the parameters to link with target object automatically.
Connectivity	
Verify server certificate against CA	Activate strict security verification requirements demanding remote server certificates pass validation checks against your machine's trusted Certificate Authority (CA) registry list.
Test Connectivity	Perform a real-time network diagnosis to check live communication stability between the active web services and your machine.

Chapter 11 - Hot Keys

Here is the comprehensive guide to Navicat BI's keyboard shortcuts, broken down by functional areas so you can find exactly what you need to keep clicking to a minimum.

Workspace

Keys	Action
COMMAND-S	Save
COMMAND-N	New Workspace
CONTROL-COMMAND-F	Focus Mode
COMMAND-,	Open Settings Window

Data Source

Keys	Action
COMMAND-R	Refresh Data

Chart

Keys	Action
COMMAND-R	Refresh Data
OPTION-COMMAND-P	Present
COMMAND-P	Print

Dashboard

Keys	Action
OPTION-COMMAND-/	Show Keyboard Shortcuts
SPACE	Temporary Move
COMMAND-R	Refresh Data
OPTION-COMMAND-P	Present
HOME / Fn-LEFT ARROW	First Page
END / Fn-RIGHT ARROW	Last Page
PAGE UP / Fn-UP ARROW	Previous Page
PAGE DOWN / Fn-DOWN ARROW	Next Page
COMMAND-+	Zoom In
COMMAND--	Zoom Out
F2 / Fn-F2	Rename Object
COMMAND-P	Print

Chapter 12 - Log Files

Navicat BI maintains several log files to keep track of the actions and operations performed within the software.By default, these files are located in your logs directory (for example, ~/Library/Application Support/PremiumSoft CyberTech/Navicat CC/Navicat BI/Logs), though you can customize this destination path in Settings.

Available Log Files

File	Description
QueryExec.log	Store the statements or scripts of all operations executed over databases and database objects in Navicat BI. **Note:** You can enable this log and set the maximum number of files to keep and the file size in Settings.
navicat.log	Store information to assist with tracking down any problems in Navicat BI. **Note:** You can enable this log and set the maximum number of files to keep and the file size in Settings.