

# Reporting Suite

# Reporting

## Viewer Guide

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# About this Guide

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This Guide is intended for Viewers who will interact with reports. The users need to have basic computer using skills in order to be able to use this Guide and Reporting.

## New in this release

Updated the [Filters & settings](#) page with information on validating the content a user introduces in the filters and settings.

## Reference materials

Use this document with the following Guides:

- *Reporting Viewer Guide*
- *Reporting Standard Reports Guide*

## Guide conventions

This Guide uses the following text formats and notation conventions:

### Text format

**Bold text** indicates a button, field, link, option name, or similar function requiring an action.

*Italicized text* indicates new terms, directory paths, or references to external documents.

Text in this font indicates code.

### Notes and cautions

Icons used throughout this Guide identify additional details or special conditions.

#### Note

Provides additional information or describes special circumstances.

#### Caution

Warns of user actions that may cause system failure or irreversible conditions.

#### Stop

Describes actions that you should only perform under the supervision of Enghouse Interactive Customer Support.

## Legal disclaimer

This document is governed by the terms of the software license agreement and applicable contract (including addendums) entered into with Enghouse.

## Contact information

To submit comments or questions about the content in this Guide, please open a case in Support.

# Basic concepts and terminology

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**Reporting** is a web-based framework for report designing. It includes a set of configurable standard reports that should cover most of any Contact Center product's needs, and which are built on top of the Standard Data Warehouse. A number of such assets are already available, and more are continually being developed.

The software provides its users with the following features and advantages:

- Complete overview of the system behavior
- Customizable display of detailed information about every relevant KPI and data point in your system
- Printable, paginated, shareable reports, exportable in several formats
- Customers or Enghouse professionals can create custom assets based on the Enghouse adopted framework

**Dashboarding** is an extension of Reporting with which users can create and work with dashboards, powerful data visualization boards that use charts, widgets, tables and text to help you understand your data.

## Note

BI Dashboarding is not included in Reporting by default. Therefore, if it is not enabled in your system, any references to it in this and other documents do not apply to your use case.

## User roles

The following user roles are available in Reporting and Dashboarding:

- **System Administrators:** In charge of tenants and ensuring that standard assets (such as standard reports) are available as necessary. Little to no other interaction with the system, such as working with reports, is expected from this user role. Aside from the Admin tab, they can only interact with the rest of the application the way Viewers do.
- **Administrators:** Manage users, groups, and certain data source, report, dashboard, and system settings for their tenant. In addition to some extra access, they also have the same access rights as Viewers (below).
- **Data Designers:** Create, manage and work on data sources, in addition to the same access rights as Report Designers and Viewers (below).
- **Designers:** Create, manage and work on reports and dashboards. They also have the same access rights as Viewers (below).
- **Power Viewers:** Work with views and styles based on assets shared with them. They cannot edit other assets in any way. They also have the same access rights as Viewers (below).
- **Viewers:** View reports and work with reports' and dashboards' filters and settings, and have access to subscriptions and downloads.

For more information on this topic, see *User Roles on page 10*.

# Assets

Assets in Reporting and Dashboarding are the basic building blocks of the software and the primary components that users work with. They are **data models, reports, dashboards, report views** and **styles**. In the following section, you can read more about each type of asset in Reporting and Dashboarding.

## Data models and sources

**Data models** are used to define connections and queries that Reporting uses to access data for reports and dashboards from the relevant databases and files. In Reporting, data models are organized in a Dictionary, which information about connections to databases, data sources and their relations, variables and other objects.

A data model is used as the basis for every report and dashboard. Each data model can have one or multiple data sources. A **data source** is like a program "layer" which provides data from a database or file and handles its conversion and to the report generator. In other words, the data source is a description of the methods, parameters, and data access methods.

In BI Reporting, the following data sources can be used for your reports and dashboards:

- Files:
  - CSV file
  - Excel file
  - JSON file
  - XML file
- Database connections:
  - MySQL
  - MS SQL
  - Oracle
  - PostgreSQL

Data models and their related sources are shown in the **Data** tab of Reporting and are only available to Data Designer users, who can view, edit and generally work with them, as well as Administrators, who can only interact with them to share with other users, typically Data Designers.

The **Standard Data Warehouse (DWH)** is a standardized database developed by the Enghouse BI Team, the goal of which is to provide a standardized and equal-for-all way of organizing data. This is done by using ETL (extract-transform-load) procedures to transfer data from, for example, a customer's database and to adapt it to the structure of the standard DWH without altering any of the data. This method is currently in the process of being implemented for a number of CC and CCaaS products in Enghouse.

Although Reporting and Dashboarding can be used without the DWH, instead utilizing one's own data or database directly, using the Standard DWH enables the use of **Standard Reports**, which are out-of-the-box reports that can be customized to a degree through Views, and can be utilized right away, without having to wait for the creation of individual reports. More information on both standard reports and report views can be found below.

Data models are primarily the focus of Data Designers, so refer to the *Reporting Designer Guide* for detailed information on this topic.

## Reports

Reports are assets connected to your data models to show you the data in meaningful ways, in pixel-perfect and typically (but not only) tabular form. This gives you a simple, yet effective overview of all the data you may need. Their design can vary and be customized, depending on your needs. All the reports you can interact with, whether they were created by you or shared with you, are shown in the tiles of the **Reports** tab. Viewers and other users can interact with reports to filter the data they want to see, adjust some of the settings of the report, focus on the data they need, and perform other actions, all depending on the design of the report.

Additionally, Viewers and other users can also download the report in a number of formats, including printable ones, and they can subscribe to periodic updates via email or other channels.

Another interesting feature that is part of Reporting is the **Standard Reports**. Standard reports are a set of out-of-the-box reports which take advantage of the standard DWH to provide users with reports that are ready to use as soon as they enter the web application. In order to be able to use them, the original database must be integrated with the standard DWH. Standard reports are made to suit the needs of many different CC and CCaaS environments and use cases, and can be modified in terms of which data will or will not be shown through the use of report **Views**. You can read more about them in the upcoming sections.

Here is an example of a report from the perspective of a Designer:

The screenshot displays the Enghouse Interactive Reporting Designer interface. The main content area shows a report titled "Agent Availability" for the date 2023-06-20. The report is presented as a table with the following columns: Status Time, Agent Daily Avg Status Time, Logged In, Break, % Status Time of Total, % Status Time of Logged In Time, % Status Time of Break, Started Breaks, and Agents per Day. The data is filtered by "Agent Group ALPHA" and "Site CC\_DEFAULT1". The right sidebar contains filter settings, including "Time zone" (Contact Center Time Zone), "Graphical elements" (None), "Duration display format" (Seconds), and "Grouping levels" (Agent Group). The "Submit" and "Save and Submit" buttons are visible at the bottom of the sidebar.

	Status Time	Agent Daily Avg Status Time	Logged In	Break	% Status Time of Total	% Status Time of Logged In Time	% Status Time of Break	Started Breaks	Agents per Day
<b>Total</b>	<b>11389</b>	<b>1898.17</b>	<b>11389</b>	<b>366</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0</b>	<b>6</b>
Agent Group ALPHA	7631	3815.5	7631	2797	67.0%	100.0%	100.0%	0	2
2022-01	7631	3815.5	7631	2797	67.0%	100.0%	100.0%	0	2
2022-01-24	7558	7558.00	7558	2724	66.4%	100.0%	100.0%	0	1
2022-01-27	73	73.00	73	73	0.6%	100.0%	100.0%	0	1
Site CC_DEFAULT1	3758	939.5	3758	1069	33.0%	100.0%	100.0%	0	4
2022-02	1205	1205	1205	244	10.6%	100.0%	100.0%	0	1
2022-02-23	1205	1205.00	1205	244	10.6%	100.0%	100.0%	0	1
2022-03	2217	1108.5	2217	489	19.5%	100.0%	100.0%	0	2
2022-03-23	3	3.00	3	3	0.0%	100.0%	100.0%	0	1
2022-03-30	2214	2214.00	2214	486	19.4%	100.0%	100.0%	0	1
2022-04	336	336	336	336	3.0%	100.0%	100.0%	0	1
2022-04-15	336	336.00	336	336	3.0%	100.0%	100.0%	0	1

Reports are the basic asset of Reporting and are available to all users, although they may interact with reports in different ways. For basic use and interaction with reports, see the *Reporting Viewer Guide*. For more advanced topics, particularly on the creation and management of reports, see the *Designer Guide*.

To find out more about the topic of standard reports and which ones are available to you, make sure to read the *Standard Reports Guide*.

# Dashboards

Similarly to reports, dashboards are also assets connected to your data models to show data in meaningful ways – but while reports primarily rely on tabular form, dashboards utilize various custom or premade elements to display your data. Their design can also vary and be customized depending on your needs. Viewers and other users can interact with dashboards in that they can modify the filters to show only the needed data, adjust the settings to suit their preferences, and work with some of the individual elements to, e.g., increase the size of the viewing field for that element or to download it.

All the dashboards available to a user are shown in the **Dashboards** tab.

Just like with reports, users can download the dashboard in a number of formats or subscribe to it to receive periodic updates through one of the chosen channels.

In the same way Standard Reports are available, users can utilize **Standard Dashboards** as well, if their system is integrated with the Standard DWH. Some Standard Dashboards are already available and more are currently in the process of being developed.

Below is an example of a dashboard from the perspective of a Viewer.

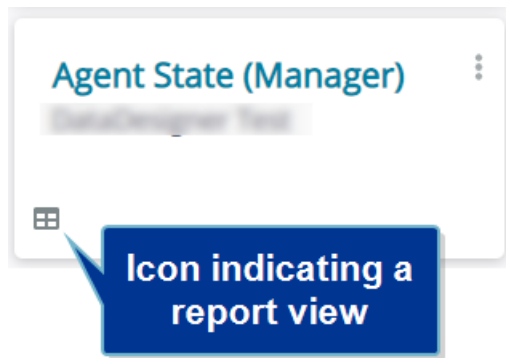
Dashboards are also a basic asset of Reporting and are available to all users, even though they can interact with them differently. For basic use and interaction with dashboards, see the *Dashboarding Viewer Guide*. For more advanced topics, particularly on the creation and management of dashboards, see the *Dashboarding Designer Guide*.

## Views

Reports may be comprehensive and contain a large number of options, KPIs and other metrics that may not always all be needed at the same time. For example, if your report has 10 columns, but you only want to show call center managers 7 of them, you would typically have to create a copy of the original report and then remove the 3 extra columns. However, creating separate reports to accommodate each (small) change in the content of a report may quickly become difficult to maintain.

This is why, for reports that contain a lot of data and are not intended to be used in their full form with all users, reports can instead be modified to show only the metrics needed for a certain user profile, while still preserving all the data and metrics within the report in the background. This is done with the **Report Views asset**, which is a powerful tool used to facilitate the way users interact with reports, allowing them to focus only on the most relevant information at a time, as opposed to everything the report contains. With this feature, you can also control the way a report is displayed, what the report page size is, how the fields are resized etc.

A report view (as opposed to a full report) is indicated with the view icon, as can be seen below:



Users that can create and work with views are Designer users and Power Viewers. From a Viewer perspective, in the Reports tab of Reporting, individual views function the same way reports normally do.

Refer to the *Reporting Designer Guide* and *Power Viewer Guide* for more information on how to work with Views. Since Views function the same way as reports do for Viewers, Administrators, and users that only have viewing permissions, see the *Viewer Guide* for more information.

Some Standard Reports also contain readily available standard views, which are another useful component of the out-of-the-box features available with Reporting. To find out more about this topic, make sure to read the *Standard Reports Guide*.

## Styles

Styles are a feature that allows you to define a visual style or look and feel that you want to use across multiple assets. This feature is accessible to all Designer users and to Power Viewers, and they can utilize the styles and collections they make to modify what the reports, dashboards and views they work with will look like.

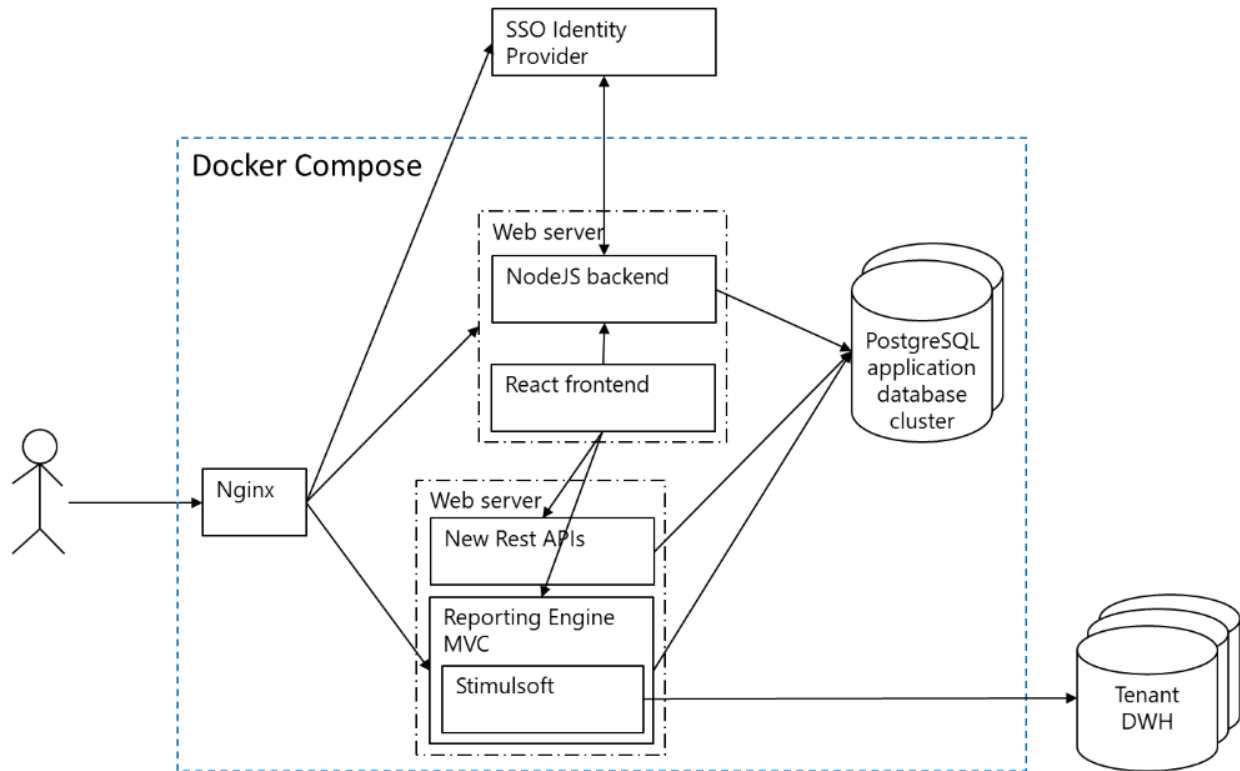
This allows users to create specific styles for different needs, which you can then quickly apply to assets without having to modify all the individual elements by hand.

The styles can be created, modified, deleted, and imported and exported. When a style is changed within the **Styles** tabs, these changes are also automatically shown in all the assets that the style was applied to, which means that you do not need to make the changes in the various places manually.

You can learn more about this topic in the *Designer Guide* and the *Power Viewer Guide*.

## Architecture

The initial deployment of Reporting is done by installing Linux VMs using a template provided by the BI team. The deployment is based on Docker Compose and can be single-node or multi-node, the specific configuration and size depending on the system's needs.



Reporting is deployed through Docker Compose and the individual system modules are organized in Docker containers. The Reporting Engine MVC module implements the designer and visualization features using the .NET version of Stimulsoft libraries.

When a user accesses Reporting, they first go through NginX, which is the proxy app that allows the user to enter just one entry point. Based on the full URL the user entered to access BI Reporting, NginX forwards the request to the right app. Additionally, a custom SSO configuration option has been added to the Reporting architecture in order to enable enhanced use, particularly in cloud environments. If SSO is enabled for a tenant, the unauthenticated user is redirected to the third-party identity provider for that tenant. The identity provider is not part of Reporting and should be managed in the cloud environment, outside the Reporting environment.

Within the Docker-compose configuration of Reporting, the application database is hosted on a PostgreSQL database, deployed through Docker Compose as well, which consists of 2 instances of PostgreSQL in a master-slave configuration.

The individual tenant data warehouses, however, are not part of the Reporting assets and are managed by the Enghouse Interactive DevOps team, and not Reporting or the BI team.

## Multitenancy

With Reporting Version 4.0 and newer, this is a cloud-based product with the multitenancy feature. This means that the same instance of Reporting can support multiple tenants that are separated from each other, with their own data, users and settings. This enables, for example, multiple customers to use the same

instance/installation of Reporting without having access to each other's data and users in any form, thereby eliminating the need for individual installations for each customer.

Multitenancy-related features are managed by System Administrators. For more information, see *the Dashboarding System Administrator Guide*.

# User Roles

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Reporting provides the following user profiles:

- **System Administrator:** Users handling the tenants of a multi-tenant (cloud-deployed) system. They have the same access rights to the Admin tab that Administrators do, but typically don't interact with assets (reports, views, and data sources) in any way. They can only interact with these assets the way Viewers do, and they do not have access to e.g. the Data tab. They are in charge of creating and managing tenants in a Reporting instance. When initializing your Reporting instance, the System Administrator is the first user to be created, and whose role is to set up the rest of the system (tenants and administrators).

## Note

System Administrators are special and unique users created and configured on system initialization. They cannot be added, modified or deleted by Administrators, which manage all other users in a Reporting instance.

- **Administrator:** The role with the highest level of access in a tenant. Administrators can perform all actions in charge of general Reporting configuration, user and group management. The **Administrator**-level user can also view all the reports, views, and data models. They can manipulate ownership and subscriptions of these assets. However, Administrators cannot edit any content, such as reports or data models. Otherwise, Administrators can use and interact with assets in the same way a Viewer can.
- **Data Designer:** User role in charge of creating, modifying and sharing data sources needed for the creation of reports. Data Designers have full data access and distribute limited data access to **Designer**-level users, through data model design. In the context of system-wide access to data and users, this role has a lower access level than **Administrators**, but higher than **Designers** and **Viewers**.
- **Designer:** Designers are in charge of creating, modifying and publishing reports. The data available for components is limited by the data models that are shared with a **Designer**. This role has a lower access level than **Administrators** and **Data Designers**, but higher than **Viewers**.
- **Power Viewer:** Power Viewers can work with existing reports in order to create new views. However, they cannot create their own components or edit existing ones, only use them as a basis for views. In order to be able to do so, both the original component and its data source must be shared with the Power Viewer. Compared to a Designer, a Power Viewer has fewer options available to them even when they have all the permissions needed for asset editing. Other than that, they have the same access level and can use and interact with reports same as a Viewer can.
- **Viewer:** Users with this role can access shared reports, report views, modify the way data is displayed in them by using filters and settings (depending on the design of the asset), view, print and export reports, views . This is the lowest access level.

# Logging in

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To log into Reporting, do the following:

1. Start up the application and enter the necessary data:
  - **Email or username:** Email or username used to register the user to the system.
  - **Password:** The password used for the selected account upon registration.

A robust password policy requires a minimum length of eight characters and must include at least one digit, one lowercase letter, one uppercase letter, and one special character from the set [!@#%&^&\*()-\_+={};:;<.>]. The system does not currently allow customization of these rules, nor does it enforce password expiration or retain a history of previously used passwords. System administrators can configure lockout behavior by setting the maximum number of failed login attempts and the lockout duration (in seconds). Because the platform primarily relies on Single Sign-On (SSO), the recommended approach is to delegate password management to the integrated identity provider (EIS), which offers finer-grained control over password complexity, rotation, and history across all Enghouse products.

## Note

- An Administrator can provide an initial password for a user. In this case, the password must be communicated to the end user through some other channel.
- If an SSO option is set up in your instance of the software, you will typically be redirected to the SSO login page automatically. However, in case you use a different URL than the standard to log in, you may have the **Go to SSO Login** option available in the login page, allowing you to manually access the SSO login page.
- If you have forgotten your password, click the **Forgot your password?** link. The system will prompt you to enter your account's email address for the recovery process. Enter the address and click **Send**, then follow the instructions received via email.

2. Select the preferred language of the Reporting interface from the list of available languages in the dropdown menu (**English** is the default setting).

**Welcome to Enghouse Reporting Suite**

Email or username

Password

[GO TO SSO LOGIN](#) [FORGOT YOUR PASSWORD?](#)

**LOGIN**


English  
▼

3. Click **Login** to enter the system.

# User options menu

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After a successful login, the **Data** page is displayed for Data Designers, and the **Reports** page for all other users.

Regardless of the user role you have, in the top right corner, the **User** icon  provides access to the user options menu.

The user's registered email address is displayed at the top of the menu. This is the address used for all Reporting related information, as well as automatic scheduling feature. Several user-related options are available from the menu:

- The currently selected interface language (**English** by default) is displayed under the email. Several other languages are available. To select another language, click English, and then click the desired language from the dropdown menu.
- **Change password:** Lets users change their own password at any time.
- **Logout:** Logs the current user out of the system. It is recommended that users log out before closing the web application window.

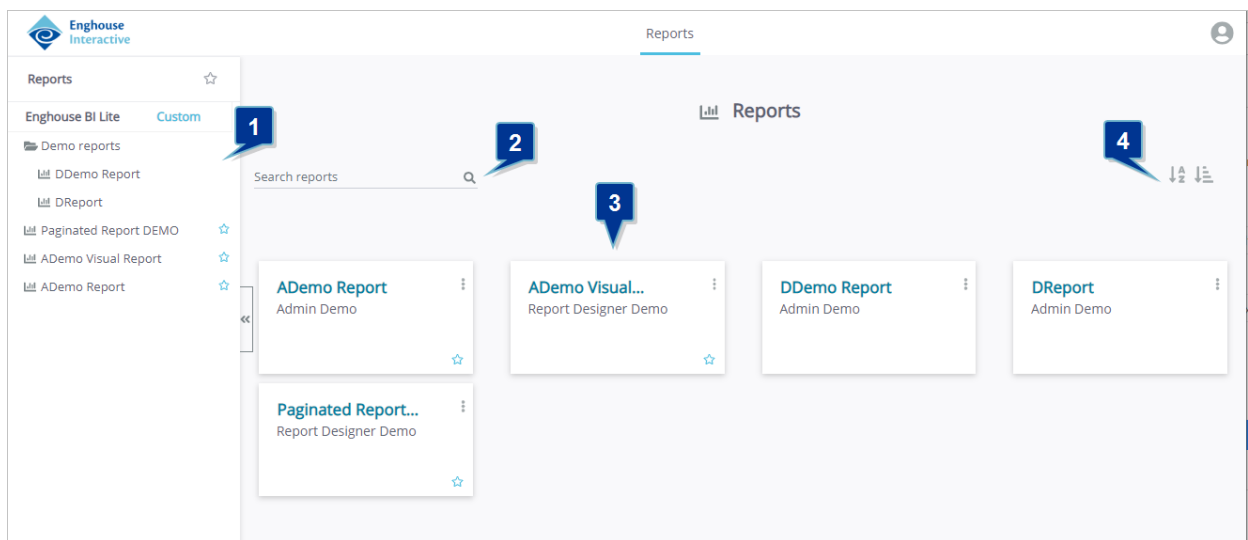
The last line of the menu displays the currently installed and used software version number. This number should be quoted when requesting assistance or used for selecting relevant user documentation.

# Reports tab

After a successful login, the **Reports** page in Reporting opens. You can view, print and export reports and report views.

The main parts of the Reports tab are as follows:

1. **Reports** pane on the left side of the screen,
2. **Search** bar,
3. Report tiles in the central part,
4. Sorting tools.



## Reports pane

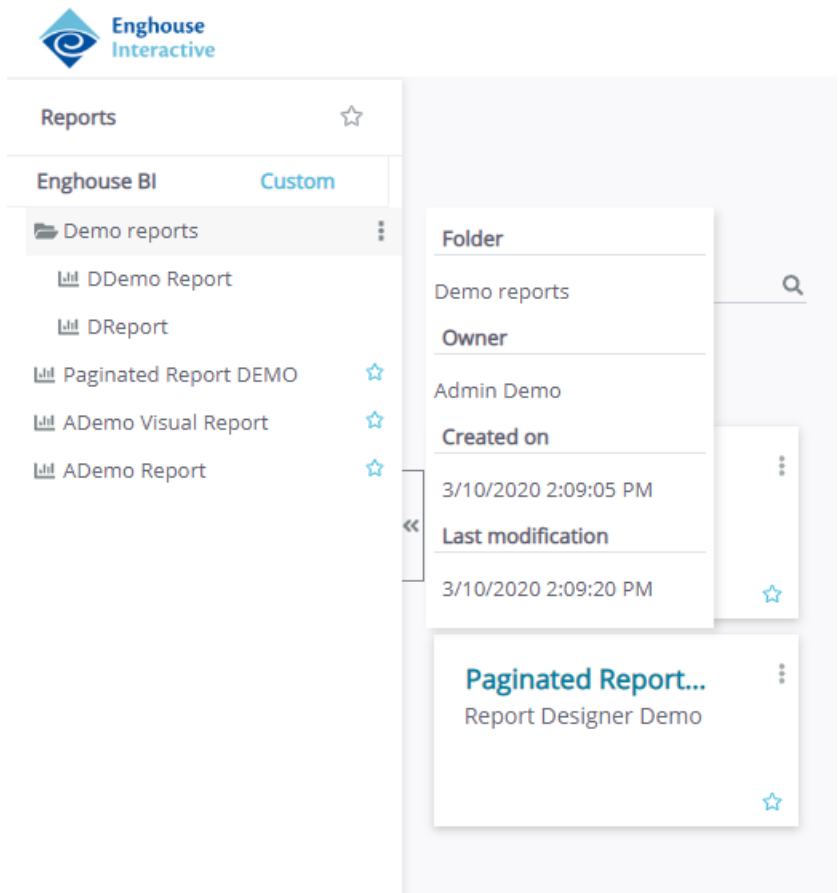
In the **Reports** pane, on the left-hand side of the screen, a list of available assets that are shared with the logged-in user is provided. The Reports pane can be hidden by clicking the arrows on the left outer edge of the pane.


Depending on how the report Designer organized the assets, they can be standalone or arranged in folders. All assets belonging to a folder are slightly indented and listed under the folder title.

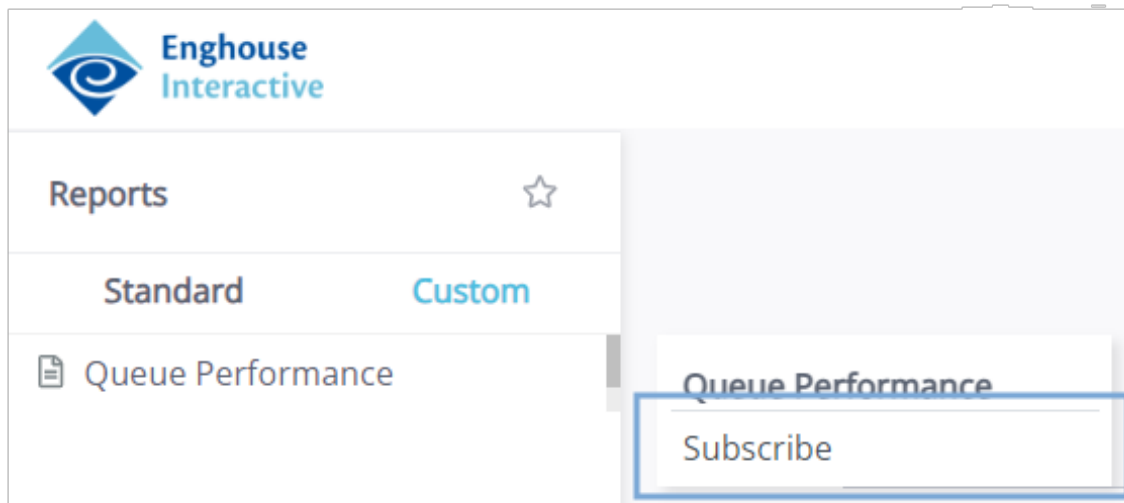
The Reports list is also divided into two sections. These sections are available in the two tabs in the upper part of the Reports pane. They are as follows:

- **Reporting** premade reports and views, provided by Enghouse Interactive, and
- **Custom** reports, where all reports or views that are custom-created by the users of your system are stored.

Hovering the pointer over a folder or asset name opens a pop-out with an overview of details about the asset or folder, including the name, **Owner** and relevant dates.



Clicking the **Options**  of an asset, either in the Reports pane or one of the report tiles, opens a new menu. Here you subscribe to an asset. The **Subscribe** option is described in detail in *Automated report delivery on page 33*.

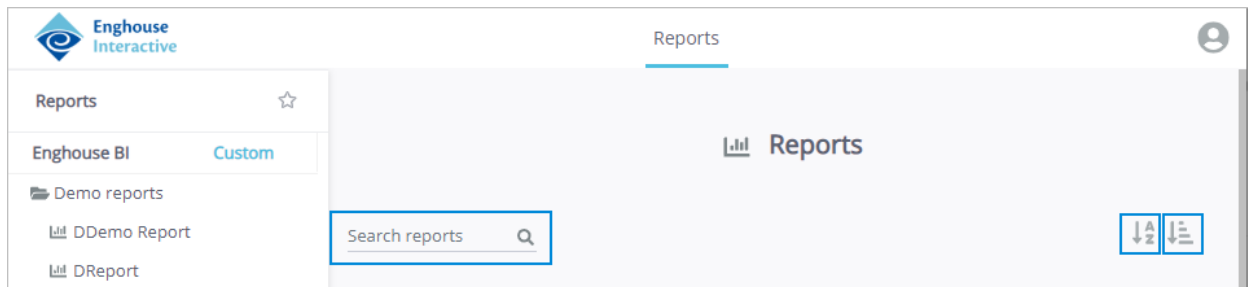


## Sort and search

All the assets are available in the **Reports** main window, in form of tiles in the central part of the window. If there are assets grouped in folders in the Reports pane, this structure is not shown in the Reports window, as all the reports and views are shown individually. However, the assets can be sorted and searched through for easier access.

Sorting is performed alphabetically or by creation date, in ascending or descending order. The buttons for sorting control are at the top-right corner of the main window, under the **Reports** window title.


A **Search reports** input field is available for quick asset locating. The search filter is applied as you type and it instantly displays the results of your search. This search filter does not apply to the Reports pane, only the tiles.



# Favorites

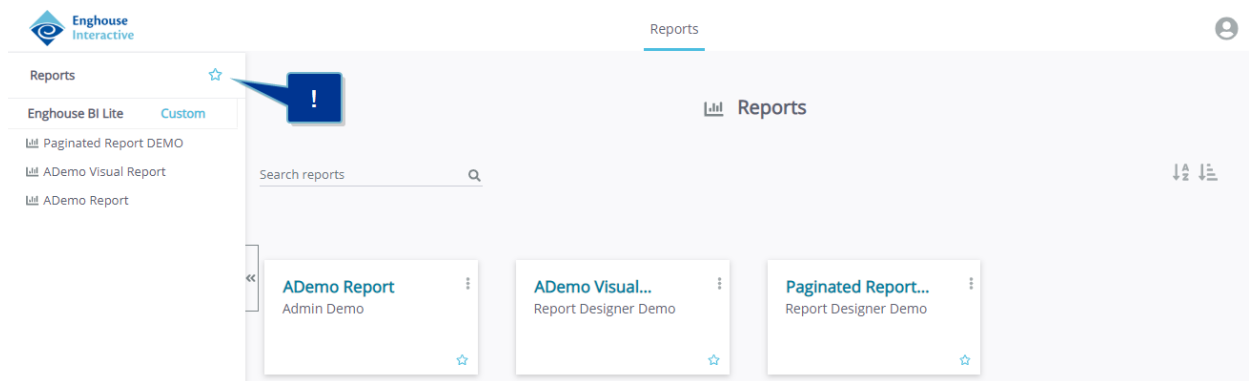
---

If the **Reports** list contains many different assets, the **Favorites** functionality facilitates finding reports that are used more often.

You can add an asset to your Favorites in the pane to the left, or in a tile in the main window. On hover over an asset, a disabled (grayed out) star icon  is displayed. When clicked, the related report is added to the favorites list, and is from that moment on marked with an enabled (blue) star icon. This indicates that these assets are marked as **Favorites**.

The left pane and main window can then be filtered for favorites by clicking the star next to the list title in the pane.

In the example below, only the reports marked as favorite are displayed in the list and as tiles in the main window.



# Reports

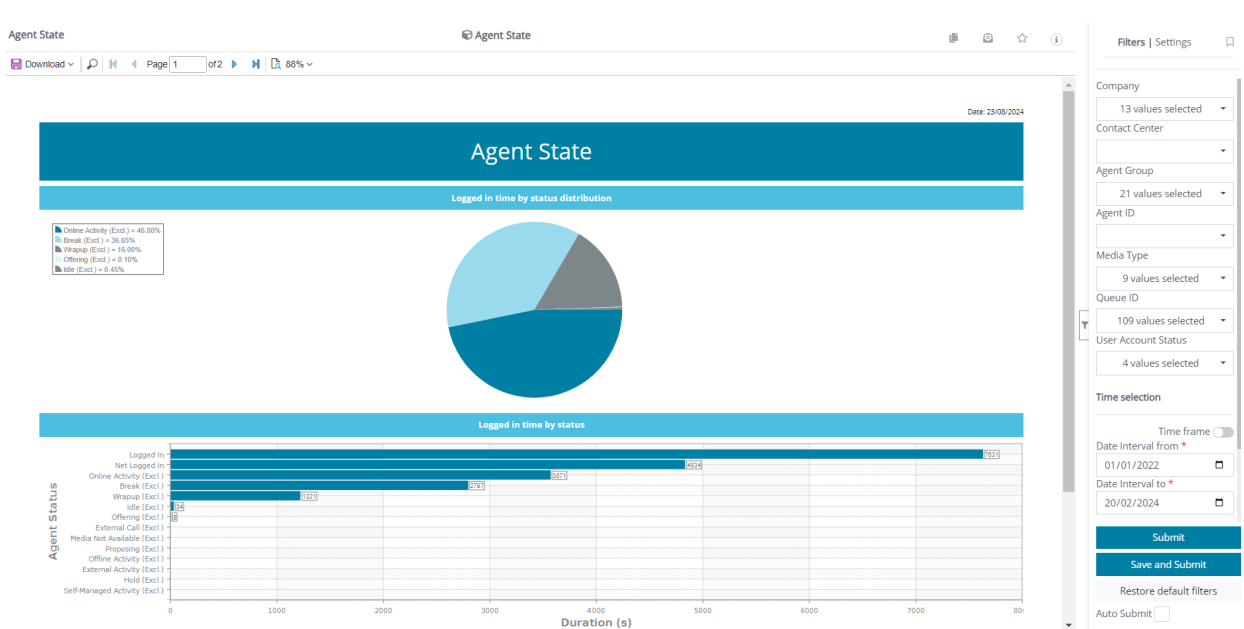
Reports are self-contained elements of Reporting. Every report has a defined correlating data model, from which all displayed data is acquired.

Reports are mainly designed for producing printable data displays. The displayed results can be sorted and/or filtered if allowed by the Designer, but more complex interactions are not available. The most common form for these reports is texts and tables. Data visualization elements, such as those used in visual reports, are less commonly used in this kind of report.

## Interacting with reports

Reports in Reporting are dedicated to providing printing and print-like data display documents. Their user interaction options are limited to sorting and filtering, and they are available only if the Designer includes them in the report.

The following image displays an example of a standard report in Reporting.







There are multiple pages of data available for viewing. This report also features some graphical elements that help visualize data.

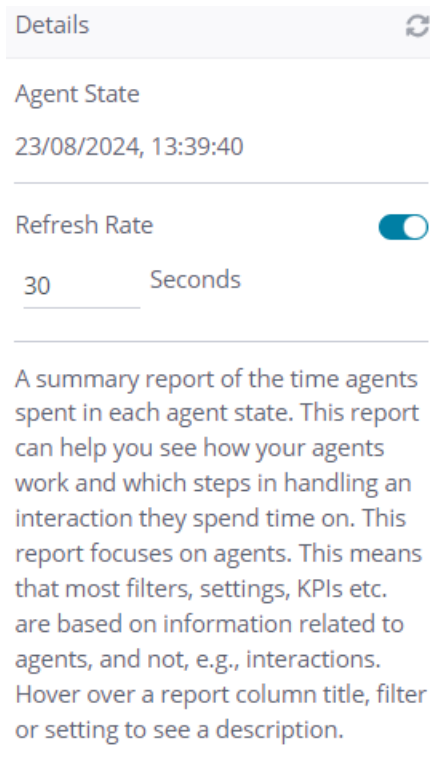
The **Filters** icon is on the right-hand side of the main screen. If clicked, it hides the **Parameters** pane, which is open in this image and which allows access to all custom filtering options and other settings for the report. A report Designer must include such options in the report design for this option to be available. The Parameters pane can be minimized to optimize the viewing screen for the elements of the report in the main screen. For more information about report filtering and settings, see *Filters & Settings on page 21*.

The **Report Title Bar** is located at the top of the report.

It includes the following:

- **Report title:** To the left of the bar, the same title as in the Reports pane or on a report tile.
- **Data model:** Located centrally, showing which data model the report is connected to.
- **Interaction buttons:** Buttons located on the right side of the bar:
  -  **Subscribe:** Scheduling automated report delivery via designated distribution channels. See *Automated report delivery on page 33* for more details.
  -  **Favorite:** Toggles the report as favorite or removes the report from favorites. Adding a report to the **Favorites** list makes it more easily accessible. See *Favorites on page 17*.
  -  **Report Details:** Used to access additional report information in a new window. It provides information on the last refresh time of the report data, as well as the option to set an automatic refresh rate (toggle *ON* or *OFF*). It also provides a description of the report (if provided by the report Designer).

Clicking the **Refresh** icon  in the top right-hand corner of the report details window reloads the complete report, displaying the most recent data available.



Additionally, reports also have the following top menu, shown only once the report is generated:

It includes these options:

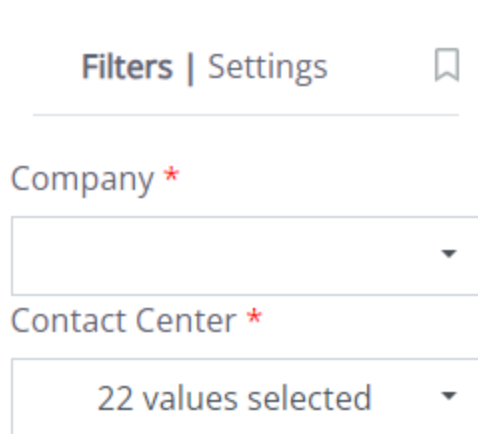
- **Download:** Opening this dropdown menu lets you select from a number of formats in which you can download the generated report. This includes formats you cannot edit after download, such as image formats or PDF, as well as formats you can edit after download if needed, such as .doc or .xls. Each format has an additional dialogue window where you can choose the page range you want to export, as well as adjust format-specific settings to suit your needs. Once you have set up all the settings, click **OK** to start the download.
- **Search:** Using this tool, you can enter a string you want to find in the report. Clicking this icon opens a new menu under the existing one, containing the search field and additional options.
- **Pagination:** If the report has multiple pages, use this menu to move between pages, skip to the first or last one, or enter a specific page number you want to see.
- **Zoom:** Use the integrated zoom function to make the report larger or smaller without affecting the rest of the interface. In the dropdown menu, you can find a set of predefined zoom percentages, or you can use the Page Height or Page Width options to adjust the zoom level so that either the whole report fits the page height or its width.

# Filters & Settings



---

The **Parameters** pane, which contains the filters and settings, is located on the right-hand side of the report window. If the Designer sets up the report so that it has filtering options and other settings you can modify, reports can be filtered by Viewers.

When both filters and settings are available for a report, the filters and settings are divided into two tabs for a more efficient viewing experience:



The **Parameters** pane can be minimized or expanded by clicking the Filtering icon. The icon is gray and white

 if the pane is expanded, or white and blue  if the pane is collapsed.

All the parameters that can be used by the Viewer to filter and modify data presented in the report are listed in the Parameters pane. The types of parameters can vary and their values are entered by the Viewer. If a report has required (\*) filters and/or settings, the report and its data are not rendered unless relevant values are used for those parameters. Only after the values are set up is the report rendered and data displayed.

## Note

If no Viewer-input requirements in form of filtering values and settings exist for a report, the report is rendered directly once it is opened from the available reports list.

## Note

It is possible to add custom checks (validations) for filter values a user can enter to ensure they meet business rules before a report runs. To learn how a data designer can define and validate the content a user introduces in the filters and settings, see the Validation section of the Designer Guide.

Filters and settings are shown as empty until one or multiple values (depending on the type of parameter) are selected or entered.

Additionally, when you open a dropdown list, you can use the search function to find the data that you need, or you can click Select all / clear all to facilitate your selection. Furthermore, when one value is selected, it is shown

in the parameter field against a blue background, while if multiple values are selected, the total number of selected values for that parameter is shown:

Company \*

Contact Center \*

Contact List

When a report that has required filters and/or settings is selected from the available reports list, an initial message is shown in the report area to note that relevant parameters need to be entered to generate the report. The rest of the Reports window is blank, as the report itself has not been rendered yet.

Finally, when sharing your report with others, you may want to include relevant information about the filters and settings you used in the report. In order to do so, select **Show filters and settings sumup** in the Settings tab. When this checkbox is selected, your report, once generated, will include a footer section that shows all the used parameters.

## Report data filtering example

In this example, the report is opened and the initial message related to filtering is displayed. Several input fields for filtering values are available:

The screenshot displays the Enghouse Interactive Reports interface. On the left is a sidebar with a 'Reports' section containing a list of reports: 'Enghouse BI Lite', 'Demo reports', 'DDemo Report', 'DReport', 'Paginated Report DEMO', 'Visual Report DEMO', and 'ADemo Report'. The 'Paginated Report DEMO' is selected. The main area shows the report title 'Paginated Report DEMO' and 'Paginated Report DEMO Data'. A message box at the top of the report area says 'Input filtering values on the right to generate the report'. On the right side, there is a 'Filters' panel with the following elements: 'Product color' (input field), 'Date from \*' (required input, mm/dd/yyyy), 'Date to \*' (required input, mm/dd/yyyy), 'Product ID >' (input field), and two buttons: 'Submit' and 'Save filters and Submit'. Annotations with callout boxes identify: 'Initial message' pointing to the top message box; 'Optional input' pointing to the 'Product color' field; 'Required input \*' pointing to the 'Date from' and 'Date to' fields; and another 'Optional input' pointing to the 'Product ID' field.

- The first is related to the **Product color** category, which is a product color column in the data source. The data displayed in the report is filtered according to the value entered in this field. Since this field is not marked as required (with a \* symbol), it can be left empty (NULL).

### Note

You still need to click the **Submit** button to render the report, even if all the filters are optional and you do not need to enter them.

- The next two fields provided for filtering are on a date-range basis. The two values are required (marked with \*). For the report to render, **Date from** and **Date to** must be entered and the displayed report will correspond to this date range. The report Designer can provide suggested default values, or leave them up to the Viewer.
- The remaining filtering field **Product ID >**, connected to this column in the data source, is also optional. It is used to display items with a product ID number larger than the one entered in the field (as signified by ">" in the field title).

If **Submit** is clicked with an empty required field value (*Date* fields in this example), the following warning is displayed: *The required filtering fields are: Date*. Only when a valid value is submitted is the report data filtered and the report page is rendered (data is displayed).

In case the filtering input field value is valid (non NULL), but it is not present in the database, the rendered report will be displayed as empty since there is no related data available for these filter settings. This may happen, for example, if the date range is set outside the dates available in the data source. In the following image, the date range is set to a range for which the data source has no data.

The screenshot shows the Enghouse Interactive Reports interface. The main report area displays the following information:

**BI Lite paginated report DEMO**  
 Adventure Works 2017 Products  
 Product inventory Time Zone: GMT  
 Report Generated: 12/9/2019 1:16:26 AM Data From: 1/1/2011  
Data Through: 5/1/2011

Product inventory		Product codes		
Product Name	Inventory Quantity	Product ID	Product #	Product location code
Total products for all Dates and Colors: 0				

On the right side, the Filters panel shows:

- Product color: [Empty field]
- Date from \*: 01/01/2011
- Date to \*: 05/01/2011
- Product ID >: [Empty field]
- Buttons: Submit, Save filters and Submit

In the following example, the **Product color** and **Product ID >** filter fields are left empty, but a valid date range is entered. After clicking **Submit**, the date filtering limits the displayed data to records that have the *sales start date* inside the defined range. You can compare the rendered report (below) with the one presented in *Interacting with reports on page 18*, and see that it changed in accordance with the reduced date range.

Enghouse Interactive
Reports
Paginated Report DEMO
Paginated Report DEMO Data

Reports ☆

Enghouse BI Lite Custom

- ▢ Demo reports
- ▢ DDemo Report
- ▢ DReport
- ▢ **Paginated Report DEMO** ☆
- ▢ Visual Report DEMO ☆
- ▢ ADemo Report ☆

### BI Lite paginated report DEMO

Adventure Works 2017 Products

Product inventory Time Zone: GMT

Report Generated: 12/9/2019 1:16:26 AM Data From: 7/3/2012

Data Through: 11/13/2014

Product inventory		Product codes		
Product Name	Inventory Quantity	Product ID	Product #	Product location code
<b>5/30/2013</b>				
Product Color: BLACK				
Women's Mountain Shorts, S	216	867	SH-W890-S	22616FD2-B99F-4F7D-ACF6-33DF966242C2
Women's Mountain Shorts, M	252	868	SH-W890-M	968E3610-E583-42E8-8AB6-48A79581774
Women's Mountain Shorts, L	288	869	SH-W890-L	1A66B244-5CA0-4153-B539-AED48D14FAEC
LL Mountain Frame - Black, 42	0	924	FR-M21B-42	FAABD7FB-CB35-4BAD-8857-EC71468686AD
LL Mountain Frame - Black, 44	0	925	FR-M21B-44	47AB0300-7B55-4D35-A785-801809788985
LL Mountain Frame - Black, 48	0	926	FR-M21B-48	408436AA-16C0-41E5-881F-32A826AF11F
LL Mountain Frame - Black, 52	0	927	FR-M21B-52	4809F4E5-99EA-4AFD-A392-2CB05265D0D4
LL Mountain Frame - Black, 40	102	943	FR-M21B-40	3050E4DF-28BA-4C2B-BDCC-B4C89972D81C
LL Crankset	265	949	CS-4759	41D47371-4374-46D3-8D61-B07616EC54F0
ML Crankset	272	950	CS-6583	D3A7A02C-A3D5-4A04-9454-0C4E43772B78
HL Crankset	278	951	CS-9183	2C4A8956-7872-48FE-8028-659E11781DA4
Road-750 Black, 58	88	977	BK-R19B-58	87B81A1A-A5B5-43D2-A20D-0230800490B9
Mountain-500 Black, 40	51	989	BK-M18B-40	28287157-3F06-487B-8531-BE88A37329E4
Mountain-500 Black, 42	86	990	BK-M18B-42	F6752C9C-568A-41A7-83FD-139DA28C19FA
Mountain-500 Black, 44	81	991	BK-M18B-44	C7852127-2F88-4959-B5A3-0E5A0D6445E4
Mountain-500 Black, 48	60	992	BK-M18B-48	75752E26-A385-4264-9806-F23A4FBC05A7
Mountain-500 Black, 52	123	993	BK-M18B-52	69EE3B55-E142-4E4F-AED8-AF02978FBE87
Road-750 Black, 44	123	997	BK-R19B-44	44CE4802-409F-43AB-9827-CA53421805BE
Road-750 Black, 48	99	998	BK-R19B-48	3DE9A212-1D49-40B6-B10A-F564D981D8DE
Road-750 Black, 52	78	999	BK-R19B-52	A6638923-2867-4676-B08E-ABBA817DCA31
Total products for color Black: 20				
Product Color: BLUE				
Classic Vest, S	180	864	VE-C304-S	EB428EF3-409D-48FE-B35B-D68970520314
Classic Vest, M	216	865	VE-C304-M	2E52F98E-64A1-4069-911C-E3FD8E09A1E

Filters

Product color

Date from \* Time frame

07/03/2012

Date to \* Time frame

11/13/2014

Product ID >

Submit

Save filters and Submit

In the next filtering example, the displayed data is filtered so that it shows only products that have the filtering **Product color** column value set to *Yellow*. The displayed records are different compared to the report presented in *Interacting with reports on page 18*, as well. In this example, the selected date range also encompasses the full database contents. The report now includes only products with the *Yellow* product color, filtering out the rest.

The screenshot displays the Enghouse BI Lite interface. On the left is a sidebar with a 'Reports' menu containing items like 'Demo reports', 'DDemo Report', 'DReport', 'Paginated Report DEMO', 'Visual Report DEMO', and 'ADemo Report'. The main area shows a 'Paginated Report DEMO' for 'Adventure Works 2017 Products'. The report title is 'BI Lite paginated report DEMO'. It includes metadata such as 'Product inventory', 'Report Generated: 12/9/2019 1:16:26 AM', 'Time Zone: GMT', 'Data From: 3/1/2008', and 'Data Through: 5/25/2020'. The report content is divided into two sections: '5/30/2012' and '5/30/2013', both with 'Product Color: YELLOW'. Each section contains a table with columns for Product Name, Inventory Quantity, Product ID, Product #, and Product location code. The right-hand 'Filters' panel is active, showing 'Product color' set to 'Yellow' and a 'Time frame' toggle. Below the filters are 'Submit' and 'Save filters and Submit' buttons.

Product inventory		Product codes		
Product Name	Inventory Quantity	Product ID	Product #	Product location code
<b>5/30/2012</b>				
Product Color: YELLOW				
Road-550-W Yellow, 38	67	797	BK-R64Y-38	AAD81532-A572-48A5-83C3-DFAE3B4FEA6
Road-550-W Yellow, 40	73	798	BK-R64Y-40	A35A1C35-C128-4697-951E-4199062E78F3
Road-550-W Yellow, 42	104	799	BK-R64Y-42	A39BAB09-18F2-4726-A61F-4CF3B1C9927E
Road-550-W Yellow, 44	30	800	BK-R64Y-44	0A7028FB-FF06-4D38-AAA1-B64816278165
Road-550-W Yellow, 48	56	801	BK-R64Y-48	C90CC877-804C-4CE7-AFC3-4C8791A13DFB
ML Road Frame-W - Yellow, 38	115	822	FR-R72Y-38	22976FA7-0ADC-48F9-B4F9-8A10276A1A3
ML Road Frame-W - Yellow, 40	0	833	FR-R72Y-40	22DF28F2-608C-481E-A1A1-5059333E9F7E
ML Road Frame-W - Yellow, 42	0	834	FR-R72Y-42	207B54DA-5404-415D-8578-9A4082E38F1
ML Road Frame-W - Yellow, 44	0	835	FR-R72Y-44	A0FAD492-AC24-4FCF-8D2A-D21D06386AE1
ML Road Frame-W - Yellow, 48	0	836	FR-R72Y-48	84878FED-2138-471E-9C6D-FDB3A67E7D86
Total products for color Yellow: 10				
Total products for Sales Start Date 5/30/2012 2:00:00 AM: 10				
<b>5/30/2013</b>				
Product Color: YELLOW				
Short-Sleeve Classic Jersey, S	324	881	SJ-0194-S	0582E20F-2399-4CB3-9B49-82826649C104
Short-Sleeve Classic Jersey, M	0	882	SJ-0194-M	88BF003B-36TD-4D71-AF71-10F9086234AD
Short-Sleeve Classic Jersey, L	36	883	SJ-0194-L	2D9F598B-9F24-4EEB-98AD-533E48BB9DB9
Short-Sleeve Classic Jersey, XL	72	884	SJ-0194-X	906D42F6-C21F-4D20-B528-02FFDB59FD1E
HL Touring Frame - Yellow, 60	0	885	FR-T98Y-60	C49679BD-06A9-4176-A7ED-58C056444547
LL Touring Frame - Yellow, 62	0	886	FR-T67Y-62	8D4D52A6-8ABC-4C05-BE4D-C067FAF1A64E
HL Touring Frame - Yellow, 46	0	887	FR-T98Y-46	137675A7-34CD-4B7A-ABE1-480EB79865D0
HL Touring Frame - Yellow, 50	0	888	FR-T98Y-50	105EC6E5-30C5-4FE3-A08B-CB324CB3323D
HL Touring Frame - Yellow, 54	0	889	FR-T98Y-54	12B1F317-C19B-4806-B1A7-8015C50AE453
LL Touring Frame - Yellow, 44	0	899	FR-T67Y-44	109CB7BC-6EC6-4A36-85C8-55B843B2AB12

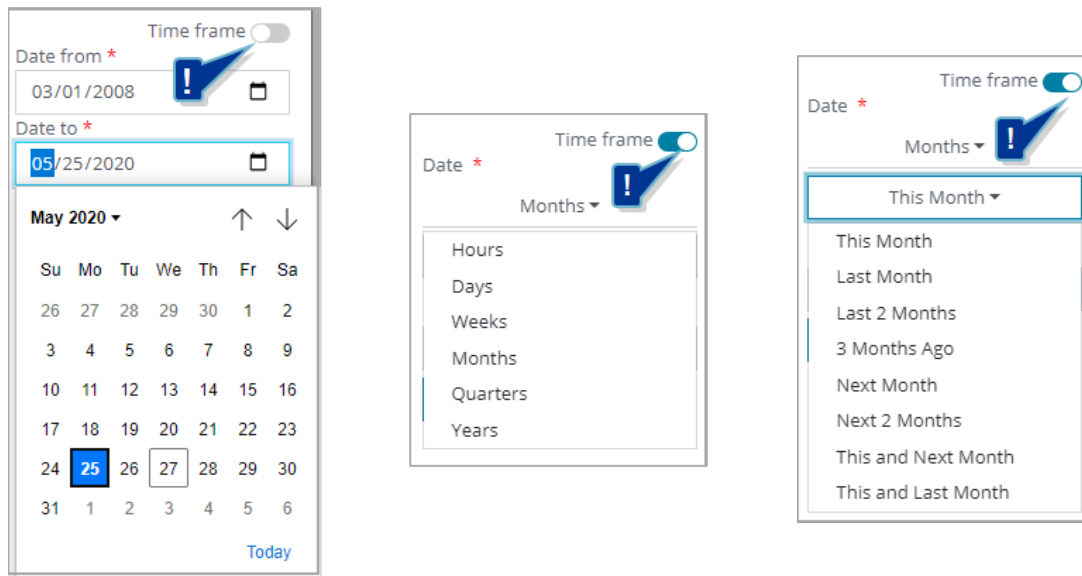
## Time frame

The datetime values can be defined either as absolutes or as relatives. Absolute values are explicit datetime values like the ones that were used in the previous examples. The **Time frame** toggle for the datetime filtering option provides an alternative to absolute values for date and time.

When the **Time frame** toggle is switched on in the **Parameters** pane, the relative datetime input becomes available. This allows you to set a time frame relative to your current date and time. Units of time you can select are *Days*, *Weeks*, *Months*, *Quarters* or *Years*. Each of these units has a selection of possible related amounts of time. To complete the selection, both the unit and the corresponding amount need to be selected.

For example, if you click the **Months** category, possible additional options include **This Month**, **Last 2 Months**, etc.

The first of the following three images represents the absolute datetime selection, with specific dates entered as the start and end points. The second and third image show a relative time frame unit and amount selection, respectively.



The **Time frame** option allows you to select a time range independent of the absolute option, which are specific individual dates. For example, this can be useful if you want a report to only show data relevant for this quarter. If you use the **Time frame** option, you do not have to change the specific dates periodically, as the system will automatically show you a report with data for e.g. your current quarter, regardless of the individual date.

## Filtering data types

Depending on the report design, filters can be of different data types. The most common ones are *Numerical*, *String*, *Datetime* and *Boolean* (logical True/False). Filters (and settings) can also be shown in various forms, such as multi-select or single-select dropdown lists, entry fields, calendar selections, checkboxes, etc.

In the following example, another filtering value was added to the previously used report. Now it includes three different filtering categories at the same time.


Along with the previously presented **Product color** (*String*) and **Date** (*Datetime*) filters, a new **Product ID >** (*Numerical*) data type filter is added. It allows the Viewer to select only records for which the **Product ID** category has a value larger than the one that is input.

Leaving the **Product color** category empty does not filter the records by color, but shows all products with all colors.

In the example below, products that started selling after 03/01/2008 and with a **Product ID** higher than 950 are shown.

Reports

Paginated Report DEMO Data



### BI Lite paginated report DEMO

Adventure Works 2017 Products

Product inventory
Time Zone: GMT

Report Generated: 12/9/2019 1:16:26 AM
Data From: 3/1/2008

Data Through: 3/11/2021

---

Product inventory		Product codes		
Product Name	Inventory Quantity	Product ID	Product #	Product location code
<b>5/30/2013</b>				
Product Color: BLACK				
HL Crankset	278	951	CS-9183	2C4A8956-7B72-48FE-B028-699E117B1DAA
Road-750 Black, 58	88	977	BK-R19B-58	87B81A1A-A5B5-43D2-A20D-0230800490B9
Mountain-500 Black, 40	51	989	BK-M18B-40	28287157-3F06-487B-8531-BEE8A37329E4
Mountain-500 Black, 42	86	990	BK-M18B-42	F5752C0C-508A-41A7-83FD-139D428C19FA
Mountain-500 Black, 44	81	991	BK-M18B-44	C7852127-2FB8-4959-B5A3-DE5A8D6445E4
Mountain-500 Black, 48	60	992	BK-M18B-48	75752E26-A3B6-4264-9B06-F23A4FBDCA57
Mountain-500 Black, 52	123	993	BK-M18B-52	69EE3855-E142-4E4F-AED8-AF02979FBE87
Road-750 Black, 44	123	997	BK-R19B-44	44CE4802-409F-43AB-9827-6A53421808BE
Road-750 Black, 48	99	998	BK-R19B-48	3DE9A212-1D49-40B6-B10A-F564D981DBDE
Road-750 Black, 52	78	999	BK-R19B-52	AEB38923-2B87-4679-B90E-ABBAB17DCA31

Total products for color Black: 10

Product Color: BLUE

Filters

Product color

Time frame

Date from \*

Date to \*

Product ID >

950

In the next example, the values for **Product ID** and **Sell Start Date** are retained. However, *Silver* is also added as the **Product color**. After clicking **Submit**, the contents of the page change to display products that correspond to the added of filtering values.

Paginated Report DEMO

Paginated Report DEMO Data

**BI Lite paginated report DEMO**

Adventure Works 2017 Products  
Product inventory

Time Zone: GMT  
Data From: 3/1/2008  
Data Through: 5/25/2020

Report Generated: 12/9/2019 1:16:26 AM

Product inventory		Product codes		
Product Name	Inventory Quantity	Product ID	Product #	Product location code
<b>5/30/2013</b>				
Product Color: SILVER				
Chain	236	952	CH-0234	5D27E2A5-27EC-4CCB-BA2C-FC980FFE6708
Mountain-400-W Silver, 38	51	980	BK-M38S-38	7A927E32-99A4-4F24-ADCE-0062D2D113D9
Mountain-400-W Silver, 40	86	981	BK-M38S-40	0A72791C-A984-4733-AE4E-2B4373CFD7CD
Mountain-400-W Silver, 42	81	982	BK-M38S-42	4EA4FE06-AAEA-42D4-A9D9-69F6A9A4A042
Mountain-400-W Silver, 46	60	983	BK-M38S-46	0B0C8EE4-FF2D-438E-9CAC-464783B86191
Mountain-500 Silver, 40	81	984	BK-M18S-40	B96C057B-6416-4851-8D59-BCB37C8E6E51
Mountain-500 Silver, 42	60	985	BK-M18S-42	B8D1B5D9-BA39-4097-A04A-56E9559B534
Mountain-500 Silver, 44	123	986	BK-M18S-44	E8C6C794-E8E2-4312-96A7-4832E573D3FC
Mountain-500 Silver, 48	99	987	BK-M18S-48	77EF419F-481F-40B9-BDB9-7E6678E550E3
Mountain-500 Silver, 52	78	988	BK-M18S-52	CAD60945-183E-4A83-A70C-3F5BAC68F134

Total products for color Silver: 10

Total products for Sales Start Date 5/30/2013 2:00:00 AM: 10

Total products for all Dates and Colors: 10

Filters

Product color  
Silver

Time frame

Date from \*  
03/01/2008

Date to \*  
05/11/2021

Product ID >  
950

Submit

Save filters and Submit

## Dependent filters

Based on the design of the data source, the asset you are viewing may feature dependent filters. These are filters that are in a hierarchical relationship where the selections of one filter influence which options are available in one or more others.

Dependent filters are not indicated in the Parameters pane in any way, but if the conditions of a filter that has one or more other filters dependent on it are changed, a reload of all filters occurs to adjust to the changes as needed.

### Caution

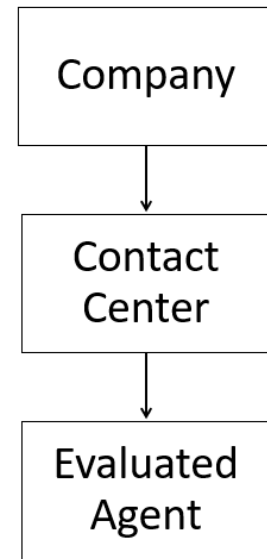
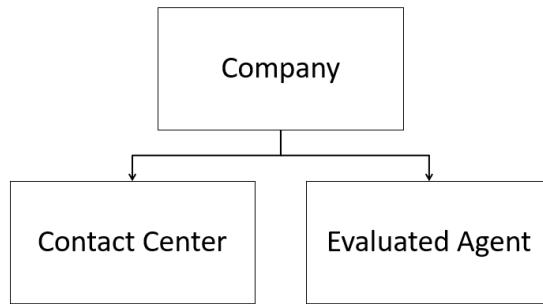
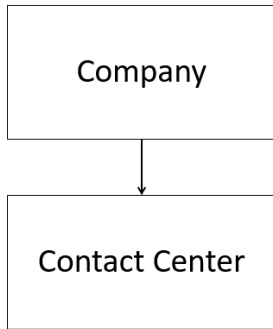
Typically, dependent filters are only dropdown single and multi-selection list filters. If other types of filters, such as user-input filters, are set up as dependent filters, they may not function properly.

Additionally, one filter may have multiple dependent filters, or they may be organized in a multi-level hierarchy, where every filter influences all the filters below it.

Simple dependent filter


Multiple dependent filters on same filter

Hierarchy of dependent filters



## Example

Below is a snippet of the filters available in the Survey Answers Detail standard report:

Filters | Settings 

---

Company

 ▼

Contact Center

 ▼

Campaign Class

 ▼

Marketing Campaign

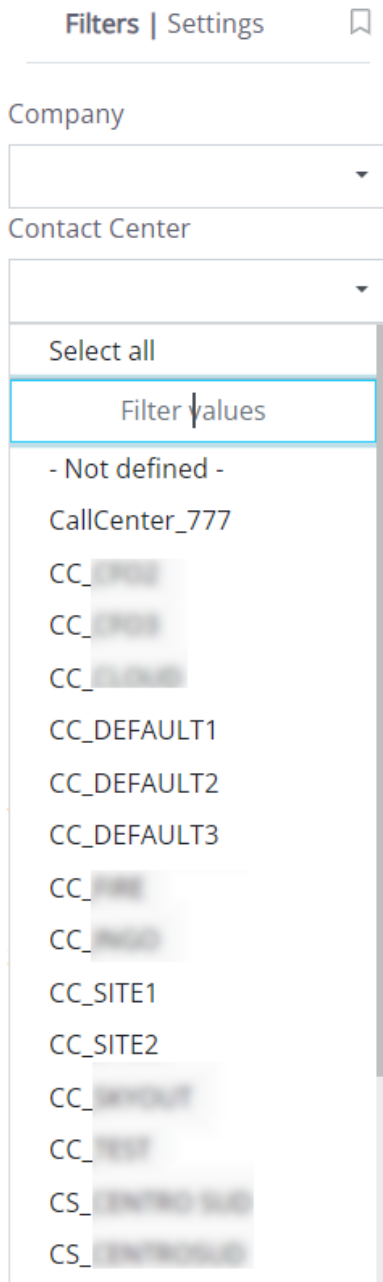
 ▼

Evaluated Agent

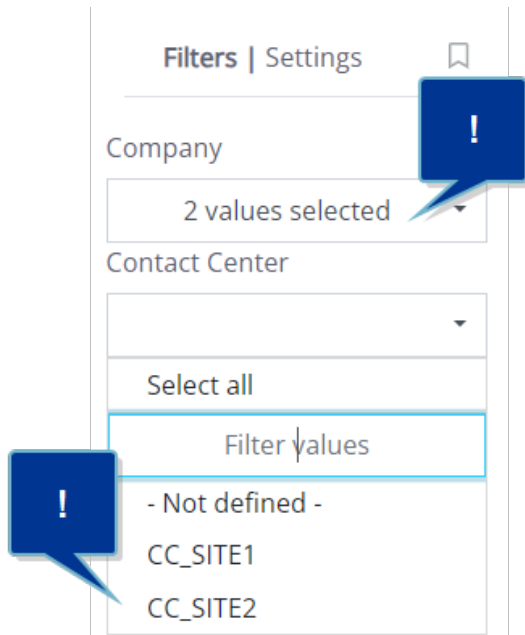
 ▼

In this report, the Contact Center filter is dependent on the Company filter. This means that when one or multiple company filter values are selected in the dropdown list, this triggers the dependency so that only Contact Center values that are related to the selected companies are shown.

When no specific Company values are selected, all Contact Center values available to the user in the data source are shown:



However, when some Company values are selected, such as "Company A" and "Company B", a quick refresh is triggered, and now only those Contact Center values that are related to the selected companies are shown (and can be used in the report):



Following the same logic, another filter in this report could be dependent, such as the Evaluated Agent filter. For example, it could also be dependent either on the Company filter (so only agents related to the selected companies are shown in the filter dropdown list), or on the Contact Center filter (so only agents in the selected contact centers are shown), which, in turn, is dependent on the Company filter.

As mentioned previously, multiple filters can be dependent on the same filter, such as both Contact Center and Evaluated Agent depending on the Company filter, without any relation to each other, or there can be multiple levels of dependent filters in a sort of hierarchy, where every level of the filters influences all those below it in the hierarchy, such as Company > Contact Center > Evaluated Agent, as described in this example.


## Saving filters

Any set of entered filtering values can be saved for future use as the default set. This means that the saved values are automatically loaded with the report. To do this, click **Save and Submit**, located below the **Submit** button in the **Parameters** pane.

When a set of filter values is saved, the **Restore default filters** button appears, which provides the option of deleting the saved set of filtering values and reverting to the original default ones, allowing you to enter new values.

Additionally, when you save and submit your filters and settings, an additional **Auto Submit** option is shown. If you select this checkmark, your report will automatically generate every time you open it, using the saved filters and settings.


## Filter Bookmarks

The bookmark icon  located at the top right of the report viewer **Parameters** pane, can be used to save multiple sets of filtering values.

This option can be used by both Designers (in View Report mode) and Viewers.

#### Note

Dependent filters work in bookmarks the same way they do when viewing and generating the report or view.

The saved set of values can be used privately, or shared with other users of the report by making it **Public** . All report users can access the Public bookmarks. When a bookmark is selected, the predefined set of values is copied to the filtering variables.

## Using an existing bookmark:

1. Click the **Bookmarks** dropdown list from the **Bookmarks** menu.
2. Choose one of the available bookmarks. The bookmarked values set is copied to the variables of the report **Filters**. You can use the search bar to facilitate your search.
3. Once you've clicked the needed bookmark, click **Submit** in the **Parameters** pane to apply the filtering values.


## Creating a new bookmark:

1. Enter the desired set of variable values in the **Parameters** pane.
2. Click **New bookmark** in the **Bookmarks** menu.
3. Enter a name for the new bookmark.
4. Check **Make bookmark public** if you want to share it with other Designers and Viewers or leave it blank to keep it private.
5. Confirm by clicking **Save**.

#### Note

The owner of a bookmark is the user who created it. This user can delete the bookmark at any time. Deleting the bookmark also makes the bookmark unavailable for other users if it is shared.

## Deleting an existing bookmark:

1. Click the **Bookmarks** dropdown list in the **Bookmarks** menu.
2. Locate the bookmark you want to delete. You must be the owner of this bookmark to delete it.
3. Hover over the filter and click **Delete** .

#### Caution

When deleting a bookmark, there is no confirmation dialog. A deleted bookmark cannot be restored.

# Automated report delivery



---

One of the options available to all users of Reporting is the automated report delivery. This gives users the option to automatically receive reports in their chosen format. The **Subscribe** option allows for scheduling report delivery over these distribution channels:

- **Email**
- **FTP/SFTP** server.

## Setting up automatic reporting

To set up automatic reporting, you must do the following:

1. In the **Reports** list on the left side of the window, or on a report tile in the **Reports** tab, click the options  for the report you want to subscribe to. In the dropdown menu, click **Subscribe**. A new window opens.
2. OR in the top menu of your report, in the upper right corner, click **Subscribe** . A new window opens.
3. If there are no predefined schedules, create your own by clicking **New Schedule**. If there are preexisting subscriptions that you want to edit, modify their settings as described below.

### Note

All of the required schedule settings and parameters need to be entered correctly for you to be able to save the schedule. In case any of the schedule sections are not set up correctly, a warning is given to let you know which section has an error that is preventing you from saving the schedule. For example, if a mandatory filter is not entered, you will not be able to save the schedule until the mandatory filter is set up.

4. Enter or edit the necessary data:
  - The schedule can be set to certain days of the week and at a certain time of day. Choose your preferred settings in the **Schedule days** dropdown menu, and enter the time manually in **Schedule times** or click the clock in the corner of the field to open a dropdown menu. The available time format is AM/PM.
  - Click on the Filter icon to set up the report filtering options. The **Filter** option allows setting report parameters (filters and settings) that will be applied to report generation when preparing for a delivery.



### Note

These parameters depend on the design of the related report and may not always be required or available.

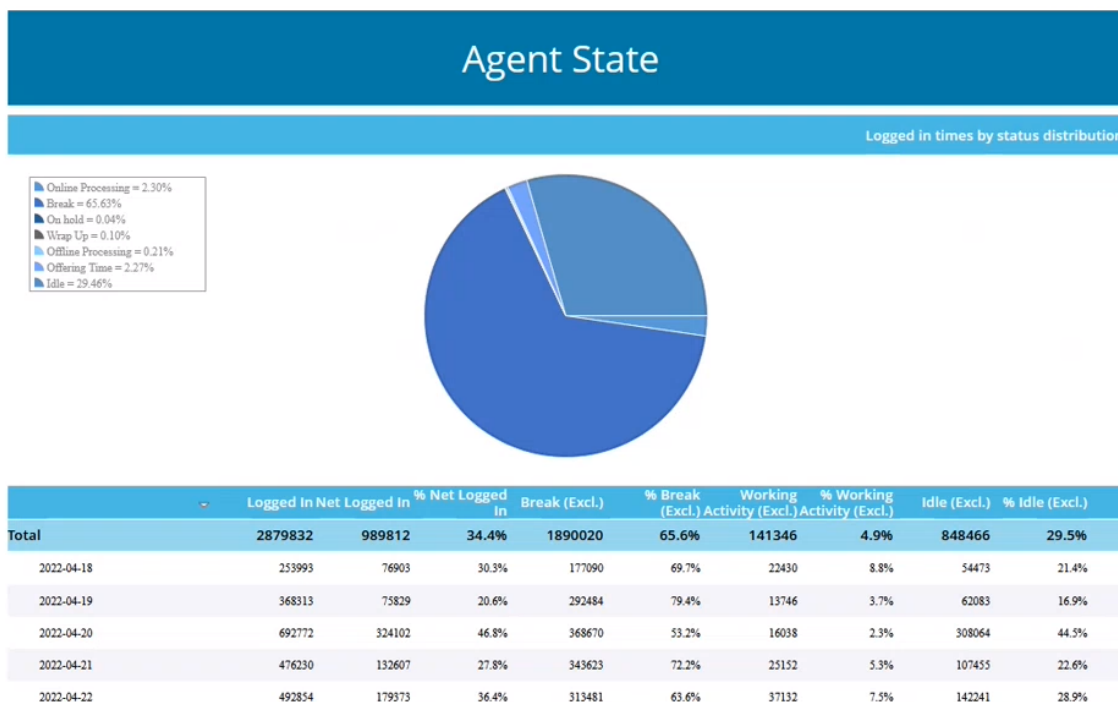
- Click on the mail icon to choose a **Distribution** channel for report delivery. For additional information, see *Distribution settings on page 36*. Click **Confirm** to save your settings or **Back to scheduling** to return to the previous window.

- Choose the report format from the **Format** dropdown menu:
  - **Email report:** If the report is delivered in the body of the email, there is no file attached to the email and the report contents are delivered as text organized in a table (via HTML). The email body text message provided in the **Email settings** (see *Distribution settings on page 36*) is included at beginning of the email, above the report.

Agent state report

 BIReporting120@enghouse.com  
To 

This is the agent state report.



- **Pdf attachment:** If the report is delivered as a PDF attachment, a file is provided as an attachment of your email which you can then store on your computer. There is no additional email body text other than the message provided in the **Email settings** (see *Distribution settings on page 36*).

Select the **Compress Attachment** checkbox to compress the attached file.

## Agent state report

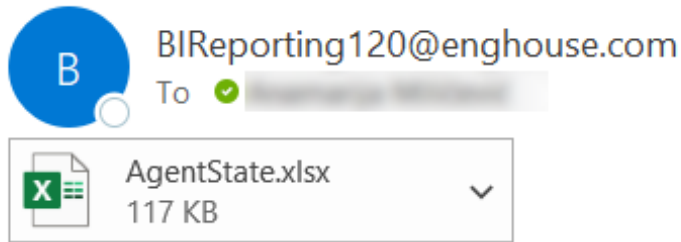


This is the agent state report.

- **Excel attachment:** If the report is delivered as an Excel attachment, a file is provided as an attachment of your email which you can then store on your computer. There are several export settings to choose from:
  - **Type:** Choose the type of file the report is converted into.
  - **Image Resolution:** Used to change DPI (image property PPI - Pixels Per Inch). Increasing the number of pixels per inch increases the quality of the image and the size of the finished file.
  - **Image Quality:** Change the image quality. The higher the quality, the bigger the size of the finished file.
  - **Bands Filter:** This parameter enables you to specify which report bands are exported. The following options are available:
    - **All Bands:** All the bands present in the rendered report are exported.
    - **Data Only:** Only the Data band is exported.
    - **Data and Headers:** Only the Data band and the related Header bands are exported.
    - **Data and Headers/Footers:** Only the Data band and the related Header and Footer bands are exported.
  - **Use One Page Header and Footer:** Select the checkbox to use only the first header and footer.
  - **Export Each Page to Sheet:** Select the checkbox to export each page to sheet.
  - **Export Page Breaks:** Select the checkbox to export page breaks.
  - **Compress Attachment:** Select the checkbox to compress the attached file.

There is no additional email body text other than the message provided in the **Email settings** (see *Distribution settings on the next page*).

## Agent state report

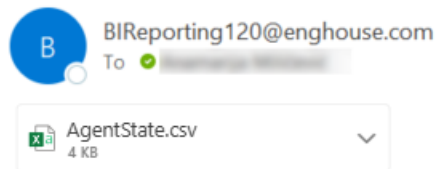


This is the agent state report.

- **CSV attachment:** If the report is delivered as a CSV attachment, a file is provided as an attachment of your email which you can then store on your computer. There is no additional email body text other than the message provided in the **Email settings** (see *Distribution settings below*).

Select the **Compress Attachment** checkbox to compress the attached file.

## Agent state report



This is the agent state report.

5. When all the needed data is entered, click **Save** to continue.

To create another schedule for the same report, follow the same procedure. To delete an existing schedule, click **Delete** at the right end of that schedule's row.

## Distribution settings

### Email

It is possible to schedule automated report delivery to a list of one or more email recipients.

The **Distribution** channel parameters define the sender of the email (**From**), the list of recipients (**To**, **CC** and **BCC**), as well as the subject of the scheduled report email (**Subject**) and the mail body text (**Message**).

Back to scheduling Distribution settings

Distribution channel **Email(1)** FTP/SFTP (0)

**Send report to me now**

From

To \*

CC

BCC

Subject

Message

**Confirm**

#### Note

The list of available senders is edited by the Administrator and Viewers can only select from among the predefined senders.

The **Send report to me now** link instantly sends the report to the user's email address. This is a good way to check if all the other settings in this window are set up as planned before sending the report to others.

The specific content or format of the email is defined by the **Format** parameter, as described in the previous section.



## FTP/SFTP

It is possible to schedule automated report delivery to an FTP or SFTP server. To set this up, fill out the following fields:

- **FTP server:** The required parameter which stands for the location of the file server (i.e. IP address).
- **Port:** Defines the port to be used for server access.
- **FTP file path:** Lets you customize the name of the file to be stored on the server (same as in the previous section).
- **Username, Password:** Authentication parameters, if required by the server.
- **Use SFTP:** When checked, removes the *TLS* modifier and defines distribution to an *SFTP* server.

- **Use TLS:** Switches between *FTP* without *TLS* or over *TLS*.
- **Send notification:** Activates an email notification of the delivery, but does not include the generated report itself. The **Distribution settings** window is expanded and new email notification fields appear. See *Send notification below* for more information.

Back to scheduling
Distribution settings

Distribution channel	<div style="display: flex; justify-content: space-between; border: 1px solid #ccc; padding: 2px;"> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 3px;">Email(0)</div> <div style="background-color: #f0f0f0; padding: 5px; border-radius: 3px;">FTP/SFTP (0)</div> </div>
FTP server *	<input style="width: 95%; height: 25px; border: 1px solid #ccc;" type="text"/> 
Port	<input style="width: 95%; height: 25px; border: 1px solid #ccc;" type="text" value="21"/>
FTP file path	<input style="width: 95%; height: 25px; border: 1px solid #ccc;" type="text" value="\${reportname}_\${dateYYMMDD_hhmm}.\${format}"/> 
Username	<input style="width: 95%; height: 25px; border: 1px solid #ccc;" type="text"/>
Password	<input style="width: 95%; height: 25px; border: 1px solid #ccc;" type="password"/>
Use SFTP	<input type="checkbox"/>
Use TLS	<input type="checkbox"/>
Send notification	<input type="checkbox"/>

## Send notification

In both file server distribution channels (Shared Network File Server and FTP/SFTP), an additional notification delivery option is available. If **Send notification** is checked, it provides access to settings very similar to those for emailing reports. Fill out the necessary fields and click **Confirm** to return to the scheduling window.

### Note

**Notification Message** can be formatted in the same way as the **Filename/File Path** fields for file servers.

Send notification	<input checked="" type="checkbox"/>
Notification To *	<input type="text"/>
Notification From	<input type="text" value="...@enghouse.com"/>
Notification CC	<input type="text"/>
Notification BCC	<input type="text"/>
Notification Subject	<input type="text" value="Report delivery notification"/>
Notification Message	<input type="text" value="Report \${reportname} delivered to \${location}"/>

**Confirm**