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1 About this document

Read and learn how to make discoveries in your data, using different tools.

This document is derived from the online help for Qlik Sense. It is intended for those who want to read parts of the help offline or print pages easily, and does not include any additional information compared with the online help.

You find the online help, additional guides and much more at help.qlik.com/sense.
2 Discover and analyze

When you have created your app and loaded data into it you can start using it for data discovery and analysis.

2.1 Routine analysis

It is typical in routine analysis to follow up on key metrics on a regular basis. Here are some examples of KPIs you might want to keep a close watch on:

- Total sales versus quota each morning
- Total sales versus total sales the same period last year
- Orders placed but not delivered at the end of the week
- Sales per region on a certain day each month

2.2 Exploratory analysis

Sometimes when you are analyzing data, you might find that something is missing in the app that you have access to. Even though Qlik Sense allows for efficiently filtering the data by making multiple selections, you might want to adapt the existing visualizations, dimensions or measures to be able to explore the data for new insights.
3 Interacting with visualizations

You make selections by clicking and drawing in the different visualizations. When you make a selection, all associated visualizations are updated immediately to reflect the selection. You confirm the selection by clicking ✔️, or by clicking anywhere on the sheet outside the visualization, including in another visualization, (in which case you generate a new selection). You can also press Enter to confirm.

You cancel a selection by clicking ❌. You can also press Esc to undo.

By default, new selections in a visualization are added to the previous ones. You deselect an item by clicking it. On a computer, you can hold down Ctrl while you make a selection, to automatically clear previous selections in a visualization, and only keep the new selection.

3.1 Selection preview

The following images show how the visualizations are updated immediately when a selection is made.

No selection

In this image, no selection has been made.

A selection is made

In this image, a selection is made (in the filter pane Region) and is reflected in all associated visualizations.
A second selection is made

In this image, a second selection is made (in the bar chart *Total Sales*). It automatically confirms the first selection and presents a preview of the new selection.
3 Breathing with visualizations

When making selections in filter panes there is a difference between *Cancel selection* (X) and *Clear selection* ( . ). With X you only clear the latest selection, but . clears all selections.

3.2 Types of selections in visualizations

When you analyze your data, you have different ways of making selections. The charts and tables have different selection patterns. Some selection types are particularly useful for certain visualizations. The following table displays which kinds of selections that are supported in the visualizations.

<table>
<thead>
<tr>
<th>Selection Type</th>
<th>Click selection</th>
<th>Draw selection</th>
<th>Range selection</th>
<th>Lasso selection</th>
<th>Legend selection</th>
<th>Label selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar chart</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Box plot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Combo chart</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Distribution plot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Interacting with visualizations

<table>
<thead>
<tr>
<th>Filter pane</th>
<th>Yes</th>
<th>Yes</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Histogram</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>KPI</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Line chart</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Map</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Pie chart</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pivot table</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Scatter plot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Table</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Text &amp; image</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Treemap</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Waterfall chart</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Limitations

- You cannot make selections in **Gauge**, **KPI**, **Waterfall chart**, and **Text & image** visualizations.
- Legend selection is not available in a visualization when coloring by expression.
- Range selection is only available on the dimension axis for stacked bar charts or combo charts, and box plots.
- You cannot select a measure by name.

#### Click selection

You click to select single values/data points, one at a time. If you want to deselect a value/data point, click it.
3 Interacting with visualizations

*Pie chart where the sector Nordic has been selected*

**Draw selection**

When you want to make a draw or lasso selection, you must first click inside the visualization and turn on lasso selection by clicking at the top of the visualization. On a computer, you can also press Shift and make the selection.

You draw a freehand line to select several values/data points at a time. You cannot draw to deselect values/data points.

*Bar chart example*

In a table or a filter pane, you draw across several values to select them.
3 Interacting with visualizations

**Filter pane example**

In a line chart you draw along a line to select a number of data points.

**Line chart example**

In a scatter plot you draw across a number of data points to select them.
3 Interacting with visualizations

**Scatter plot example**

**Label selection**

You can click the dimension labels to make selections. When dimensions are grouped or stacked, the whole group or stack is selected.

**Lasso selection**

When you want to make a draw or lasso selection, you must first click inside the visualization and turn on lasso selection by clicking at the top of the visualization. On a computer, you can also press Shift and make the selection.

You draw a freehand circle to capture and select data points.
3 Interacting with visualizations

Scatter plot example

Your lasso selections only include visible data points. For charts using a continuous axis, data points not visible in the chart will be excluded, even if they are within the area being selected.

Legend selection

You can click any legend item, except the item representing Others, to select the associated values.

Legend selection is not available in a visualization when coloring by expression.

Pie chart example
3 Interacting with visualizations

Range selection

You draw your selections, either on the y-axis or the x-axis. For an axis showing measure values, you are also able to click on the range bubble to enter a specific numeric value.

Bar chart example

3.3 The associative selection model

Making selections is the main interaction method in Qlik Sense. Selections filter out a subset of the data that is loaded into Qlik Sense. You use selections to focus on something you want to know more about. Qlik Sense responds by color coding values according to their different states.

You can think of your interaction (selections) as an input for Qlik Sense and the output as the result of Qlik Sense evaluating the selections and displaying the color codes on data values.

- The input state: the selection that you have made – whether the field value is selected or not.
- The output state: whether the field value is possible or not, given the logical inference of the selection.
3  Interacting with visualizations

Selection states
When you make selections, the colors of the values change accordingly. Color-coding is used in filter panes, selections list items, and the selections tool, with the characteristic Qlik Sense colors green, white, and gray. The colors bring you information about which field values are selected, alternative, possible and excluded, respectively.

The following table lists which colors are used for the different states.

<table>
<thead>
<tr>
<th>Selected</th>
<th>Green, with a check mark as a selection indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible</td>
<td>White</td>
</tr>
<tr>
<td>Alternative</td>
<td>Light gray</td>
</tr>
<tr>
<td>Excluded</td>
<td>Dark gray</td>
</tr>
<tr>
<td>Selected excluded</td>
<td>Dark gray with a check mark as a selection indicator</td>
</tr>
</tbody>
</table>

The selected state
When you select one or more values in a filter pane and the values turn green, they are in the selected state. In the following image, the value 1910s has been selected. The selection filters out a subset of the data that is loaded, and the filter panes Decade and Year are updated according to the selection.

The filter panes have four states altogether. Apart from the selected state (green), there are possible values (white), light gray values (alternative), and dark gray values (excluded). These states are explained in the following sections.
The possible state

In the Year filter pane, the years 1914 up to 1919 are white (possible), because these values are all years from the 1910s, the selected value in Decade. All possible values are 'associated' with the value 1910. You could refine your selection by selecting one or more of the possible values.

In the following image, such a refinement has been made. The value 1918 has been selected in the Year filter pane.
3 Interacting with visualizations

With selections in two filter panes, the possible values are only those that are associated both with 1910s and 1918. There is a logical AND condition between selections from different filter panes. A possible value must then be associated both with 1910s and 1918.

In the Year filter pane, there are no longer any values in the state possible, because none of the values are associated with both 1910s and 1918.

The alternative state

In the Decade filter pane, the value 1910s has been selected, and all the other fields in the filter panes have a certain state, depending on their relationship to the selected value.

All the other values in the filter pane Decade are light gray, meaning that they are alternative values. The alternative state is used for values that would have been possible if a selection had not already been made in that field. Before 1910s was selected, all the values in the filter pane Decade were possible values.

Logically, the alternative values are excluded, but they are only excluded by a single selection (of one or more values), in the same filter pane. If you would clear the selection of 1910s in Decade, all the values would have the state possible.

Even if a value is alternative, you can still select it, but that means that you are, partly, making a new selection rather than refining your original selection. What is useful with alternative values is that you know that there are alternatives available for the same set of selections. If you have a list of sales persons, the alternative values constitute sales persons that may be able to help or replace the selected person.

The excluded state

When a selection is made, values in other filter panes may automatically be excluded, because they are not associated. In the following image, 1910s has been selected, and as a consequence the values 1920, 1921, and 1922 have been excluded. This is an obvious exclusion, because the years 1920, 1921, and 1922 are not
part of the 1910s. The other values in Decade are alternative, that is, they are excluded but you can still select them and thereby expand the selection. If you were to select 1920s the value would turn green and have the state selected.

But if you select one of the possible values in the filter pane Year, all the values in Decade that were alternative become excluded instead. When only 1910s was selected they were alternative, but with selections in two filter panes, values that do not match the condition 1910s AND 1918 are excluded.

The values that are alternative in Year are only excluded by the selection 1918. They are all associated with the value 1910s and had the state possible until 1918 was selected.
Interacting with visualizations

The selected excluded state
When you make selections in more than one filter pane, you might run into a fifth state: selected excluded.

As mentioned previously, there are two different states for each field value:

- The input state: the selection that you have made – whether the field value is selected or not.
- The output state: whether the field value is possible or not, given the logical inference of the selection.

A value enters the selected excluded state because the value was first selected, and then excluded by a selection in another field.

For the selected excluded state, the check mark is an indicator that the value was first selected and then excluded, in contrast to excluded values that have never been selected. A dark gray field with a check mark indicates that the value was previously a selected value, but a new selection has then rendered it selected excluded.

Example:

In the following image, the first selection was of the values 1910s and 1920s. The values 1910s and 1920s were both selected (green) and all the values in the filter pane Year were white (possible), since they are all years from the 1910s or 1920s and therefore logically possible values after the first selection. The second selection is of the years 1914, 1915, and 1916. Now, 1920s is no longer a part of the active selection, since the second selection logically excludes 1920s. However, 1920s is still a selected value and therefore it makes sense to denote it as a value that is selected excluded. It was originally selected, but a later selection excluded it. The check mark distinguishes it from the excluded values that have never been selected.

The dark gray value with a check mark is selected excluded.
3.4 Visual exploration

You can change some visualization properties to further analyze the data without making selections or editing the sheet, by using the visual exploration menu. For example, you can change data, sort data, color by dimension or measure, and change how labels are displayed.

The visual exploration menu is available for the following visualizations: bar chart, line chart, pie chart, scatter plot, treemap, box plot, distribution plot, and combo chart.

Example of visual exploration menu for a scatter plot visualization

Do the following:

1. When analyzing, hover over the visualization you want to change.
2. Click at the top right of the visualization or right-click on the visualization and select Open exploration menu.
3. Update the properties you want to change.
3 Interacting with visualizations

4. To close the menu and save your changes, click \( \text{Save} \) at the top right of the visualization. The changes are saved during this session.

To save your changes for future sessions (and have them updated in the properties panel), click \( \text{Apply} \). This button is only available for unpublished sheets, visualizations that are not master items or linked to master items, and for users with rights to edit the sheet.

If you do not click \( \text{Apply} \) to save the changes or \( \text{Discard} \) to discard the changes and later click \( \text{Edit} \) to edit the sheet, you will be prompted to select whether to apply or discard the changes you made when analyzing the sheet.

Changing the data using the visual exploration menu

When you have alternative dimensions or measures for a visualization, you can use the visual exploration menu to change the data that is used in the visualization. To switch to another dimension or measure, click on the dimension or measure you want the visualization to display. The selection is marked with a \( \checkmark \).

Alternative dimensions and measures are dimensions and measures that are added to a visualization, but are not displayed until a user chooses to switch which dimensions and measures are being displayed during visual exploration.
On a small screen

When you are using Qlik Sense on a very small screen (640 pixels wide or smaller), you access the visual exploration menu by doing the following:

1. Tap the visualization you want to change to open it in full screen.
2. Tap \[ \text{ } \] at the top of the visualization or long-touch on the visualization and select \textbf{Open exploration menu}.
3. Update the properties you want to change.
4. To get a preview of what the changes will look like, long-touch outside of the menu on the visualization, and the menu will slide to the side. Release to open the menu again and continue doing your changes.
5. To close the menu and save your changes, tap \[ \text{ } \] at the top of the visualization, or long-touch and select \textbf{Close exploration menu}.
3.5 Scrolling in visualizations

You can swipe/drag to pan and scroll in visualizations and then turn on lasso selection to draw and select.

When working with visualizations, you often need to scroll to find the data you are looking for. Especially on a touch device, the most natural way of scrolling is to swipe. You scroll by swiping to the data that you want to select and then make your selection. When you scroll, draw selection and lasso selection are disabled, so as not to interrupt the scrolling and to avoid making accidental selections. The other selection options are available as usual.

Selection of values using lasso selection

Using lasso selection with scrolling

When you make a lasso selection, the interaction differs depending on what device you are using.

Touch device interaction

Do the following:

1. Tap to turn on lasso selection.
2. Draw to make a selection.
   You can make consecutive selections.
3. Confirm the selection.

Use two-finger-swipe if you need to scroll and pan between selections.
Computer (mouse) interaction

Do the following:

1. Press Shift and draw to make a selection.
   You can make consecutive selections. Lasso selection is turned on as long as Shift is pressed.
2. Confirm the selection.

Alternative procedure

Do the following:

1. Click inside the visualization without making a selection.
   Selection options are displayed at the top of the visualization.
2. Click to turn on lasso selection.
3. Make and confirm the selection.

You can click to turn lasso selection on and off if you need to scroll and pan between selections.

Visualizations where lasso selection needs to be enabled

In the following visualizations you need to activate lasso selection:

- Bar chart
- Box plot
- Combo chart
- Distribution plot
- Line chart
- Map
- Pie chart
- Scatter plot
- Treemap

3.6 Canceling data retrieval

When you are making discoveries in Qlik Sense and have your data on a server, there may sometimes be waiting time before the data is retrieved. To avoid long periods of waiting time, Cancel buttons are displayed on each visualization after a while, so that you can choose to cancel the data retrieval for one or more of the visualizations. When you click Cancel, you stop the data retrieval for that visualization, but retrieval continues in the visualizations that have not been clicked. When you have clicked Cancel, a Retry button is displayed instead, so that you can make a new attempt to retrieve the data.
4 Using smart search

Smart search is the global search tool in Qlik Sense, enabling you to search the entire data set in your app from any sheet in the app. Smart search is available from the selections bar in a sheet by clicking \( \text{Search your data} \).

Smart search

Smart search returns results in two ways: under Explore, where the visualizations in which the search terms are found are displayed, and under Apply a selection, where lists of matching data items are shown.

\textbf{Smart search only supports text search. Search operators other than quotation marks are not supported}

When you click on a result under Explore you will jump to the sheet on which that visualization appears. If you click on a result under Apply a selection, the results disappear and the selection is applied.

Smart search is available when you are analyzing data on a sheet. From the visual results you can navigate directly to the sheet on which the visualization is found. The data results help you to find associations and make selections in your data.

You can also search within selections and visualizations such as tables and filter panes. See Searching within selections or visualizations (page 34).

4.1 What happens when you search

As you type your search query, Qlik Sense searches simultaneously in visualizations and data items.

Searching in visualizations, smart search filters the values as you type and displays the visualizations where the search items match the following:

- Title, subtitle, and footnote
- Dimension definition and label
- Dimension values (searching for where a dimension uses a value and displays charts where that value is used.)
- Measure definition and label (not value)
- Text & image object. The text in the object is not searched.

Searching in data items, smart search filters the field values and displays the matching items. Smart search looks for:
4 Using smart search

- Field values
- Dimension values (also dimension values that are created as master items)

Measures (measure values) are not included in smart search.

The screenshot shows the results of searching for john Vegetables sugar, which generates one search query for each term.

A Search field

Separate search terms with spaces. To link words into one search term, use quotation marks, for example, “mountain bike”. Suggested search strings are displayed beneath the search field.

B Explore

Gallery of visualizations in which search terms are found.

Use the scrolling arrows to browse the results. You can also use the page indicators (E) to jump directly to a different page of results.

See: Navigating to visualizations from search (page 28) for further details.

C Apply a selection

The search results from the app data, shown with one result per row.

Click Show me more to see more results.

See: Using search results to change selections (page 29) for further details.
4 Using smart search

D  Color-coded search result terms  A color code is assigned to each search term found. It shows partial matches as well as full matches:

E  Gallery page indicators  Indicate which page of results is currently displayed in the gallery.

F  Visualization results information  Click to see which values in the visualization the search results were found. 

You can clear the search field by clicking to the right in the search field. Click to close smart search.

The search terms are always compared against the beginning of the words in the database. Searching for “read” does not present “bread” as a match, whereas “reader” and “Reading” would both be matches. The search terms are each given a color to support the identification of the matches. When there are more than six search terms, the colors are reused.

4.2 Navigating to visualizations from search

Search results for visualizations show the combinations of matches found across the entire app. The results for visualizations are displayed in a gallery, ranked according to relevance.

To find the visualization you want, scroll through the gallery, or jump to a different page of results by clicking on one of the page indicators under the gallery. Click on the visualization result and you will be taken to the page on which that result was found, and the visualization itself will be highlighted.

The screenshot shows the results of searching for john Vegetables sugar.

You can clear the search field by clicking to the right in the search field. Click to close smart search.
Things to look out for while searching

Please bear in mind that you might encounter some results you consider unexpected:

- Smart search looks in chart expressions, which can include logical exclusions. This could result in false positive hits. For example, a visualization could be made from an expression that excludes a region, for example, NOT Europe. This visualization will be found in the search results for the search term “Europe”.
- Only names for objects that are internal to Qlik Sense are included in smart search. Third-party extensions are not included in smart search.
- Although object names in Qlik Sense are included in smart search, this only includes names of objects in English. For example: pie chart is called "piechart", internally, so searching for "pie chart" will not match, but "pie" will return a partial match.
- Measure values are not included in smart search, but dimension values are. This means that for the search term 450, the measure $\text{Sum(<cust>\text{Sales})=450}$ will not return a match, but CustomerID = 450, will.

4.3 Using search results to change selections

Interacting with search results for data

For searches in data, the results returned show the combinations of matches found across the entire Qlik Sense database. The results are based on field associations and are sorted by the number of matched search terms, in descending order. If there is more than one match to your search query, a suggestion list is displayed with matches ordered by relevance. Click a suggestion to insert it into the search field.

When you select a result you make an actual selection of the values, and your current selections and the visualizations containing the selected data are updated.

In the screenshot, you can see an example where the categories: john, Vegetables, and sugar show the available results from the database.
Using smart search

If you select a dimension value in the search result, the field name (not the dimension name) will be displayed in the selections bar.

You can clear the search field by clicking \( \times \) to the right in the search field. Click \( \bigcirc \) to close smart search.

The search terms are always compared against the beginning of the words in the database. Searching for “read” does not present “bread” as a match, whereas “reader” and “Reading” would both be matches. The search terms are each given a color to support the identification of the matches. When there are more than six search terms, the colors are reused.

Using smart search to change the current selection

When you are using smart search to search the data in an app, and you make a selection from the results, you can search within that selection. Then you can click on search results to change your current selections. Smart search searches within your selections automatically, all you need to do is add search strings and perform a new search. You can do this over and over to filter your search results.

When you search within your current selection, smart search will find results associated with your current selection. If the terms you are searching for are not associated with the current selection, you will see an option to clear the current selection. If you clear the selection you will see the result for the searched terms without having to re-enter them.

If you search within a selection, and your search terms are excluded because of the selections (dark gray), there will be no results.

If you search within a selection using multiple terms and your query does not produce a result for all of your search terms, you can view partial matches by clicking **Show partial matches**.
If you search within a selection and your query does not produce a result, you will get the message “No matches found within your current selection.”. If the selection is locked, you can consider to unlock the selection and perform a new search.

4.4 Keyboard shortcuts used in smart search

This description of keyboard shortcuts assumes you are working in Windows. For Mac OS use Cmd instead of Ctrl.

<table>
<thead>
<tr>
<th>To do this:</th>
<th>Use keyboard shortcut:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open smart search. You can then enter the values or characters you want to search for.</td>
<td>Ctrl+F</td>
</tr>
<tr>
<td>Add the first suggested search string to the search field, if none is highlighted.</td>
<td>Tab or Enter</td>
</tr>
<tr>
<td>Move between the search field, suggested search string list, and search results.</td>
<td>Down/up arrow keys</td>
</tr>
<tr>
<td>Move between rows in the search results.</td>
<td></td>
</tr>
<tr>
<td>Move between the entries in the suggested search string list.</td>
<td>Right/left arrow keys</td>
</tr>
<tr>
<td>Add the highlighted entry from the suggested search string list to the search field.</td>
<td>Tab</td>
</tr>
<tr>
<td>Make a selection of the highlighted search result.</td>
<td>Enter</td>
</tr>
<tr>
<td>Make a selection from the highlighted suggested search string list.</td>
<td></td>
</tr>
</tbody>
</table>
## Using smart search

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear the search field.</td>
<td>Esc</td>
</tr>
<tr>
<td>Close smart search (if the search field is empty).</td>
<td></td>
</tr>
<tr>
<td>Close smart search.</td>
<td>Ctrl+F</td>
</tr>
</tbody>
</table>
5 Exploring with selections

During analysis, the selections are displayed above the sheet. Each selection item has a small bar at the bottom that reflects the selection states for that dimension. Three states are displayed in the bars: selected (green), alternative (light gray), and excluded (dark gray). Locked values are indicated by a lock icon.

Selections bar

When an app is saved using Qlik Sense, the current selections and locks are not saved. Selections and locks must be made every time the app is opened.

By clicking a selection item, you can view, edit, or clear that selection in the popup that appears. You can also search for dimension values or lock the selection. In the following image the selection menu is open.

Depending on what selections that have been made previously, some of the options may not be available.

Selection menu in the selection popup

The following table describes the options.
### Select all

All values are selected (marked ✓). Alternative values change state to selected (green). Excluded values change state to selected excluded. They are still dark gray, but are now selected (marked ✓). If you clear the selections that made these values excluded, they will change state to selected (green).

### Select possible

All possible values (white) are selected. This option is never available in the selections item, because when a selection is made, the other values are either alternative or excluded. In a filter pane, however, you can have possible values as a result of another selection.

### Select alternative

When a selection has already been made in a field, alternative values, when present, have a light gray color. These are values that would have been possible values (white), if a selection had not already been made in that field. By selecting alternative values, the values that previously were selected, become alternative instead.

### Select excluded

If there are alternative values, they will be selected (green) and the values that previously were selected will change state to alternative. Excluded values will change state to selected excluded.

If there are not any alternative values, the excluded values are selected (green), and the previously selected values change state to alternative.

### Export data

Export the selected data to an Excel file.

## 5.1 Searching within selections or visualizations

You can search for values and make selections from the resulting filtered list. You can search both selection items in the selection bar as well as within visualizations such as filter panes and tables.
5 Exploring with selections

Selection search

List search
Click a selection item, and in the selection popup, type your search string. The list is filtered as you type, to display matching values.

You can use the following methods of searching in selections:

- **Text search.** Use text, including wildcards and plus and minus signs.
- **Fuzzy search.** The tilde character "~" as a prefix allows inexact matches to be found.
- **Numeric search.** Relational symbols (">", ">=", "<" or "<=") allow values greater than, less than, and so on, to be found.
- **Expression search.** An equals sign (=) indicates an expression. Field values that match the expression are selected.

You can also search your entire data set using smart search. For more information, see *Using smart search* (page 26).

## Text search

As you type your search string, Qlik Sense filters the field values and displays the matching items. If you perform a normal search (without wildcards), strings that match the search string are displayed. If you use several strings, separated by blanks, each of these is interpreted as a separate search string and displays all field values that contain either of the strings. If you want the separate search strings to be interpreted as only one string, use quotation marks (" ") to link the strings together. You can also use a plus sign (+) for a similar result. By using a plus sign, you set the condition that strings with a plus sign must be included in the matching items. However, the strings need not necessarily be next to each other, nor in the same order as they were entered. A minus sign (-) before a search term excludes results containing that text.

<table>
<thead>
<tr>
<th>Example</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;orange juice&quot;</td>
<td>Only finds field values that contain the whole string “orange juice”.</td>
</tr>
<tr>
<td>orange juice</td>
<td>Without the quotation marks, all fields that contain either “orange” or “juice” would be displayed.</td>
</tr>
<tr>
<td>+orange +juice</td>
<td>Finds matches such as “orange juice”, “orange and apple juice” and “juice from oranges”.</td>
</tr>
<tr>
<td>-orange -juice</td>
<td>Excludes results containing orange or juice.</td>
</tr>
</tbody>
</table>

**Search is not case sensitive.**

## Wildcards

You can use one or several wildcards in a search string. The following wildcards can be used:

<table>
<thead>
<tr>
<th>Wildcard</th>
<th>Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Any string of characters</td>
</tr>
<tr>
<td>**</td>
<td>Any string of characters</td>
</tr>
<tr>
<td>-</td>
<td>Any single character</td>
</tr>
<tr>
<td>*<em>*</em></td>
<td>Any string of nonzero characters</td>
</tr>
<tr>
<td>^^</td>
<td>Any string of zero or one character</td>
</tr>
<tr>
<td>^</td>
<td>Any single character</td>
</tr>
<tr>
<td>~</td>
<td>Any single character</td>
</tr>
<tr>
<td>+</td>
<td>Any single character</td>
</tr>
<tr>
<td>[</td>
<td>Any single character</td>
</tr>
<tr>
<td>]</td>
<td>Any single character</td>
</tr>
<tr>
<td>[~]</td>
<td>Any single character</td>
</tr>
<tr>
<td>![~]</td>
<td>Any single character</td>
</tr>
<tr>
<td>!</td>
<td>Any single character</td>
</tr>
<tr>
<td>!~</td>
<td>Any single character</td>
</tr>
<tr>
<td>![~]</td>
<td>Any single character</td>
</tr>
<tr>
<td>![~]</td>
<td>Any single character</td>
</tr>
<tr>
<td>![~]</td>
<td>Any single character</td>
</tr>
<tr>
<td>![~]</td>
<td>Any single character</td>
</tr>
</tbody>
</table>

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5 Exploring with selections

| *        | Zero or more characters, including blank. This wildcard is flexible and matches any character or any block of characters in a specific position. |
| ?        | A single character, including blank. This wildcard is useful when you suspect that a string may be misspelled, when you are unsure of the spelling, or when the string contains special characters that may be difficult to reproduce correctly. |
| ^        | Beginning of word within field value. This wildcard is used in conjunction with other wildcards. |

If you use wildcards, only those records that match the entire search string are displayed, that is, a blank does not imply a logical OR. The search string "*creamed*" does not get a match on "Rocky's creamed corn" since the value does not end with "creamed". Neither does "*creamed*" result in a match on "Rocky's creamed corn", since the value does not start with "creamed".

<table>
<thead>
<tr>
<th>Example</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>a*</td>
<td>Finds all values that begin with the letter &quot;a&quot;, including strings with several words where the first word begins with an &quot;a&quot;.</td>
</tr>
<tr>
<td>*b</td>
<td>Finds all values that end with the letter &quot;b&quot;, including strings with several words where the last word ends with a &quot;b&quot;.</td>
</tr>
<tr>
<td><em>c</em></td>
<td>Finds all values that contain the letter &quot;c&quot;, including strings with several words.</td>
</tr>
<tr>
<td>*<em>ab</em></td>
<td>Returns all values that have words that begin with &quot;ab&quot;. Equivalent to a normal search for &quot;ab&quot;, but unlike the normal search it can be made more complex using wildcards. It can also be used in a programmatic search, such as in Set Analysis.</td>
</tr>
<tr>
<td>r?ck</td>
<td>Finds all values that have four letters and start with an &quot;r&quot;, followed by any character, and ending with &quot;ck&quot;, for example, &quot;rack&quot;, &quot;rick&quot;, &quot;rock&quot;, and &quot;ruck&quot;.</td>
</tr>
<tr>
<td>r?? ???d</td>
<td>Finds all values that consist of a three-letter word beginning with an &quot;r&quot; and a five-letter word ending with a &quot;d&quot;.</td>
</tr>
</tbody>
</table>

Space in a search string makes a difference. If you search for "*corn*" you get matches on strings ending with, for example, "popcorn" as well as "corn". If you use a space in your search string, "* com"", you only get matches that end with "corn".

Fuzzy search

Fuzzy search is similar to a text search, with the difference that it compares and sorts all field values according to their degree of resemblance to the search string. Fuzzy search is especially useful when items may be misspelled. Fuzzy search can also help you find multiple values that are nearly identical.
Begin your search string with a tilde "~" character. While typing, all values are sorted by the degree of resemblance to the search string, with the best matches at the top of the list. If you press Enter, the first value in the list is selected.

**Numeric search**

Numeric search is very similar to text search. The only difference is that the search string must begin with one of the relational operators ">", ">=", "<" or "<=".

<table>
<thead>
<tr>
<th>Example</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;900</td>
<td>Finds all values greater than 900.</td>
</tr>
<tr>
<td>&lt;=900</td>
<td>Finds all values less than or equal to 900.</td>
</tr>
<tr>
<td>&gt;900&lt;1000</td>
<td>Finds all values greater than 900 and less than 1000.</td>
</tr>
<tr>
<td>&lt;900&gt;1000</td>
<td>Finds all values less than 900 or greater than 1000.</td>
</tr>
</tbody>
</table>

**Expression search**

An expression search always begins with an equals sign (=). The expression is evaluated for each field value in the search field. All values for which the search expression returns a non-zero value are selected.

In a filter pane with Sales values, you can use a search such as: \(=\text{Sum}(\text{Sales}) > 1000000\) to find values larger than 1,000,000. This is a simple search and you could get the same result by using the numeric search: \(>1000000\). Often, an expression search is the only choice. For example, if you want to search for values in associated fields, you have to use an expression search.

**Example:**

Let us assume that you have a filter pane for sales representatives. You can then use an expression search for the sales representatives who have sales larger than, for example, 5,000,000. The search string is similar to the previous one: \(=\text{Sum}(\text{Sales}) > 5000000\). Because the sales values are associated with the sales representatives, you can perform the search in the Sales Rep filter pane.

Sales representatives with sales larger than 5,000,000
5.2 Editing the selections

During data analysis, you can change the selections in the selections bar.

Do the following:

1. Switch to sheet view.
2. In the selections bar above the sheet, click the selection that you want to edit.
   
   A popup window with the selection appears.
3. In the popup window, select the values that you want to add or clear.
   
   You can search and filter your selections using the special characters, operators, wildcards, and methods described in Searching within selections or visualizations (page 34).
4. Confirm your selection.

The selection is updated.

5.3 Locking and unlocking selections

With the lock option, you can protect your selections.

Locking selections

You can lock a selection by clicking in the selection popup. The lock prevents any changes from being made to that selection. You can neither change nor clear a locked selection. If you have locked a selection and then try to select excluded field values, the selection item will flash to indicate that the locked selection prevents the selection from being made.
5 Exploring with selections

Locked selection

It is possible to step back in the selection history to a state before the dimension was locked.

Unlocking selections

You can unlock a selection by clicking in the selection popup. When you have unlocked the selection, you can make changes to it, or clear it.

When an app is saved using Qlik Sense, the current selections and locks are not saved. Selections and locks must be made every time the app is opened.

5.4  Stepping back and forward in selections

When you make selections, these are saved as items in the selections bar above the sheet.
5 Exploring with selections

To the left in the selections bar, there are three options, one for stepping back in the selections history, one for stepping forward, and one for clearing all selections. In the screen shot you can see that the option to step back is available, but not the forward option. This is the normal case when you have not stepped back in the selection history.

Clicking \( \leftarrow \) brings you one step back in the selection history. You can move back all the way to the first selection in the session. Even if a selection has been locked, you can move back to a state before the selection was made. A locked selection has a \( \square \) before the dimension name. In the screen shot, the dimension Region is locked.

Clicking \( \rightarrow \) brings you one step forward in the selection history.

Clicking \( \text{Clear} \) clears all selections, except the ones that are locked.

5.5 Using the selections tool

The selections tool is an extension of the selections bar. In the selections tool you get an overview of all the dimensions and fields in the app, not only the dimensions that have selections. The selections tool gives a more detailed view of the selected data, so that you can explore the associations in the data even if the dimensions are not used on any sheet.

During analysis, the selections tool is available to the right in the selections bar. Click \( \text{Open} \) to open the selections tool.

The selections tool is divided into two sections: SELECTIONS and APP DIMENSIONS. The selections section displays the fields that have active selections. The app dimensions section displays all dimensions without an active selection. Both sections are sorted alphabetically. When Show fields is selected, the section APP DIMENSIONS includes all the fields that have been loaded into the app but which are not used as dimensions.
Making and clearing selections

You can make several selections consecutively, but it is not until you confirm the selections that the dimensions will move up to SELECTIONS. You confirm by clicking ✔️ or by clicking outside the list, but within the selections tool area. If you click the toolbar you close the selections tool.

In SELECTIONS, you can clear a selection in a field by clicking ❌. The field is then moved down to the section APP DIMENSIONS.

When you are in the selections tool, you can still use the options in the selections bar (step back, step forward, and clear all selections), and in each dimension you have the usual list options: selection menu, clear selection, cancel selection, confirm selection, and search.

Searching in the section APP DIMENSIONS

The section APP DIMENSIONS has a search box that is useful when you have many dimensions and fields. You search on the titles of the fields and dimensions. Your search string can consist of one or more words, or only a part of word. The search is case insensitive, but only exact string matches are displayed. A search for "numbers" will not display fields with the string "number", but a search for "mbe" will.
6 Bookmarking selections

When you are analyzing data, you might find something interesting that you want to return to, or share with others. Using bookmarks is a way to easily keep track of a certain selection state on a certain sheet.

You can add bookmarks to save your selections and a particular location. The bookmarks can later on be opened to restore the selections to a former state. When you use the bookmark, you can either just apply its selections or apply selections and go to the sheet you were exploring when you created the bookmark. All bookmark tools are reached with in the toolbar.

You cannot bookmark selections in published apps in Qlik Sense Cloud. To bookmark selections in an app in your personal cloud, unpublish the app to your work area, and then create your bookmarks. To bookmark selections in an app in Qlik Sense Cloud Business, bookmark your selections in the app in your group workspace. When you publish the app to a stream, the bookmarks will be available in the app.

6.1 Creating a bookmark

Do the following:

1. Make the selections on the sheet that you want to save as a bookmark.
2. Click in the toolbar.
3. Click Create new bookmark.
   The name of the sheet and a summary of the selections are used as the title of the bookmark.
4. If you want another name for the bookmark, change it under Title.
5. Enter a description of the bookmark under Description if you want to.

The bookmark is automatically saved.

When you search in bookmarks, matches in the title and in the description will be found.

6.2 Apply bookmark selections

You can apply the selections saved in a bookmark to all sheets and visualizations in the app.

Apply selections

Do the following:

1. In sheet view, click in the toolbar.
2. Long-touch or right-click the bookmark you want to apply selections from and click Apply selections.
6  Bookmarking selections

If there are no selections saved in the bookmark, Apply selections is disabled.

The selections saved in the bookmark are now applied. Any previous selections are cleared.

Apply selections and go to sheet
Do the following:

1. In sheet view, click in the toolbar.
2. Click the bookmark you want to apply selections from.

The selections saved in the bookmark are now applied and the sheet which the bookmark originates from is displayed. Any previous selections are cleared.

You can also apply the bookmark selections from the app overview using the same procedures.

6.3  Changing the title and description of a bookmark
You can change the title and description of a bookmark.

Do the following:

1. In sheet view, click in the toolbar.
2. Click next to the bookmark you want to edit.
3. Click .
4. Make your changes to Title and Description.
5. Click to stop editing.

The changes are automatically saved.

You can also edit bookmarks from the app overview using the same procedure.

6.4  Searching for bookmarks
Do the following:

1. In sheet view, click in the toolbar.
2. Type your search criteria in the search field.
   The list is filtered as you type.

The search function finds matches in the title and in the description.
6.5 Deleting bookmarks

Deleting a bookmark in sheet view

Do the following:

1. In sheet view, click in the toolbar.
2. Click next to the bookmark you want to delete.
3. Click .
4. Click .
5. To confirm that you want to delete the bookmark, click Delete in the dialog.

The bookmark is deleted.

Deleting a bookmark from app overview

Do the following:

1. From the app overview, click to view the bookmarks.
2. Click next to the bookmark you want to delete.
3. Click .
4. Click .
5. To confirm that you want to delete the bookmark, click Delete in the dialog.

The bookmark is deleted.

In the bookmarks dialog, you can long-touch/right-click on a bookmark and select Delete.
7 Troubleshooting - Discover

This section describes problems that can occur when discovering and analyzing in Qlik Sense.

7.1 My search does not produce any results

Possible cause
You have locked selections.

Proposed action
Unlock the selections and then perform a new search.

Do the following:

1. Click on the selection with.
2. Click to unlock.
3. Perform a new search.

7.2 Incomplete visualization

A visualization is not displayed, instead an error message Incomplete visualization is displayed.

Possible cause
The visualization contains data fields that you do not have access to.

Proposed action
Contact your Qlik Sense administrator to see if you can get access to the omitted data fields, to be able to use the visualization.