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Disclaimer

This document is intended to support administrators, technology managers or developers using and implementing Smarten. The business needs of each organization will vary and this document is expected to provide guidelines and not rules for making any decisions related to Smarten. The overall performance of Smarten depends on many factors, including but not limited to hardware configuration and network throughput.
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1 About this Document

This manual explains how to use various features of Clickless analytics in Smarten Augmented analytics Suite.

1.1 Scope and Organization of Topic Areas

The content in this manual is organised according to the tasks and operations performed on the Clickless analytics and are arranged in the following topics:

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<tr>
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1.2 Conventions used

This manual uses typographical conventions in the text to help you distinguish between the names of files, instructions and other important notes that are relevant during installation. For example:

- Field names are mentioned in the boldface font:
  Select the Page Setup tab under Page Header/Footer Configuration.

- Important notes are indicated in blue:
  Note:
  Currently, Smarten allows Crosstab and Tabular BI objects only.

- References to documents are highlighted as below:
  Reference: Working with Clickless Analytics > Creating Search

2 Introduction to Clickless Analytics

Clickless Analytics allows business users to ask questions in natural English language and get answers. Clickless Analytics provides a seamless augmented analytics experience using machine learning and natural language processing (NLP). Users can simply enter a search query in their natural language, such as, “What was the sales of Bakery in 2019,” and the system translates the query and returns the results in an appropriate form, such as visualization, tables, numbers, or descriptions. It reduces a skill set requirement or training required to query data and design reports, and helps organizations democratize the use of analytics.
3 Configuration for Clickless Analytics

The process of Clickless Analytics starts with identifying the dataset that you want to query and get answers. You can work with default settings and auto recommendations generated for a dataset, but to improve the quality of the search and results, you need to configure synonyms, column priority, default aggregation, measure polarity, phonetics, column types, and abbreviations. You might also need to update the predefined system definitions that are available in various files.

3.1 Enable Dataset for Clickless Analytics

You must enable Clickless Analytics for the dataset you want to use for Clickless Analytics. This will enable you to perform a Clickless query on that dataset.

About this task
Use this task to enable Clickless Analytics for a dataset.

Procedure
1. Click Administration from the menu.

The system displays the Administration page.
2. In **Dataset management**, click **Dataset repository**. The system displays the **Dataset management** screen.

3. Select the dataset that you want to enable for Clickless Analytics.
4. Select the **Enable Clickless search** option from the toolbar.

The selected dataset is enabled for Clickless Analytics, and a search icon appears next to the dataset. The user can perform Clickless search queries on the selected dataset.
3.2 Disable Dataset for Clickless Analytics

You can disable Clickless Analytics for a dataset that you don’t want to use for a Clickless search.

**About this task**

Use this task to disable a dataset for Clickless Analytics.

**Procedure**

1. Click **Administration** from the menu.

   ![Menu Option—Administration]

   The system displays the **Administration** page.
2. In Dataset management, click Dataset repository. The system displays the Dataset management screen.

3. Select the dataset for which you want to disable Clickless Analytics.
4. Select the Disable Clickless search option from the toolbar.

The selected dataset is disabled for Clickless Analytics, and a search icon is no longer displayed next to the dataset. The selected dataset will not available for Clickless search queries.
3.3 Define Dataset Specific NLP Definition

After you have enabled a dataset for Clickless Analytics, it will work out of the box with preconfigured knowledge and machine learning algorithms within the system. However, you can configure the dataset with various definitions based on your requirements. These definitions include synonyms, priority, aggregation, polarity, and phonetics. Clickless Analytics uses these definitions to optimise the natural query interpretation.

3.3.1 Specify Synonyms for a Dataset

Synonyms are provided for the dataset columns that are enabled for Clickless Analytics. By default, the AUTO SYNONYMS option is enabled for all the columns of the dataset. When only AUTO SYNONYMS is enabled, the system uses the synonyms specified in the Synonym system definition file. You can specify additional synonyms for the columns if you need to add additional definitions based on your requirements.

About this task

Use this task to specify synonyms for columns in a dataset that is enabled for Clickless Analytics.

Procedure

1. Click Administration from the menu.
The system displays the Administration page.

2. In Dataset management, click Column synonyms for clickless search. The system displays the Column synonyms for clickless search screen.
3. Select the dataset for which you want to specify synonyms from the Select Dataset list.

4. Specify comma separated synonyms for each dataset column in the SYNONYM field.
CLICKLESS ANALYTICS—SPECIFY SYNONYMS FOR A COLUMN

5. Select the checkbox under the AUTO SYNONYMS column if you want to enable auto synonyms for the dataset columns.

The system uses the synonyms specified in the Synonym system definition file.

CLICKLESS ANALYTICS—ENABLE AUTO SYNONYMS FOR A COLUMN

6. Select the checkbox under the PHONETIC SEARCH column for the columns for which you want to enable a phonetic search.

The phonetic search enables the system to match terms that sound similar. For example, phonix, phoenix, sells, and sales.
3.3.2 Specify Column Priority for a Dataset

When the system processes the query and finds multiple columns for a specific token, it is necessary for the system to identify the most important column and use that in resolving the query. Setting a priority for columns helps the system identify the most important column from the identified columns and provide accurate results.

About this task
Use this task to specify column priority for a dataset that is enabled for Clickless Analytics.

Procedure
1. Click Administration from the menu.

The system displays the Administration page.
2. In Dataset management, click Column priority & polarity for clickless search. The system displays the Column priority & polarity for clickless search screen.

3. Select the dataset for which you want to specify column priority from the Select Dataset list.
4. Select the All, Dimensions, or Measures option from the Column type list to display that type of column for which you want to specify column priority.

5. Enter a numeric value in the COLUMN PRIORITY fields for each DATASET COLUMN to specify priority for those columns.

For example, there are two columns in the dataset: “SalesAmount” and “SalesQty,” and the user has entered a query, such as “Sales of 2020.” For “Sales” token, the system identified two columns: Salesamount and Salesqty. If column priority of these columns is set as 1 for SalesAmount and 2 for SalesQty respectively, the system will select the Salesamount column for “Sales” token and show the salesamount in the result. If more than one column has the same priority number, for example, priority set for “SalesAmount” and “SalesQty” is 1, the system will select both columns for “Sales” token and show salesamount and sales quantity in the result. If you have not set priority for the columns in a dataset, the system automatically selects the
column with higher density (higher number of unique values).

6. Click SAVE.

3.3.3 Specify Default Aggregation on Measure Column

You can specify the aggregation for a measure column. By default, all measure columns are aggregated with the sum operation, but the sum operation may not be meaningful for aggregating some measure columns, for example, for measure UnitPrice. You can specify the appropriate default aggregation operation, and the system will consider this aggregation function for query results for that measure.

About this task

Use this task to specify default aggregation on the measure column in a dataset that is enabled for Clickless Analytics.

Procedure

1. Click Administration from the menu.
The system displays the Administration page.

2. In Dataset management, click Column priority & polarity for clickless search. The system displays the Column priority & polarity for clickless search screen.
3. Select the dataset for which you want to specify default aggregation for measures from the **Select Dataset** list.

4. Select the **Measures** option from the **Column type** list to display the measure columns for which you want to specify column priority.

   **Note:** You can specify default aggregation only for the measure columns available in the selected dataset.
5. Select an option from the list available under the **DEFAULT AGGREGATION** column to specify the default aggregation operator for that measure column.

The following options are available in the list:

- Sum
- Average
- Count
- Maximum
- Minimum
- First
- Last
- Most recent
- Least recent

**Note:** For Most recent and Least recent data operation, you need to specify default date dimension and aggregation.
CLICKLESS ANALYTICS—SETTING DEFAULT AGGREGATION

6. Click **SAVE**.

### 3.3.4 Specify Measure Polarity

Polarity is used to determine if a high value or a low value is better for a column. For example, Profit measure has high polarity as a higher value is better. The Discount measure has low polarity as a lower value is better. You can specify the polarity of a measure column based on its nature.

**About this task**

Use this task to specify polarity of a measure column in a dataset that is enabled for Clickless Analytics.

**Procedure**

1. Click **Administration** from the menu.

The system displays the **Administration** page.
2. In **Dataset management**, click **Column priority & polarity for clickless search**. The system displays the **Column priority & polarity for clickless search** screen.

3. Select the dataset for which you want to specify polarity for the measure column from the **Select Dataset** list.
4. Select the **Measures** option from the **Column type** list to display the measure columns for which you want to specify column priority.

   **Note:** You can specify polarity only for measure columns available in the selected dataset.

5. Select the **Higher the Better** option or the **Lower the Better** option to specify polarity for that measure column.
4 Search using Clickless Analytics

You can use the natural language query to perform a search using Clickless Analytics. For example, if you want to know which salesman sold the most cakes in 2019, you can just type “Who sold most cakes in 2019” in the search field, and Clickless Analytics will show the results.

About this task
Use this task to search for any data using Clickless Analytics.

Procedure
1. Click the search icon on the toolbar.

6. Click SAVE.
The system displays the Search page.

2. Click the down arrow to select the dataset for which you want to perform the search.

   Note: Only datasets for which Clickless Analytics is enabled appear in the list. By default, the dataset you have selected in the previous query is selected.

3. Type the query in natural language to search the required data in the search field, and then press Enter key.

   The system displays the autosuggestions when you start typing the query.
The system retrieves data from the selected dataset based on your search query and creates an appropriate visualization based on the result retrieved and displays the visualization.

You can modify the results by updating various configurations for visualizations, filters, breakdown columns, and ranks. Based on the changes you make, the system updates the search results and the visualization.
5.1 Change the Visualization

The system automatically chooses the visualization that is best suited to represent the search result. You can change the visualization based on your requirements.

About this task
Use this task to change the visualization of the search result generated by Clickless Analytics.

Procedure
1. Click the expand icon on the search result page.

   ![CLICKLESS ANALYTICS—EXPAND ICON]

   The system displays the configuration pane.

   ![CLICKLESS ANALYTICS—THE CONFIGURATION PANE]

2. From the View tab, select the visualization you want to apply for the search result.
The system updates the search result with the new visualization.

5.2 View & Modify Search Result

You can view how the query has been interpreted by Smarten and also modify the search result based on your requirements by disabling a column or by updating a value of the column used in the query.

5.2.1 Explainer—Query Translation

The explainer section shows how the natural query is translated for query to the dataset. For example, if you have used the “who sold most cakes in phoenix in 2016” query, the explainer translates it as shown below:
<table>
<thead>
<tr>
<th>Word in the query</th>
<th>Translated to in the explainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who</td>
<td>EmployeeName dimension column</td>
</tr>
<tr>
<td>Sold</td>
<td>Sum of the GrossSale dimension column. The aggregation specified for the dimension column in the dataset is applied. In this example, Sum aggregation is specified.</td>
</tr>
<tr>
<td>Most</td>
<td>Translated to the Rank that is applied on the resultant data</td>
</tr>
<tr>
<td>In</td>
<td>Translated to “INCLUDE,” which narrows down the resultant data based on the value specified in the query. In the above example, the resultant data is narrowed down for one particular city “Phoenix” from the City dimension column.</td>
</tr>
<tr>
<td>In</td>
<td>In the above example, the second instance is used to narrow down the resultant data, which is further narrowed down for a specific year “2016.”</td>
</tr>
</tbody>
</table>

### 5.2.2 Disable a Column used in the Query

You can disable a column that is used in the query to modify the search result.

**About this task**

Use this task to disable a column that is used in the query to modify the search result generated by Clickless Analytics.

**Procedure**

1. Click the expand icon on the search result page.

![CLICKLESS ANALYTICS—EXPAND ICON](image)

The system displays the configuration pane.
2. Click the **Explainer** tab.

3. Click the visible icon next to the column you want to disable.
The system updates the search result of the query based on the column you have disabled.

**5.2.3 Update Value of a Column used in the Query**

You can update the value of a column that is used in the query to modify the search result.

**About this task**

Use this task to update the value of a column that is used in the query to modify the search result generated by Clickless Analytics.

**Procedure**

1. Click the expand icon on the search result page.
The system displays the configuration pane.

2. **Click the Explainer tab.**
3. Update the value of what is used in the query.

The system updates the search result of the query based on the updated value of the column.
5.2.4 Update Aggregation

You can update the aggregation of a measure column that is used in the query to modify the search result.

About this task
Use this task to update the aggregation of a measure column that is used in the query to modify the search result generated by Clickless Analytics.

Procedure
1. Click the expand icon on the search result page.

The system displays the configuration pane.
2. Click the **Explainer** tab.

3. The system applies aggregation by default, and you can update the aggregation applied on the measure column.
The system updates the search result of the query based on the updated value of the column.

### 5.2.5 Change Dataset Column(s)

You can change the dataset column(s) that is used in the query to modify the search result.

**About this task**

Use this task to update the column that is used in the query to modify the search result generated by Clickless Analytics.

**Procedure**

1. Click the expand icon on the search result page.
2. Click the Explainer tab.
3. The system shows columns translated based on the natural query by default, and you can update the measure and dimension columns used in the query.

The system updates the search result of the query based on the updated value of the column.
5.3 Add Breakdown Columns in the Result

You can add more breakdown columns to the query you have used to search for the data.

About this task

Use this task to add breakdown columns used in the query used in Clickless Analytics.

Procedure

1. Click the expand icon on the search result page.

The system displays the configuration pane.
2. Click the **Breakdown** tab.

The system displays the available columns from the dataset.
3. Click the plus icon next to the columns that you want to add to the result.

The system displays the selected columns in the **Selected columns** section.
5.4 Update Ranks

You can update the rank used in the search result and the measure column on which the rank is applied.

About this task

Use this task to update the rank and the measure column used in the search result to modify the search result generated by Clickless Analytics.

Procedure

1. Click the expand icon on the search result page.
2. Click the **Rank** tab.
The system displays the **Rank** tab with applied ranks in the query result.

3. You can select any of the following options to update the rank criteria applied on the query result:
   a. **Dimension column**: Select another dimension column to change the dimension column used to apply rank.
   b. **Measure column**: Select a measure column to change the measure column used in the query.
   c. **Rank**: Select an option from the list to update the rank used in the query.
   d. **Number of entries**: Select an option to specify the number of entries to be displayed in the search result.
4. You can click the delete icon to remove the rank criteria applied on the search result. The system updates the search result based on the updated rank.

5.5 **View Dataset Columns**

You can view the columns of the dataset that is used in the query you have used to search for the data.

**About this task**

Use this task to view columns of the dataset in the query used in Clickless Analytics.

**Procedure**

1. Click the expand icon on the search result page.
The system displays the configuration pane.

2. Click the **Dataset columns** tab.
The system displays the columns of the dataset used along with sample values.

**5.6 Explore Result in Detail**

You can explore the result in detail by opening the result in the object view. You can make additional changes to the result in the object view and save the object. Saved objects will be saved in the repository and can be used in other dashboards or as stand-alone objects.

**About this task**

Use this task to explore the result in detail.

**Procedure**

1. Click the explore icon on the search result page.
The system displays the result in the appropriate container. For example, as this result is displayed in SmartenView, the object is opened for detailed exploration in the SmartenView pane.

6  Product and Support Information

Find more information about Smarten and its features at www.smarten.com
Support: support@smarten.com
Sales: sales@smarten.com
Feedback & Suggestions: support@smarten.com
Support & Knowledgebase Portal: support.smarten.com