Preparing Bot-Compatible Qlik Sense Apps

Qlik Insight Bot®

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Qlik **Q**

Contents

1. Introduction

To get insightful answers from Qlik Insight Bot regarding your data, you must prepare your Qlik Sense apps by creating master items and tags and checking calendar fields.

The purpose of this document is to guide you in preparing your Qlik Sense apps for use with Qlik Insight Bot.

2. Adding dimensions, measures, and visualizations to master items

Qlik Insight Bot takes data only from dimensions, measures, and visualizations that are master items in the Qlik Sense app. Hence, you must add any dimensions, measures, and visualizations that you expect will be used in questions or answers to the app master items.

You must also add tags for the master items. Make sure that if you have added any **Tag Prefix** in Qlik Insight Bot Configuration application, use those as a prefix of the synonyms while you are adding to tags. These tags may be

- synonyms that will help Qlik Insight Bot identify the relevant dimensions, measures, or visualizations to prepare a response to a user question
- from a set of predefined tags, to identify how the master item should be handled by the bot

E.g. City could be Town, Municipality etc.

Employees could be Total Employees, Headcounts, # of Employees, No of Employees etc.

Adding dimensions, measures, and visualizations to master items

Master item names must use only the following characters and may not be in the reserved words list.

- (Hyphen)	0 - 9	a - z	A - Z
# (Hash)	` (Back Quote)	! (Exclamation)	' (Quote)
* (Asterisk)	$ (Dollar)	% (Percentage)	? (Question Mark)
, (Comma)	+ (Plus)	= (Equal)	/ (Forward Slash)
. (Period)			

Also, below are the keywords reserved by Qlik Insight Bot. Do not use them as a name of any master items or as a tag.

ahead	alert	alert me	all	an	apps
bar chart	clear	clear all	compare	create	current
dimension	dimensions	disable insights	disable narratives	email	email me
enable insights	enable narratives	for	forecast	from	highest
in	insights disable	insights enable	insights off	insights on	Kpi/KPI
Kpis/KPIs	least	line chart	list	lowest	me
measure	measures	more	most	narratives disable	narratives enable
narratives off	narratives on	off insights	off narratives	pie chart	select
show	show all filters	show all selections	show apps	show dimensions	show kpis
show measures	show visualizations	surprise me	table	tell me	the
them	visualizations	viz	vizs	vs	

Note: See Appendix I for more details of reserved keywords.

Important: Make sure none of the master measures contain an expression with any inline formatting applied to it.

3. Adding predefined tags to master items

The predefined tags provide a meaning to the master item. Adding those tags help Qlik Insight Bot to understand the master items' nature and how they should be represented as an information while a user asks any question. Below is the list of predefined tags you must add to the master items.

Note: By default, the master dimensions are shown as a "dimension" and the master measures as a "measure" in Qlik Insight Bot.

_formatPercent
- This tag is used to show a numeric data in the form of percentage in visualizations.
- This tag can only be used in master measures.
  E.g. Average Penalties, Readmission Rate.

_formatMoney
- This tag is used to show a numeric data in the form of money ($) in visualizations.
- This tag can only be used in master measures.
  E.g. Charges, Total Sales.

_formatNumber
- This tag is used to show a numeric data in the form of numbers in visualizations.
- This tag can only be used in master measures.
  E.g. Total Cases, Total Orders.

_<groupname>Group
- This tag is used to group measures, dimensions and visualizations of a same or similar type.
- This tag can be used in master measures, dimensions, and visualizations.
- This tag is case sensitive.
  E.g. _salesGroup, _readmissionGroup, managerGroup, productGroup.

_negative
- Not every measure's increased value always indicates a positivity i.e. some measures are good for an organization when their value is decreasing or low. E.g. Canceled Orders, Penalty, Expenditure, Casualty etc.
- This tag is used for measures for which increased values are not good for an organization.
- This tag can only be used in master measures.
- The effect of "_negative" tag can only be seen when insights/narratives are turned on and users asks for a measure which is marked negative.
- By default, a measure with this tag appears in the narratives in:
  - Red if its value is increased or increasing
  - Green if its value is decreased or decreasing

  However, it is possible to provide custom colors for both positive and negative values. This can be done by adding few configurations manually in **system.xml** under **<WebchatConfiguration>** located at **C:\ProgramData\Qlik Insight Bot\Configuration** as mentioned below.

  ```
  <ColorForNegative>#ff0000</ColorForNegative>
  <ColorForPositive>#00ff00</ColorForPositive>
  ```

_exclude

- This tag is used to exclude any dimension, measure or visualization from being displayed while user requests to see dimensions, measures or visualizations to Qlik Insight Bot.
- This tag can be used in master dimensions, measures or visualizations.
  E.g. Month Year, Quarter Year, Week Year.

_calendarfield

- This tag is used to identify a dimension as a calendar field.
- This tag can only be used in master dimension which contains dates.
  E.g. Date, Order Date.

_masterKPI

- This tag is used to identify master KPI table for Show KPI feature.
- This tag can only be used in the master visualization which is the Master KPI table.

The following table summarizes where each tag can be used.

Tags	Can be used for		
	Dimension	Measure	Visualization
_formatPercent		✓	
_formatMoney		✓	
_formatNumber		✓	
_<groupname>Group	✓	✓	✓
_negative		✓	
_exclude	✓	✓	✓
_calendarfield	✓		
_masterKPI			✓

4. Adding "Show KPIs" to Qlik Insight Bot

You can see all KPIs just by asking the bot "Show KPIs". To be able to get the list of your desired KPIs from Qlik Insight Bot, you must add a straight table in the Qlik Sense app.

Steps

1. Create a Table object in the Qlik Sense app.
2. Add '1' as a **Dimension**.
3. Add the **Measures** in the table which are required to be shown as KPIs by the bot.
4. Name this Table "**Master KPI**" and add it to master items.
5. Add **_masterKPI** tag to this master visualization.

5. Creating calendar fields and add to master dimensions

Create the following calendar field in your Qlik Sense app and add it to master dimensions, if not present already. This calendar field will be used for forecasting or for displaying trend lines for measure values.

1. Date (add *_exclude* and *_calendarfield* tags)

6. Creating variables and 'to date' fields for a custom calendar (to be used by Qlik Insight Bot)

Qlik insight Bot's **Custom Calendar** feature allows you to use the fiscal calendar of your Qlik Sense app. By configuring the fiscal calendar of an app from the management console, users will be able get the answers with respect to the fiscal timeline from the bot.

It is required to amend the Qlik Sense app in way that is compatible with Qlik Insight Bot's Custom Calendar feature. A few variables are required to be created in Qlik Sense app to support the user question aiming to get answers for any current or previous fiscal period i.e. Current year/Previous Year, Today/Yesterday, Current Period/Last Period etc.

Below are the time entities for which the relevant variables must be created in Qlik Sense app.

- Current Year
- Current Quarter
- Current Period
- Current Month
- Current Week
- Today
- Last Year
- Last Quarter
- Last Period
- Last Month
- Last Week
- Yesterday

Important: Make sure the variable has the same output format as the actual field used to create the variable.

To enable the bot to answer the questions of period over period comparison, there should be 'to date' fields for year, quarter, period, month, or week (based on the availability of the fields) in the app. For example, a field for YTD (Year to Date) should be available with the value 1 or 0/true or false, and this must be configured in the QIB portal.

7. Making a Qlik Sense sheet the default for Qlik Insight Bot

Qlik Insight Bot gives the **Source link** in the response, which redirects the user to the Qlik Sense app. You can set which sheet should be opened when user clicks the source link. If not set, it will redirect to any of the sheet pf the application.
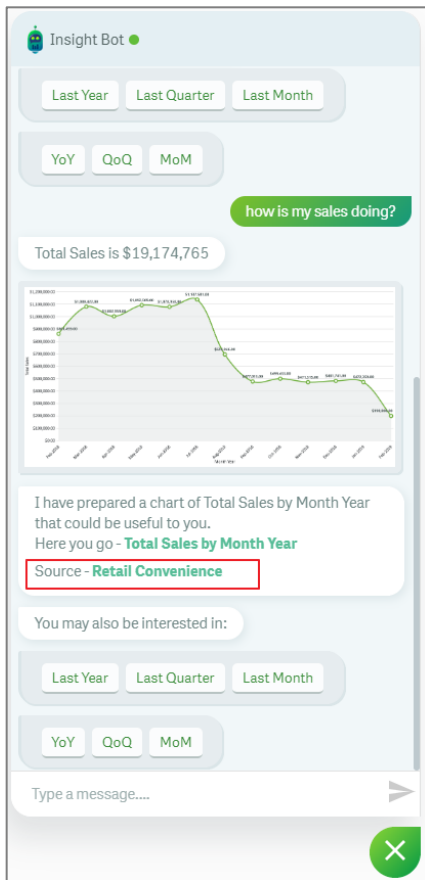

To set your desired sheet as a "default", you need to add **_QIBDashboard** tag to that Qlik Sense sheet. Below are the steps to add **_QIBDashboard** tag.

Add _QIBDashboard tag in QMC

1. Open QMC (Qlik Management Console), select **Tags** under **Manage Resources** from left pane.
2. Click **Create new** to create a tag.
3. Write _ **QIBDashboard** as a name, click **Apply** to save.

Making a Qlik Sense sheet the default for Qlik Insight Bot
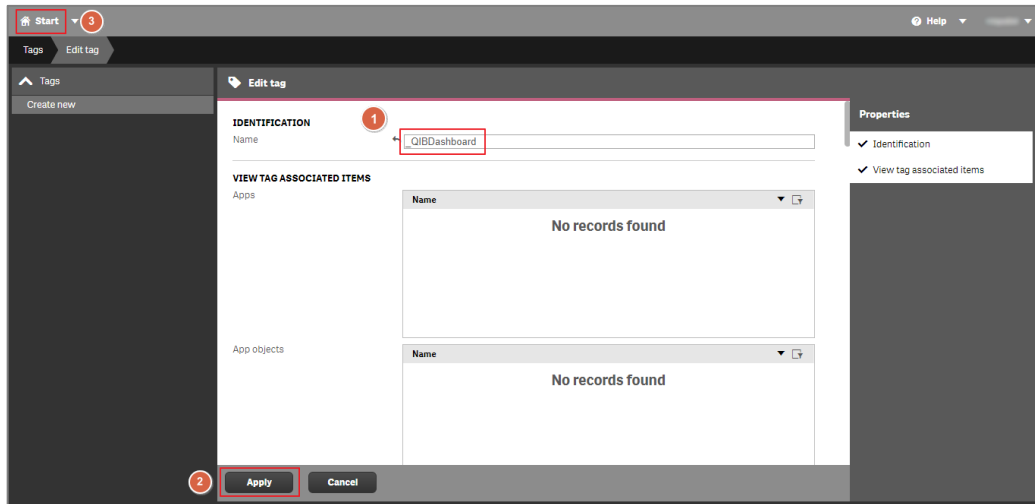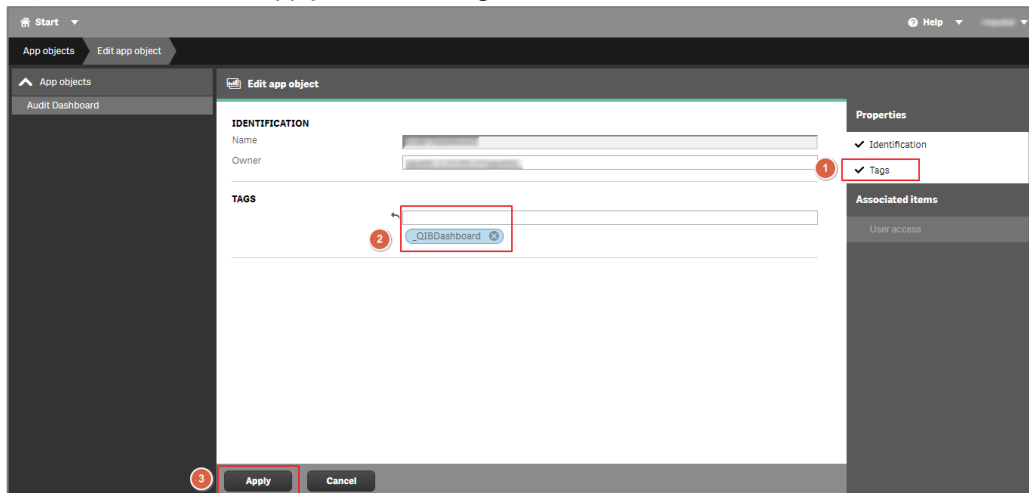

Assign _QIBDashboard tag to sheet

1. Open QMC (Qlik Management Console), select **App Objects** under **Manage Content** from left pane.
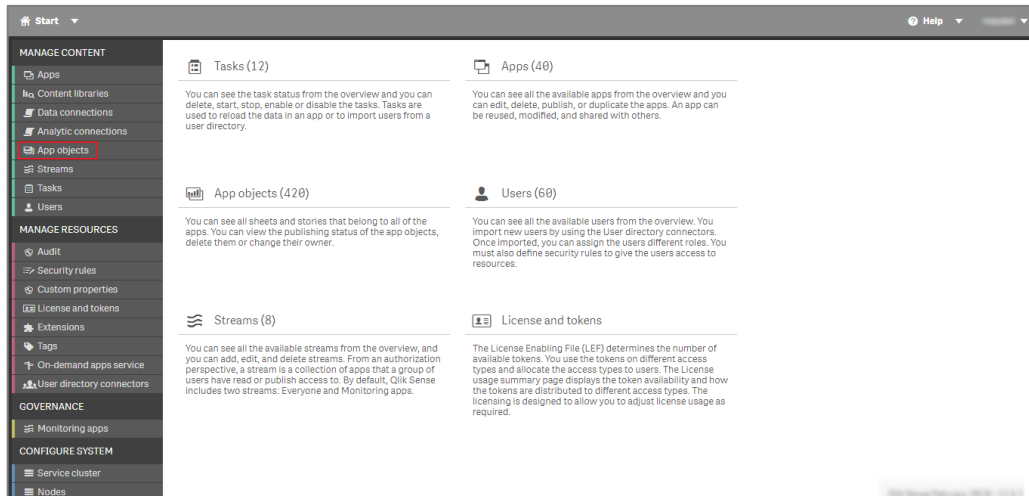
2. Select the sheet which you want to set as a default sheet to be opened.
3. Select **Tags** under **Property** on right pane to enable tags property. Click **Tags** textbox and select **_QIBDashboard**. Click apply to save settings.

Appendix I – Reserved keywords description

Keyword	Definition	Usage
ahead		
alert	It is used as to show alerts to user.	Show alert
alert me	It is used for creating an alert.	Alert me when sales is greater than 5K.
all	In some scenarios, 'All' is used to identify as a whole.	List all cities.
an	'An' can be used as an article in a question. If it is also in the dimension values, it will be identified by Qlik Insight Bot. Hence it should be avoided.	How about an apple.
apps	This is used to show list of all deployed apps	Show apps, apps
bar chart	It is used to specify a chart type in asked question	Create a bar chart for sales by city
clear	This is asked to clear all the applied selections	
clear all	This is asked to clear all the applied selections	
compare	It is asked to identify the question of comparative analysis	Compare sales for New York vs New Jersey
create	It is used in a question which are asked to create a chart	Create a chart of sales by category
current		
dimension	It is asked to show the dimension's list	Show dimension
dimensions	It is asked to show the dimension's list	Show dimensions
disable insights	It is asked to disable the insights	
disable narratives	It is asked to disable the insights	
email	It is asked in the question where user wants to send an email to someone or to set an alert	Email me when sales is greater than 5K Email this to someone
email me	This phrase is used to send an email to own	
enable insights	It is asked to enable the insights	

enable narratives	It is asked to enable the insights	
for	This is used as a preposition	Show me sales for 2019
forecast	This is used as a keyword to identify the question if it is of forecasting	Forecast my sales for next 3 months
from	This is used as a preposition and can be conflict with the same value in dimension	
highest	This is used to identify the question if it is asked for top dimensions by measures	Show me highest selling products
in	This is used as a preposition	
insights disable	It is asked to disable or off the insights	
insights enable	It is asked to enable or on the insights	
insights off	It is asked to disable or off the insights	
insights on	It is asked to enable or on the insights	
kpi	It is asked to show the list of KPIs	Show KPI
kpis	It is asked to show the list of KPIs	Show KPIs
least	This is used to identify the question if it is asked for bottom most dimensions by measure	Show me products with the least selling.
line chart	It is used to specify a chart type	
list	When asked with the dimension, the question is to show list of dimension values	List Cities
lowest	This is used to identify the question if it is asked for bottom most dimensions by measure	Show me lowest selling product
me	It is a part of the phrase "email me" and "alert me"	
measure	It is to show list of measures	Show measure, measure
measures	It is to show list of measures	Show measures, measures
more	This is used to identify the question if it is asked for top dimensions by measures	Alert me when sales is more than 2M

most	This is used to identify the question if it is asked for top dimensions by measures	
narratives disable	It is asked to disable or off the insights	
narratives enable	It is asked to enable or on the insights	
narratives off	It is asked to disable or off the insights	
narratives on	It is asked to enable or on the insights	
off insights	It is asked to disable or off the insights	
off narratives	It is asked to disable or off the insights	
pie chart	It is used to specify a chart type	
select	It is to identify the question if asked for applying any filter/selection	Select New York
show	"Show" is the keyword which is asked in most questions	Show sales, Show measures, Show Dimensions, etc.
show all filters	This is the phrase which can be asked to show all the applied selections	
show all selections	This is the phrase which can be asked to show all the applied selections	
show Apps	This phrase is used to show all the deployed apps	
show dimensions	This phrase is used to display the list of all dimensions	
show KPIs	This phrase is asked to display the list of KPIs	
show measures	This phrase is asked to display the list of measures	
show visualizations	This phrase is asked to display the list of all visualizations	
Surprise Me	This phrase is asked when user wants to show surprise me information with or w/o mentioning dimension or measure	
table	It is used to specify a chart type	
Tell me	This phrase can be in the questions started with tell me	Tell me my sales

Appendix I – Reserved keywords description

the	This is used as the article	
visualizations	This word can be asked to display the list of visualizations	
viz	This word can be asked to display the list of visualizations	
vizs	This word can be asked to display the list of visualizations	
vs	This keyword is used in a question for comparative analysis	Show me sales for new york vs new jersey

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