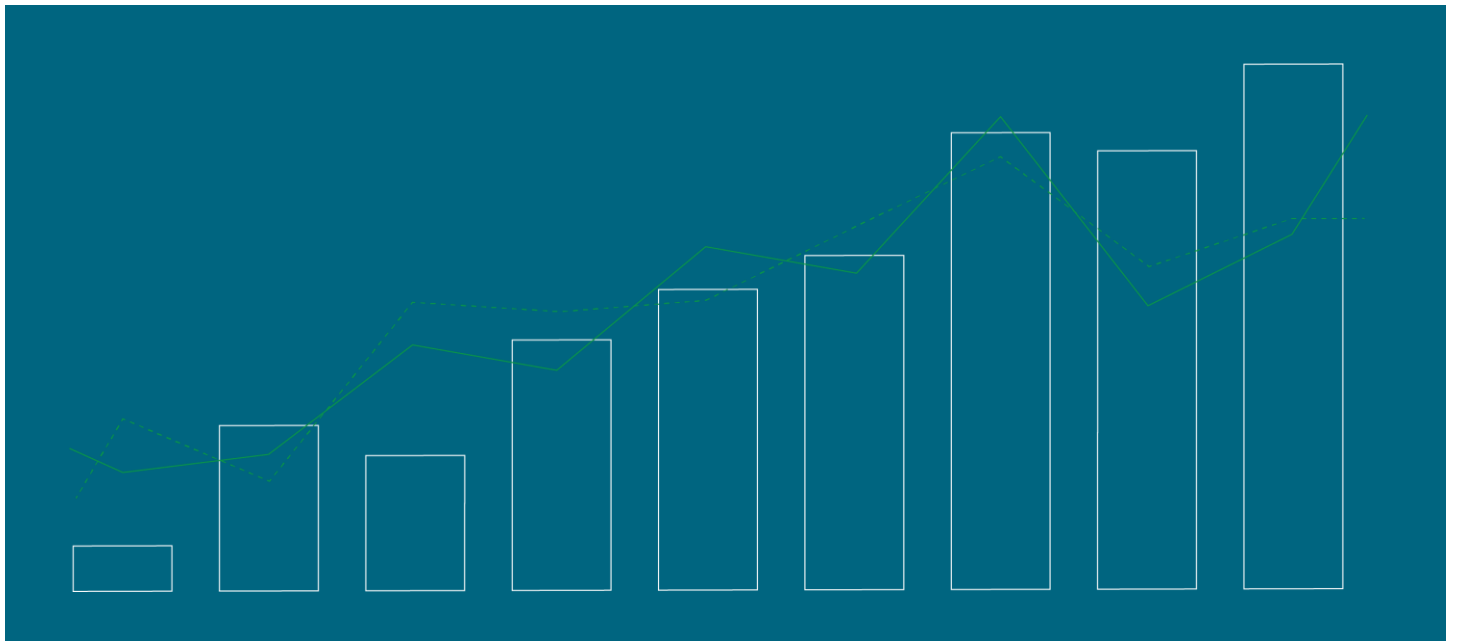


# Qlik2DataRobot Installation Guide

Integrate Qlik with DataRobot



DataRobot

qlik.com

LEAD WITH DATA™ Qlik

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## What's required to get started?

Before you can start integrating Qlik Sense and DataRobot you need to have the following components in place:

- Qlik Sense; this can either be the free Desktop edition which can be downloaded with a QlikID from [qlik.com](https://qlik.com) (a great way to get started and test the integration), or using Qlik Sense Enterprise.
- DataRobot; users will need an API key, which can be found on the account profile page within DataRobot.
- Connectivity from the Qlik2DataRobot application to both Qlik Sense and DataRobot. DataRobot typically runs against an internet facing URL and therefore the appropriate network access must be available to ensure server to server communication.

## Download the extensions

Download the two installation packages required for installation on Windows and pick a location for the server side extension to be run , if not already downloaded to that machine, transfer Qlik2DataRobot Windows Installer.msi to a convenient location on that machine.

- If you are running Qlik Sense Desktop the installation will likely be on the same machine as desktop is running, but does not have to be.
- For Qlik Sense Enterprise you can install on an existing Qlik Sense server, however you are free to install on a separate machine as long as it is accessible by all Qlik Sense nodes running an engine service.

The Qlik2DataRobot installation files can be found at ??

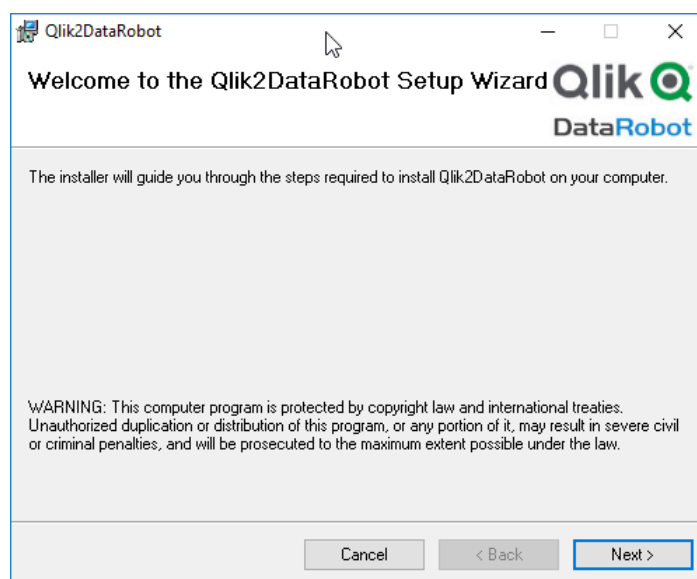
# Qlik2DataRobot (Server Side Extension)

The first component to consider is the Server Side Extension, which will be configured as an Analytic Connector within Qlik Sense. This provides the link between the Qlik associative engine and DataRobot.

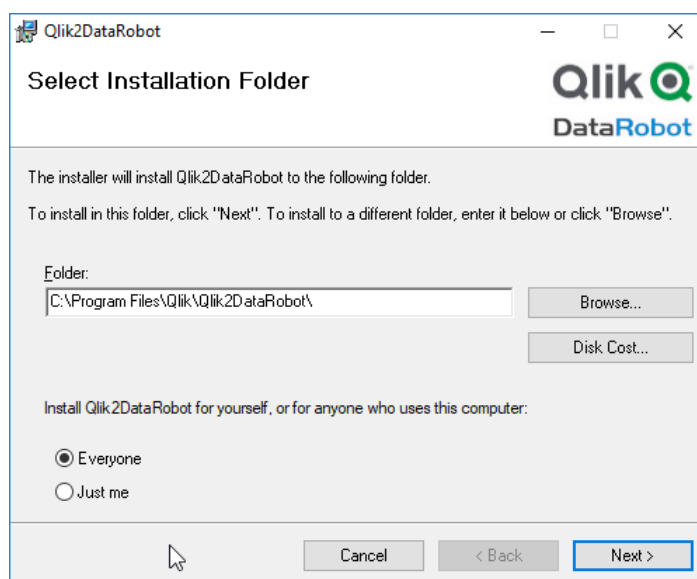
## Installing Qlik2DataRobot on Windows

Installing on Windows is straightforward and achieved through an installation wizard package which will install and configure the application.

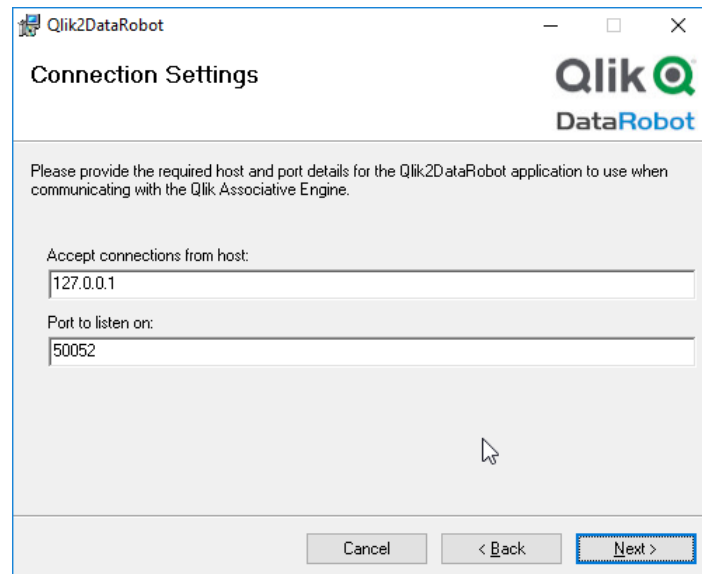
1. Run Qlik2DataRobot Windows Installer.msi



2. Click Next

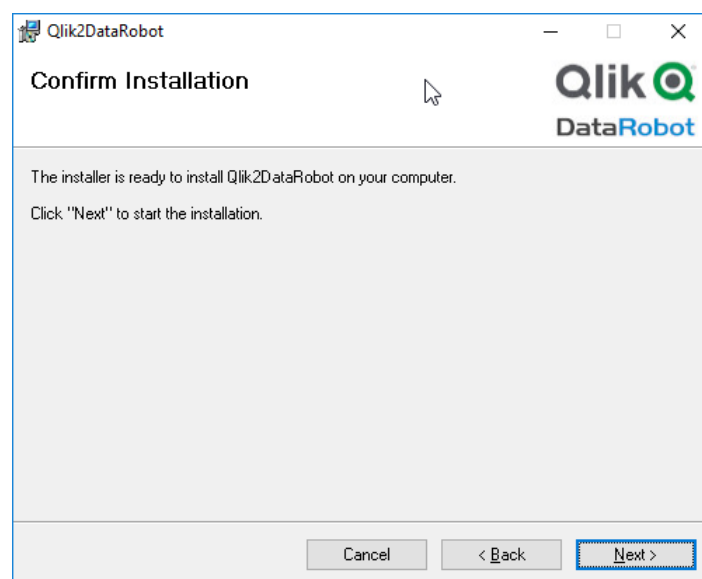


3. Confirm the location you wish to install at click Next

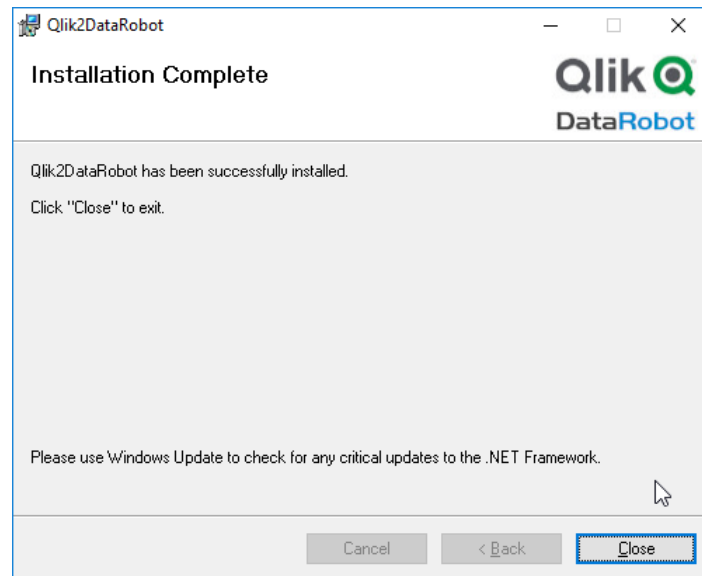


4. Update the connection settings required:

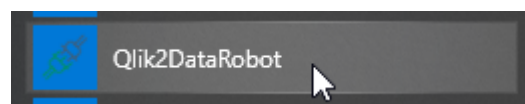
- a. The default settings will only allow connections coming from the local machine, if you are running on a different machine to the Qlik Associative Engine, the host setting will need to change.
- b. The port is arbitrary, however if you already have a connector listening on this port, you will need to set a new one.
- c. These settings can be changed post installation by editing a configuration file.
- d. Click Next



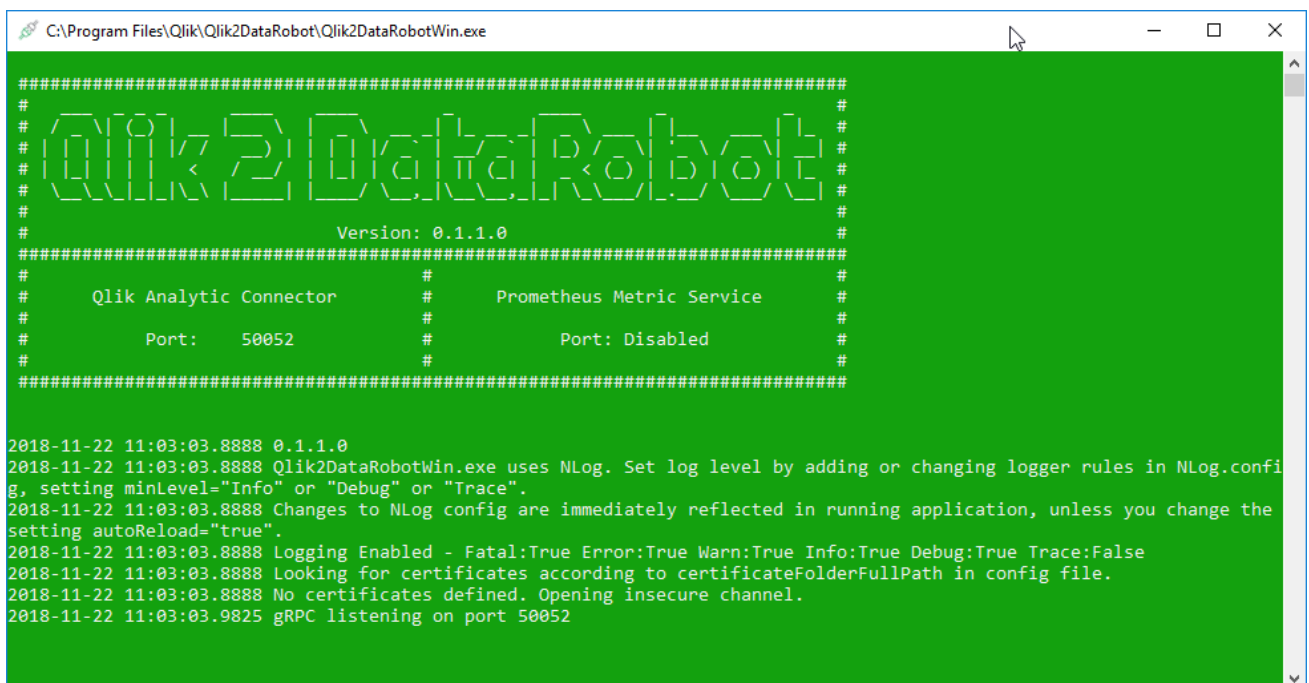
5. Click Next



6. Once installation has completed, click Close



7. A new shortcut is provided on the windows application list. Launch the application.

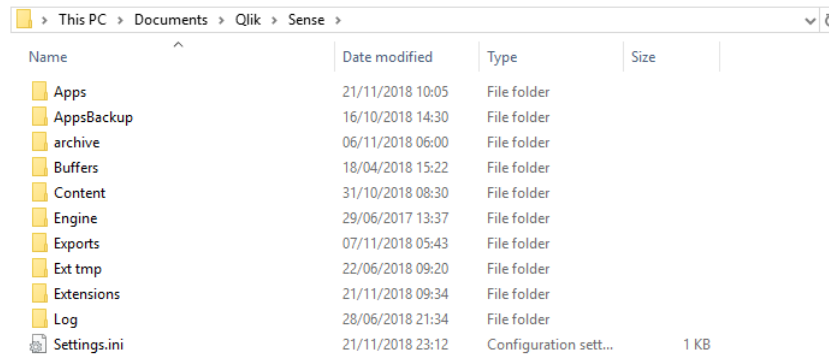


8. Confirm that Qlik2DataRobot is running. The application needs to be left open for the connectivity to work (you can minimize the window).

9. Always launch Qlik2DataRobot before starting Qlik Sense as the connection is made on start up.

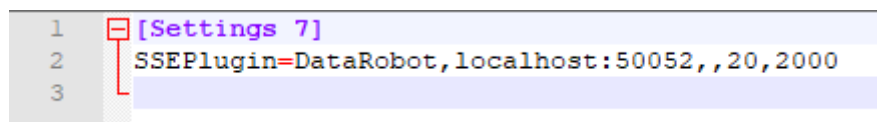
## Configuring Qlik Sense Desktop

Configuration of Qlik Sense Desktop is done using the `Settings.ini` file located at:



Name	Date modified	Type	Size
Apps	21/11/2018 10:05	File folder	
AppsBackup	16/10/2018 14:30	File folder	
archive	06/11/2018 06:00	File folder	
Buffers	18/04/2018 15:22	File folder	
Content	31/10/2018 08:30	File folder	
Engine	29/06/2017 13:37	File folder	
Exports	07/11/2018 05:43	File folder	
Ext tmp	22/06/2018 09:20	File folder	
Extensions	21/11/2018 09:34	File folder	
Log	28/06/2018 21:34	File folder	
Settings.ini	21/11/2018 23:12	Configuration sett...	1 KB

1. Open this file (or create one if it does not exist).



```
1 [Settings 7]
2 SSEPlugin=DataRobot,localhost:50052,,20,2000
3
```

2. Within the `[Settings 7]` section add a `SSEPlugin` line:

**`SSEPlugin=DataRobot,localhost:50052,,20,2000`**

- a. If other plugins have been installed, the connection should be appended to the end of the line, delimited with a semi-colon:

**`SSEPlugin=R,localhost:50051,,2000,2000;DataRobot,localhost:50052,,20,2000`**

3. Ensure there is a blank line at the end of the text file.
4. Start Qlik Sense Desktop, if everything is configured correctly a new log entry should appear in the Qlik2DataRobot window.

```
C:\Program Files\Qlik\Qlik2DataRobot\Qlik2DataRobotWin.exe

#####
#                               #
# Qlik2DataRobot                #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#                               #
#####

Version: 0.1.1.0

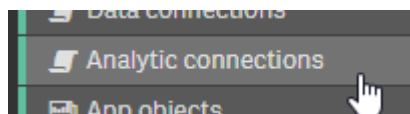
#####
#                               #
# Qlik Analytic Connector        # Prometheus Metric Service      #
#                               #                               #
# Port: 50052                   # Port: Disabled                 #
#                               #                               #
#####

2018-11-22 11:03:03.8888 0.1.1.0
2018-11-22 11:03:03.8888 Qlik2DataRobotWin.exe uses NLog. Set log level by adding or changing logger rules in NLog.config, setting minLevel="Info" or "Debug" or "Trace".
2018-11-22 11:03:03.8888 Changes to NLog config are immediately reflected in running application, unless you change the setting autoReload="true".
2018-11-22 11:03:03.8888 Logging Enabled - Fatal:True Error:True Warn:True Info:True Debug:True Trace:False
2018-11-22 11:03:03.8888 Looking for certificates according to certificateFolderFullPath in config file.
2018-11-22 11:03:03.8888 No certificates defined. Opening insecure channel.
2018-11-22 11:03:03.9825 gRPC listening on port 50052
2018-11-22 12:28:54.7097 GetCapabilities called
```

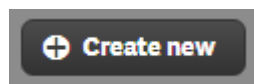
## Configuring Qlik Sense Enterprise for Windows

Configuration of Qlik Sense Enterprise is performed through the QMC:

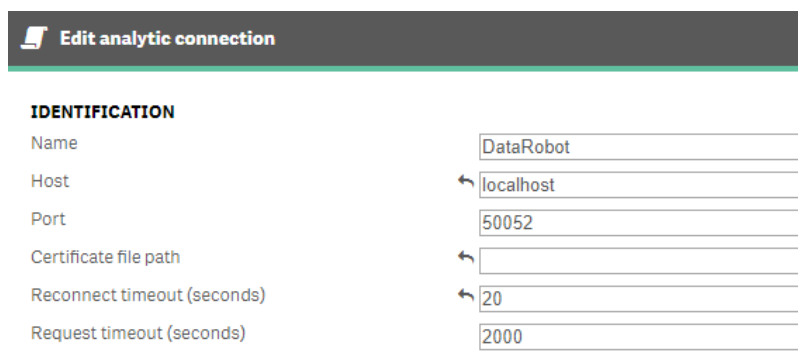
1. Navigate to the QMC for the qlik sense site



2. Select Analytic connections



3. Click Create new

 **Edit analytic connection**

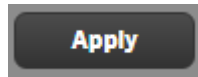
**IDENTIFICATION**

Name	<input type="text" value="DataRobot"/>
Host	<input type="text" value="localhost"/>
Port	<input type="text" value="50052"/>
Certificate file path	<input type="text"/>
Reconnect timeout (seconds)	<input type="text" value="20"/>
Request timeout (seconds)	<input type="text" value="2000"/>

4. Enter the correct details to refer to the host and port you set when configuring the application above.



*The name by default should be called **DataRobot**. If you choose to change this, you will need to make additional changes when configuring the client extension and script code snippets.*



5. Click **Apply**
6. All Qlik engines will attempt to connect to Qlik2DataRobot and you should see a *GetCapabilites* log item for each request.

# Qlik2DataRobot (Client Extension)

Qlik Sense client extensions are distributed as .zip files. The client extension for Qlik2DataRobot is called:

- qlik2datarobotext.zip

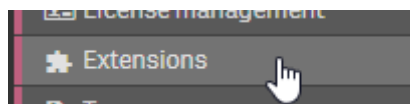
## Installing on Qlik Sense Desktop

Unzip the contents of the file and copy to the extension folder, by standard located at:

- Documents\Qlik\Sense\Extensions
- The files should be placed in a folder called qlik2datarobotext

## Installing on Qlik Sense Enterprise for Windows

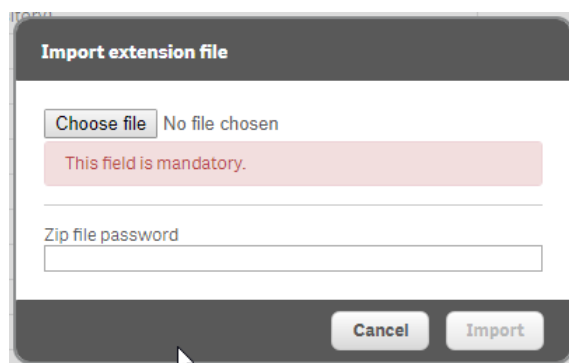
Import the zip file using the QMC



1. Click Extensions



2. Click Import



3. Select the zip file and click Import



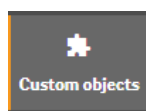
4. Confirm that the extension is listed in the extension list

# Using Qlik2DataRobot

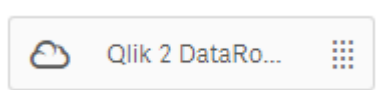
## Sending data to DataRobot from Qlik Sense

Sending data from a Qlik application happens after the app has been loaded. The transfer is configured and triggered by the client extension. The data sent will be limited to that included in selections made by the user. All data transfers happen via the server side extension and no data is sent to or via the client browser.

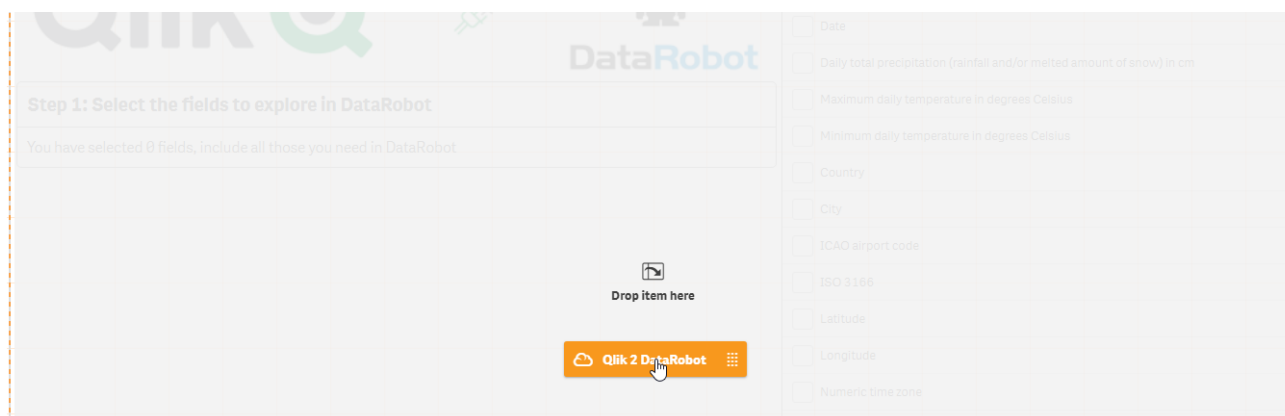
Add the Qlik 2 DataRobot extension from the Custom object menu:



1. Select Custom objects



2. Drag Qlik 2 DataRobot onto the sheet



3. Configure the extension:

DataRobot

API Endpoint

Web Endpoint

API Token

Analytic Connector

4. Enter your **API Token**, the other endpoints should not need changing, however if you have a different configuration they can be entered here.



5. Click Done

**Step 1: Select the fields to explore in DataRobot**

You have selected 6 fields, include all those you need in DataRobot

---

**Step 2: Send the data to DataRobot and create a new project**

Project Name

Create DataRobot Project

**Field List (6)**

- ☐ qlik\_datamarket\_52kp\_dim\_8vpe
- ☒ Date
- ☒ Daily total precipitation (rainfall and/or melted amount of snow) in cm
- ☒ Maximum daily temperature in degrees Celsius
- ☒ Minimum daily temperature in degrees Celsius
- ☒ Country
- ☒ City
- ☐ ICAO airport code
- ☐ ISO 3166
- ☐ Latitude
- ☐ Longitude
- ☐ Numeric time zone
- ☐ Olson time zone

6. Select the fields you wish to send to DataRobot

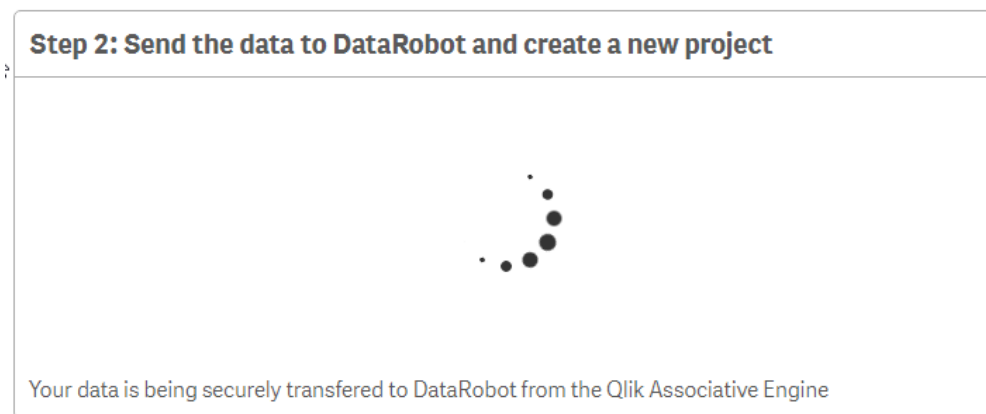
**Step 2: Send the data to DataRobot and create a new project**

Project Name

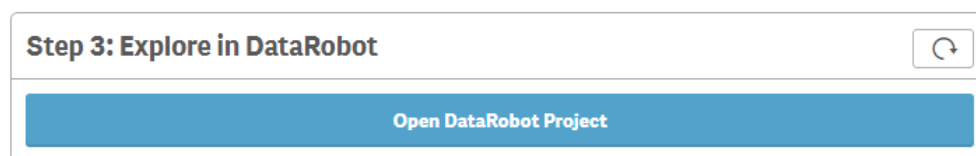
Weather Data Analysis

Create DataRobot Project

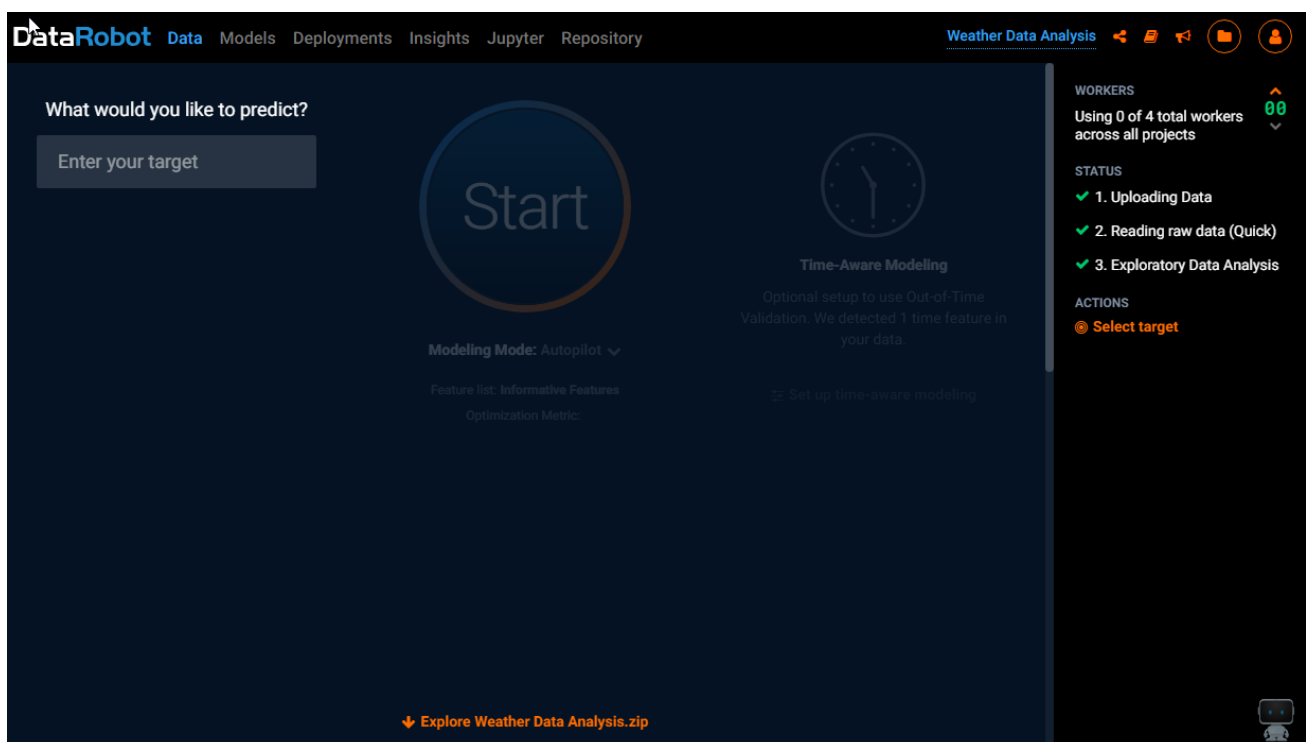
7. Enter the Project Name and click Create DataRobot Project



8. Wait for the data to transfer

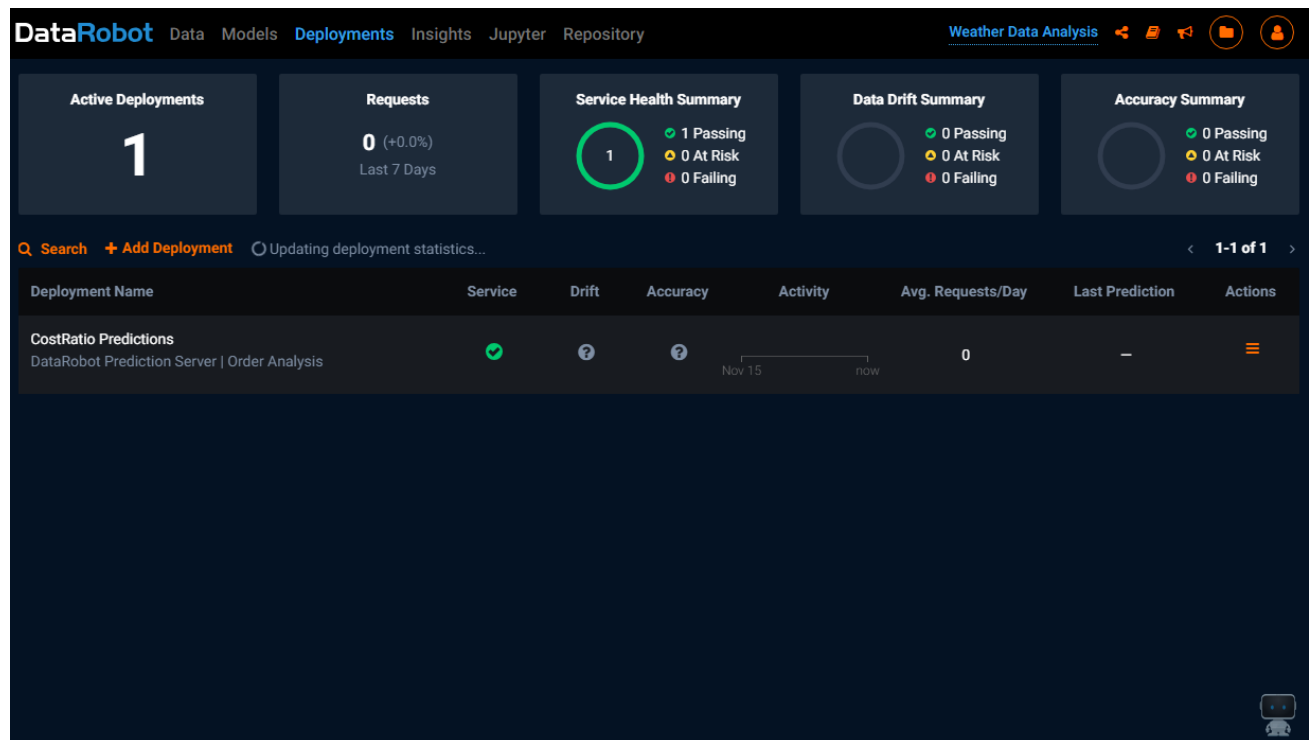


9. Once the data transfer is complete, click Open DataRobot Project to launch in a new browser window.



# Consuming a published DataRobot Deployment

This section is under construction and not supported in version 0.1.1



The screenshot shows the 'Integrations' page for the 'CostRatio Predictions' deployment. The top navigation bar is the same as the previous screenshot. The 'Integrations' tab is selected in the sub-navigation bar. The page title is 'Integrations' and the subtitle is 'Connect this deployment's predictions with downstream applications.' Below this, there is a section for 'View code for: Python' with a 'Copy to clipboard' button. The code block contains the following Python code:

```
# Usage: python datarobot-predict.py <input-file.csv>

# This example uses the requests library which you can install with:
# pip install requests
# We highly recommend that you update SSL certificates with:
# pip install -U urllib3[secure] certifi
import requests
import sys

API_TOKEN = '...'
USERNAME = '...'
DEPLOYMENT_ID = '...'

# Set HTTP headers
# Note: The charset should match the contents of the file.
headers = {'Content-Type': 'text/plain; charset=UTF-8', 'datarobot-key': '...'}

data = open(sys.argv[1], 'rb').read()
```



## About Qlik

Qlik is on a mission to create a data-literate world, where everyone can use data to solve their most challenging problems. Only Qlik's end-to-end data management and analytics platform brings together all of an organization's data from any source, enabling people at any skill level to use their curiosity to uncover new insights. Companies use Qlik to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik does business in more than 100 countries and serves over 48,000 customers around the world.

**[qlik.com](https://www.qlik.com)**

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