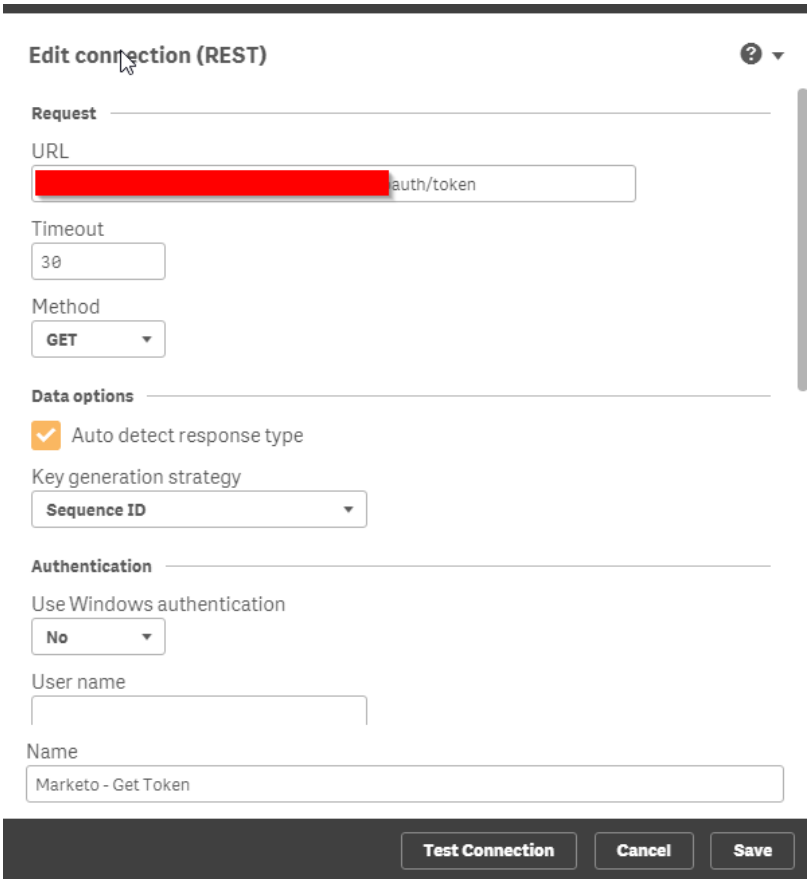
Handling Refresh Tokens with the Qlik REST Connector

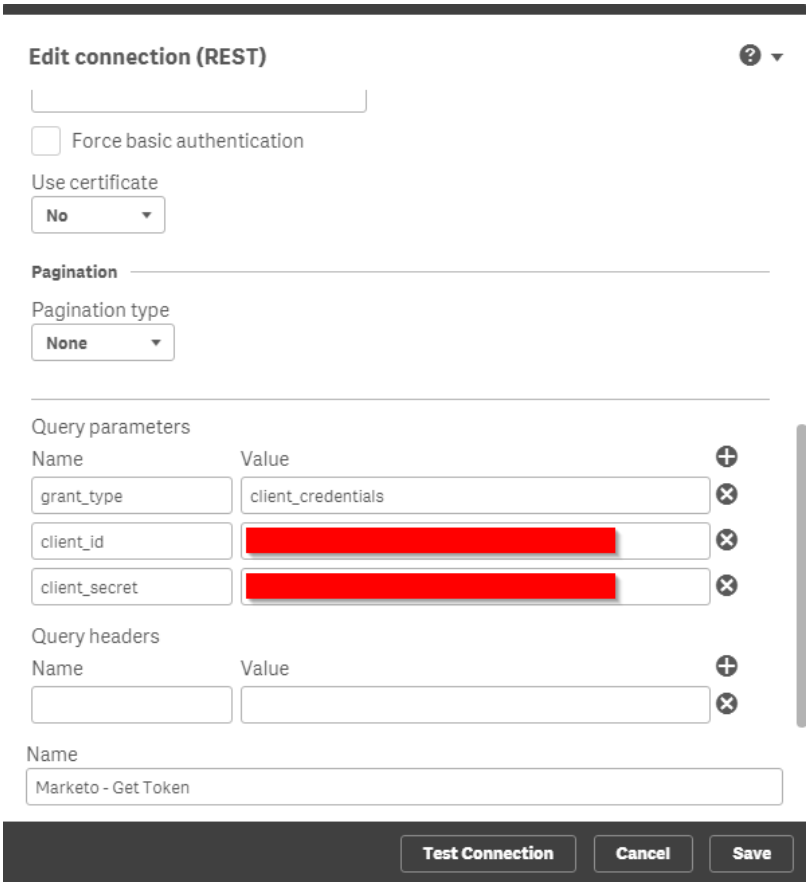
INTRODUCTION

When dealing with OAuth2, it is common to have a two-step process which involves you first requesting a refresh token, and then using that returned access token in the subsequent request. Qlik's out of the box REST connector doesn't allow for the input of variable parameters in its UI, so at first glance, it appears as if every time you load your application, you would have to first generate a new refresh token and manually input it into the second REST call. There is in fact a way to make this process dynamic however by levering the 'WITH CONNECTION' clause. We must alter the existing connection in the script to make it dynamic.

First, fill out the URL that you will use to fetch the refresh token.



Then, fill in your query parameters. Test the connection, give the connection a name, and save it.



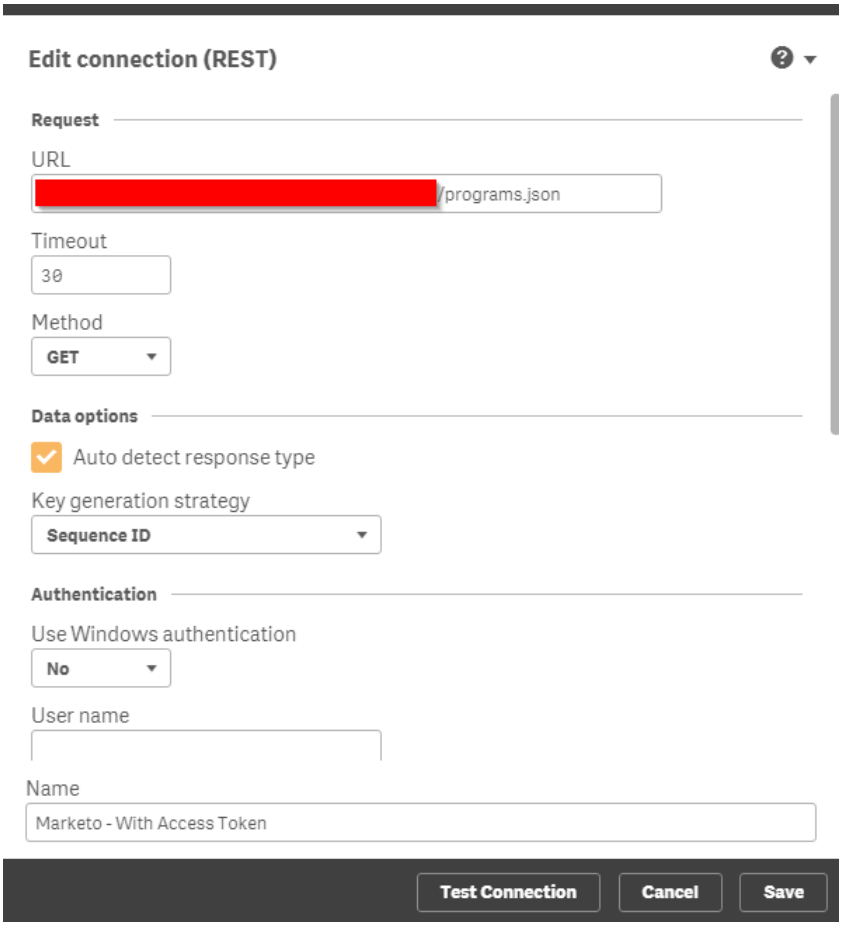
Once saved, click ‘select data’ on the connection in the right hand panel, make sure that the entire ‘root’ is selected, and insert the script.

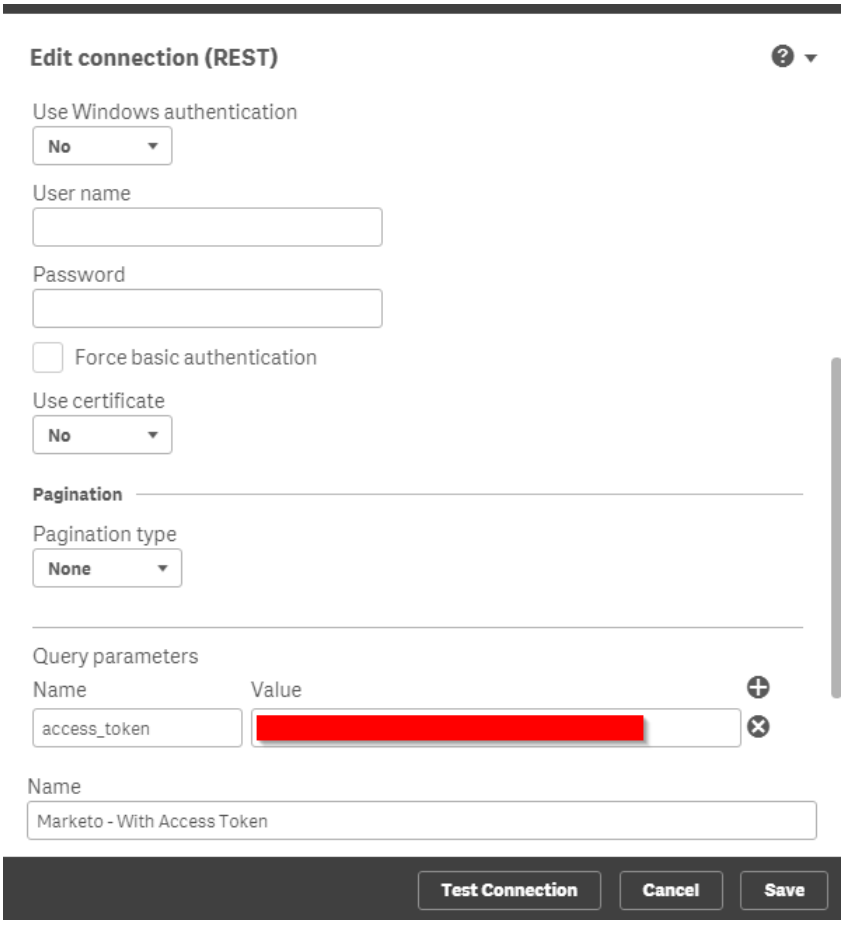
```
RestConnectorMasterTable:
SQL SELECT
        "access_token",
        "token_type",
        "expires_in",
        "scope"
FROM JSON (wrap on) "root";


[root]:
LOAD  [access_token] AS [access_token],
        [token_type] AS [token_type],
        [expires_in] AS [expires_in],
        [scope] AS [scope]
RESIDENT RestConnectorMasterTable;


DROP TABLE RestConnectorMasterTable;
```

Once the script is inserted, you will need to take that token that you’ve just received and insert it into a new REST connection. To do so, use the Peek() function to grab the value and then trace it to the console so you can copy it. You will only have to manually copy it a single time, as you cannot create the next successful REST connection without it.

```
LET vAccessTokenValue = Peek('access_token');
trace $(vAccessTokenValue);
```

Once you’ve copied that token, you can now create your new REST connection. The first connection will have a static value, but once that connection is made, we can alter it to be dynamic.





Test the connection, give the connection a name, and hit save.

Now ‘select data’ from the connection you just made, select the data, and insert the script. Now we can alter that connection with a ‘WITH CONNECTION’ clause which will override the current connection’s settings, allowing us to use variables.

Modify your new ‘RestConnectorMasterTable’ with something along the lines of the following:

```
LIB CONNECT TO 'Marketo - With Access Token';


RestConnectorMasterTable:

SQL SELECT

……

FROM JSON (wrap on) "root" PK "__KEY_root"

WITH CONNECTION (

   URL "https://mysecreturl/programs.json",

   HTTPHEADER "Authorization" "Bearer $(vAccessTokenValue)"

);
```

Now with every reload, Qlik will first request a new refresh token, then store it into a variable, and finally use that token in the following REST call to complete the authorization.