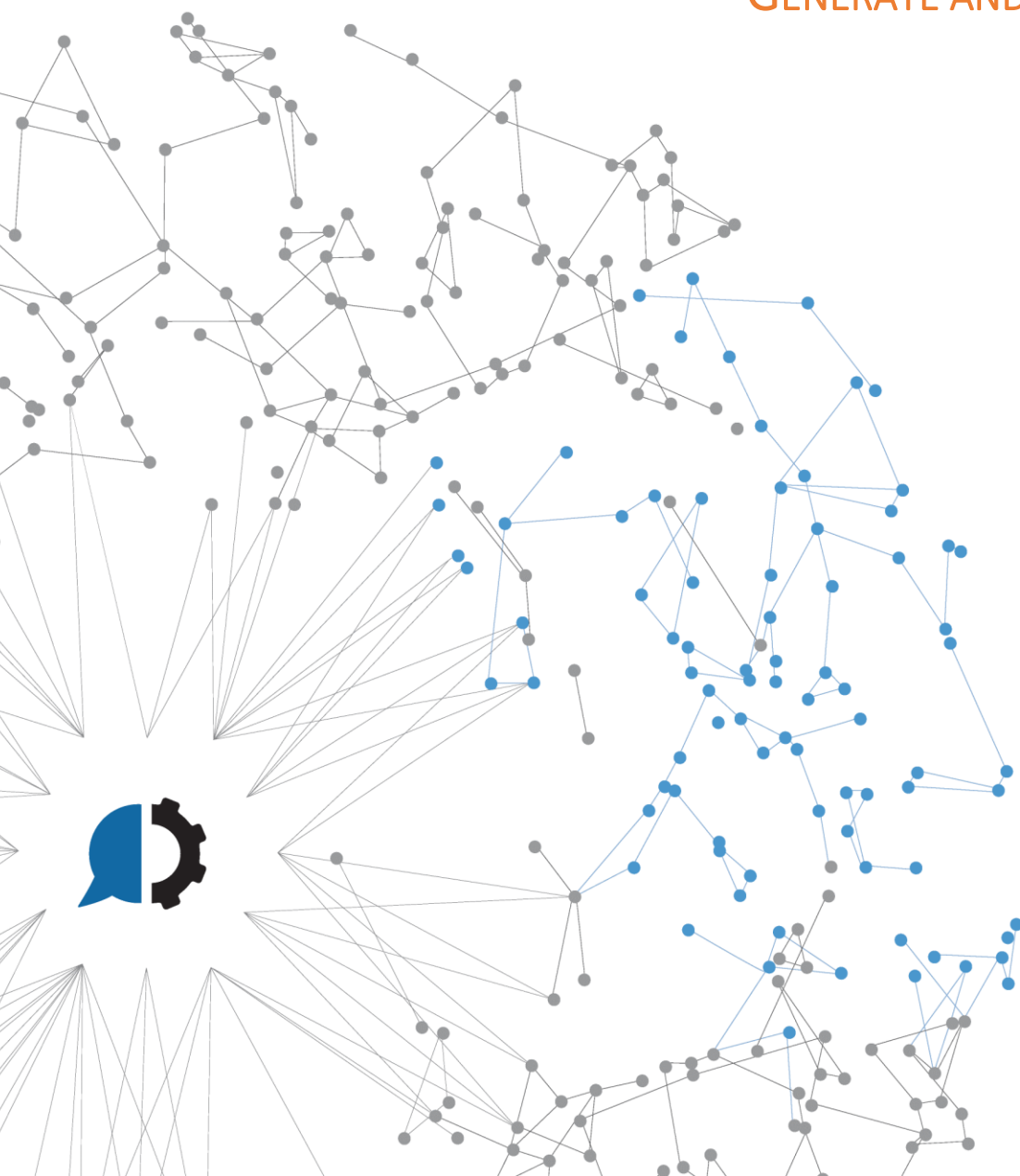




GOOGLE BOT

GENERATE AND REFRESH TOKEN





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A blue graphic on the left side of the page, consisting of a series of overlapping rectangles that form an arrow pointing to the right.

OVERVIEW

This how to guide introduces the *Google Bot - Generate and Refresh Token*. Instead of spending precious time and resources on repetitive, manual tasks, let Automate go to work and streamline your IT and business processes with robotic process automation. Automate can take over the manual steps which greatly reduces repetitive activities and improves the quality and consistency of the work. The top processes being automated are report generation, file movement, data import and export, and scheduling batch processing.

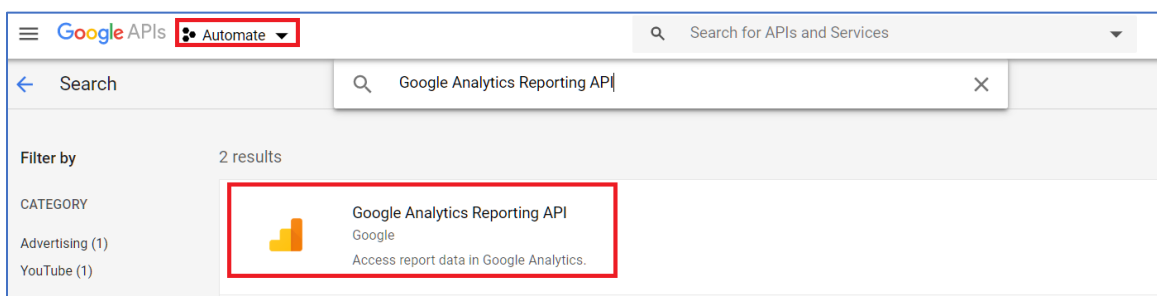
The *Google Bot - Generate and Refresh Token* is based in the *Google Identity Platform*. It executes the [OAuth2](#) access token request to the URI *"oauth2.googleapis.com/token"* provided by Google for the OAuth Authorization Code Workflow. It uses a *"grant_type"* parameter with *"authorization_code"* (authorization code workflow) type at first time token generation. Once the token is generated within the first execution of the bot, it will use a *"grant_type"* with *"refresh_token"* in order to refresh the token during next executions. The expiration time for the token is by default 1 hour. We recommend to analyze its behavior and set the execution of the bot according to your needs in order to use the generate token on a daily basis and make any Google Bot work with it. You can use a single bot to maintain the token obtained with the Authorization Code associated with more than one security scope or, if you create various client IDs, you can make copies of this bot to individually maintain various tokens associated with different Auth Codes associated Scopes.

Carefully check the [PREREQUISITES](#) and the [HOW TO EXECUTE THE GOOGLE BOT - GENERATE AND REFRESH TOKEN](#) sections to get detailed information.

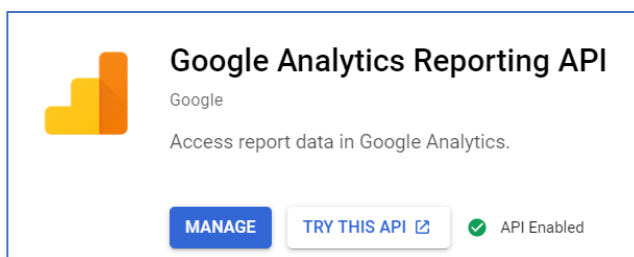


PREREQUISITES

- **Automate:** The Google Bot depends on Automate software in order to work. The minimal supported versions are:
 - [Automate Ultimate 11.2](#)
 - [Automate Plus 11.2](#)
 - [Automate Desktop 11.2](#)
- **Automate Markup Language file (.AML):** The primary file type used in Automate which contains the steps of our Google Bot task
- **Google API:** In this *example* we will use the **Google Analytics Reporting API**, *but the procedure is the same for other Google APIs*:
 - **Enable the Google API of your interest in your Google account:** In order to be able to connect through API to the Google, you need to enable it within your developer console account. To do so, enter to the console with this [link](#). Once login and it is the first time you enter, you will be asked to create a project, all your integrations with google will be associated to a project. In next image you can see that we named the project “Automate”. Go to API [library](#) menu in the left and look for the Google API:

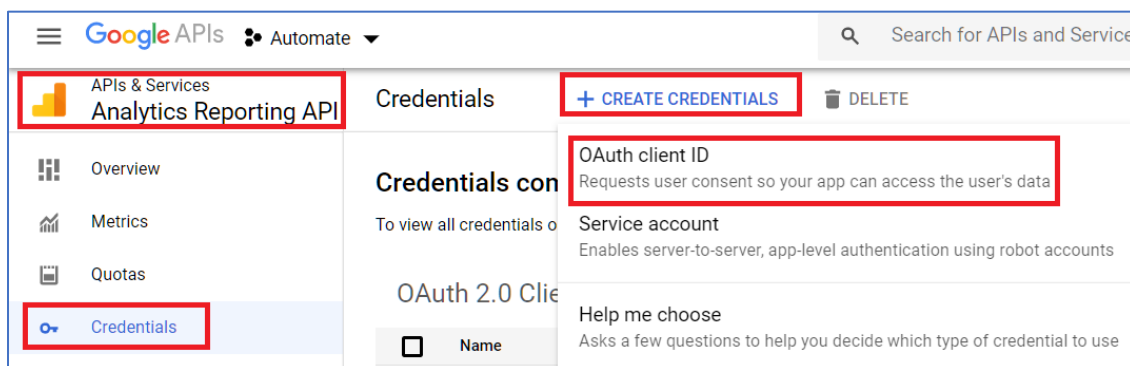


Once enabled the status will be shown as this:





- [Create a credential within the Google API](#): Once the API is enabled, you will need to create a **“OAuth 2.0 Client IDs”** credential in order to obtain the necessary values for connection (Client ID and Secret):



After selecting OAuth client ID, you will be presented with next screen. Complete the necessary information:

Select “Web application” as the type:

Assign a name to the credential:

Set a proper redirect URI for callback. This is for example for getting the Authorization Code later in your browser. Example: <http://myautomatesandbox.com/callback>

Once created, you will be provided with the Client ID and the Client Secret. Save them safely, you will use them later for the Bot Configuration.



- **Authorization Code for first execution:** Once the credential for the Google API is created and configured you will be able to get the Authorization Code needed for first time Bot Execution to obtain the Token and Refresh Token. For this you will need to open in your browser the URL shown later (change the **#CLIENT_ID#** and **#RedirectURI#** with yours) and you will receive the Authorization code in your browser address bar. Note that in the URL we must specify the **scopes** needed and the **redirect URI**. In this example the scope is **"https://www.googleapis.com/auth/analytics.readonly"**. This allows read-only access to the Google Analytics Data. You will need to provide your login information and once you accept the request permission, you'll get the Auth Code within your browser address bar.

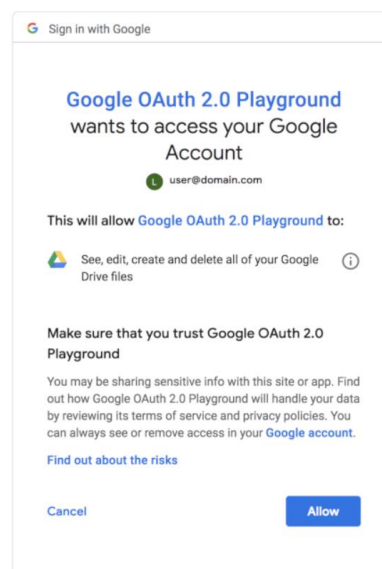
Remember that the Code is associated to the username provide when login, as well the token generated with the Auth Code gotten. So, the token generated by using this authorization code will be associated with this username.

Next you can find an example of the request URL, the Acceptance Window and how you get the code:

Authorization Code Request URL:

https://accounts.google.com/o/oauth2/v2/auth?scope=https://www.googleapis.com/auth/analytics.readonly&access_type=offline&include_granted_scopes=true&response_type=code&redirect_uri=#RedirectURI#&client_id=#CLIENT_ID#

Example of an Acceptance Window:



Authorization Code in browser address bar:

http://example.com/callback/?code=eyJ0eXAiOi...81QFsje43QVZ_gw&state=a39fh23hnf23



- **Some Google APIs scopes that you might need for the Google Bots:** Here's a list of other scopes for the different Google APIs. Select the one needed according to the task that will be performed. For example, if you just want to get data (not edit) from a file in Google Drive, you might select the *"https://www.googleapis.com/auth/drive.readonly"*.
 - [Google Analytics Reporting API:](#)
`https://www.googleapis.com/auth/analytics.readonly`
`https://www.googleapis.com/auth/analytics`
 - [Google Drive API:](#)
`https://www.googleapis.com/auth/drive.readonly`
`https://www.googleapis.com/auth/drive.file`
`https://www.googleapis.com/auth/drive`
 - [Google Sheets API:](#)
`https://www.googleapis.com/auth/spreadsheets`

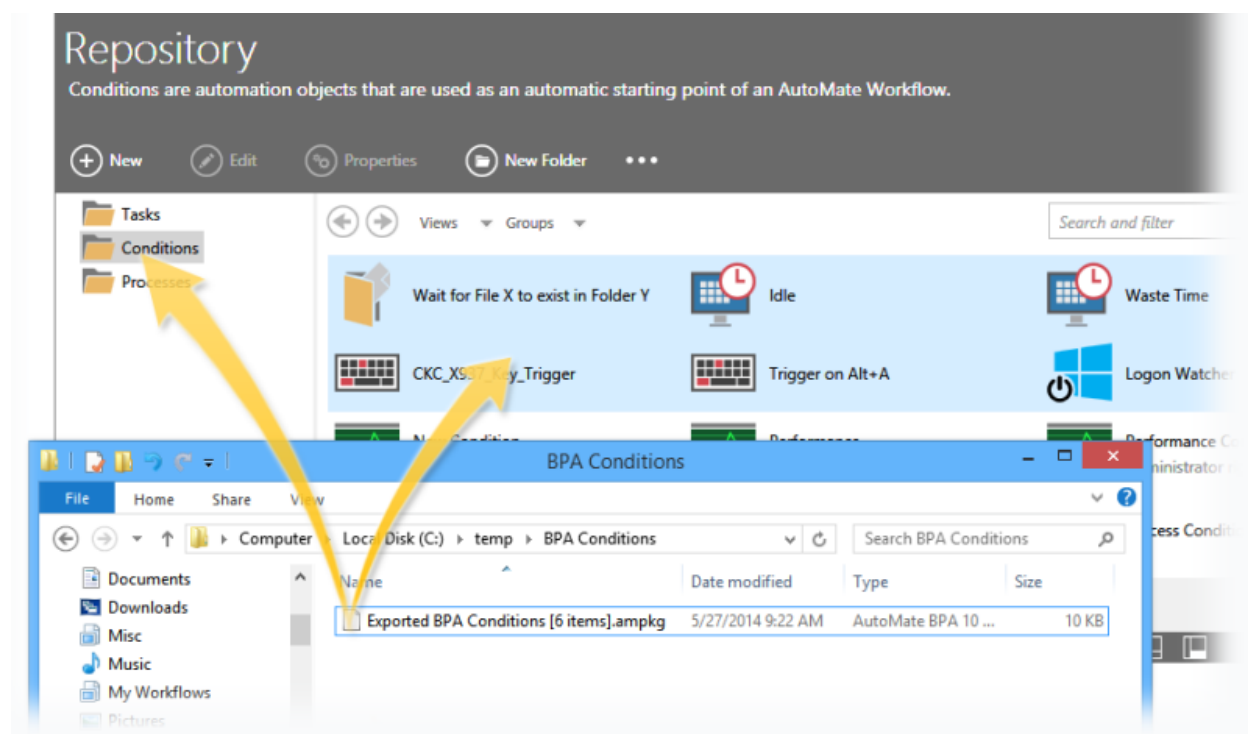


HOW TO IMPORT AN AUTOMATE TASK

Compatible file types can be imported to the repository via drag-and-drop

From the [Server Management Console](#), navigate to the Repository section

Drag the desired file(s) from its original location and drop them into the folder in the [SMC](#). Files can be dropped into the folder icon or the main panel (as shown below). Imported object(s) are automatically placed into their corresponding repository location.



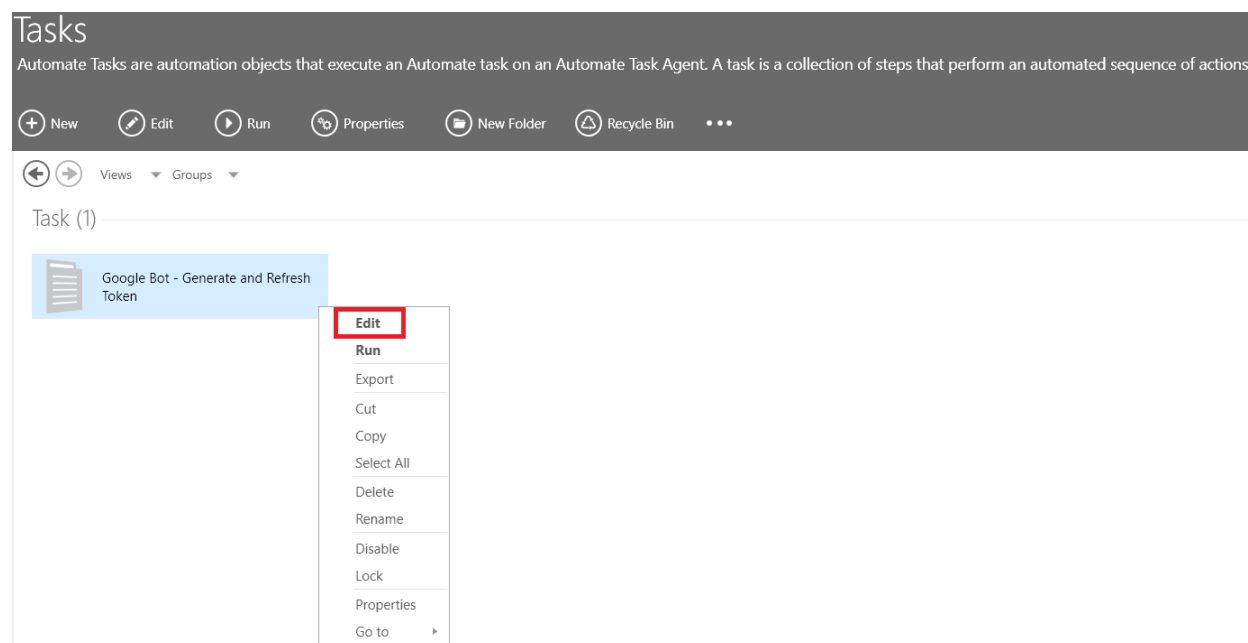


HOW TO EXECUTE THE GOOGLE BOT - GENERATE AND REFRESH TOKEN

If this is the first time running this task, we will need to set some parameters

Open the [Server Management Console](#) and locate the imported task

Edit the imported task by right clicking on the task and selecting [edit](#)



From [step 2](#) edit the next variables according to you desired output:

- [var_GetTokenURL](#): The URL used to request a Google Token. It is set to the default URL provided by Google:

<https://oauth2.googleapis.com/token>

- [var_AuthCode](#): This is the Authorization Code gotten during step by step provided by Google (mentioned in the prerequisites). This is used just when first running in case a token and the refresh token do not exist.
- [var_RedirectUri](#): The URL for redirection. By default, it is set to <http://localhost>. We don't really need this value for the Bot operation but it is a requisite and needs to correspond with your credential configuration.
- [var_ClientId](#): This **ID** is unique to your credential and is used for initiating OAuth.
- [var_ClientSecret](#): This will be the **Client Secret** generated within the Google credential created.



- **var_TokenFileOutput:** This will be the path and filename in which you want the bot to create the txt file with the token and token refresh string generated. Default:

C:\Automate\GoogleToken.txt

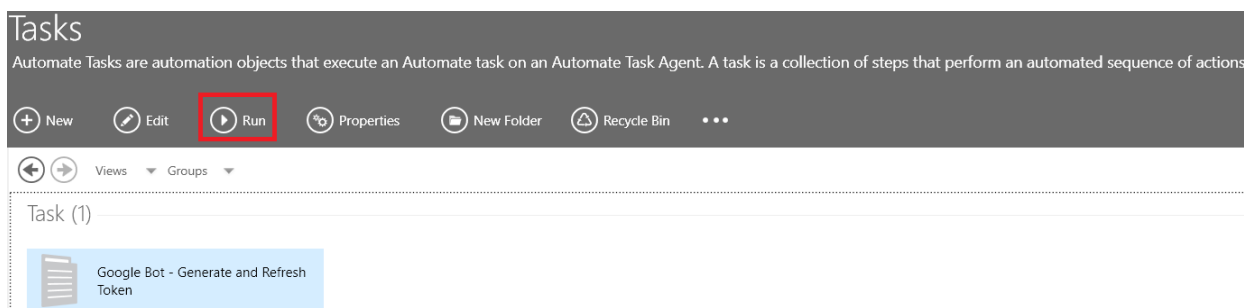
Here is an example of the content of the text file generated:

```
*GoogleToken.txt - Notepad
File Edit Format View Help
access_token:ya29.a0AfH6SMB7Tz6BVRHJdismCT84lwLer1w
refresh_token:1//0hKeHgPAAzz5bCgYIARAAGBESNwF-L9Ir0
```

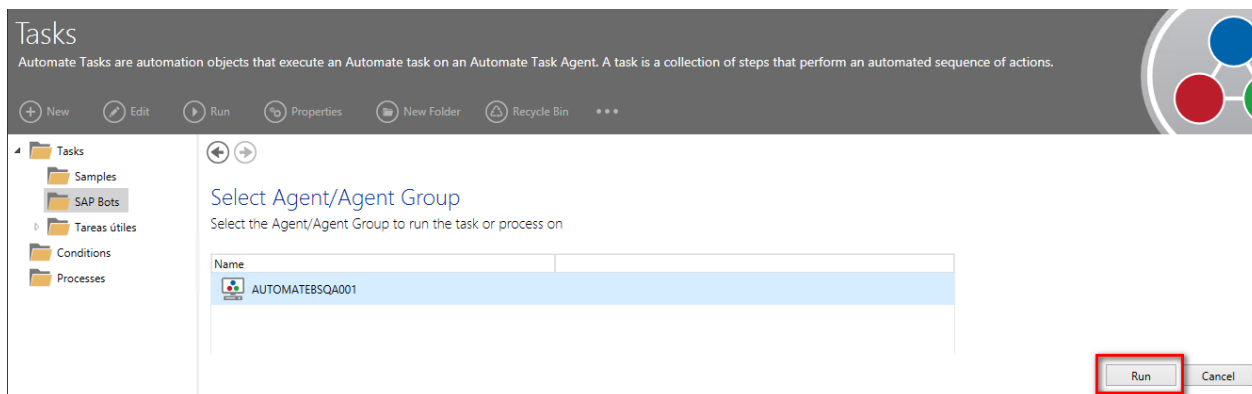
IMPORTANT: If the **Authorization Code** is changed, you need to delete this file before first Bot Execution.

Save and close the task

Select the task and click on **Run**



Select your **Agent** and click on **Run** again





APPENDIX A - TROUBLESHOOTING

- Logs: Each iteration of our bot creates a log file for troubleshooting. You can locate the log file under C:\Automate\Tasks\<<TASK NAME>>. By default, the task name is *Google Bot - Generate and Refresh Token*.



About HelpSystems

Organizations around the world rely on HelpSystems to make IT lives easier and keep business running smoothly. Our software and services monitor and Automate processes, encrypt and secure data, and provide easy access to the information people