

# Synoptic API Account and Token Creation and Usage

NWS WR STID Updated 12/21/2023

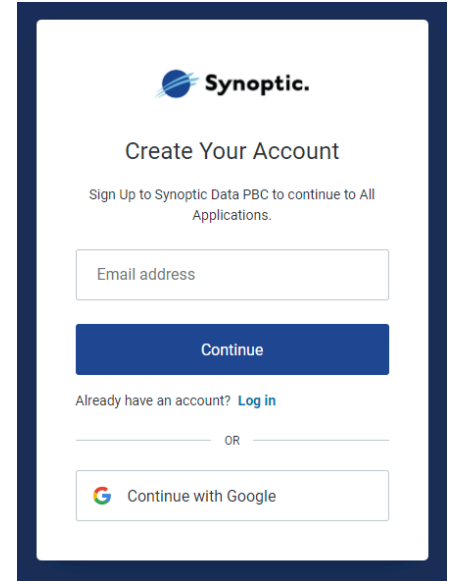
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## 1. Create your Synoptic API Account

**Sign up here:** <https://customer.synopticdata.com/>

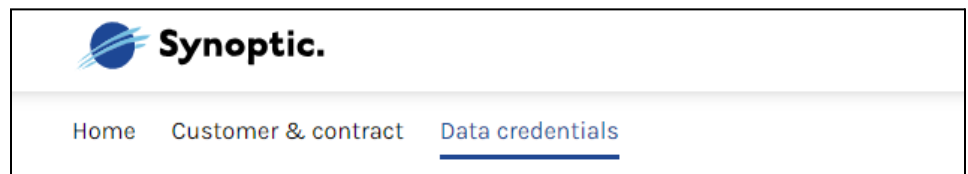
It is important that you sign up using your official @noaa.gov email address in order to have access to limited services from Synoptic Data.

The best way to ensure the account is linked is to select “Continue with Google” on the login screen and sign in with your @noaa.gov account. The first time, it will prompt you to create the account. In the future, sign in the same way.

A screenshot of the Synoptic 'Create Your Account' page. The page has a white background with a dark blue border. At the top is the Synoptic logo. Below it is the heading 'Create Your Account'. Underneath is a sub-heading 'Sign Up to Synoptic Data PBC to continue to All Applications.' There is a text input field for 'Email address'. Below that is a blue 'Continue' button. Further down is a link 'Already have an account? Log in'. Below that is an 'OR' separator. At the bottom is a 'Continue with Google' button with the Google logo.

It is possible to create an independent Synoptic API account without signing in via google, but be sure to use the correct email address.

2. **Manage Data Credentials** Upon a successful login to Synoptic, navigate from the home page to the Data Credentials Page using the top nav bar:



A **private key** should exist upon creating your account, but you can use “Create a Key” to do so if none exists. These keys are generally irrelevant for our own needs, but one needs to exist in order to create a **public token**, which is used to access the API.

## Private keys

Keys are used to manage tokens. You cannot make requests with our data products using keys.

Description	Key	Created
--	[REDACTED]	09 May 2022

Create a key

## Public tokens

We are currently limited to showing you up to the first 100 tokens on your account.

Create token

Token value

[REDACTED]

If a **public token** does not exist, go ahead and create one now. Otherwise, the public token created when you first log in will work. All STID scripts currently only require a single public token, but future projects may require multiple tokens for parallel data queries.

3. **Applying the Public Token in Colab Code** All scripts that access the Synoptic API will require you enter your own Synoptic API token. These are primarily set up as a text entry box at the top of the google form in CoLab. *If not*, it will be defined as a variable within the python code, and may be easily found using CTRL+F (Win) or CMD+F (Mac) within your browser window and searching the phrase 'token'.

```
Help  Unsaved changes since 9:50 AM
+ Code + Text
1 # Multiprocess settings
2 process_pool_size = cpu_count()*8
3 print(f'Process Pool Size: {process_pool_size}')
4
5 # Synoptic API token
6 user_token = '[REDACTED]'
7
```

Future iterations of Colab scripts will streamline the request for a Synoptic API token, prompting the user to enter their own public

token when first running a script.

#### 4. Troubleshooting

- a. **Synoptic API public token will not allow access** If you receive an error message along the lines of:

```
"RESPONSE_MESSAGE": "Account associated with this token does not have access to the precipitation service. Please see our Enterprise Service options"
```

It is possible that your account is still too new and has not been automatically registered as an enterprise service account with Synoptic. This usually takes on the order of a few hours. If there are continued issues, email [account@synopticdata.com](mailto:account@synopticdata.com) and provide your @noaa.gov email, as well as your **public token** and they will be able to appropriately set up access.

- b. **Data Query Too Large** It is possible that Synoptic API changes their data query limits, or a certain configuration of a colab script generates too large of a query (too long of a time period over too large of an area, e.g. one year of data over all of western region).

In this case, first attempt to downsize the query by choosing a shorter date range, or querying a single CWA rather than western region as a whole. If issues with query size continue, contact STID through Steve Rogowski at [steve.rogowski@noaa.gov](mailto:steve.rogowski@noaa.gov)