

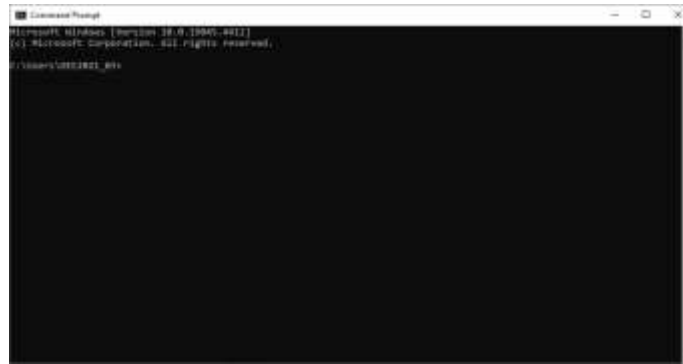
# How to download ERA5 Data

## Tutorial Summary:

In this tutorial, learn how to download and install the prerequisites needed to download and import ERA5 reanalysis data in Continuum®.

### 1) Install Python

- a. Open Command Prompt window by typing 'Command Prompt' in Windows search bar.

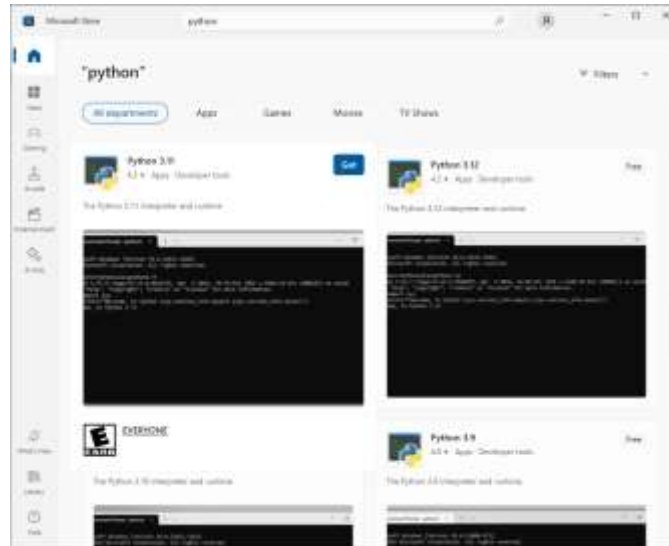


- b. Type 'python -V'
- c. If Python is not installed on your PC then Microsoft Store will open showing Python. Click 'Get' to install Python.
- d. If Python is already installed, the command prompt will show the current version installed.



- e. If the version is earlier than 3.11.6, install an updated version from the Microsoft Store:

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- 2) Register on CDS and get URL and API key
  - a. Go to: <https://cds.climate.copernicus.eu/api-how-to> and log in
    - i. Once logged in, you should see your API key in the black box below. If it does not appear, refresh the webpage.

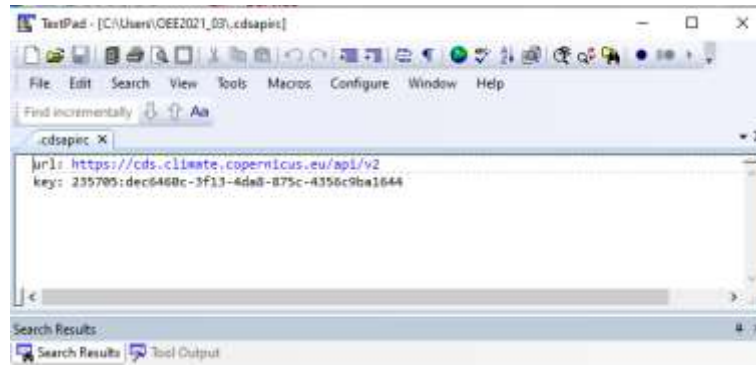


- 3) Create .cdsapirc file

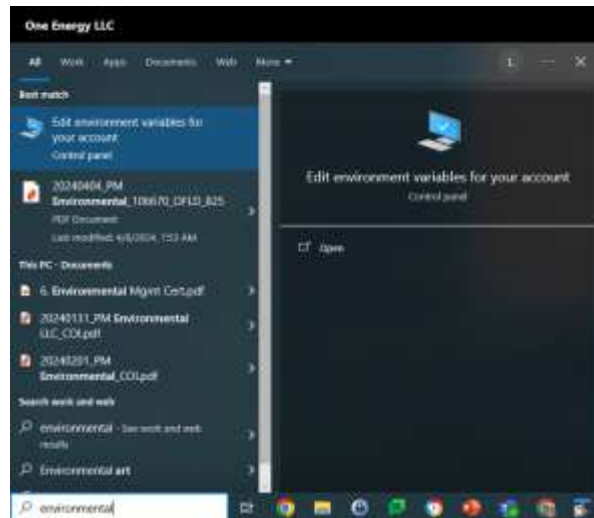
Create a new file in Notepad (or TextPad) and save as '.cdsapirc'. Make sure to change the extension to 'All Files' in the dropdown.

Save this file in your root directory (i.e. 'C:\Users\USER\_NAME\.cdsapirc') and copy the contents of the black box (above) into the file

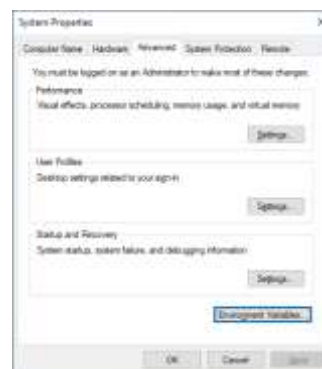
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- 4) Set environmental variables so that there is a PATH to the Python executable and to the Python/Scripts folder (which is where the 'pip' program is)
  - a. Type 'Edit Environmental Variables' in the Windows Search bar and click 'Edit environmental variables for your account'

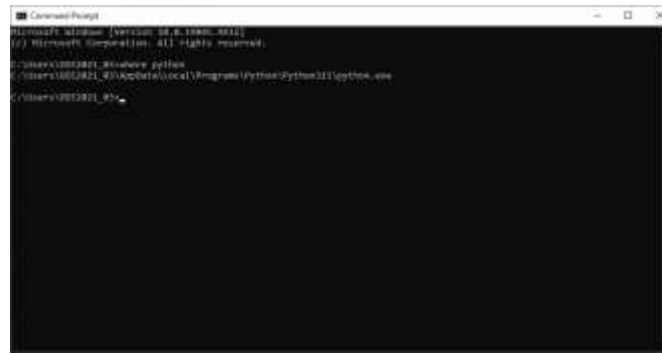


- b. Click 'Environment Variables' button

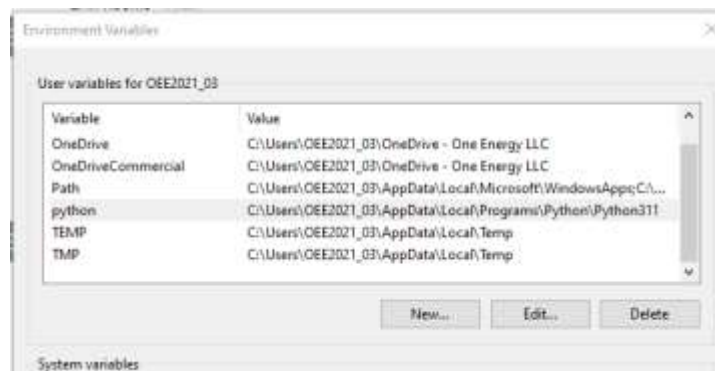
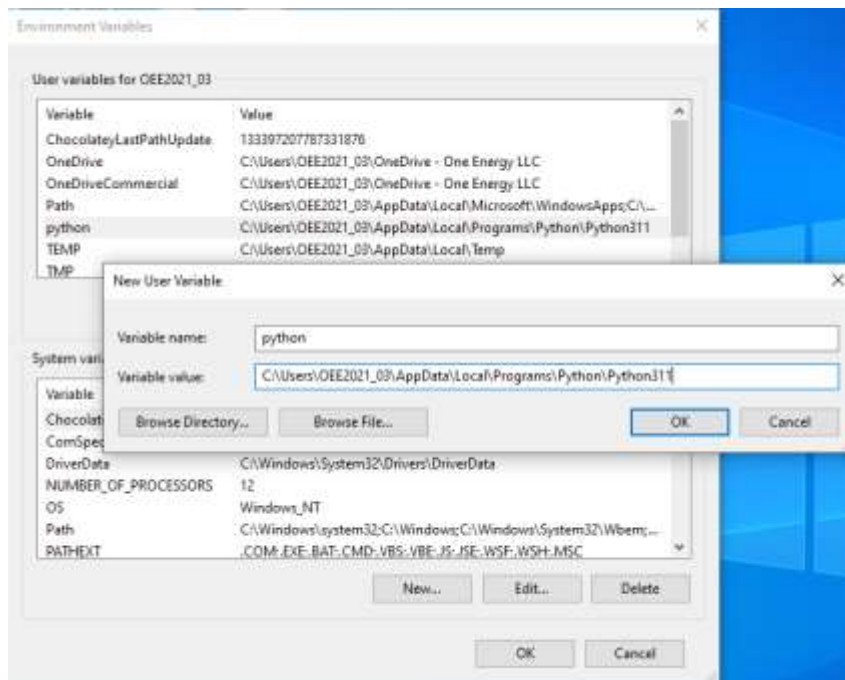


- c. If not created, add a new path to 'python'. To get the path to the python folder, in a Command Prompt window, type: where python

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- d. Copy the path to the folder and create a new User variables with 'python' as the Variable name and the folder path as the Variable value (make sure to omit the 'python.exe' from the path as shown below).



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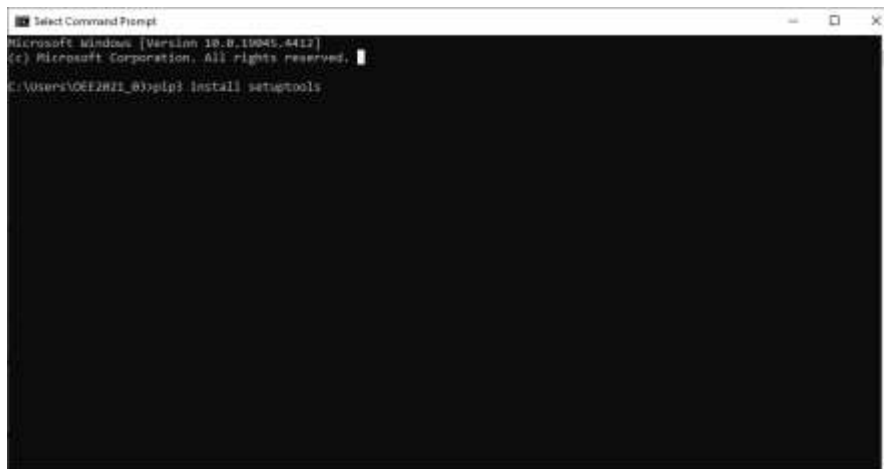
- 5) Install the CDS API Client
  - a. In a Command Prompt window, enter: `pip3 install cdsapi`  
If pip was not automatically installed when Python was installed, in a Command Prompt window type: `python get-pip.py`



```
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\VOE2221_0>pip3 install cdsapi
```

- 6) Install pkg\_resources
  - a. In a Command Prompt window, enter: `pip3 install setuptools`



```
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\VOE2221_0>pip3 install setuptools
```

- 7) Install netCDF. ERA5 datafiles are downloaded as netCDF files which require the netCDF software program to open and read the files. The Windows installation file for netCDF may be found in the same folder as the Continuum installation file.
  - a. Go to [continuumwind.com](https://continuumwind.com), click 'Download Software' and download the file 'netCDF4.9.2-NC4-64.exe'.
  - b. Double-click 'netCDF4.9.2-NC4-64.exe' to install netCDF.
- 8) ERA5 data may now be downloaded in Continuum!