

How to install and use CDS API on Windows

Last modified on Oct 04, 2023 10:57

Table of Contents

- [Prerequisites](#)
- [Step-by-step guide](#)
- [Related articles](#)



You only need to go through this procedure once, before you can use the CDS API on Windows to programmatically download data from either the [Climate Data Store \(CDS\)](#) or the [Atmosphere Data Store \(ADS\)](#).

Prerequisites

1. You need to have a CDS or ADS account. If you don't have an account, please self register at the [CDS registration](#) page or the [ADS registration](#), whichever is appropriate.
2. You need to have **Python (and pip)** installed on your Windows environment.
 - a. Download windows installer exe from [Python.org](#) download page
 - b. Run the exe.
 - c. Screen will be shown to chose the installation option.
 - d. Uncheck "install for all user" option.
 - e. Go for the custom installation.
 - f. On next screen specify the directory path for which your user have full access on the computer (take a note of this as you will need it to set the environment variables).
 - g. Uncheck "create shortcuts for installed application" option.
 - h. Make sure "Add python to environment variable" option is Unchecked .
 - i. Complete the installation.
3. Add the installation and Script folder path in PATH using **set** (temporary) or **setx** (permanent) in a Command Prompt window.

This is to make sure that your computer knows where to find the Python interpreter. To do this you will have to modify a setting called PATH, which is a list of directories where Windows will look for programs.

Further details and examples are available [here](#).

You may choose also to set your environment variables into a batch file (e.g. set-env.bat which you will need to run from the Command Prompt.

```
@echo off
```

```
set PY_HOME=C:\...\python37
```

```
set PATH=%PY_HOME%;%PY_HOME%\Scripts;%PATH%
```

4. If you have Anaconda installed you can install the CDS API by

```
<install_path>/conda/anaconda2/bin/conda config --add channels conda-forge
<install_path>/conda/anaconda2/bin/conda install cdsapi
```

Step-by-step guide

1. [Login to CDS](#) (or [Login to ADS](#))
2. Copy a 2 line code, which shows a url and your own uid:API key details as followed:
 - a. For CDS users, Go to this [page](#) and copy the 2 line code displayed in the black box in the "Install the CDS API key" section.
 - b. For ADS users, Go to this [page](#) and copy the 2 line code displayed in the black box in the "Install the CDS API key" section.
3. Paste the 2 line code into a %USERPROFILE%\cdsapirc file, where in your windows environment, %USERPROFILE% is usually located at C:\Users\Username folder). The CDS API expects to find the .cdsapirc file in your home directory.
For instructions on how to create a dot file on Windows, please [see here](#) or check the instructions provided by one of users on the [User Forum](#).
4. Install the CDS API client by running the following command in a Command Prompt window:

```
pip install cdsapi # for Python 2.7
pip3 install cdsapi # for Python 3
```

or try

```
pip install --user cdsapi # for Python 2.7
pip3 install --user cdsapi # for Python 3
```

5. Once the CDS API client is installed, it can be used to request data from the datasets listed in the CDS and ADS catalogues. It is **necessary to agree to the Terms of Use of every datasets that you intend to download**. Attached to each dataset download form, the "Show API request" button displays the python code to be used.



If you are getting connection issues, we recommend that in the first instance you check your proxy settings with your local IT team.

For those using Ubuntu on Windows, installing pyopenssl might help.

```
pip install pyopenssl # for Python 2.7
pip3 install pyopenssl # for Python 3
```

This document has been produced in the context of the Copernicus Climate Change Service (C3S).

The activities leading to these results have been contracted by the European Centre for Medium-Range Weather Forecasts, operator of C3S on behalf of the European Union (Delegation Agreement signed on 11/11/2014 and Contribution Agreement signed on 22/07/2021). All information in this document is provided "as is" and no guarantee or warranty is given that the information is fit for any particular purpose.

The users thereof use the information at their sole risk and liability. For the avoidance of all doubt, the European Commission and the European Centre for Medium - Range Weather Forecasts have no liability in respect of this document, which is merely representing the author's view.

Related articles

- [CAMS: Global atmospheric composition forecast data documentation](#)
- [CAMS global biomass burning emissions based on fire radiative power \(GFAS\): data documentation](#)
- [EQC documentation](#)
- [Atmosphere Data Store \(ADS\) documentation](#)
- [How to download ERA5](#)