

Python

cddis.nasa.gov/Data_and_Derived_Products/CDDIS_Archive_Access.html

CDDIS Archive Access

The Crustal Dynamics Data Information System (CDDIS) supports data archiving and distribution activities for a global user community. Since its inception, users have relied on anonymous ftp for accessing and downloading files from the system. Although this protocol allows users to easily automate file downloads, many organizations, data systems, and users have already migrated from ftp or are actively pursuing a move away from the protocol due to problems from a system and security standpoint. U.S. Government agencies have become increasingly concerned about this legacy protocol and ensuring data integrity for the user community and have recently begun to disallow the use of the ftp protocol. The CDDIS, located at NASA GSFC, must therefore address these concerns and provide alternative methods for access to its archive for continued easy and automated download of its contents.

Therefore, the CDDIS will discontinue anonymous ftp access to its archive in October 2020. Users must now begin their transition to utilize more secure access protocols such as https or ftp-ssl.

In order to access the CDDIS archive, users will need to use a client that supports Transport Security Layer (TLS). When using the https protocol (for example, cURL, Wget, or Python commands/scripts) users will need to have an [Earthdata Login](#) account. In addition, when utilizing the cURL and Wget, users will need to create a .netrc file; instructions for creating this file are also [available](#).

Examples of accessing the archive via TLS using various methods can be found below. Click on the name of a method to view the instructions; click on a link within a method to see expected results of that command. In the examples, <email address> means type in your actual email address without the < and > symbols.

Software written in the Python language can access the archive using libraries such as lib-curl.

1. Download a single file

```
python [code_filename] https://cddis.nasa.gov/archive/doris/data/cs2/2017/ cs2rx17001.001.Z
```

Place this code into a file:

```
import sys
import pycurl

# Set the archiveLocation to the first command line argument
archiveLocation = sys.argv[1]

# Set the fileName to the second command line argument
fileName = sys.argv[2]

# Initialize the cURL connection object
curl = pycurl.Curl()

# Define the url to use
curl.setopt(curl.URL, archiveLocation + fileName)
```

```
# Set curl to follow redirects, needed to allow user login
curl_setopt(curl.FOLLOWLOCATION, True)

# Set the requirement that cURL use a netrc file found in users home directory
curl_setopt(curl.NETRC,2)

# Set the file used to store cookie
curl_setopt(curl.COOKIEJAR, '.cddis_cookies')

# Writes the remote file to a new file with the same name
with open(fileName, 'w') as f:
    curl_setopt(curl.WRITEFUNCTION, f.write)
    curl.perform()

# Clean up and close the cURL object
curl.close()
```

Enter this command on the command line:

```
> python [code_filename] https://cddis.nasa.gov/archive/doris/data/cs2/2017/ cs2rx17001.001.Z
```

Downloads the file 'cs2rx17001.001.Z' from archive directory /doris/data/cs2/2017/ to your local file system