Access using HTTPS

1. Datasets that can be downloaded

The list of DEM datasets available for download via machine-to-machine access can be retrieved using the following command:

```
curl -k -H "accept: <format>" https://prism-dem-open.copernicus.eu/pd-desk-open-
access/publicDemURLs
```

Please always use the host name prism-dem-open.copernicus.eu for each access, as it is the public name for the machine-to-machine access front-end, and matches the name stored in the server certificate returned by the front-end. In case you need to user other names or aliases (in any case resolved to the same IP address of prism-dem-open.copernicus.eu), or the IP address of the machine-to-machine front-end, please use the -k directive in curl command, or the --no-check-certificate in wget.

The directive "accept: <format>" controls the format of the command output. Accepted values are:

```
• accept: json
```

• accept: xml

• accept: csv

For instance, selecting accept: xml, the command will be the following

curl -k -H "accept: xml" https://prism-dem-open.copernicus.eu/pd-desk-openaccess/publicDemURLs

and the related output will be:

```
<?xml version="1.0"?><list><datasetId>COP-DEM_GLO-30-
DGED/2021_1</datasetId><datasetId>COP-DEM_GLO-90-DGED/2021_1</datasetId></list>
Each of the values listed in a datasetId field is the name a DEM dataset that can be accessed via the machine-to-
machine API. Please note that such names cannot be used directly, as the character "/" cannot be used in the data part
```

of a URL. Thus, in the following commands, when a dataset identifier is used, the "/" character has to be replaced with

a double underscore (" ").

2. How to list the URLs to access DEM products

Browsing all products published for a given dataset is supported via HTTPS access, once known the URL to be used, using the following command:

```
curl -k -H "accept: xml" https://prism-dem-open.copernicus.eu/pd-desk-open-
access/publicDemURLs/<dataset ID>
```

where is one of the dataset identifiers returned by the command shown in § 2.

Example (please note the replacement of "/" with a "__"):

```
curl -k -H "accept: xml" <a href="https://prism-dem-open.copernicus.eu/pd-desk-open-access/publicDemURLs/COP-DEM">https://prism-dem-open.copernicus.eu/pd-desk-open-access/publicDemURLs/COP-DEM</a> GLO-90-DTED 2019 1
```

The output of the command will be the list of URLs to be used for downloading the products belonging to the selected dataset. For each product, one URL is returned, having the form (example is in <code>json</code>):

```
{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/<dataset_ID>//product file name>"}
```

Product file names reference the .tar (uncompressed) file containing the data for the selected DEM product.

The format of the output can be selected between the three options xml/json/csv. The xml format is the default one, and it is returned when no "accept" clause is specified. Looking at different formats we have:

json Format:

```
curl -k -H "accept: json" https://prism-dem-open.copernicus.eu/pd-desk-open-
access/publicDemURLs/COP-DEM GLO-90-DGED 2021 1
[{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-
access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N38_00_E009_00.tar"},{"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N43 00 E012 00.tar"}, {"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N46 00 E007 00.tar"}, {"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N36 00 E012 00.tar"}, {"nativeDemUrl": "https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N43 00 E008 00.tar"}, {"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N42 00 E008 00.tar"}, {"nativeDemUrl": "https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N42 00 E017 00.tar"},{"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N37 00 E016 00.tar"},{"nativeDemUrl":"https://pri
sm-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
```

```
DGED__2021_1/Copernicus_DSM_30_N39_00_E009_00.tar"},{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM_GLO-90-DGED__2021_1/Copernicus_DSM_30_N41_00_E087_00.tar"},{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM_GLO-90-DGED__2021_1/Copernicus_DSM_30_N40_00_E012_00.tar"},{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM_GLO-90-DGED__2021_1/Copernicus_DSM_30_N39_00_E015_00.tar"},{"nativeDemUrl":"https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM_GLO-90-DGED__2021_1/Copernicus_DSM_30_N39_00_E015_00.tar"}]
```

csv Format:

```
curl -k -H "accept: csv" https://prism-dem-open.copernicus.eu/pd-desk-open-
access/publicDemURLs/COP-DEM_GLO-90-DGED 2021 1
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N38 00 E009 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED__2021_1/Copernicus_DSM_30_N43_00_E012_00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED__2021_1/Copernicus_DSM_30_N46_00_E007_00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N36 00 E012 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus_DSM_30_N43_00_E008_00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N42 00 E008 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus_DSM_30_N42_00_E017_00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N37 00 E016 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM_GLO-90-DGED__2021_1/Copernicus_DSM_30_N39_00_E009_00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N41 00 E087 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N40 00 E012 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N39 00 E015 00.tar
https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-DGED 2021 1/Copernicus DSM 30 N35 00 E012 00.tar
```

xml format:

```
curl -k -H "accept: xml" https://prism-dem-open.copernicus.eu/pd-desk-open-
access/publicDemURLs/COP-DEM GLO-90-DGED 2021 1
                          version="1.0"?><list><nativeDemUrl>https://prism-dem-
open.copernicus.eu/pd-desk-open-access/prismDownload/COP-DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N38 00 E009 00.tar</nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED__2021_1/Copernicus_DSM_30_N43_00_E012_00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N46 00 E007 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED__2021_1/Copernicus_DSM_30_N36_00_E012_00.tar</nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N43 00 E008 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N42 00 E008 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED__2021_1/Copernicus_DSM_30_N42_00_E017_00.tar</nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N37 00 E016 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED__2021_1/Copernicus_DSM_30_N39_00_E009_00.tar</nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N41 00 E087 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
DGED 2021 1/Copernicus DSM 30 N40 00 E012 00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM GLO-90-
```

```
DGED__2021_1/Copernicus_DSM_30_N39_00_E015_00.tar</nativeDemUrl><nativeDemUrl>ht
tps://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COP-
DEM_GLO-90-
DGED__2021_1/Copernicus_DSM_30_N35_00_E012_00.tar</nativeDemUrl></list>
```

3. How to download products

DEM products can be downloaded using the following command:

```
wget <download URL>
```

Example:

wget https://prism-dem-open.copernicus.eu/pd-desk-open-access/prismDownload/COPDEM GLO-90-DGED 2021 1/Copernicus DSM 30 N35 00 E012 00.tar

This command creates a local file named Copernicus_DSM_30_N35_00_E012_00.tar.