MPI Wiki - https://wiki.mpimet.mpg.de/

The TCO group runs a RAMADDA data server at https://observations.mpimet.mpg.de/repository/ which is used to expose datasets from the internal filesystem at /pool/OBS to the public using OPeNDAP.

Using datasets

2024/03/15 19:22

In oder to use a published dataset, please navigate to the dataset of interest and copy the link behind the OPeNDAP service on the top right (see image below). You can use this link as if it where a path to a netCDF dataset. I.e. put it into ncdump -h to get an overview or use it in xr.open_dataset if you like to access it in Python.

Note that the most recent pydap version at the time of writing (3.2.2) has a bug, which prevents loading resources from out RAMADDA server. The bug is fixed on the master branch, but it doesn't look like it will be released anywhere soon. Access via the netCDF Python library works fine nonetheless.

Information Properties Standard Names Variables File: MBR2_10s_2021.ncml 400 bytes	Services & Download File (400 bytes) @ Subset Grid >* Extract Time Series & OPENDAP
Kind: File Created: 2021-05-05 09:17:10 UTC Modified: 2021-05-05 09:18:10 UTC	
Created by: TCO Administrator Start Date: 2021-01-19 17:08:42 UTC End Date: 2021-05-05 00:00:01 UTC	

Add datasets

In order to add datasets to the RAMMADA server, you'll need to login (ask Hauke or Tobi on how to get an account).

After login, create a new file (the to be published dataset is named a "file") using the menu:

File	Edit	View
New Folder New File Pick a Type E- Export S Import	Edit Entry	☆ Entry Page ⓓ Information ᡤ Calendar
	 Add Property Add Tag Add Thumbnail Image 	
 □ All Actions □ Zip and Download Tree ▲ Wget Download Script ▲ Bulk Download Script □ Add to Cart 	Access Access Extended Edit Delete Entry Move/Copy/Link 	

This will direct you to the file creation menu:

		Soufriere
		Create new File
		create new me
Add File	Cancel	
	Name	Radar_MBR2_2s_155m-18km
	Resource	File URL Files on Server
		Browse MBR2_10s_2021.ncml
		General More
		Figure out the type
		Add propertiesust spatial/temporal properties
		Unzip archive Make folders from archive Make name from filename
	Description	
	Description:	
	Data Basse	
	Date Range	
	Location:	
Add File	Cancel	

You can add a title and description as needed. In order to connect this newly created dataset with data on the /pool/OBS filesystem, you'll have to write an NcML description of the dataset and upload it as a **Resource** in the RAMADDA file creation menu.

A typical NcML file will look like the following:

This file starts to scan for files in the directory given by location (including subfolders) and

selects all files below this directory which match the regular expression given by regExp. If will also rescan for new files every day.

Please **note** that the /pool/OBS filesystem is reachable via /srv/data/OBS on the RAMADDA server, so you'll have to adjust your paths accordingly.

If you like to check your regular expressions interactively, https://regex101.com is a good place to go

and if you want to have some practice on this topic, checkout https://regexcrossword.com

Fixing Datatypes

OPeNDAP is not able to properly represent 64bit integers. 64bit integers are often used e.g. in time variables, even if that would not be necessary. So sometimes issues with 64bit integers can be resolved just by changing the datatype. Fortunately, NcML has a facility to do so:

```
<netcdf xmlns="http://www.unidata.ucar.edu/namespaces/netcdf/ncml-2.2">
        <aggregation dimName="time" type="joinExisting" recheckEvery="l day">
            <variableAgg name="time"/>
            <scan
location="/srv/data/OBS/BARBADOS_CLOUD_OBSERVATORY/Level_1/B_Reflectivity/Ka
-Band/MBR2/10s/"
regExp=".*MMCR__MBR2__Spectral_Moments__10s__155m-18km__21.*" suffix=".nc"
subfolders="false" />
        </aggregation>
        <variable name="time" type="int">
        </aggregation>
        <variable name="time" type="int">
        </aggregation>
        </aggregation>
        </variable>
</netcdf>
```

From: https://wiki.mpimet.mpg.de/ - **MPI Wiki**

Permanent link: https://wiki.mpimet.mpg.de/doku.php?id=observations:ramadda



Last update: 2021/05/07 10:04