

Netcdf Subset Service (NCSS)

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- * Web service for Subsetting CDM scientific datasets
- * Uses earth coordinates (rather than indices)
- * Allows grid subsetting and point requests



* threddsConfig.xml

```
<NetcdfSubsetService>
<allow>true</allow>
<!--maxFileDownloadSize>300 MB</maxFileDownloadSize -->
</NetcdfSubsetService>
```

* catalogs:

<service name="subsetServer" serviceType="NetcdfSubset"
base="/thredds/ncss/grid/" />



* Document that provides all the information to formulate valid requests

* Contains:

- coordinate axes
- variables
- spatial ranges
- supported formats

- ...



4.1 Subsetting on variables

- * Parameter var (mandatory)
- * Variables as declared in the dataset description separated by ","
 - var=all
 - var=Pressure_surface, Temperature_tropopause



4.2 Spatial subsetting

- * Lat/Lon bounding box:
 - * params: north, south, west, east (all of them!!!)
 - var=Pressure_surface,Temperature_tropopause&north=80&south=60&west=200&east=280
- * Projection bounding box
 - * params: minx, maxx, miny, maxy (all of them!!!)
 - -var=Pressure_surface,Temperature_tropopause&minx=0&maxx=3000&miny=-1000&maxy=0



4.3 Temporal subsetting

- * By default closest time to present
- * All range, parameter temporal:
 - * temporal=all
- * Single time, parameter time (all times in W3C format):
 - * time=2012-10-22T18:00:00Z

- * Time range (all times and durations in W3C format):
 - * params: time_start, time_end, time_duration (two of them!!!):
 - * time_start=2012-10-22T15:00Z&time_duration=P1DT12H



4.4 Vertical subsetting

* Default: all vertical levels

* vertCoord: only on variables with same vertical levels

vertCoord=400



5.1 Grid As Point

- * Extracts point features from grids
- * Parameters latitude and longitude to define the requested point
- latitude=86&longitude=220



5.2 Vertical levels

- * All vertical levels are returned by default
- * Parameter vertCoord can be used on variables with different vertical levels.



5.3 Supported Formats

- * csv, xml, netCDF
- * Parameter: accept
- accept=csv
- accept=xml
- accept=netcdf



6.1 Examples of use

PacIOOS:

- * http://oos.soest.hawaii.edu/pacioos/
- * http://oos.soest.hawaii.edu/pacioos/voyager/index.html



6.2 Examples of use

MeteoSIX:

* http://gis.gac.udc.es/meteosix-beta/visor (beta)

* Android: http://tinyurl.com/8pbe64h

* IOS: http://tinyurl.com/8wqfxdn