`Diva` metadata xml files generation for Sextan catalogues

1 `Diva` xml file

In order to provide Sextan catalogues with meta-data products produced by `Diva` metadata xml files are generated for each climatology netcdf file. The metadata xml file is normally generated (or updated) through web forms at http://www.ifremer.fr/geonetwork/srv/en/main.home by entering all the information about the product.

`Diva` software produces automatically metadata xml files for each climatological variable while processing it, gathering the necessary information.

`Diva` uses the information gathered from all inputs: ODV spreadsheets and input files (contour.depth, param.par files, driver, etc) to build the metadata xml file, and allows the users not to fill the web-forms for each time they make a product with the information already provided in `Diva` input files.

In addition to the information related to gridded data and the products, users have to provide an info file "`input/general_info`" with identification information related to their organisation, and contacts (see the example in 2.2).

2 Generation of xml files

The xml file can be generated for any (climatology) 4D netcdf file using `divadoxml` script.

`divadoxml` script can be used immediately after producing a climatology (a `divadoall` run) or by placing an old climatology 4D-netcdf file in the `./output/3Danalysis/.` directory.

For both cases the generated xml file will be found in `./output/3Danalysis/.` directory, and has the same name as the related netcdf file.

`divadoxml` uses as input the usual `varlist`, `yearlist`, `monthlist` files, and for each variable a `var.SDNconv` file.

2.1 The Var.SDNconv file

For each variable, `divadoxml` reads in the file `var.SDNconv` the following information:

- **Short name of the dataset**: can be chosen by the author,

- **Parameters in dataset**: Official name in the SDN conventions, the list of parameter names is given in the file: `./input/SDN_P021.list`,

- **Thumbnail file name**: File name of a small image representing the data set,

- **Url compliment**: to the Url where data set can be accessed: "http://gher-diva.phys.ulg.ac.be/data/emodnet-domains/"

- **Geographical area name**: Official name in the SDN conventions. The list of Geographical area names is given in the file: `./input/Geographical_areas.list`,

- **Time units**: month, season, etc

It must be placed in the `Climatology` directory (where are placed `varlist`, `monthlist`, etc (see example (2.1).

2.2 the `general.info` file

The `general.info` file must be placed in the `input` directory, it provides identification information on the generator institute and the author:

- **Organisation name**: SDN:EDMO::xxx = SDN:Institution_full_name where xxx is an id number following SDN conventions,

- **organisation e-mail address**: Official institution e-mail address,

- **Climatology and Metadata author organisation** : SDN:EDMO::EDMO xxx = SDN:EDMO institution name ,

- **Climatology and Metadata author e-mail address**

```
##Short name of dataset:
EMODNET_Temperature_4DNetCDF
##Parameters in dataset (see liste in ./input/SDN_P021.list):
SDN:P021:68:TEMP = Temperature of the water column
##Thumbnail file name
Tem_image
##Url compliment (to http://gher-diva.phys.ulg.ac.be/data/emodnet-domains/)
Mediterranean Sea
##Geographical area name (see ./input/Geographical_areas.list)
SDN:C16:8:28Bg = Mediterranean Sea
##Time units (month or season)
month
```

Example file 2.1: Temperature.SDNconv file

```
##Organizations name:
SDN:EDMO::xxx = SDN:University of Liege, GeoHydrodynamics and Environment Research
##organisation e-mail adress:
JM.Beckers@ulg.ac.be
##Climatolgy and Metadata author organisation  (Collating Center)
SDN:EDMO::EDMO xxx = SDN:EDMO University of Liege, GeoHydrodynamics and Environment Research
##Climatolgy and Metadata author e-mail adress
M.Ouberdous@ulg.ac.be
```

Example file 2.2: general information file template