Home

Acknowledgment

Framework [51]

>>All
ACTRIS
ACTRIS_NRT
ACTRIS_preliminary
AMAP
AMAP_public
CAMP
CAMPAIGN

Country [77]

>>All
Argentina
Armenia
Australia
Austria
Barbados
Belarus
Belgium

Instrument type [102]

>>All
abs_solution
abs_tube
ads_tube
aerosol_mass_spectrometer
aerosol_sampler
air_UK
aircraft_system

Component [664]

HFC-23
HFC-236fa
HFC-245fa
HFC-32
HFC-365mfc
HFC-4310mee
holmium

From >>All To >>All

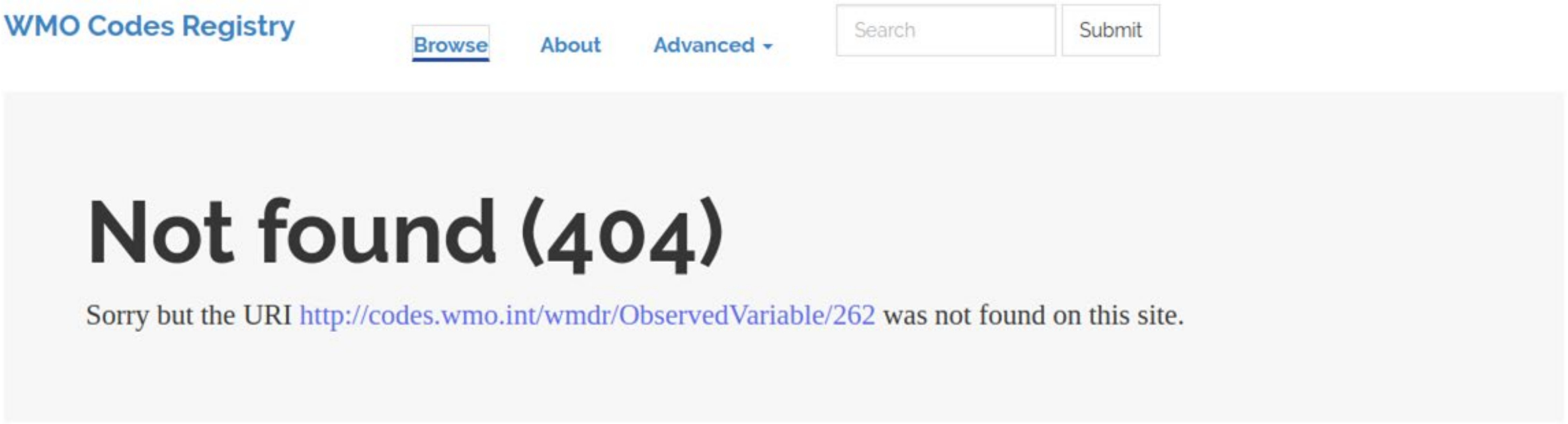
HFC-4310mee	**CAS Number: 138495-42-8** **IUPAC Name: 1,1,1,2,2,3,4,5,5,5-decafluoropentane** Molecular Formula: C5H2F10 Condensed Formula: CF3CF2CFHCFHCF3 Condensed Formula: CF3CFHCFHCF2CF3 Other Names: 1,1,1,2,3,4,4,5,5,5-decafluoropentane	air	pmol/mol	GHG-HFCs

Mapping of EBAS metadata to WMDR

Currently using WMDR 1.0RC9.

Mapping is an issue

- Code table not working http://codes.wmo.int/wmdr
- Currently the latest version of the codes lists are on GitHub: https://github.com/wmo-im/wmds/tree/master/tables_en
- We need to map metadata from CF standard/EBAS IUPAC names to WMO codes.
- We need to map:
  - Obseved variables
  - Units
  - Program affiliation
  - And other potential metadata elements



WMO code lists

- Examples from latest release candidate not working
- <om:observedProperty xlink:href="http://codes.wmo.int/wmdr/ObservedVariable/262"/>

How do we refer to the code list

https://github.com/wmo-im/wmds/blob/master/tables_en/1-01-01.csv

448 lines (447 sloc) | 48.1 KB

Raw | Blame | History

Search this file...

notation	path	name
37	\Atmosphere\Aerological soundings	Aerological soundings
579	\Atmosphere\Aerosol\Composition\Acidity-Alkalinity, total aerosol	Acidity-Alkalinity, total aeroso
614	\Atmosphere\Aerosol\Composition\Inorganic anions\Chloride (Cl-), PM1	Chloride (Cl-), PM1
615	\Atmosphere\Aerosol\Composition\Inorganic anions\Chloride (Cl-), PM10	Chloride (Cl-), PM10
616	\Atmosphere\Aerosol\Composition\Inorganic anions\Chloride (Cl-), PM2.5	Chloride (Cl-), PM2.5
617	\Atmosphere\Aerosol\Composition\Inorganic anions\Chloride (Cl-), total aerosol	Chloride (Cl-), total aerosol
618	\Atmosphere\Aerosol\Composition\Inorganic anions\Fluoride (F-), total aerosol	Fluoride (F-), total aerosol
619	\Atmosphere\Aerosol\Composition\Inorganic anions\Sulphate (SO4=), corrected	Sulphate (SO4=), corrected
620	\Atmosphere\Aerosol\Composition\Inorganic anions\Sulphate (SO4=), total	Sulphate (SO4=), total
621	\Atmosphere\Aerosol\Composition\Inorganic anions\Sulphate (SO4=), total, PM10	Sulphate (SO4=), total, PM1
622	\Atmosphere\Aerosol\Composition\Inorganic anions\Sulphate (SO4=), total, PM2.5	Sulphate (SO4=), total, PM2.
623	\Atmosphere\Aerosol\Composition\Inorganic carbonaceous\Elemental carbon (coarse), PM10	Elemental carbon (coarse), P
624	\Atmosphere\Aerosol\Composition\Inorganic carbonaceous\Elemental carbon, PM1	Elemental carbon, PM1
625	\Atmosphere\Aerosol\Composition\Inorganic carbonaceous\Elemental carbon, PM2.5	Elemental carbon, PM2.5
626	\Atmosphere\Aerosol\Composition\Inorganic carbonaceous\Total carbon (coarse), PM10	Total carbon (coarse), PM10
632	\Atmosphere\Aerosol\Composition\Inorganic cations\Calcium (Ca++), PM10	Calcium (Ca++), PM10
633	\Atmosphere\Aerosol\Composition\Inorganic cations\Calcium (Ca++), PM2.5	Calcium (Ca++), PM2.5
634	\Atmosphere\Aerosol\Composition\Inorganic cations\Calcium (Ca++), total aerosol	Calcium (Ca++), total aeroso
635	\Atmosphere\Aerosol\Composition\Inorganic cations\Magnesium (Mg++), PM10	Magnesium (Mg++), PM10
636	\Atmosphere\Aerosol\Composition\Inorganic cations\Magnesium (Mg++), PM2.5	Magnesium (Mg++), PM2.5
637	\Atmosphere\Aerosol\Composition\Inorganic cations\Magnesium (Mg++), total aerosol	Magnesium (Mg++), total aer
638	\Atmosphere\Aerosol\Composition\Inorganic cations\Potassium (K+), PM10	Potassium (K+), PM10
639	\Atmosphere\Aerosol\Composition\Inorganic cations\Potassium (K+), PM2.5	Potassium (K+), PM2.5
640	\Atmosphere\Aerosol\Composition\Inorganic cations\Potassium (K+), total aerosol	Potassium (K+), total aerosol

WMO codes found

```
'%': self.CL_WMOC + 'unit/percent',
'A': self.CL_WMOC + 'unit/A',
'1/s': self.CL_WMOC + 'unit/s-1',
'V': self.CL_WMOC + 'unit/V',
'W/m2': self.CL_WMOC + 'unit/W_m-2',
'deg': self.CL_WMOC + 'unit/degree_(angle)',
'deg C': self.CL_WMOC + 'unit/degC',
'hPa': self.CL_WMOC + 'unit/hPa',
'm': self.CL_WMOC + 'unit/m',
'm/s': self.CL_WMOC + 'unit/m_s-1',
'mm': self.CL_WMOC + 'unit/mm',
'pH units': self.CL_WMOC + 'unit/pH_unit'}
```

Same base unit, OK, or create new unit in WMO codes?

```
'1/Mm': self.CL_WMOC + 'unit/m-1' ,
'1/km': self.CL_WMOC + 'unit/m-1',
'K': self.CL_WMOC + 'unit/Cel',
'ug/m3': self.CL_WMOC + 'unit/kg_m-3',
'ug/g': self.CL_WMOC + 'unit/g_kg-1',
'ng/g': self.CL_WMOC + 'unit/g_kg-1',
'pg/g': self.CL_WMOC + 'unit/g_kg-1',
'ug C/m3': self.CL_WMOC + 'unit/kg_m-3',
'ug Cl/m3': self.CL_WMOC + 'unit/kg_m-3',
'ug N/m3': self.CL_WMOC + 'unit/kg_m-3',
'ug S/m3': self.CL_WMOC + 'unit/kg_m-3',
'ng/m3': self.CL_WMOC + 'unit/kg_m-3',
'pg/m3': self.CL_WMOC + 'unit/kg_m-3',
'fg/m3': self.CL_WMOC + 'unit/kg_m-3',
'mg N/l': self.CL_WMOC + 'unit/kg_m-3',
'mg S/l': self.CL_WMOC + 'unit/kg_m-3',
'mg/l': self.CL_WMOC + 'unit/kg_m-3',
'ug/l': self.CL_WMOC + 'unit/kg_m-3',
'ng/l': self.CL_WMOC + 'unit/kg_m-3',
'umol/mol': self.CL_WMOC + 'unit/mol_mol-1',
'nmol/mol': self.CL_WMOC + 'unit/mol_mol-1',
'pmol/mol': self.CL_WMOC + 'unit/mol_mol-1',
'l/min': self.CL_WMOC + 'unit/m3_s-1',
'ug/m2': self.CL_WMOC + 'unit/kg_m-2',
'uS/cm': self.CL_WMOC + 'unit/S_m-1',
```

```
'1/cm3': self.CL_WMOC + 'unit/cm-3',
'ne H/m3': self.CL_WMOC + 'unit/ne_H_m-2',
'ue H/l': self.CL_WMOC + 'unit/ue_H_l-1',
'ng/m2day': self.CL_WMOC + 'unit/ng_m-2_day-1',
'no unit': self.CL_WMOC + 'unit/no_unit',
```

WMO codes not found, just made up some names

Example WIGOS metadata record vs. Code table on github

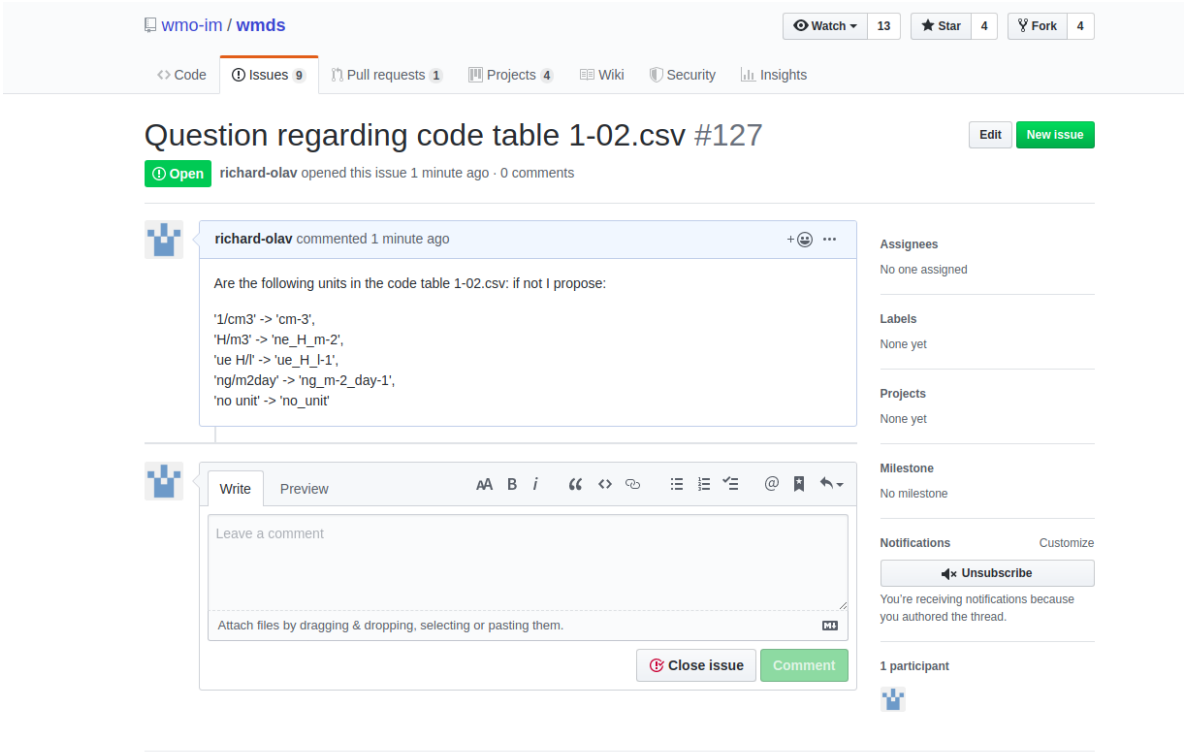
```
<wmdr:ObservingCapability gml:id="id2">
    <wmdr:facility xlink:href="http://data.wmo.int/wigos/0-20008-0-JFJ"/>
    <!--[[PROGRAM_AFFILIATIONS]]-->
    <wmdr:programAffiliation xlink:href="http://codes.wmo.int/wmdr/ProgramAffiliation/gawGlobal"/>
    <wmdr:programAffiliation xlink:href="http://codes.wmo.int/wmdr/ProgramAffiliation/emep"/>
    <wmdr:observation>
        <om:OM_Observation gml:id="id6">
            <gml:name>\Atmosphere\Gas\Ozone\Surface ozone</gml:name>
            <!-- for convenience of human readability only, the observedProperty is the relevant entry -->
            <om:metadata>
                <!--link to WIS metadata record goes here if available-->
            </om:metadata>
```

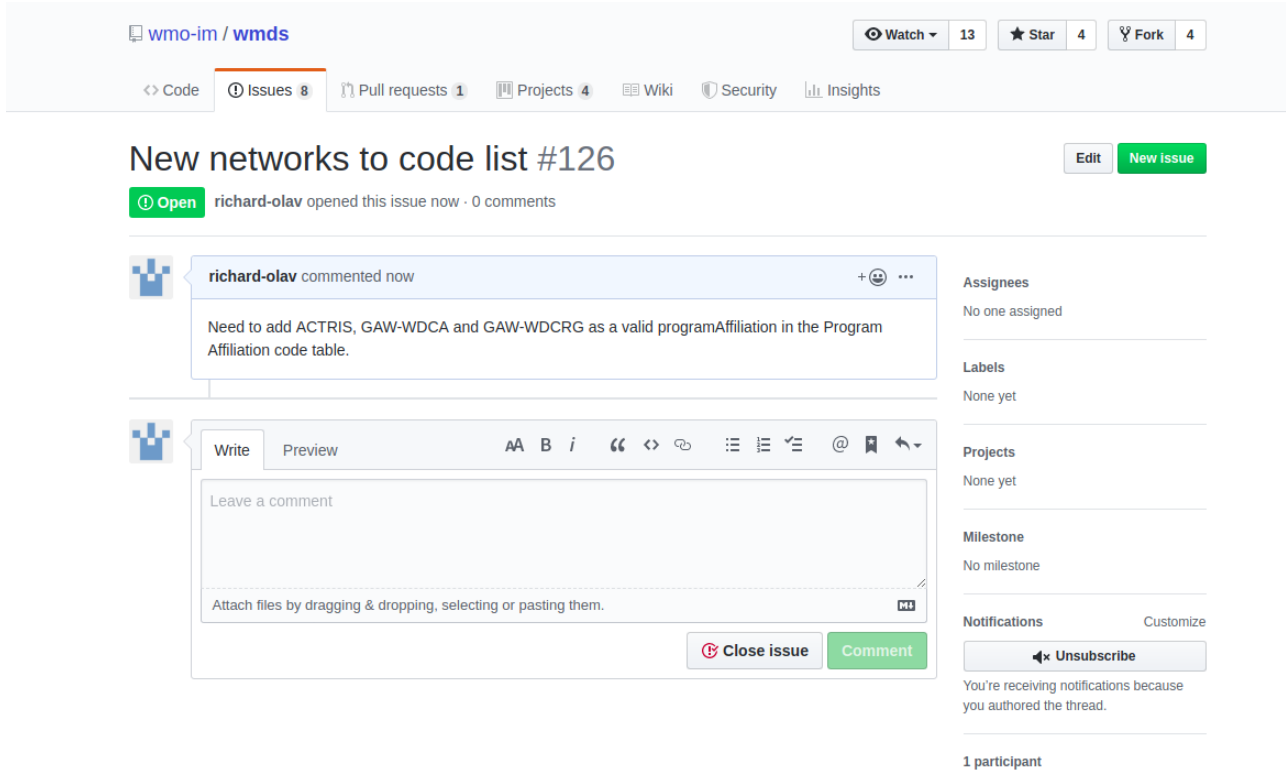
169	ECIABP	\Co-sponsored\GOOS\DBCP\EC-IABP	EC-IABP
170	ECMB	\Co-sponsored\GOOS\DBCP\EC MB	EC MB
171	EMEP	\WIGOS\GAW\GAW Other elements\EMEP	EMEP
172	ESRLCCG	\WIGOS\GAW\GAW Other elements\ESRLCCG	ESRLCCG
173	eSurfmar	\Co-sponsored\GOOS\DBCP\E-SURFMAR	E-SURFMAR
174	eSurfmarIrishIMI	\Co-sponsored\GOOS\DBCP\E-SURFMAR-IRISH IMI	E-SURFMAR-IRISH IMI
175	eSurfmarNOAA	\Co-sponsored\GOOS\DBCP\E-SURFMAR-NOAA	E-SURFMAR-NOAA
176	eSurfmarUKFRMB	\Co-sponsored\GOOS\DBCP\E-SURFMAR-UK/FR MB	E-SURFMAR-UK/FR MB

Tool not in synch with how fast we conduct the mapping (https://github.com/wmo-im/wmds/blob/master/tables_en/1-01-01.csv)

{"id":40073,"xmlStatus":"SUCCESS_WITH_WARNINGS","logs":"The list below is organized by section header and shows exceptions/issues – if any – that may have resulted from the processing of the XML (NB: Section headers are always displayed).\n# ObservingCapability of facility with identifier \"0-20008-0-SMR\"\nREF_5: ReferenceType for \"OM_Observation/programAffiliation/programAffiliation xlink:href\" with URL \"http://codes.wmo.int/wmdr/ProgramAffiliation/GAW-WDCA_NRT\" could not be found. Information for \"OM_Observation/programAffiliation\" is discarded.\nREF_5: ReferenceType for \"OM_Observation/programAffiliation/programAffiliation xlink:href\" with URL \"http://codes.wmo.int/wmdr/ProgramAffiliation/NOAA-ESRL_NRT\" could not be found. Information for \"OM_Observation/programAffiliation\" is discarded.\n"}ror@RORLUX:~/repos/validate$

Raising issues for adding missing metadata elements (will take time, need to decide how to best solve this)





CF vs. WMO codes

- Is there any work done with harmonization of WMO codes and the CF standard?
- The CF standard seems more mature, and is widely adopted in ACTRIS and WIS among other infrastructures
- Maybe some automated procedure to map CF standard names -> WMO codes

Should we include licensing and not only WMO data policies?

8 lines (7 sloc) | 1.41 KB

Raw | Blame | History

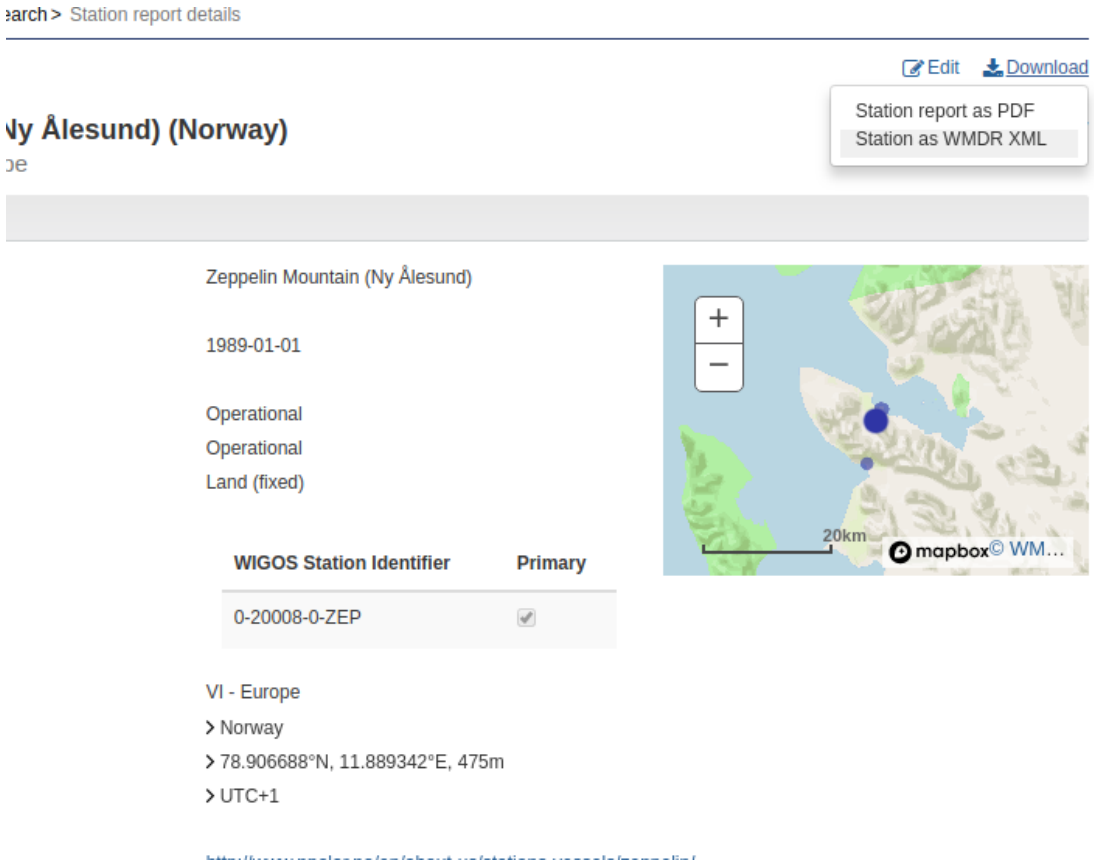
Search this file…

	notation	name	description
2	noLimitation	no limitation	No limitation on distribution or use
3	WMOAdditional	WMOAdditional	WMO Additional Data: free and unrestricted access to data and products exchanged under the auspices of WMO to the research and educ
4	WMOEssential	WMOEssential	WMO Essential Data: free and unrestricted international exchange of basic data and products.
5	WMOOther	WMOOther	Data identified for global distribution via WMO infrastructure (GTS / WIS) that is not covered by WMO Resolution 25 neither WMO Resolut
6	unknown	(unknown)	unknown
7	inapplicable	(inapplicable)	inapplicable

Currently

- Working on submitting a small subset of EBAS metadata via the APIs and M2M access of WIGOS data/metadata:
  - https://oscardepl.meteoswiss.ch/surface/rest/api/wmd/upload
  - Setting up new version of the metadata server that is validating according to the latest version WMDR 1.0RC9.
- Need to fix examples in the latest release candidate (https://github.com/wmo-im/wmdr/releases/tag/v1.0RC9), not complying to the latest version of the wmdr schema.

Both examples from the latest release candidate and the downloadable WMDR xml from OSCAR, does not validate for the OSCAR M2M tool. It would be usefull to have a updated example of WIGOS observational metadata. Since EBAS WMDR metadata now validates according to schema but not according to the M2M tool.



ror@RORLUX:~/Desktop/wmdr-1.0RC9/examples$ curl -X POST -d "@/home/ror/repos/validate/wmdr_example_observations_0-20000-0-06730.xml" https://oscardepl.wmo.int/surface/rest/api/wmd/upload --header "Content-Type:text/xml" --header "X-WMO-WMDR-Token:bb7a7e38-6be5-40d6-9362-34fc76639e69"
{"id":40102,"xmlStatus":"SUCCESS_WITH_WARNINGS","logs":"The list below is organized by section header and shows exceptions/issues – if any – that may have resulted from the processing of the XML (NB: Section headers are always displayed).\n# ObservingCapability of facility with identifier \"0-20000-0-06730\"\nREF_5: ReferenceType for \"Deployment/applicationArea\" with URL \"\" could not be found. Information for \"Deployment/applicationArea\" is discarded.\nREF_5: ReferenceType for \"Reporting/uom\" with URL \"http://codes.wmo.int/common/unit/ppbv\" could not be found. Information for \"Reporting/uom\" is discarded.\nREF_5: ReferenceType for \"Reporting/uom\" with URL \"http://codes.wmo.int/common/unit/ppbv\" could not be found. Information for \"Reporting/uom\" is discarded.\n"}ror@RORLUX:~/Desktop/wmdr-1.0RC9/examples$