

FAIR metadata guidelines

UNDER CONSTRUCTION

Use these guidelines to make your data FAIR in a step-wise approach. The currently available data formats are NetCDF, GeoTIFF, vector/Shapefile and CSV/Excel.

NetCDF | *.nc

Metadata
Following CF conventions (source):
<input type="checkbox"/> Title: what's in the file
<input type="checkbox"/> History: Audit trail of processing operations
<input type="checkbox"/> Description of the data
<input type="checkbox"/> units: units can be udunits strings e.g. 1, degC, Pa, mbar, W m ⁻² , kg/m ² /s, mm day ⁻¹
<input type="checkbox"/> standard_name: Use CF standard names
<input type="checkbox"/> long_name: not standardised
<input type="checkbox"/> ancillary variables: a pointer to variables providing metadata about the individual data values e.g. standard error or data quality information
<input type="checkbox"/> *_FillValue, missing_value, valid_max, valid_min, valid_range
<input type="checkbox"/> Dimensions establish the index space of data variables
<input type="checkbox"/> Time (year, month, day, hour, minute, second) is encoded with units "time unit since reference time"
*Optional for numeric data variables

GeoTIFF | *.tif

Metadata
Embedded tags (tif tags):
<input type="checkbox"/> Spatial extent
<input type="checkbox"/> Temporal extent
<input type="checkbox"/> Coordinate reference system
<input type="checkbox"/> Resolution
<input type="checkbox"/> No data value
<input type="checkbox"/> Layers
For more documentation, create a README file.

Vector/shapefile | *.shp

Metadata
Use a *.shp.xml to store the metadata in XML format (such as ISO 19115 or other XML schema):
<input type="checkbox"/> Spatial extent
<input type="checkbox"/> Temporal extent
<input type="checkbox"/> Coordinate reference system
<input type="checkbox"/> Attribute(s) meaning

CSV/Excel | *.csv *.xlsx

Metadata
Write in sheet/top lines of csv:
<input type="checkbox"/> Title: what's in the file
<input type="checkbox"/> Abstract
<input type="checkbox"/> Measurement details