ABSTRACT

NIOSA's vision for modeling is to engage with the public, private, and academic sectors in a Modeling-Consortium, and we are pursuing this goal aggressively. NIOSA's role in the regional modeling community will be for us to build the largest climate change model in the world. NIOSA's vision of future climate models is to develop tools and processes to allow for daily climate model updates. NIOSA's climate model will have access to the data from the GeoSphere model and the output from the GeoSphere model will be available to the public.

WIPSYS Goals

- Develop community software framework and datamodeling standards for WaIPR.
- Enhance standards engines and tools.

Building Blocks

- NCEP Opensource projects.
- Climatic and forecast (CP) Conventions.
- ISO Standards.
- Linked Data.

Below, we present two examples of metadata encoding adapted specifically for statistical post-processing. The first example shows how metadata would be encoded for a mesonet sensor observation. The second describes a sample gridded field from the National Blend of Models.

The relevant portions of the netCDF codes are included in this center column. Supporting information that is found in the NWS Codes Registry is shown in the right column.

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NOAA/NWS/ST/MDL¹, NOAA/NWS/NCEP/EMC², AceInfo³

Data Encoding Demonstration

Sample Field from an Archive of Mesonet Surface Observations

short NBM_FieldProc_2 (number_of_stations, default_time_coordinate_size=46);<br> Ancillary variables are:<br>- OM_resultTime: validtime OM_resultTime(Periodically)<br>- Meterology.FieldProc.Observation(Periodically)<br>- NBM_FieldProc_2 (number_of_stations, default_time_coordinate_size=46);<br>- OM_observedProperty: "elevation"<br>- OM_resultTime: validtime OM_resultTime(Periodically)<br>- Meterology.FieldProc.Observation(Periodically)<br>- NBM_FieldProc_2 (number_of_stations, default_time_coordinate_size=46);

Sample Field from the National Blend of Models

float nmb_temperature(time=0;/100000, site=0);<br> Ancillary variables are:<br>- Phenomenon TIMewithValues(Periodically)<br>- OM_resultTime: validtime OM_resultTime(Periodically)<br>- Meterology.FieldProc.Observation(Periodically)<br>- NBM_temperature(time=0;/100000, site=0);<br>- OM_observedProperty: "elevation"<br>- OM_resultTime: validtime OM_resultTime(Periodically)<br>- Meterology.FieldProc.Observation(Periodically)<br>- NBM_temperature(time=0;/100000, site=0);

Acknowledgement

We acknowledge the contributions of Mark LaMotta in the development of the controlled vocabulary for statistical post-processing that we present here.

Contact Information

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WIPSYS documentation can be found at [https://codes.nws.noaa.gov/StatPP](https://codes.nws.noaa.gov/StatPP). The Codes Registry document can be found at [https://codes.nws.noaa.gov/CodesRegistry/](https://codes.nws.noaa.gov/CodesRegistry/).

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