

Friday Feb 5, 2010, 1030

Scott started call by describing board meeting and the desire to have all data available in a google Earth view, so this email summarises some ideas related to that and some technical details also.

1. Data Access The great news is that the marcoos data providers have done a great job hosting their data to meet IOOS standard recommendations. This RA is more focused on models/radar/satellite/gliders than the other RA's which have more focus on buoys and in-situ obs. Because of that, most of the providers have focused on the use of Thredds (TDS) to provide data and we are in great shape, some relatively small technical details to resolve (below), and Jay's team at Weatherflow have implemented the SOS service successfully for in-situ obs so we have that covered also.

2. Visualization

It seems that we have a few needs -

a. a Google Earth link where all the Marcoos assets can be seen. Lauren at ASA is an expert in this area so we can coordinate an effort to look at that, and we may even use the Cloud to host that data. Google Earth will be great for education and we can add pop ups that describe information about the details and background for each data set.

From a science point of view - it has some limitations:

- it will not allow users to on the fly change legends, change z level, and do any data analysis. etc.

- new KML must continually be built as data is made available (makes large files).

- the KML that we build has a few options, pros and cons to each:

- embed images in the KML (Matt Oliver has done this)

- embed WMS services in KML

- build KML that actually stores all of the data, can be huge but offers some flexibility

b. We have a prototype web client that connects to the actual data on the server (not SOS yet) and this allows tools like changing legend, values, change z levels and could have the option to interrogate values, maybe even do comparisons in future. Some good discussions between John Wilkin, Avijit, and Matt on tools like the ability to show 3d values in depth following fashion (sigma) and to be able to ask questions like - "show me 8 day average of SST", and tools to generate time series.

c. Many of the users are Matlab users so any tools that allow easier access to the Marcoos data will be useful. Dan Holloway also mentioned a Matlab-based compiled tool (so free) at

<http://www.opendap.org/pub/contributed/source/ml-toolbox/>

Technical Discussion (notes from Kyle and Lauren)

Rutgers:

* Marcoos 6km CODAR time variables are not rounding correctly. You can see an example at: <http://tashtego.marine.rutgers.edu:8081/ncWMS/godiva2.html>. Activate the Macoora 6km Codar Totals "surface_velocity" layer. In the "Date/time" dropdown, you will see available times.

Using NeML to correct the time variable MIGHT fix the issue. John already looking at solution

* The MODIS data may have some bad TIME variables in the NetCDF files. I don't have access

to the individual files on the THREDDs servers, only the OPeNDAP collection available here: <http://tashtego.marine.rutgers.edu:8080/thredds/dodsC/cool/modis/bigbight.html>. If you view the time steps, you will notice some of them are very far in the past... in 1901. Looks like the culprit data file is somewhere between December 23rd and 25th 2009.

* Crossdomain.xml files avoid the requirement for foreign web application to proxy request to your server. The file needs to be in the root of the webserver. I attached a sample crossdomain.xml that will only allow requests from ASA's web client. Stevens is using this file at: <http://colossus.dl.stevens-tech.edu:8080/crossdomain.xml>. It will need to be accessible from the web at: <http://tashtego.marine.rutgers.edu:8081/crossdomain.xml>.

UConn:

* Crossdomain.xml files avoid the requirement for foreign web application to proxy request to your server. The file needs to be in the root of the webserver. I attached a sample crossdomain.xml that will only allow requests from ASA's web client. Stevens is using this file at: <http://colossus.dl.stevens-tech.edu:8080/crossdomain.xml>. It will need to be accessible from the web at: <http://nopp.dms.uconn.edu:8080/crossdomain.xml>.

* 6km and 8km STPS time variables are not rounding correctly. They are also not rounding correctly from the parent CODAR data. You can see an example at: <http://nopp.dms.uconn.edu:8080/ncWMS/godiva2.html>. Activate the Macoora 6km Latest STPS "sea_water_velocity" layer. In the "Date/time" dropdown, you will see available times. Using NcML to correct the time variable MIGHT fix the issue. Will need to be tested.

UMass:

* Crossdomain.xml files avoid the requirement for foreign web application to proxy request to your server. The file needs to be in the root of the webserver. I attached a sample crossdomain.xml that will only allow requests from ASA's web client. Stevens is using this file at: <http://colossus.dl.stevens-tech.edu:8080/crossdomain.xml>. It will need to be accessible from the web at: <http://aqua.smast.umassd.edu:8080/crossdomain.xml>.

Stevens:

* FMRC time variables are not rounding correctly. You can see an example at: <http://colossus.dl.stevens-tech.edu:8080/ncWMS/godiva2.html>. Activate the NYHOPS Bight FMRC "wind" layer. In the "Date/time" dropdown, you will see available times. Using NcML to correct the time variable MIGHT fix the issue. Will need to be tested.