Using metadata attributes for choice a template of data visualization

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The development of the Unified State System for Information for World Oceans (ESIMO, http://portal.esimo.ru) has been finished on December 2013. The composition of information resources is including the various data types (point, trajectory, profile. grid) and data categories (observed, analyzed, forecasted, and aggregated). For visualization of each type of resources requires a certain template. The visualization tools of information resources must be configured on the metadata attributes. This lets opportunity automatically to select the data visualization templates, which depend from the values of metadata attributes such as storage system, the frequency of observation (aggregation), spatial and vertical resolutions, and platform type.

Depending on the type of storage system (structured files, object files, applications, geographic services, and analytical presentation) are using its template for visualization of information resources. Possible template types of structured information resources can be the classic or pseudo time series, profile, regular grid.

The any rules of templates selection are presented below.

1. If the Frequency of observation (aggregating) = regular (every 3 hours, or year, or day, etc.) and Spatial resolution = fixed point, or Area and Platform = Fixed and Vertical resolution = surface, then this is a classic time series. For these resources it may select on the map a point or area in order to plot the graphic of time series and present data in a table.

2. If Frequency of observation (aggregation) = Regular and Spatial resolution = Region, then this is a pseudo time series. For these resources it may select on the map a point or area in order to plot the graphic of time series and present data in table too.

3. If the Resource type = Application, then it requires only interaction with the application by link.

4. If the Resource type = Geographic service, then it need to visualize a list of map layers for an every geographic service.

5. If the Resource type = Analytical complex, then it need to visualize a list of analytical representations.

6. If the Resource type = Oobject files (images / documents), then it need to visualize a descriptions table of links to object files.

For correcting visualization of all integrated information resources by templates it requires to check values of some metadata attributes on these resources.