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**A summary of your lab, campus, or organization's ocean GIS activities:**

The Center for Coastal and Ocean Mapping/Joint Hydrographic Center was founded with two main objectives: to develop tools to advance ocean mapping and hydrography, and to train the next generation of hydrographers and ocean mappers.

The Joint Hydrographic Center (JHC) is a formal cooperative partnership between the University of New Hampshire and the National Oceanic and Atmospheric Administration (NOAA) whose aim is to create a national center for expertise in ocean mapping and hydrographic sciences. The Center for Coastal and Ocean Mapping (CCOM), a complementary university center, expands the scope of ocean mapping interaction and collaboration with the private sector, other government agencies, and other universities

CCOM/JHC utilizes GIS for a wide range of ocean activities including:

- Survey planning for hydrographic and scientific mapping missions
- Coverage mapping and quality control of bathymetric data both during and after a survey
- Visualization of bathymetry and backscatter data for qualitative and quantitative analysis
- Aids in the data management of large quantities of survey data
- Discovery and distribution of seafloor bathymetry and backscatter datasets through the center's GIS server
- Chart and map production using ArcGIS products
- The ability to have controlled presentation of shared bathymetry and backscatter maps
- Production of bathymetric synthesizes where data in multiple formats (BAGs, netCDF, GeoTIFF, etc.) are mosaicked into a single data product.

**A brief description of the ocean GIS issues that most concern you and impact your work (see the summit agenda for examples.):**

CCOM/JHC is in the process of migrating its bathymetric and backscatter datasets along with their associated components (navigation, raw and processed data file coverage maps, metadata, etc.) for use with the center's ArcGIS server. This process is being undertaken to create a central repository of common datasets for users both within and outside the lab.

In order to simplify the process and eliminate the potential for human error in dealing with the data, a majority of the steps required to translate the data into a format suitable for use with ArcGIS products are being done using either Linux or OSX machines running open source software (mbsystem, generic mapping tools, OGR/GDAL, etc.) along with customized scripts. These steps include extracting metadata from raw and processed multibeam files or data products, processing and gridding bathymetry and backscatter data, converting data products into formats useful with the GIS, and associating the extracted metadata with these products. While this process works, it would be nicer to have a common platform and solution which could manage the same workflow to generate content for an ocean GIS.