

| OPERATION | SYSTEM CAPABILITIES |
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| Data handling and visualization | Dynamic (time-based), 3 dimensional home for data, visualization is 2 dimensional with interactive drilling and slicing of dynamic 3 dimensional fields; handles both real-time data streams as well as historical data |
| Database Access | Provide ODBC connectivity to relational databases and has “Database Wizard” for automated parsing of database fields into the GIS database. It will also provide advanced interfaces to on-line data sources including DiGIR taxonomic queries utilized by the Ocean Biogeographic Information System (OBIS), NetCDF formats used by PMEL’s Live Active Server, and NVOODS, handles protocols recommended by the IOOS DMAC. |
| Multimedia | Provides home for audio and video information as well as full connectivity to Fetch Agents in particular will provide capability to exploit Navy and NOAA archives. These agents will constantly employed, providing the latest data as well as keeping the Mediator repository up-to-date. |
| Quality Control | When data is presented in 4 dimensional maps errors in time and location are quickly apparent. An outlier statistical analysis will be included as an algorithm in the GIS |
| Data Fusion | Has built-in contouring package for creation of contour plots and false color images; has applications programming interface for visual basic, FORTRAN, and C customized integration of models and algorithms |
| Satellite Imagery | Advanced interface for automatic downloading satellite imagery into GIS, handles over 30 types of formats commonly used by the oceanographic community |
| Data storage & connectivity to traditional GIS data | Almost all data and imagery are stored in native and commonly used formats including shapefiles and other vector formats |
| Internet | GIS can be run in desktop mode on a PC and then easily transformed into a web mapping service by simple activation of Netviewer plug-in; all data and imagery in the system can be downloaded interactively to the client |