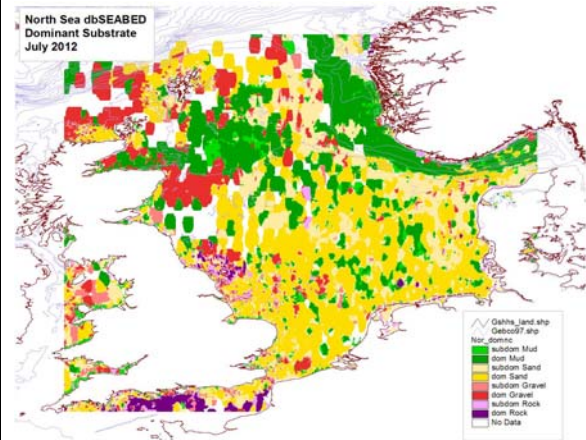


Bringing dbSEABED gridded data into GIS

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A dbSEABED gridded-data project holds files that are ASCII ESRI grids, a Shapefile of the same as polygons, point data listings, project setup instructions and records, and geographically binned data. A project delivery to an external user will probably only include the ASCII grids.

Methods. Each project is computed from standard dbSEABED point data using these programs: dbS_COVERAGES and dbS_GRIDDING, perhaps also dbS_GRIDCODES, dbS_RGB2IMG and dbS_GRID2POLY. The programs are run in that order. dbS_GRIDDINGS must be run multiple times, once for each parameter (such as gravel).

Some gridded data sets are served publicly from the web: e.g.
“http://csdms.colorado.edu/wiki/DBSEABED#Data_for_Modellers”.

The Fileset. The fileset is shown in Table 1. The usual least fileset is shown in bold. Code xxx stands for the project name.

XXX stands for the parameters: RCK for rock (% exposed); GVL, SND, MUD, CRB, CBN, POR for gravel, sand, mud, carbonate, organic carbon, porosity (all in %); GRZ, SRT for grainsize mean and sorting (phi units, i.e. $-\log_2[\text{mmSize}]$); RED, GRN, BLU, RGB for red, green, blue and RGB (0-255); FOLK texture codes (see <http://pubs.usgs.gov/of/2006/1195/html/docs/images/folk.gif>) and DOMNC for dominant bottom types (e.g. dominant sand, subdominant sand).

Parameter values are given in grids xxx_XXXv.asc, uncertainties in xxx_XXXu.asc.

Import into GIS. All the outputs are in WGS84 geoid and in unprojected (geographic) degrees latitude/longitude.

Note that according to which GIS and version of GIS, the import method may change considerably. If you strike a new case, contact us at dbSEABED - we will help.

Display Legends. Legends for all of the parameter grids are available from “<http://instaar.colorado.edu/~jenkinsc/dbseabed/legends/>” for ArcView 3.x and ArcGIS 9.x. Please DO use these. Uniformity of colour scales across the dbSEABED project really helps communication, maintenance and publication.

Main Delivered Files

Division (Generating program)	Filenames	Method of import to GIS
Gridded data – values (dbS_GRIDDING)	xxx_XXXv.asc	<ul style="list-style-type: none"> • ArcMap 9.x: Tools >ConversionTools >toRaster >ASCIItoRaster: in the window • Use the python script arcpy in ArcGIS10 for batch conversion • Quantum GIS: use the raster import tool
Gridded dat – uncertainties (dbS_GRIDDING)	xxx_XXXu.asc	<ul style="list-style-type: none"> • (As above)
Gridded coded data (dominant habitat and Folk sediment codes) (dbS_GRIDCODES)	fla_DOMNC.asc, fla_FOLK.asc	<ul style="list-style-type: none"> • (As above) <p>Note that there are special legends for these, since the values are codes.</p>
Shapefile of the Gridded data (dbS_GRID2POLY)	xxx_GRIDS.shp/.shx/.dbf/.prj	<ul style="list-style-type: none"> • Straightforward import of Shapefile to whichever GIS is being used. The prj file will ensure that the proper projection/geoid is applied. <p>Apply a standard dbSEABED legend for any one of the parameters in the Shapefile. The resulting mapo looks like a grid.</p>
GeoTIFF set of seabed colours (dbS_RGB2IMG)	xxx_RGBv.TIF/.TFW	<ul style="list-style-type: none"> • A georegistered image of the seabed colours, in real colours. (Color uncertainties not calculated. TFW in unprojected degrees, WGS84.)
3D Visuals (dbS_3DVISUAL)	xxx_XXX_3d.png	<ul style="list-style-type: none"> • Open as normal screen graphics.

Ancilliary Files (Usually not delivered)

Division (Generating program)	Filenames	Method of import to GIS
Project setup (dbS_COVERAGES)	xxx_setup.txt, xxx_project.asc, xxx_project.hdr, xxx_project.asc, xxx_data.asc,	Do not import these into GIS
Map area bathymetry (dbS_GRIDDING)	xxx_BTYs.asc, xxx_BTYs.asc	(As at top)
Project point data (dbS_COVERAGES)	xxx_WWD.TXT, xxx_XTA.TXT, xxx_CMP.TXT, xxx_SRC.TXT, xxx_SRC.KML	ArcCatalog >Convert to Feature Class >XY Table >etc
3D View setup (dbS_3DVISUAL)	xxx_3dOrient.txt	Do not import this into GIS
Polygon Shapefiles setup (dbS_GRID2POLY)	xxx_GRIDS.mid/.mif, xxx_MIFSHAPE.bat	Do not import this into GIS
Data for Jacknife test (dbS_GRIDDING)	xxx_crb_heldback.txt,	Do not import this into GIS