

**SAIHC 10 (16 - 19 September 2013)**

| Lisbon, Portugal

# **Maritime Geomatic Data Seamless Workflow**

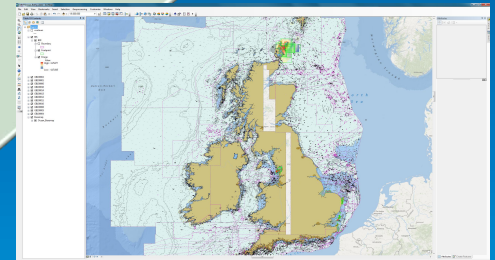
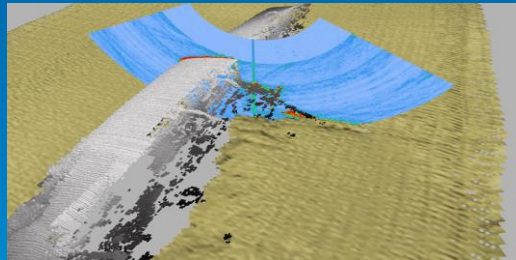
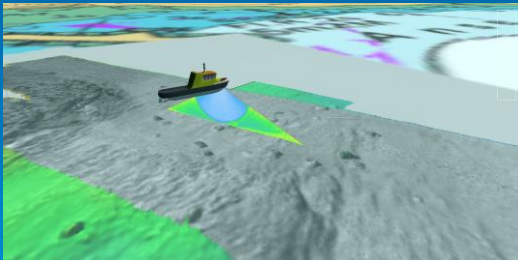
Mr Richard HILL  
(QPS Marketing and Sales)

# QPS-ESRI seamless workflow:

QPS  
QINSy

QPS  
Fledermaus

Esri  
ArcGIS



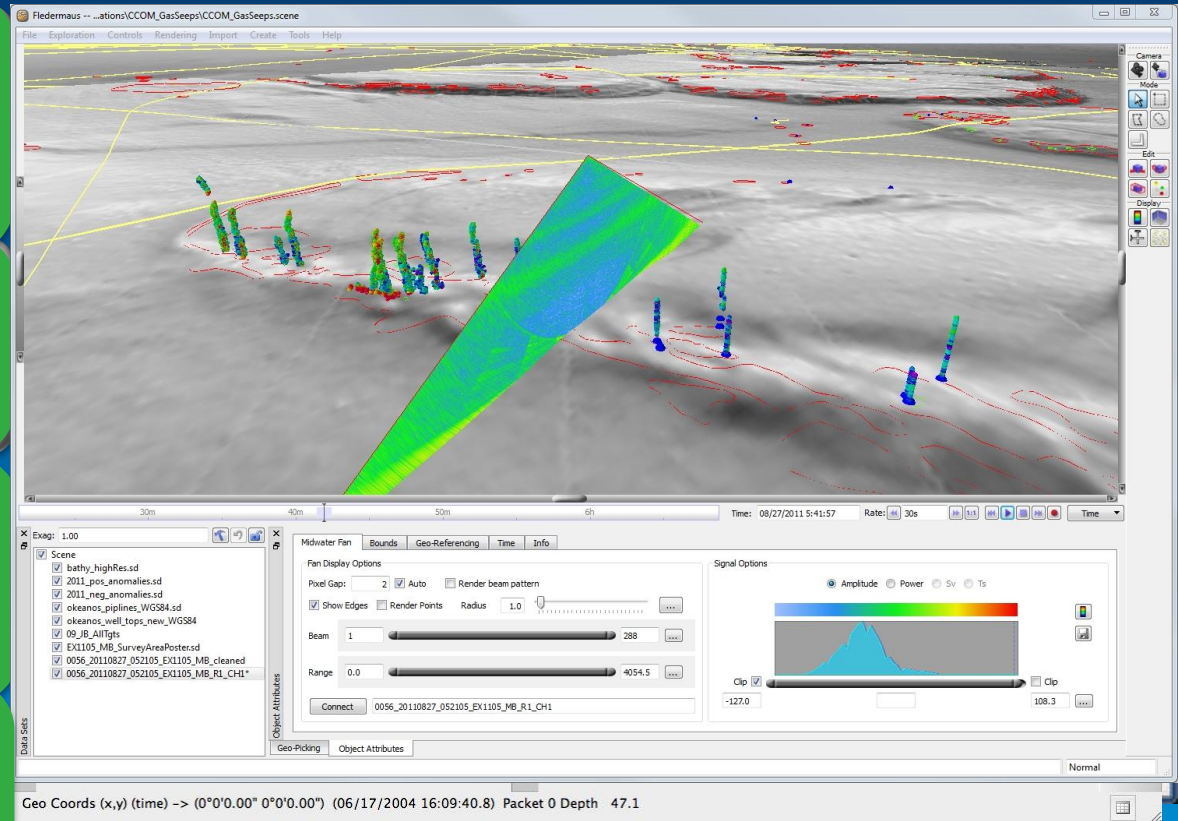
# Maritime Geomatic Survey Data Types:

Depth

Backscatter

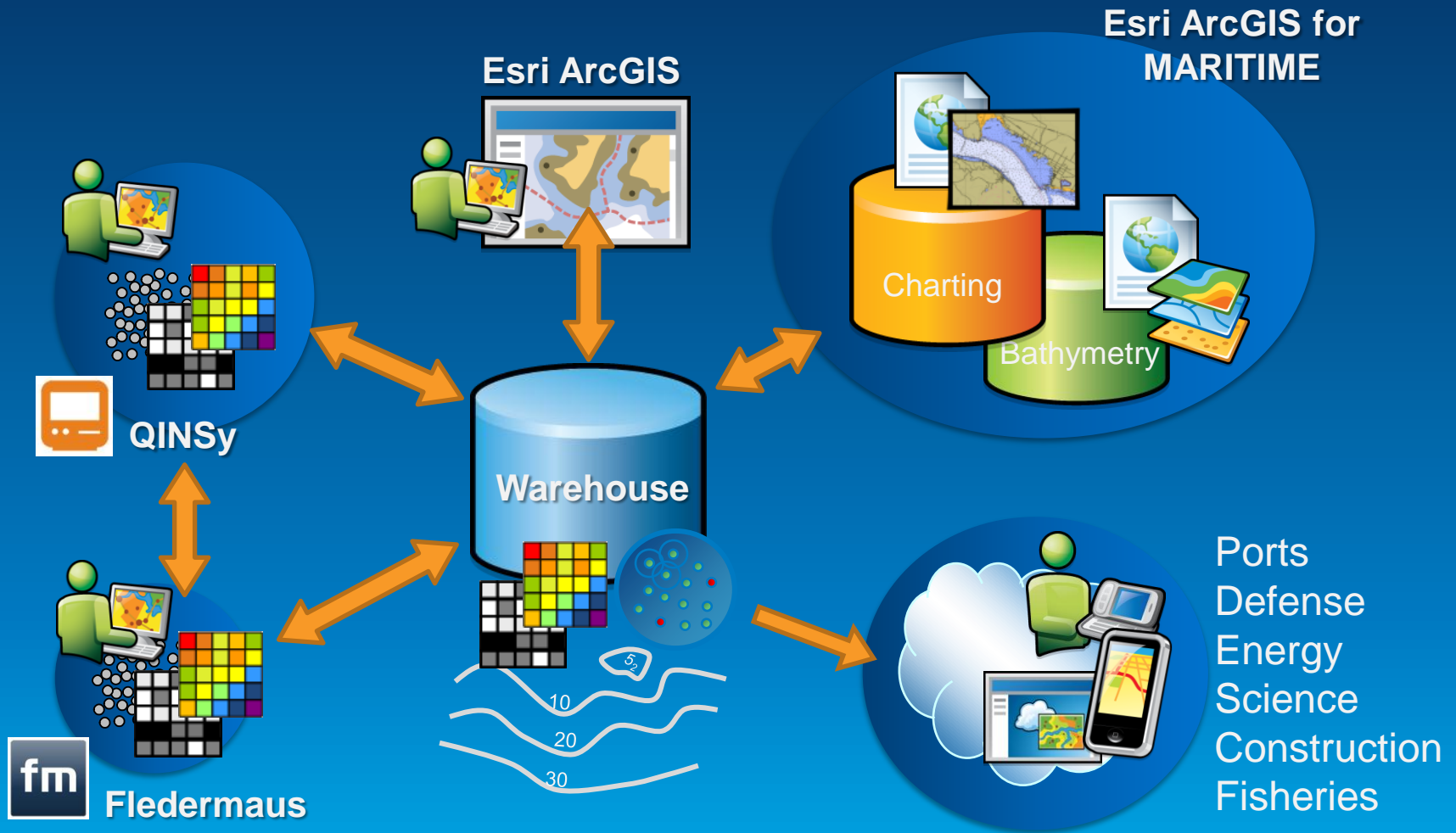
Water Column

Ancillary

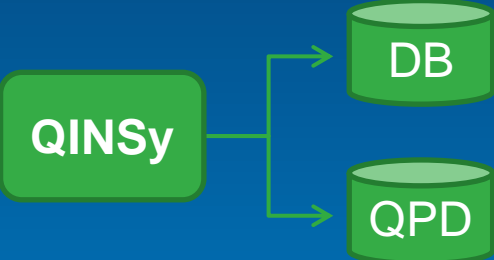


- Oceanographic & Meteo data

# QINSy-Fledermaus-ESRI:



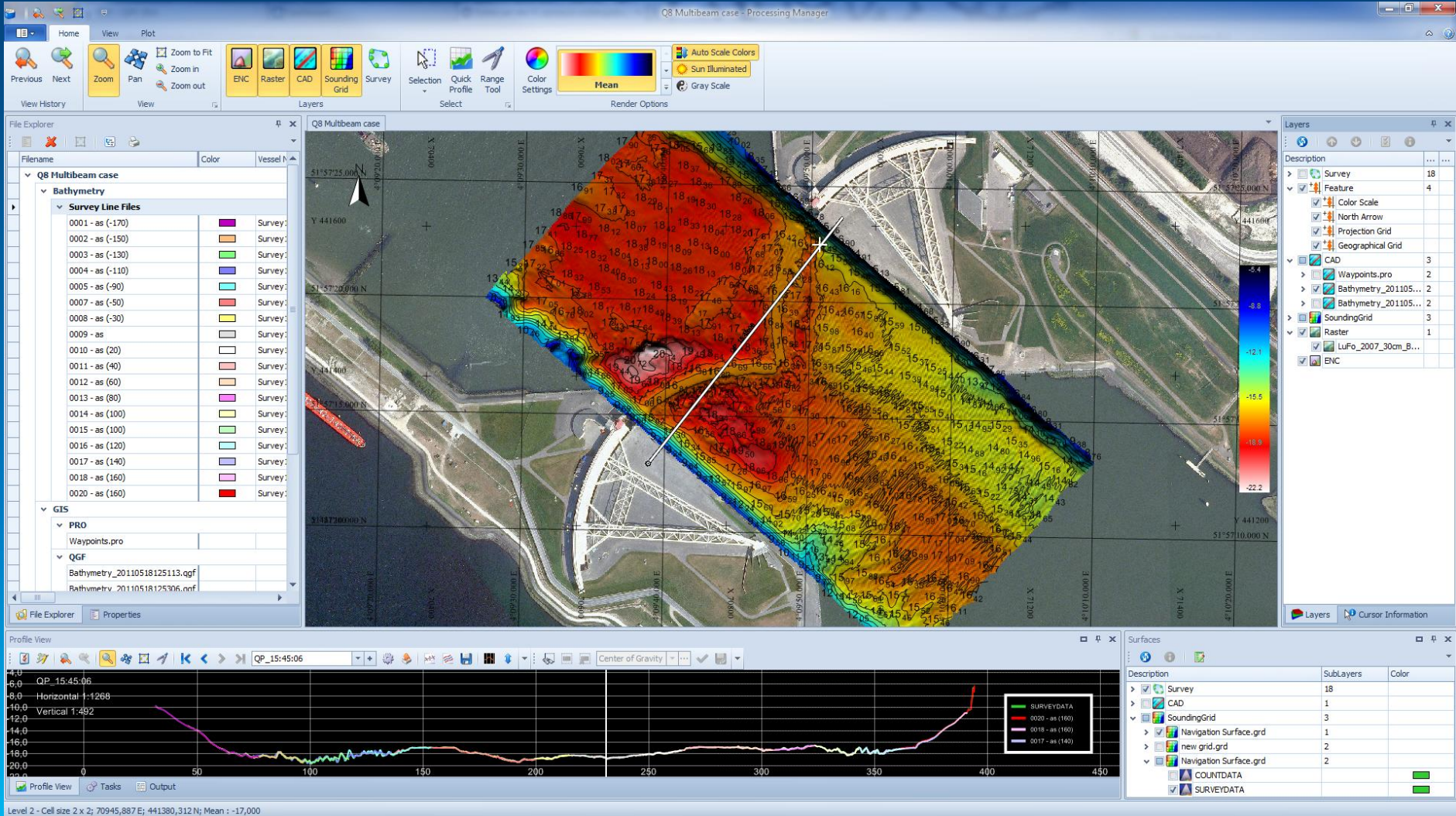
# Workflow – Acquisition Stage:



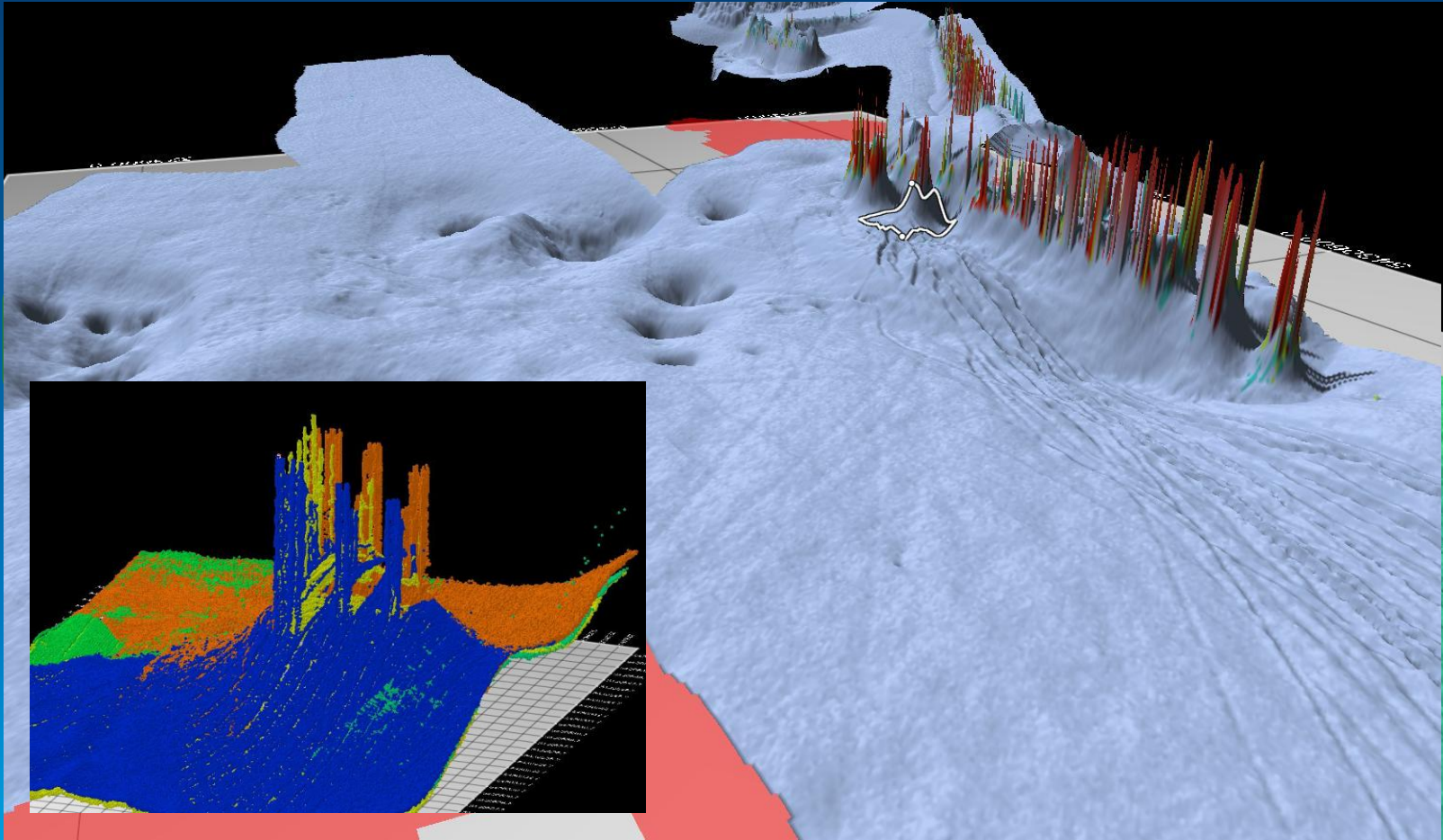
# QINSy Multibeam E/S SURVEY:



# Workflow – Processing Stage:



# Workflow – Editing/Validation Stage:



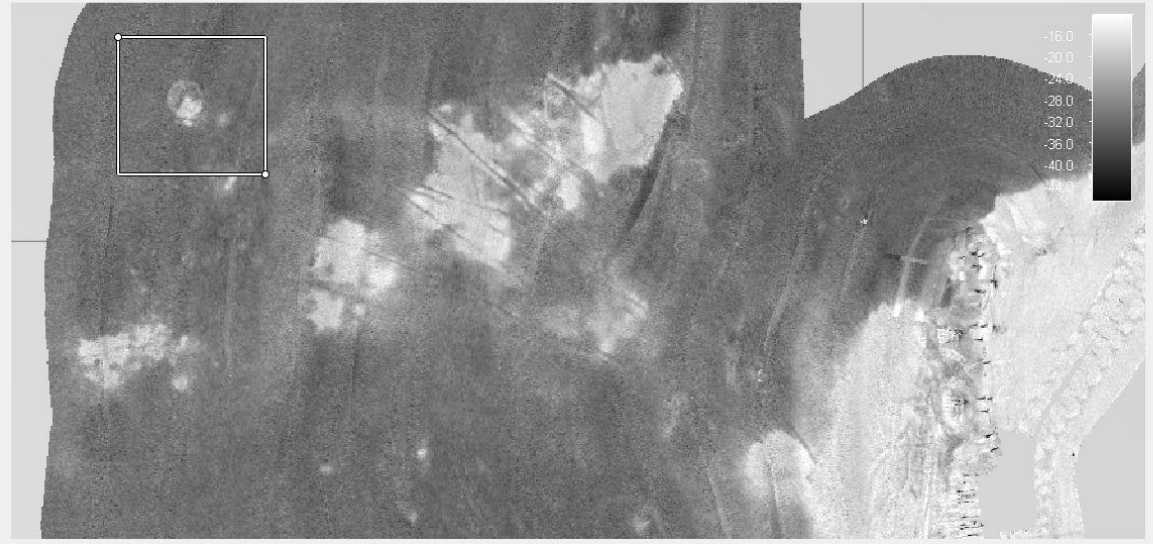


# Workflow – Backscatter Stage:

The screenshot displays the FMGeocoder Toolbox software interface, showing the Backscatter stage workflow. The main window is titled "FMGeocoder Toolbox: F:\ShallowSurvey2012\DB Processing\KSUC2012.fmprj".

**Visual Objects Panel:**

- Visual Objects
  - ✓ Mosaics
    - Mosaic\_2
    - Mosaic\_1
    - Mosaic\_3
    - Mosaic\_4
    - Mosaic\_5
  - ✓ Statistics
  - ✓ ARA
    - Ara\_2
    - Ara\_1
  - ✓ Grids
  - ✓ Layout
    - ✓ Survey Area



Source Files Visual Objects

Pixel Size (Meter) Mosaic Area: Selection

	Width	Height
Distance	68.28	63.60
Pixels	228	213
Mosaic Memory	0.463 Mb	

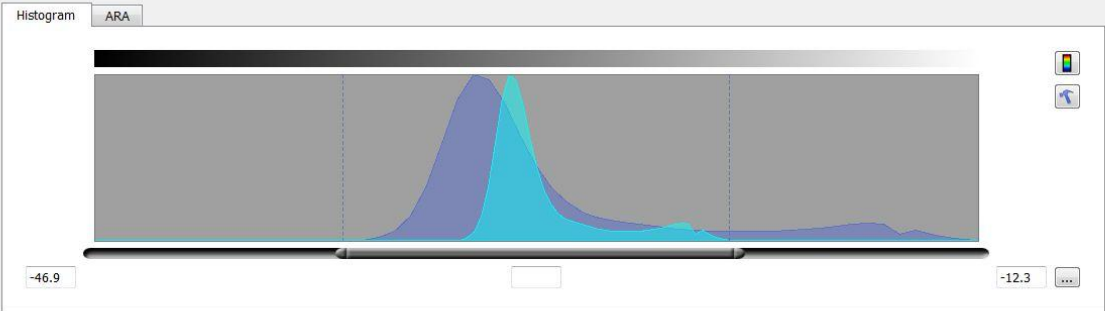
Buttons: Compute, Mosaic (0.3), Statistic (6.00)

Automatic Processing Manual Processing Messages

Backscatter: Coverage, Adjust, Filter, ARA Inversion, Clear Flags

Product Layers: Mosaic, ARA, Statistics, Rebuild All

Mosaic Tiles: Pixels (2048), Meters (1000), Create New, Clear



Geo Coords (x,y) -> (1758586.90, 5431507.20) Directory=OFF 1.4 GB

# Workflow – Water Column Stage:

The screenshot displays the FMMidwater software interface. The main window shows a large plot of a water column with a color scale from blue (low power) to red (high power). The plot is titled "Midwater" and shows a distinct layer of higher power (red/yellow) at the bottom, likely representing the seabed or a specific water layer. The plot is surrounded by a grid and has a time axis at the bottom.

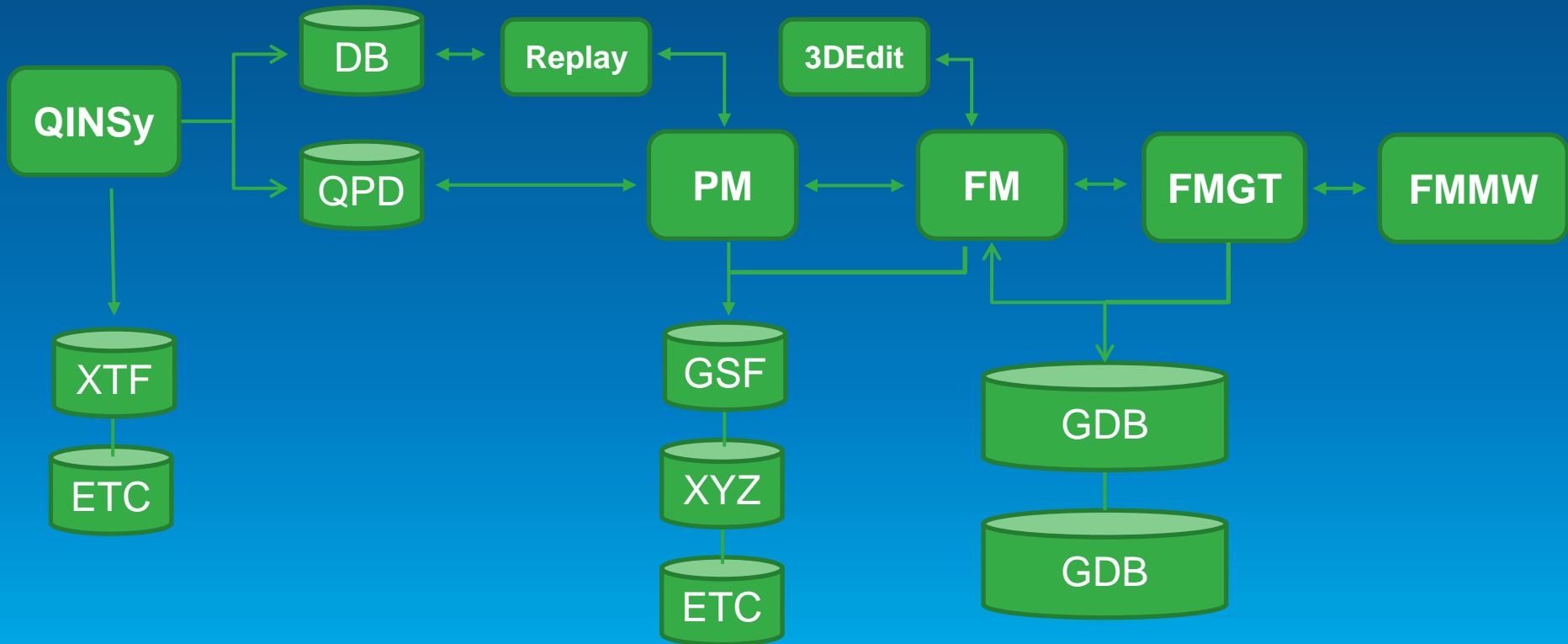
On the left side, there is a "Source Files" panel with a tree view showing a hierarchy of files under "Navigation" and "Midwater". Below this is a "Map View" panel showing a small map with a pink line indicating the survey track.

At the bottom left, there is a "Beam View Options" panel with settings for "Fan", "Polar", "Stacked", and "Beam" (selected). The "Beam" setting is set to 78. Below this are sliders for "Beam" (1 to 256), "Range" (2.8 to 21.8), and "Depth" (0.0 to 25.5).

At the bottom right, there is a "Signal Options" panel with a "Geo-Picking" tab. It shows a signal plot with a color scale from blue to red. The plot has a "Clip" checkbox checked and a "Clip" slider set to 1.00. The signal plot shows a series of vertical lines representing individual beams, with a color gradient from blue to red.

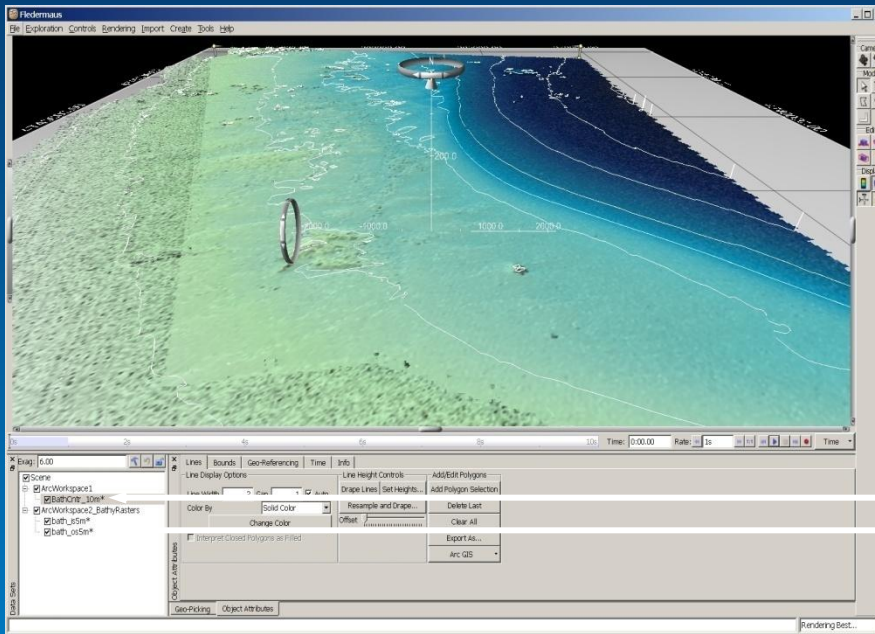
The status bar at the bottom of the window displays the following information: "Geo Coords (x,y) (time) -> (174°53'48.44\"E 41°15'22.96\"S) (03/09/2011 22:21:21.1) Packet 3097 Range 15.7 Power -36.5dB". On the far right, there is a memory usage indicator showing "101.0 MB".

# Workflow – Data Delivery Stage:



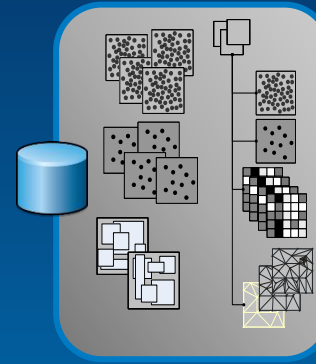
# Arc Workspace Implementation:

Fledermaus Workspace data object:



- Folder
- File (GDB)
- Personal (MDB)
- Spatial Database Engine (SDE)

Geodatabase

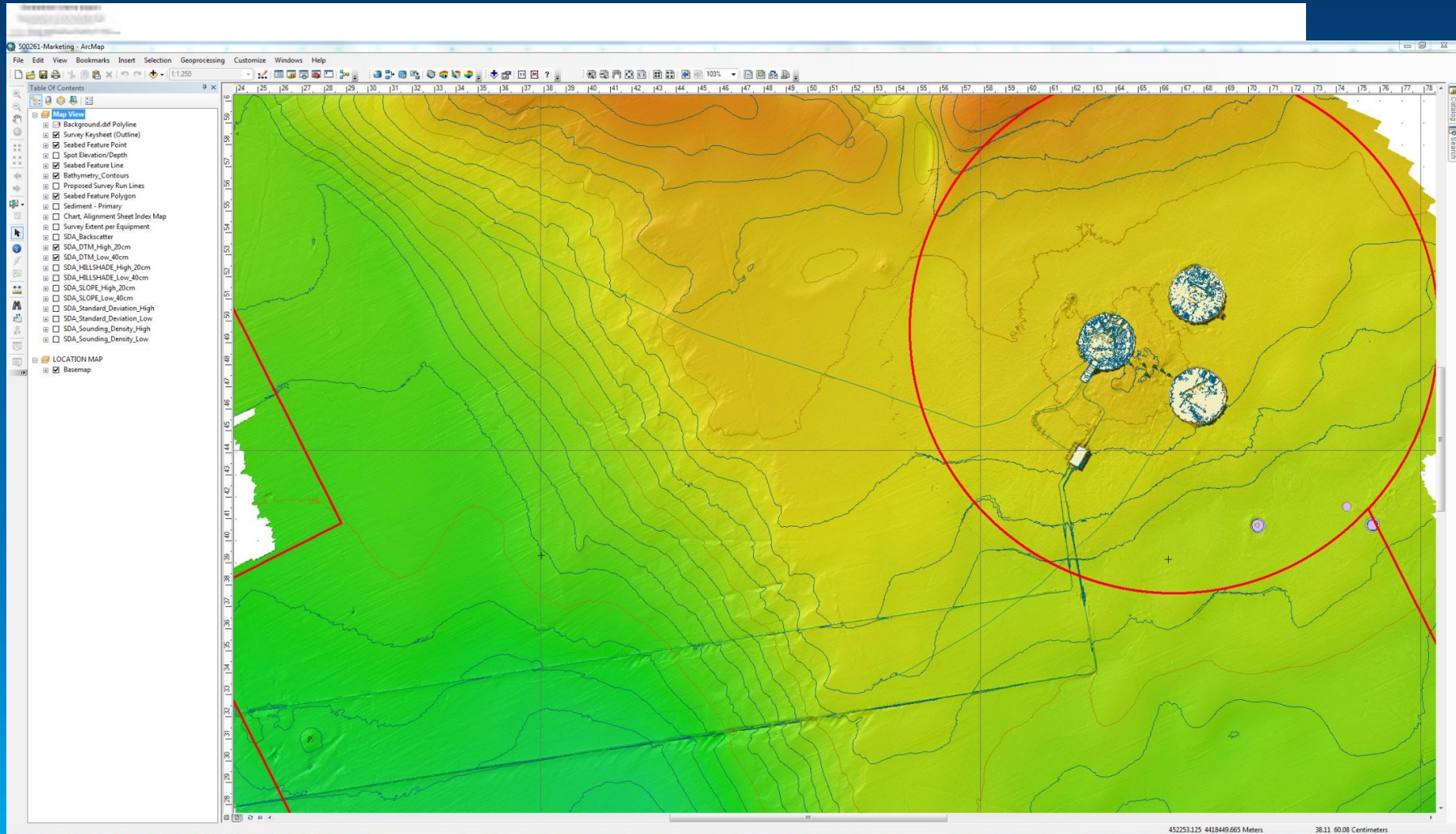


Data Model

- *BIS*
- *SSDM*
- *ArcMarine*
- *Nautical*

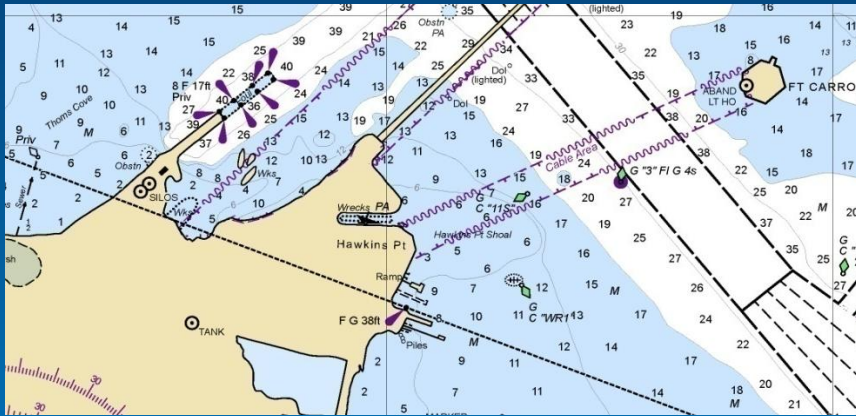
- Rasters (e.g., bathymetry, mosaics)
- Vectors (coastlines, sediments samples, etc.)

# ArcGIS data models:



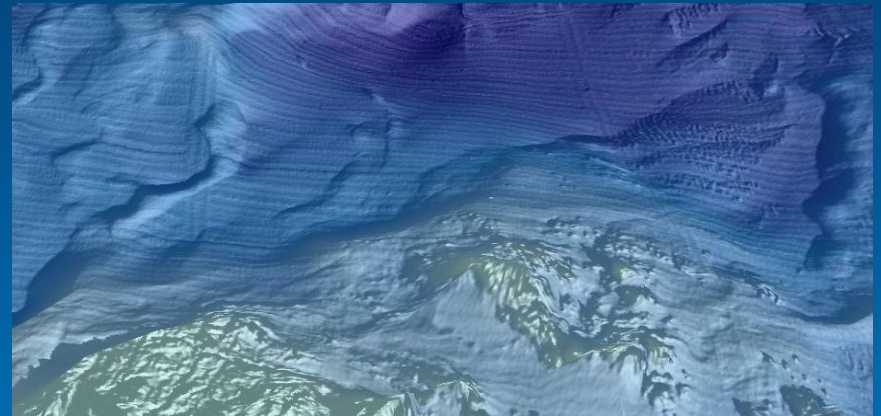
# ArcGIS for Maritime:

## Charting



Store nautical data, create, maintain and publish charts for navigational and marine purposes.

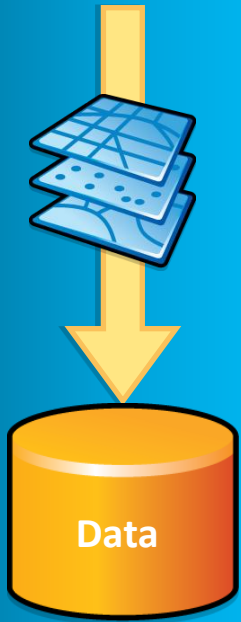
## Bathymetry



Store, discover, model and manage bathymetric data and create bathymetric products.

# ArcGIS for Maritime CHARTING:

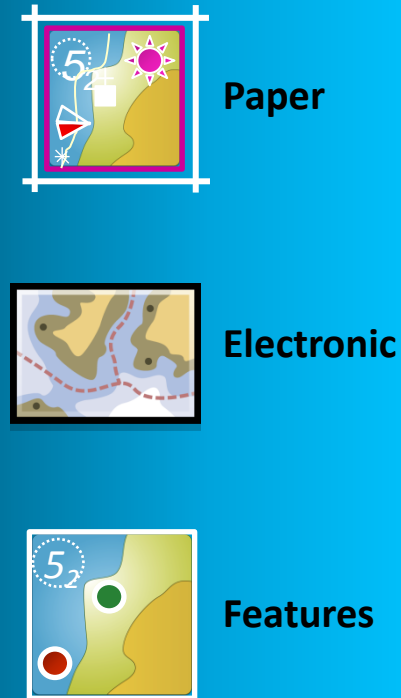
## Edit



## Manage



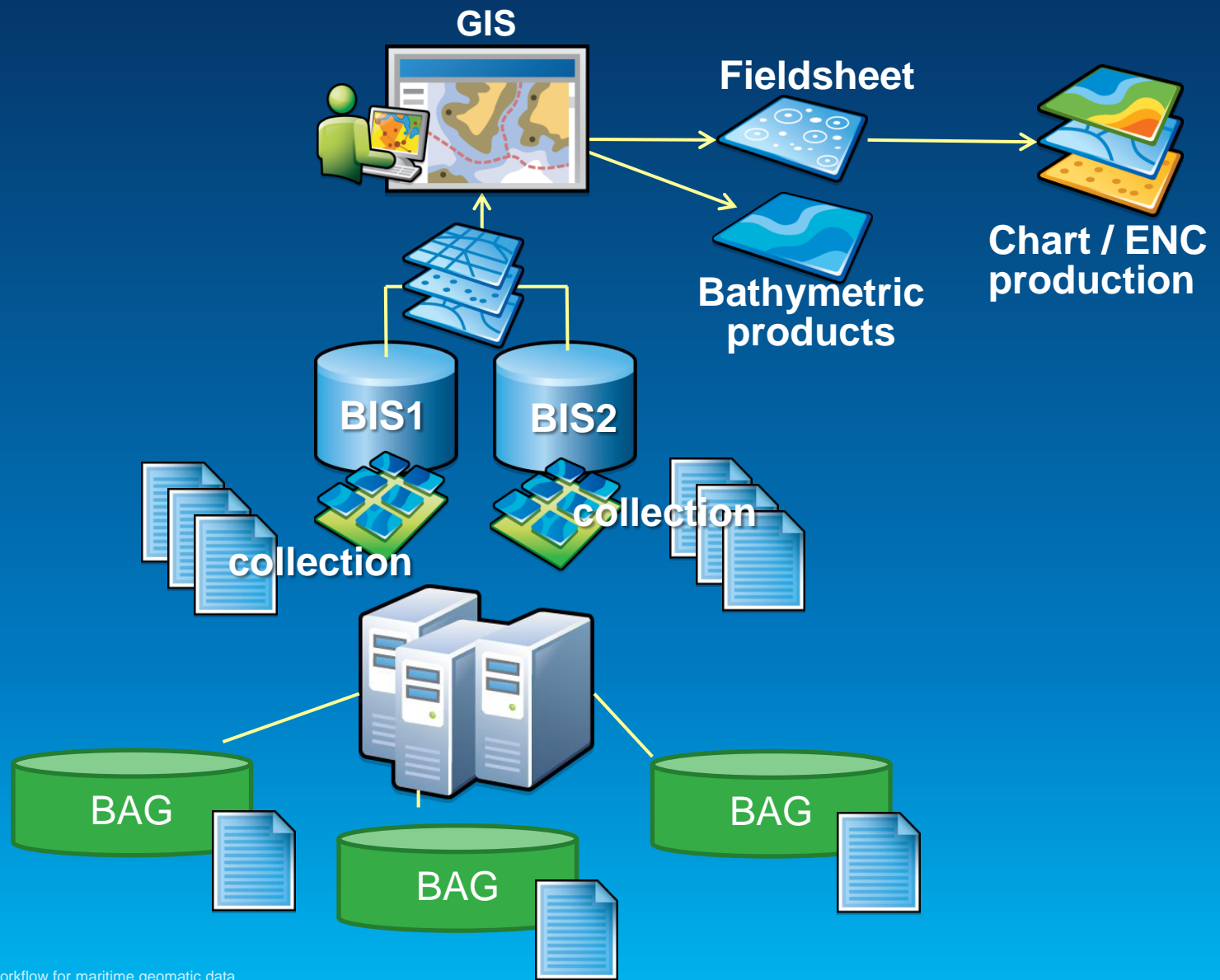
## Create



## Share

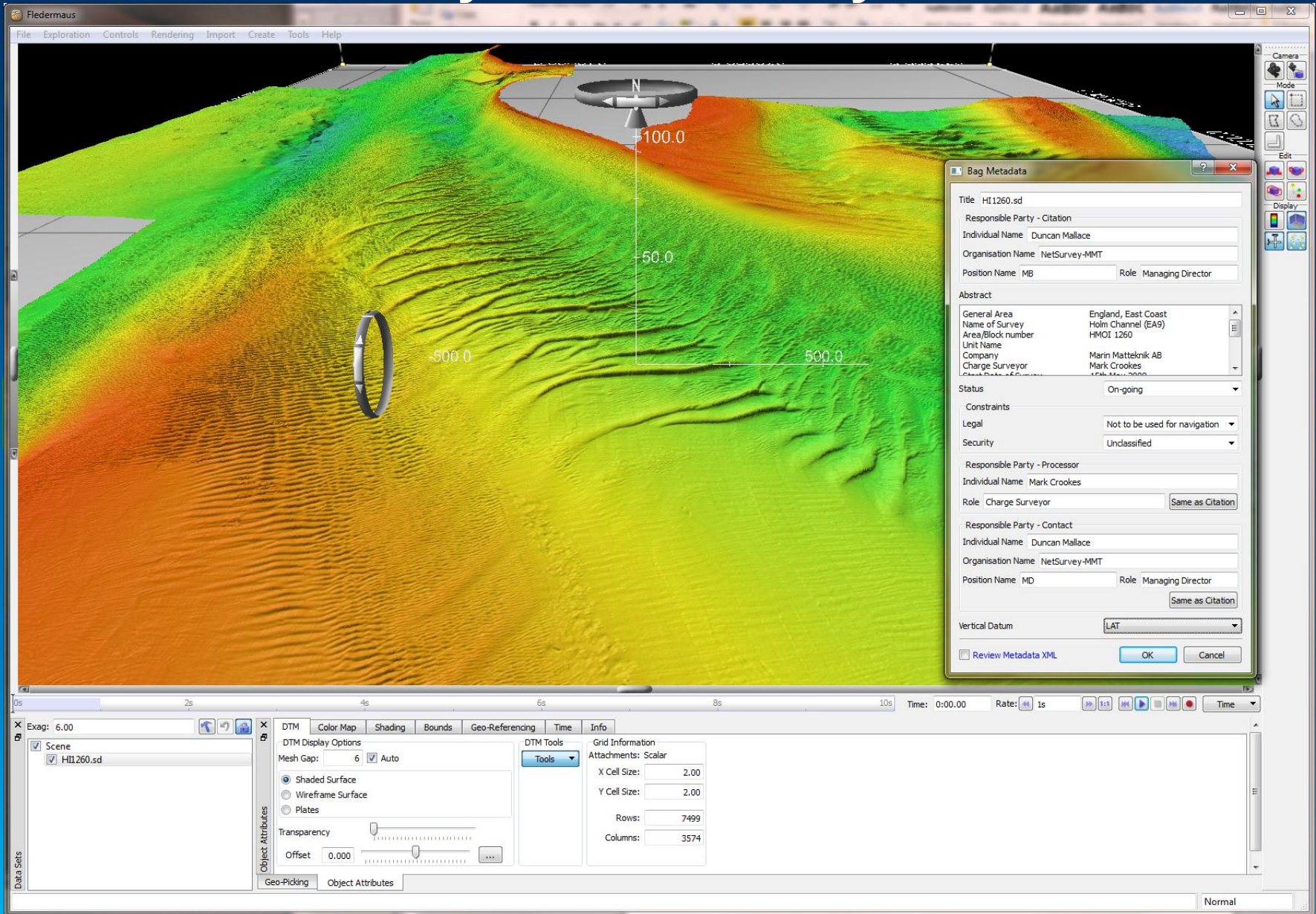


# ArcGIS for Maritime BATHYMETRY:

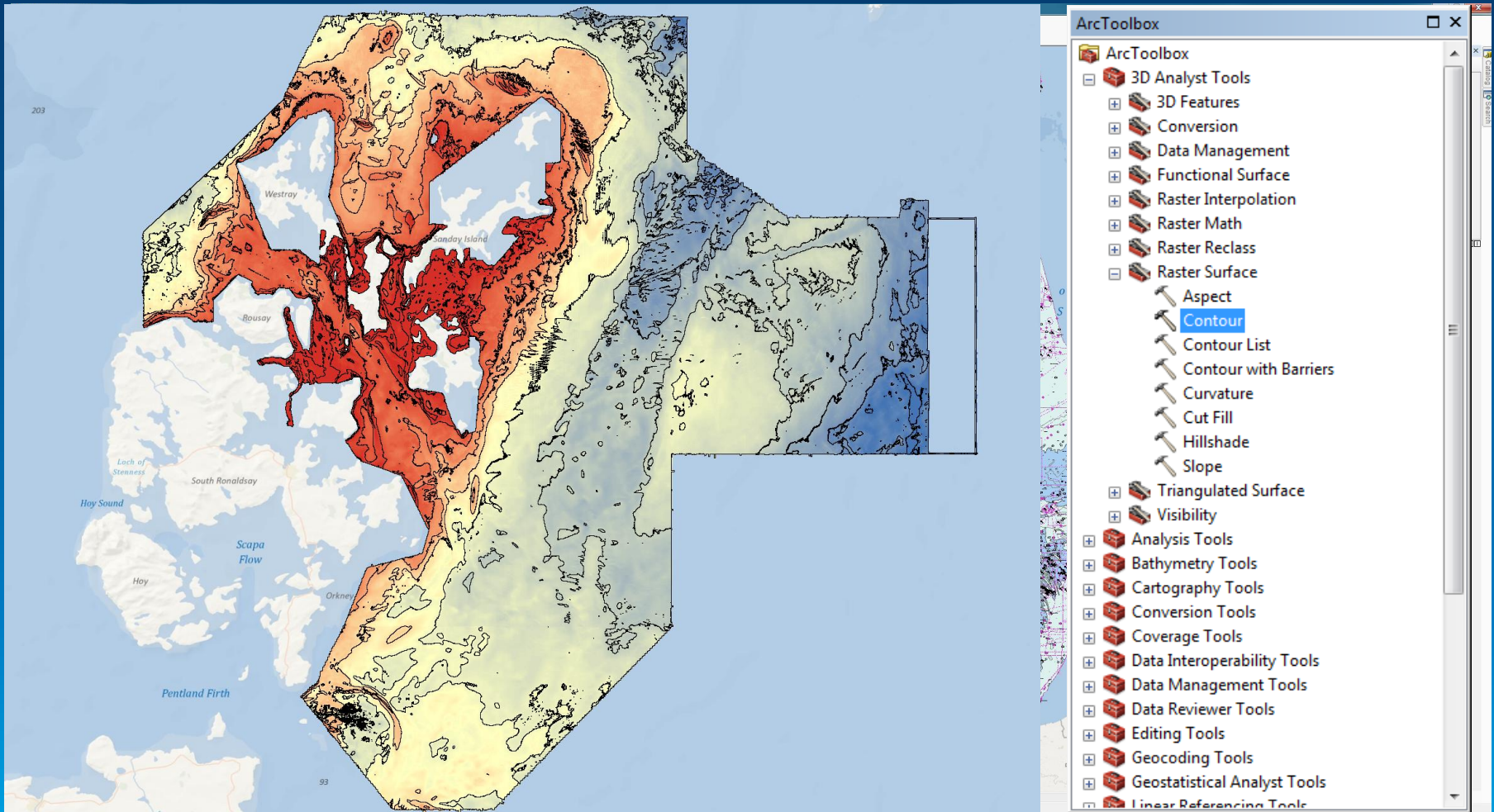




# Workflow – Bathymetry Data Delivery:



# ArcGIS - spatial view of data:



# THANK YOU!

QPS  
QINSy

QPS  
Fledermaus

Esri  
ArcGIS

