



Gulf of Mexico Initiative

COAST

Coastal Online Assessment and Synthesis Tool

COAST Origin

“A Coastal Data Integration and Investigation Client Browser”

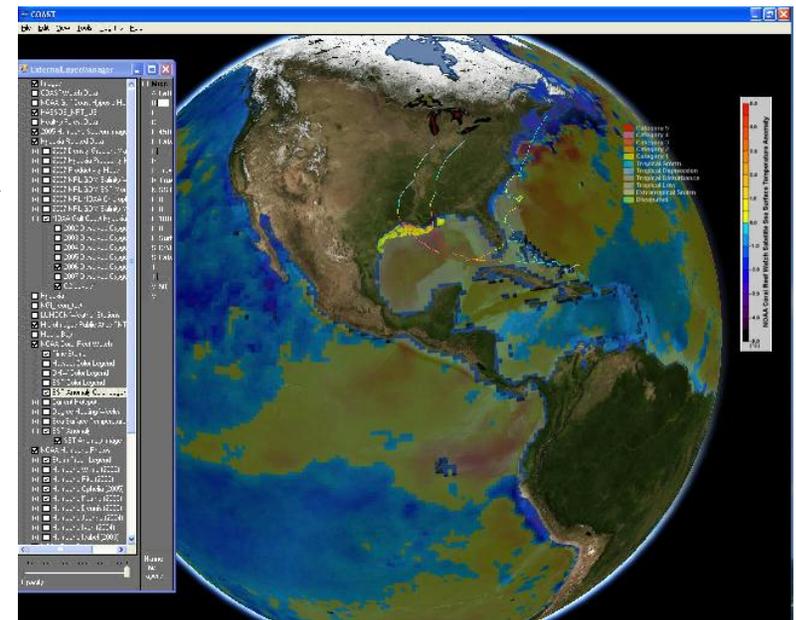
Developed from NASA Ames Worldwind

An **OpenSource** GeoBrowser

- **OpenSource**core development *already paid for*
- **OpenSource** *extensible*
- **OpenSource**... *a worldwide developer community available for leverage*

Why is it different?

- “*I’d like to bring my data into my online mapping app...*”
- “*Can we show temporal changes in my area of interest?*”
- “*Can we overlay data layers to allow spatial/spectral visual data investigation?*”



Prego! : Built in Features

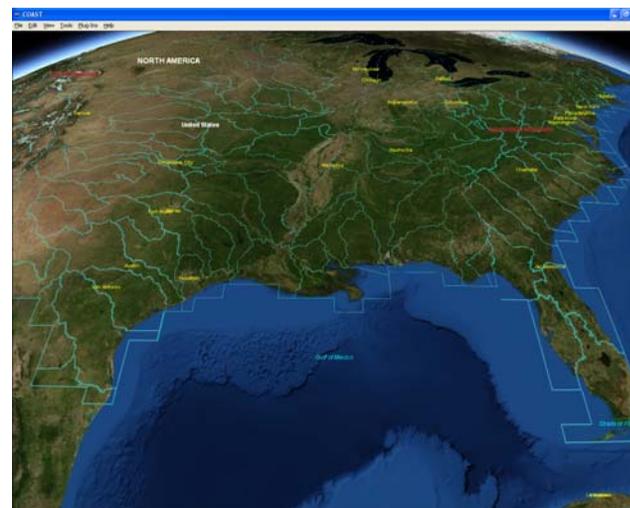
NASA/Other Data

- LandSat TM
- NASA Scientific Visualization Studio (GSFC)
- USGS Orthophotos
- Hi-resolution State Orthophotos (0.15 - 1 m)



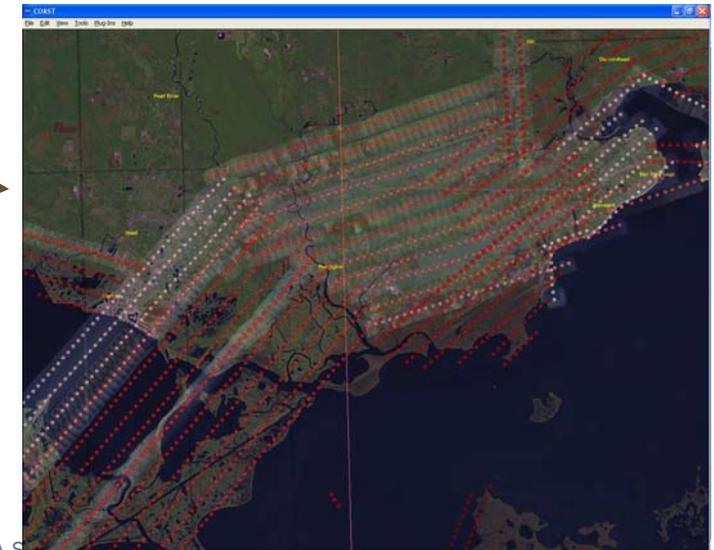
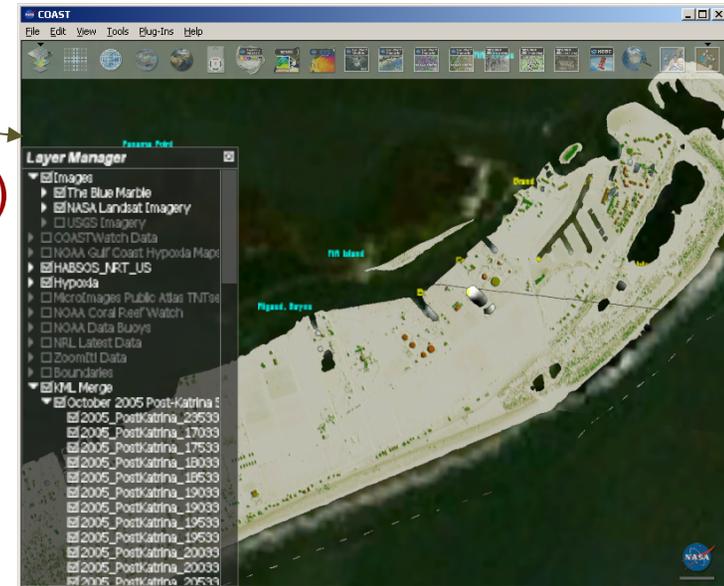
Tools/Utilities

- KML Importer
- NRL Monterey Animation tool
- WMS Importer Tool (Servir-Viz Modified)
- Measure Tool
- Placefinder Tool
- External Layer Manager with transparency control (Servir-Viz Modified)



Prego: Opensource Community Developed Features

- Google KML/KMZ importer
- Shapefile Loader (disabled with ver 1.4 / SSC mod)
- MODIS Historical Layers (needs minor mod)
- Rapid Fire MODIS (fire-flood-dust-smoke realtime mapping)
- Hurricane Katrina/Rita Pre/Post NOAA/COE aerial photography
- Image Overlay Tool (disabled with ver. 1.4/ SSC modifying)
- Image Layer Writer (new - needs further dev work)



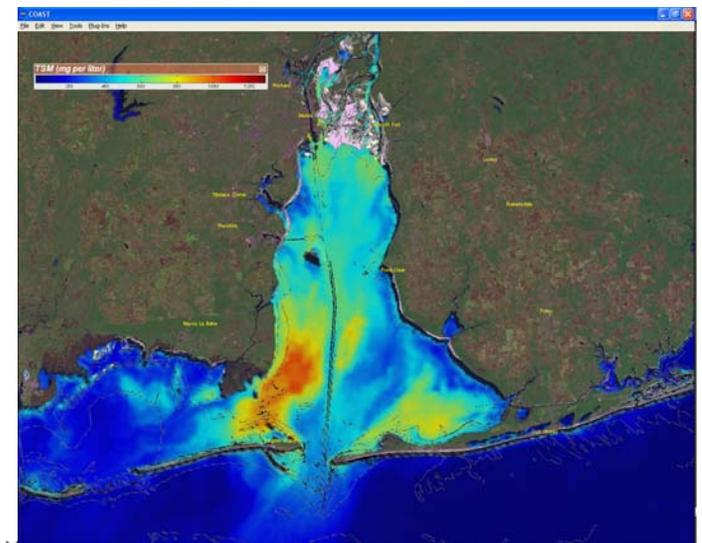
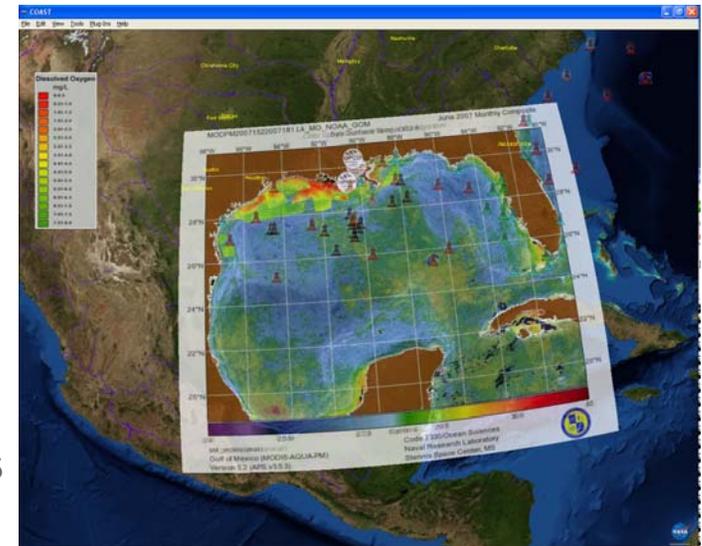
COAST: Legacy Projects Drive Enhancement

Integrated Approach to Monitoring Hypoxia

- Need ocean color data products access
- Need temporal visualization for change observation
- Need unmapped data from online repositories
- Need organization of data into “Project” layers

Regional Sediment Modeling

- Need higher res estuary/bay level data
- Need temporal visualization
- Need tighter shoreline georeference control with datum translation capability (soon)
- Shapefile import more valued for this level of data





COAST: Tools, Extensions, and Enhancements

How do I get my image data into COAST?

Image Overlay Tool

- Currently being enhanced with greater control and import capability

I'd like to see a series of temporal data over my study area...

- **NRL Monterey Weather** tool was modified to create the **Temporal Visualization Tool (TVT)** for ocean color products

I'd also like to scroll back and forth between frames of interest and know which image frame I'm looking at....

- Added VCR style controls
- Added filename overlay on screen for date/source info
- Next: Link back to origin data

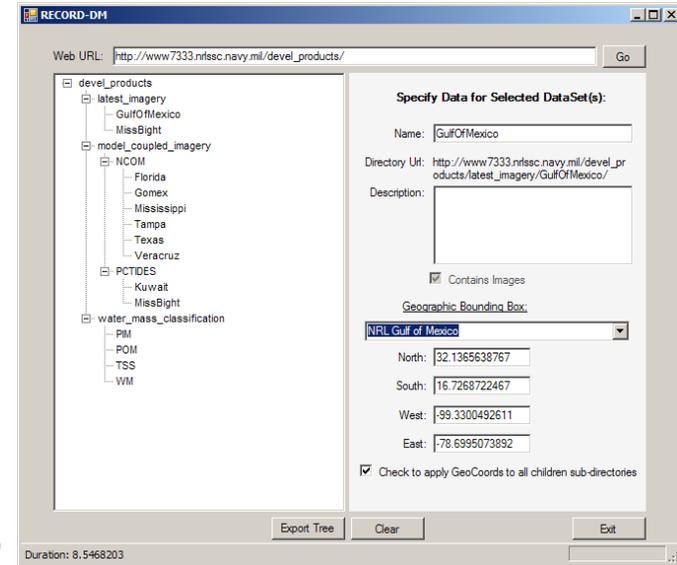
COAST: Tools, Extensions, and Enhancements

I've got a big online image directory.

How do I map it into COAST?

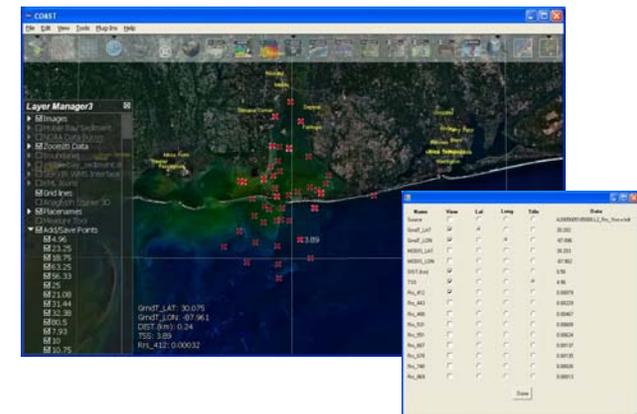
RECORD-DM Tool (Recursive Online Remote Directory - Data Mapper)

- External utility; can be run automatically
- Enter http: location and map contents to TVT usable format for immediate single or multi-image temporal viewing



I've got tons of vector data. Can I add it to COAST?

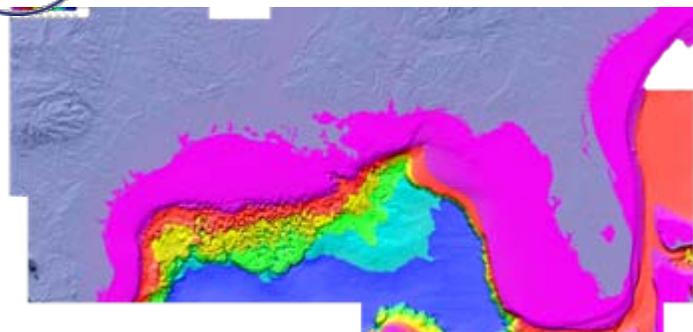
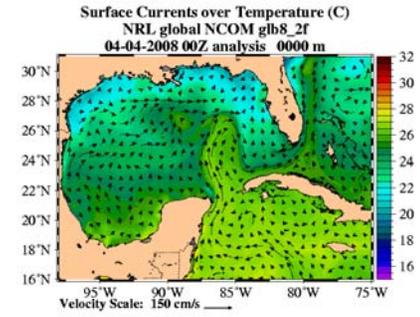
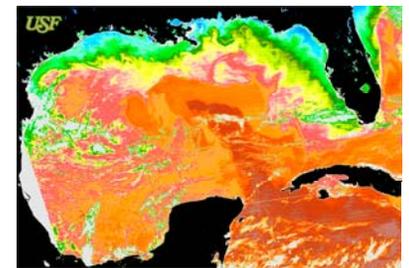
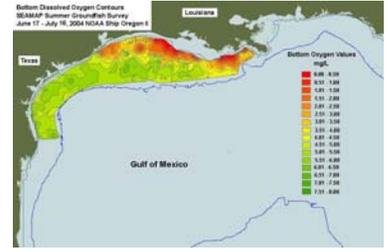
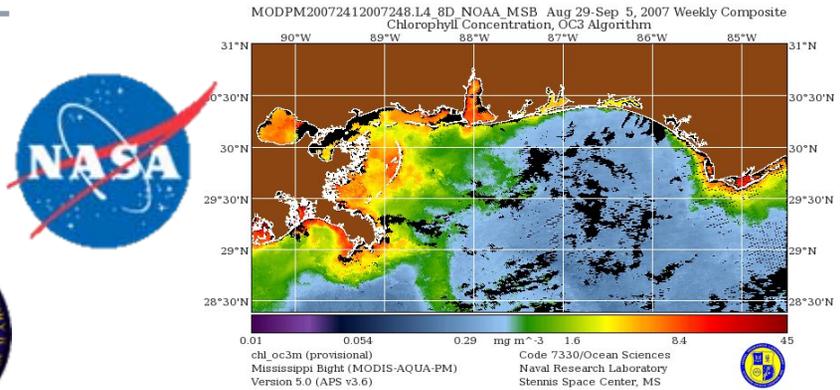
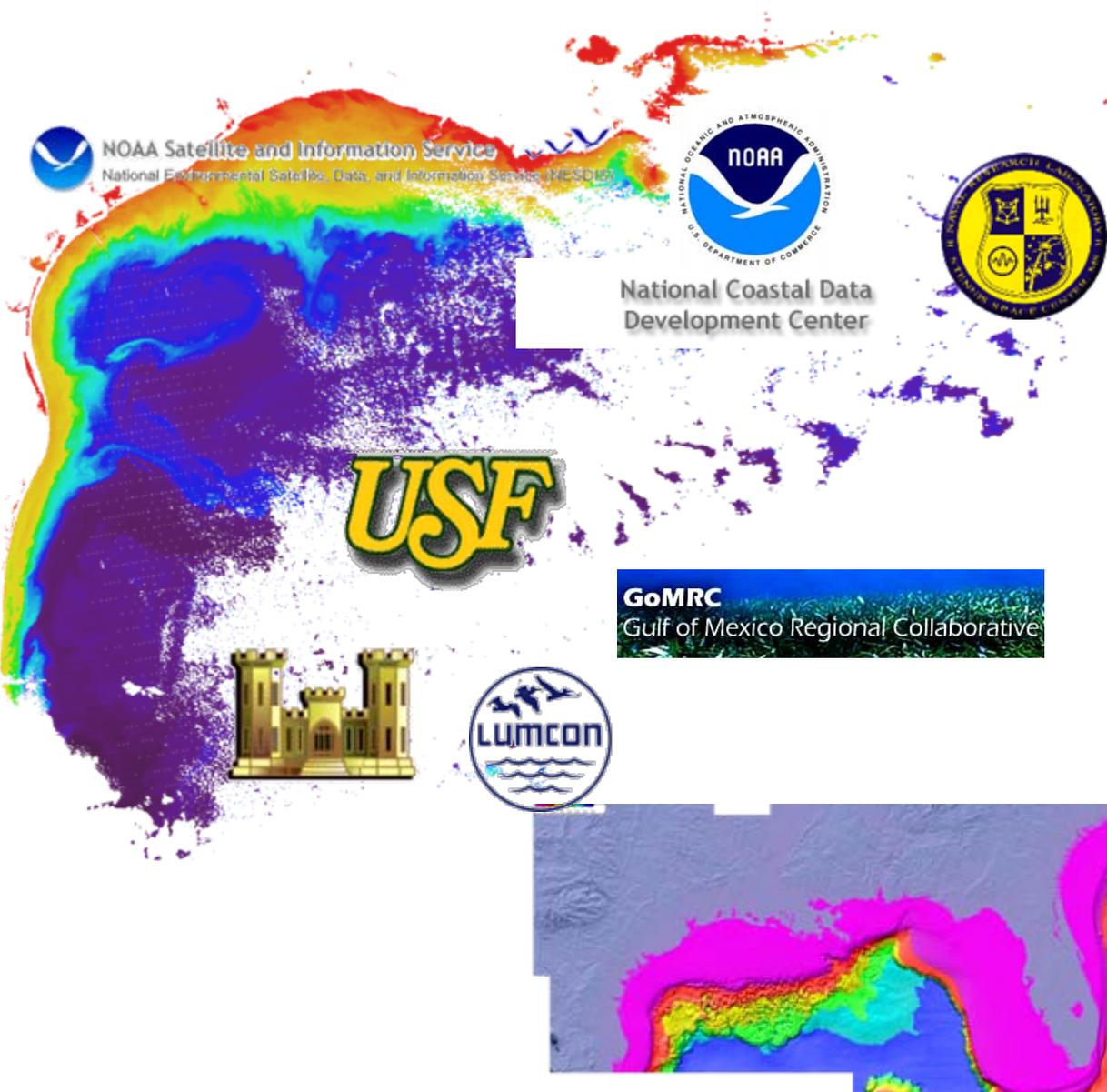
- **Shapefile Import Tool** is currently being enhanced
- Attribute selection control for mapping
- Vector query with attribute overlay onscreen



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Data Accessed and Mapped within COAST



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www.coastal.ssc.nasa.gov

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