Hi,
    Just thought IDL lovers might like to know that several AVI's I
created entirely in IDL just won 'Best Data Visualization in Research'
at this year's NOAATech conference and expo. This event is a large
NOAA (National Oceanic and Atmospheric Administration) wide meeting
that occurs every other year at its headquarters in Washington DC.
It's a chance for any of NOAA's many organizations to show off their
latest and greatest tech achievements in high-end computing, network
and web technologies, 3/4d applications, virtual reality, GIS, data
modeling, collaborative computing and more.
http://www.noaatech2004.noaa.gov
    The movies I made were from several of my IDL programs dealing
with underwater acoustics. Typically acoustical data are displayed as
2d 'echograms' - vertical dimension through the water column, and time
along the horizontal axis. These are not suitable for viewing the data
in a geographical context. I developed 3d visualizations of
multi-frequency acoustical survey data to view the data in
geographical space from small to large spatial scales. Acoustical data
are commonly used to provide relative indices of species-specific
abundance and biomass. In order to scale the relative indices to
absolute estimates, we must incorporate a measure of the echo
amplitude from an individual fish. I also developed 3d visualizations
of the fish body and airbladder from x-ray and ct images. These images
are used in theoretical models to improve prediction of acoustical
scattering over a wide range of frequencies and fish orientations.
The two main AVIs were: one of my 3d echogram program with bathymetry
and one from my fish ct imaging program. In the ct program, I
extracted two 3d meshes from the images; one of the skin and one of
the airbladder inside (the part that actually reflects sound.) We can
now view the air bladder and determine exactly how sound bounces off
of it and its exact volume and surface area.
    I just wanted to thank all the regular contributors to this
newsgroup. I go here everyday and have learned a lot from you guys!
-dave chevrier