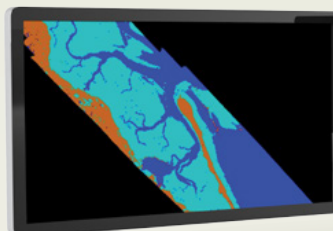
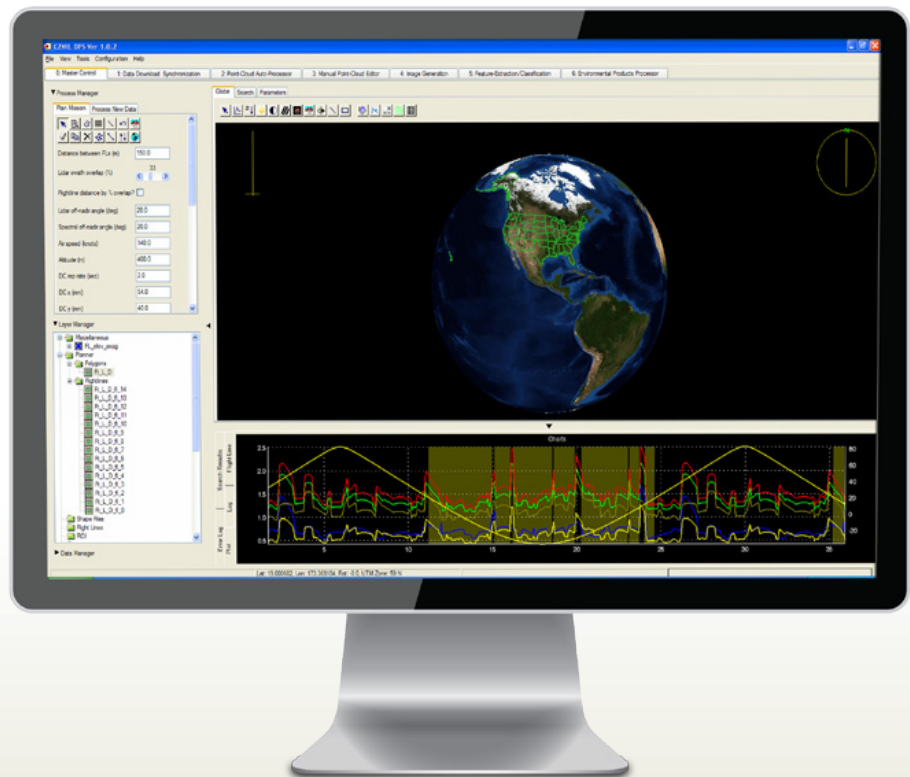


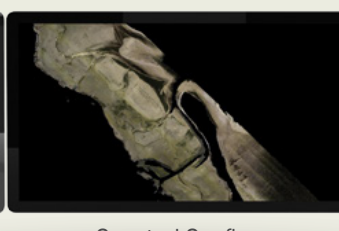
Optech HydroFusion

Optech HydroFusion is a powerful end-to-end software suite for Optech CZMIL that accelerates data and product delivery, and improves the quality of information products derived from fused lidar and imagery data sets. It automatically produces high-resolution 3D data and environmental image products by combining data from three sensors—bathymetric lidar, hyperspectral imaging system and digital metric camera—within a data fusion paradigm. Optech HydroFusion software includes mission planning, data processing and final product generation, all in one system.

Optech HydroFusion was designed by Optech for the U.S. Government under the auspices of the U.S. Army Corps of Engineers (USACE) and the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX). It was built and tested by Optech with the assistance of the University of Southern Mississippi (USM).



Point Cloud Classification

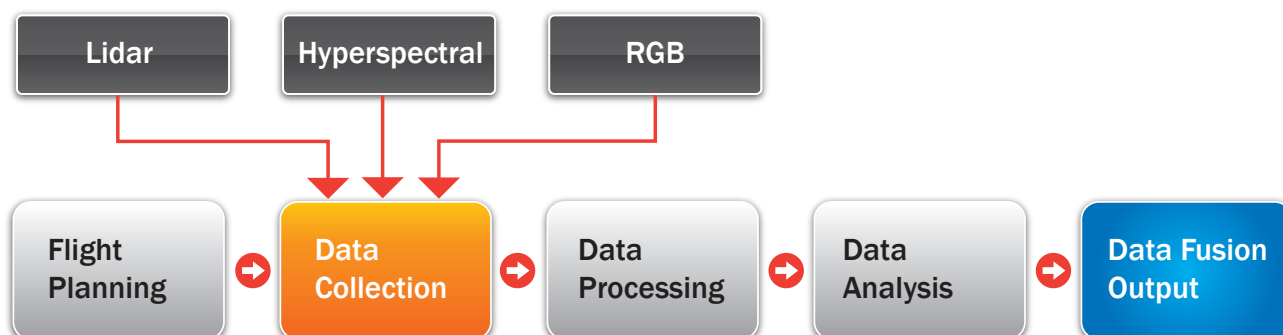


Spectral Seafloor



Seafloor Classification

Software Workflow



Features & Benefits

- One software package to handle processing for all 3 sensors—from mission planning through to data products
- Built-in lidar point cloud editing tools
- Integrated 3D volume visualizer for advanced analysis and editing
- Multi-sensor data fusion algorithms to produce benthic classification maps
- Globe-based GUI to simplify locating, processing and managing data across survey missions
- Network and share data via an office server across multiple users

Software Data Products

Processing Level	Optech CDPS Data Product
Level 2 Auto Processing	Lidar point cloud
Level 4 Image Generation	Lidar depth grid Lidar topo/bathy DEM, 1 m Lidar topo/bathy bare earth DEM, 1 m Lidar and hyperspectral surface reflectance image mosaic Lidar and hyperspectral bottom reflectance image mosaic Lidar and hyperspectral water attenuation images Hyperspectral bottom fraction images Hyperspectral water quality image mosaics (Chl,SSC ,CDOM) RGB ortho image mosaic, 0.2 m
Level 5 Features/Classify	Benthic habitat classification map Land cover classification map
Level 6 Environmental/Products	NAVD 88 shoreline vector USGS dune height elevations Building footprint vector