

NASA SBIR/STTR Technologies

Grid-Enabled Interactive Data Language for Astronomy Data

Proposal # S8.02-9232

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Innovation: Bridging the IDL, astronomical data and Grid technologies

Objectives:

- Investigate the feasibility of mapping astronomical data structures into the Web Service Definition Language (WSDL)
- Investigate the feasibility of creating Web Services with an IDL client for accessing remote astronomical data.
- Investigate the feasibility of running parallel IDL processes on a Grid.

Work plan:

Map FITS to WSDL, create a Web Service with an IDL front end for FITS data access, and implement a Web Service for running parallel distributed IDL.

NASA and Non-NASA applications (multiple data intensive distributed and collaborative projects using 4th Generation Languages):

- Virtual Observatories, Deep Impact, Mars Reconnaissance Orbiter, Hubble telescope, Sloan Digital Sky Survey
- Medical Imaging
- High-energy and nuclear physics
- Nuclear Fusion
- Weather and climate modeling

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