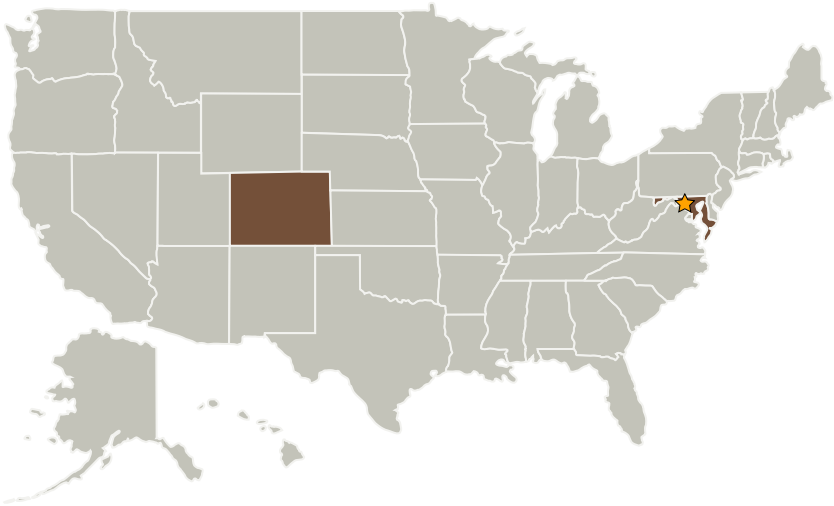
Remote Online Visualization Environment for Researchers, Phase I

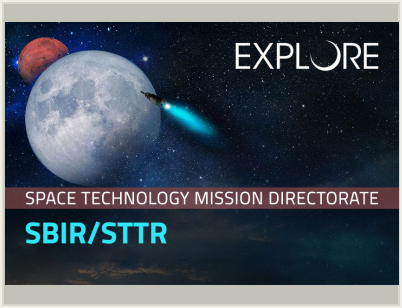
Completed Technology Project (2008 - 2008)

Project Introduction

Many scientists have the common need of visualizing data in a collaborative and interactive manner. In a modern environment, these data are often stored across a widely distributed network and the researchers themselves are just as often separated by large geographical distances. Traditional visualization and collaboration approaches require the local installation of software specific to each end user as well as the downloading of data to each local machine. The proposed innovation would provide researchers with an environment that allows them to visualize remote data using the standard and familiar web browser as the application platform. No proprietary software need be installed and no data has to be downloaded to local machines. Furthermore, multiple researchers can interactively explore data via visualization in a joint session where changes by one researcher are seamlessly seen by the others. The architecture is based on technologies underlying state of the art web applications such as Google Maps. Employing a modular design using web services as means to connect the modules, the environment is easy to modify and improve as new data access, rendering, and client-side display technologies mature and become available.

Primary U.S. Work Locations and Key Partners





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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland
Tech-X Corporation	Supporting Organization	Industry	Boulder, Colorado

Primary U.S. Work Locations	
Colorado	Maryland

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Daniel Karipides

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  └ TX11.4 Information Processing
    └ TX11.4.2 Intelligent Data Understanding