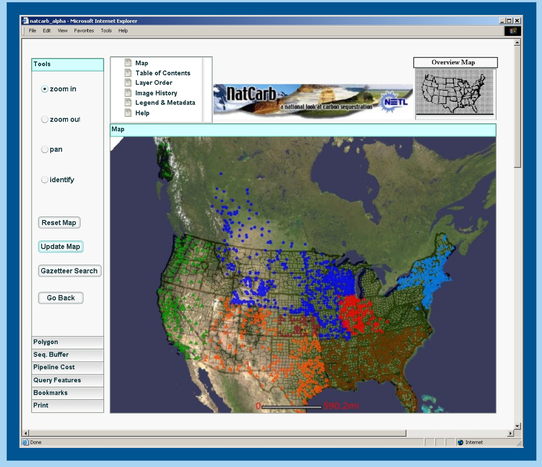
NatCarb Browser

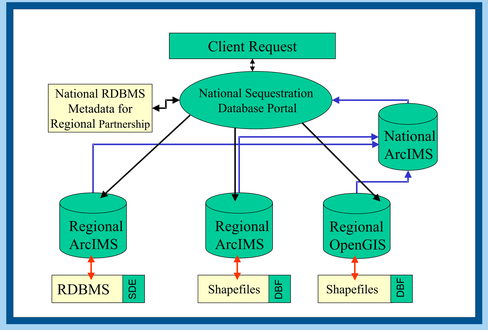


ABSTRACT

The NATional CARBon Sequestration Database and Geographic Information System (NATCARB) provides national coverage across the Regional CO_2 Partnerships (http://www.natcarb.org). Distributed computing solutions link database servers across partnerships, and other publicly accessible repositories of geological, geophysical, natural resource, and environmental data (e.g., USGS, TerraServer). Data is maintained and enhanced at the local level, but is accessed and assembled through a single portal. The NATCARB project improves the flow of data across servers and increases the amount and quality of available carbon sequestration information at national, regional and local scales. The systems developed as part of the project represent a cyberinfrastructure for carbon management. The data assembled represents one of the most comprehensive data sets assembled to address CO_2 sequestration.

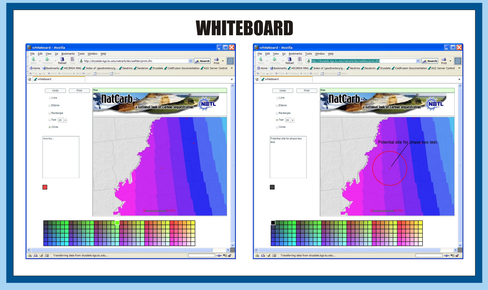
The project is a functional demonstration of cyberinfrastructure as an effective federation of both distributed resources (data and facilities) and distributed multidisciplinary expertise (Regional Partnerships). Coverages accessible through NATCARB provide access to millions of records at multiple scales from points to polygons (e.g., individual well bore or CO_2 source to saline aquifers across regions and states). Such an environment is required to address the complex challenges of creating a nationwide network of partnerships to determine the most suitable technologies, regulations, and infrastructure requirements for safe and efficient carbon capture and sequestration. The NATCARB system addresses CO_2 sequestration and other natural resource issues within a spatial database that can be queried online. Visualization of high quality and up-to-date data related to Co_2 sequestration is can assist in policy development.

Federation of Map Servers



Online Tools

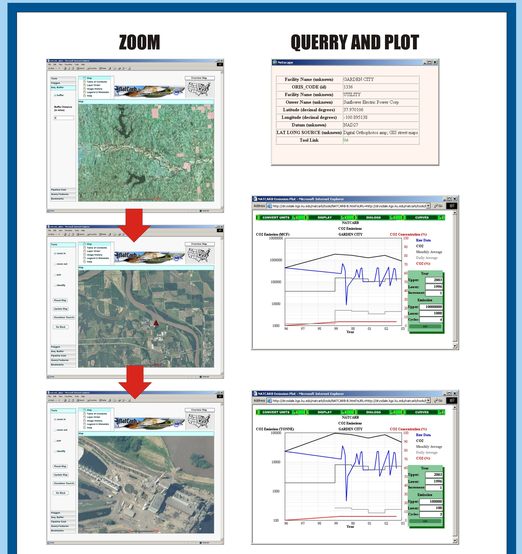
WHITEBOARD



Online Tools

ZOOM

QUERRY AND PLOT



Management Tools

LINKING COVERAGES

QUERY SERVERS

TRACK PERFORMANCE

NatCarb Coverages

LAND COVER

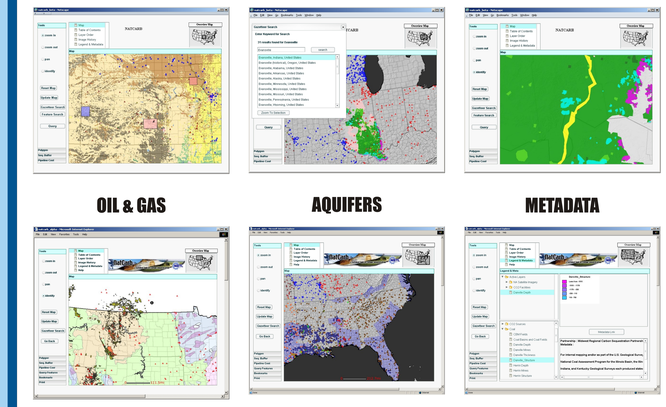
COAL

GAZETTEER

OIL & GAS

AQUIFERS

METADATA



GIS Support for Regional Carbon Sequestration Partnerships

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