Today’s Challenge

As more and more exploration data is collected, digitized, and stored, we are facing a digital data explosion. Industry-wide, explorers are establishing a stronger focus on understanding the information they have, making it more easily accessible and preserving it for future exploration projects.

“Information access should be readily accessible with a limited amount of training. The core business of the exploration geoscientist is not to drive computers, it is to explore.”

Eric Finlayson, Exploration Director
Rio Tinto, Australasia

The delivery of stronger spatial data access and management capabilities through Geosoft Exploration Information Management Solutions (EIMS) helps explorers work faster and smarter by organizing and sharing data and information across teams so they can manage and make sense of large amounts of digital data for exploration decision-making.

Geosoft has built its EIMS solutions around its core DAP server and search technologies. The technology is augmented by professional services that support information and metadata preparation, workflow customization and change management. Geosoft’s Custom Development team has also partnered with global exploration organizations to design and implement custom solutions for managing metadata and enabling web-based reporting for Data Managers and Geoscientists to understand the wealth of data available to them within their organizations.
DAP Server Technology

Geosoft’s Exploration Information Management Solutions help the world’s leading explorers solve their business challenges by leveraging a strategy and workflow that provides structure and process to the management of geophysical and unstructured exploration data. Our integrated solutions utilize technologies from our world-class partners, as well as our own industry-leading desktop and server technologies, including Geosoft DAP server.

Geosoft DAP server technology provides a secure, connected and collaborative environment upon which Exploration Information Management Solutions can be built.

Geosoft DAP server provides services to catalogue, manage, deliver and visualize large geophysical and unstructured exploration data sets. As middleware technology, it is designed to deal with the complex issues of security, stability, usability and reliability as integral parts within the application framework.

Geosoft DAP Server:
- Organizes and catalogs datasets
- Creates and manages metadata
- Provides visual previews of the data
- Manages information and data submissions from exploration activities
- Defines and applies security policies
Why Geosoft DAP Server?

With Geosoft DAP server your data is instantly accessible and easily shared amongst all the people and teams that need exploration data to make decisions within your organization. DAP server simplifies the end user experience of searching, windowing, downloading and viewing geophysical and unstructured data. This is achieved from a single interface deployed within the geoscientist’s interpretation platform of choice.

Single-Point User Access

With Geosoft DAP server technology, data access and delivery to the end user interpretation application is simple and seamless. DAP server establishes a single, standard interface for users to access all available data and interpretation.

Users can search, find and extract all relevant data and interpretations from within a single interface. The sources of data and interpretation can include unstructured data held within file systems, geospatial datasets and data held within data repositories and databases.

Users can search for data by area-of-interest (spatial search) or subject of interest (text search). Once found, data can be easily downloaded, in a variety of formats, resolutions, and coordinate systems directly to the user’s desktop.

Geosoft DAP server provides metadata viewing and graphical data previewing. Graphical data previewing enables an image of selected data to be displayed in a web application, such as a web page on a web browser, or as a picture in a desktop application. DAP supports the OGC Web Map Server (WMS) standard specification to allow web applications to view data.

Integration of Disparate Data Repositories

Middleware technologies like Geosoft DAP server, create value by connecting to various systems in order to catalogue, manage and maintain metadata from multiple data repositories, while supporting effective, standards-based user access to data.

Integration between DAP server and enterprise data repositories or enterprise GIS systems is made possible in a number of ways. Geosoft provides connector solutions for leading data storage applications, such as ATS acQuire, ESRI and MapInfo.

Geosoft DAP server technology adds the ability to organize data in a hierarchy based on a simple file system folder structure and automatically catalogue and publish up to 200,000 separate data sets, including automatic farming of metadata. It is designed to catalogue separate and distinct data sets of many types that cannot be placed within a GIS geodatabase model.
Metadata Management

Metadata management is the organization of technical and business metadata with the goal to advance the sharing, retrieving and understanding of information assets. Without proper metadata management, information will be lost or hidden from the users and data integration becomes costly and inefficient.

Our technology and services provide support for a complete metadata solution. Our metadata technology is integrated within Oasis montaj, Target, ArcGIS and the DAP server technology itself, such that users can create the required metadata at the time the data or interpretation is generated.

Metadata is captured within XML files, based upon either ISO 19139 or FDGC standards for geospatial metadata. These standards are extended by Geosoft to ensure all relevant metadata can be captured to completely describe an exploration company’s datasets and interpretation. The solution can be integrated with relational database technology to ensure the preservation of the metadata and to enhance the use of the metadata within an organization.

Geosoft’s metadata solution can be either fully customized or deployed as is. This means that our implementation can start at ground zero and be operational in a matter days. Alternatively the solution can be customized and integrated, within more complex environments, to meet the specific metadata requirements for an organization.

Once the solution is in place, end users can query their DAP environments based upon the collected metadata. This improves the efficiency of finding relevant data and interpretation, increasing the overall value and reuse of a company’s exploration information assets.

Geosoft DAP server technology delivers:

- Single point user access to multiple data sources and types
- Integration of disparate data repositories and file systems
- Cataloguing of multiple data types and repositories
- Robust delivery solution for large, geoscience datasets
- An integrated metadata management solution

ESRI Integration

The ability of DAP server to catalogue and publish ESRI Lyr files promotes and enhances the workflow that geoscientists use in their exploration projects.

Through this module the following ESRI datasets and services can be achieved: ESRI shapefiles, ESRI Lyr Files, ArcGIS Map Services, ArcIMS Image Services and ArcIMS metadata services.

ATS acQuire Integration

Geochemical and drillhole data stored in a corporate acQuire databases can be catalogued and distributed using the acQuire integration module. This integration supports acQuire surface point campaign and borehole datasets.

Extending EIMS Integration

The RDBMS Data Connector catalogs and publishes point data in relational databases using ODBC DSN connections. The use of ODBC connections allows publishing of point data in virtually any relational database.
CUSTOMER SUCCESS

“We have a data system that’s well organized and easily shared across the organization, so that even if a geophysicist was to transfer offices or move on to another project someone else would be able to come in and pick up where they left off.”

-Olivier Masset, Manager of Resources and GIS

BARRICK GOLD ADOPTS A TARGETED SOLUTION FOR SHARING ITS GEOPHYSICAL EXPLORATION DATA AND KNOWLEDGE, LOCALLY AND GLOBALLY

As the world’s largest gold producer, Barrick has maintained its lead by keeping a sharp focus on discovery—constantly exploring for new reserves to replace production. Being the best at finding those new deposits is a key driver behind the company’s efforts to organize its rich resources of exploration data, and make data more readily available to project teams leading the discovery effort.

AREVA IMPROVES PRODUCTIVITY BY MANAGING AND SHARING DATA MORE EFFICIENTLY

Areva Resources Southern Africa has an impressive portfolio of exploration projects throughout the continent. But while project diversity is a blessing in exploration, it can also create data management challenges. Taking a strategic approach to Exploration Information Management has resulted in a complete technology solution and new standards for effectively managing and using all their exploration data assets in South Africa.
VALE BUILDS AN INFORMATION ASSET THAT DELIVERS VALUE TODAY AND IN THE FUTURE

Vale, the second-largest diversified mining and metals company in the world, is turning exploration information into a corporate asset with a solution that focuses on three simple goals: data quality, security, and efficient flow to regional exploration teams for opportunity development.

TECK RESOURCES SUPPORTS TEAM-BASED EXPLORATION WITH A STRONGER DATA FOUNDATION

As a growing company, Teck Resources saw both the need, and potential, to establish a data foundation and collaborative platform that could provide their global teams of geoscientists with faster, better ways to process immediate prospects and develop opportunities for the future. Their solution is based on having one family of software that works together seamlessly to capture, archive, deliver and ensure effective use of their data across the entire organization.

RIO TINTO IMPROVES EFFECTIVENESS WITH ONE-STOP SHOP FOR DATA

 Kennecott Exploration, a division of Rio Tinto Exploration in Salt Lake City, wanted to tackle the ballooning terabytes of digital information on the company’s server. They replaced a file directory and little sticky notes with a central server that is readily accessible to everyone in the company. Now, instead of relying on a colleague to retrieve and reformat data for them, geoscientists can access the information directly from their desktops, decreasing the time and cost of interpretation.

“For management, there is also the value of transparency — knowing what information we have and where it is — and that it is all stored in a secure system.”

- Ana Maria Goncalves, Information Manager, Exploration and Project Development Division

“It’s been said that our next ore body may well come from our own exploration files. The greater our ability to quickly and efficiently find and integrate that data, the better our potential for success.”

- Bob Holroyd, Director, Global Exploration Technology Group

“People used to spend a lot of time running around looking for stuff they couldn’t find, but now they can find it right away because it’s all coming from one place. That has improved our effectiveness.”

- Peter Thurston, Data Administrator