

TerraShare: Enterprise Image and Elevation Management Solution



Kansas Department of Transportation (KDOT)

"The major benefit of TerraShare is simple. It's all about data discovery and data access. With TerraShare, we work more efficiently and have a mechanism to be more accountable. Another pleasant byproduct of using TerraShare is that it is playing a key role in making the KDOT workforce geospatially aware, thereby supporting the mainstreaming of GIS."

– Nancy Mattson, GIS Project Manager, KDOT



TerraShare: Enterprise Image and Elevation Management Solution



TerraShare® is an enterprise infrastructure for geospatial data management and earth imaging production. This unique solution integrates storage infrastructure with end-user production and exploitation tools, enabling individuals and organizations to address their geospatial data management, access, and distribution needs effectively. TerraShare addresses the complete geospatial raster and elevation information life cycle within the enterprise.

The need for geospatial data management

The use of raster and elevation image files in geospatial applications is critical to the success of a wide variety of workflows in engineering, photogrammetry, local and regional governments, and military organizations. Raw image and elevation data can become a true geospatial information asset only when it can be accessed and used by all potential enterprise stakeholders. At the enterprise level, geospatial data assets are important to information technology (IT) organizations from a data management and technology infrastructure perspective, to end users for geospatial production projects, and in their final use as input or reference for a multitude of corporate functions.

The TerraShare solution

TerraShare turns raw raster and elevation data into geospatial enterprise information assets, providing users with direct, efficient access to the corporate geospatial information. The system also provides a common image and elevation repository that is transparent to users, regardless of the data format, storage location, and desktop application used.

TerraShare addresses the management challenges as data assets make their way across the enterprise, from the acquisition of these assets through processing by specialists, until their exploitation by end users.

TerraShare extends the possibilities of enterprise geospatial data management to unstructured geo-referenced information (image or elevation files). Organizations can

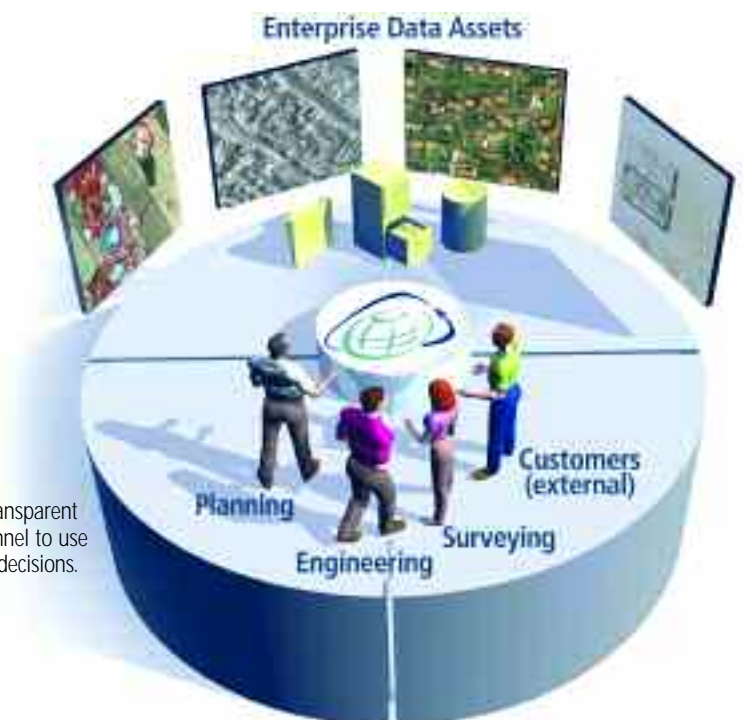
increase their return on investment in geospatial data, technology, and resources, as well as improve the bottom line of their geospatial production operations.

Who needs TerraShare?

TerraShare serves the needs of various stakeholders in the enterprise – data architects, data administrators, and users. Users can be categorized in two main groups – producers and consumers. *Producers* are image and elevation processing specialists who use high-end production tools to generate second- and third-generation products. These products are then used by consumers for a variety of applications. *Consumers* are specialists on specific enterprise core competencies. For example, engineers in charge of roadway design or operation, city/county planners, and property tax assessors are consumers.



In the past, organizations spent excessive amounts of time locating and duplicating imagery to support their operations.



TerraShare provides all departments with transparent access to common imagery, enabling personnel to use their time more efficiently and make better decisions.

Geospatial image and elevation life cycle

TerraShare addresses the complete image and elevation life cycle in the enterprise, from the definition of an enterprise data architecture, to the management of the geospatial content as it is created and distributed, to its use by producers and consumers. The image to the right depicts the life cycle components. The following table defines each component and describes what TerraShare provides.



| Component | What it is | What TerraShare provides |
|---------------------------------|---|--|
| Data architecture | The data architecture is the enterprise catalog of geospatial raster and elevation data. | TerraShare provides a single and open geospatial metadata database that is specifically tailored for geospatial data and allows organizations to address their image and elevation data management and distribution needs within a single environment. |
| Content and metadata management | The data management user interface supports discovery, access, and such tasks as import/export and relocation of images and elevation data. | With TerraShare's user interface, administrators can organize content and metadata and customize the end-user experience as needed for individual workflows. |
| Distribution management | The distribution platform delivers content and metadata interactively to the most suitable user interface. | TerraShare's distribution platform allows consumers to use geospatial information within their own workflows, without specialized image or elevation processing expertise. |
| Production management | The production platform supports the tools and processes to create new image and elevation assets. | TerraShare's production management optimizes efficiency and simplifies data access to different producer groups such as operators, managers, subcontractors, and customers. |

Malaysian Department of Survey and Mapping (JUPUM)

JUPUM provides survey and mapping services and disseminates geographical information for Malaysia.

The department wanted to produce sophisticated, integrated spatial information and make it readily available. GeoMedia® was used to facilitate seamless access across various applications and formats, and TerraShare technology speeds the management and distribution of geospatial data to the country's decision makers and citizens.





Norwegian Mapping Authority, Norway

A national database for digital orthophotos is being established by the Norwegian Mapping Authority, Norwegian Public Roads Administration, and Norwegian Institute of Land Inventory. "Norge i Bilder" has been developed and hosted by Intergraph's partner, Norconsult Information Systems. Using TerraShare and GeoMedia WebMap, through Open GIS standards, the orthophotos are now available on the Internet. This database will include all digital orthophotos produced in Norway, both historical and updated. Authorized users and partners can access the orthophotos in most formats for local use.

TerraShare benefits

Accurate source of all raster and elevation data assets.

TerraShare's data architecture is a raster and elevation warehouse that enables the enterprise to track, access, process, and add value to its geospatial data assets.

TerraShare manages terabytes of geospatial data and metadata, from acquisition and storage to exploitation and distribution.

Seamless integration of enterprise storage assets.

TerraShare's file abstraction layer lets you combine multiple physical files with metadata stored in a database to create single logical TerraShare files, which are organized in folders in a virtual file system that looks the same to every user. Using these files is essentially the same as using standard Microsoft Windows® files, so users can begin using TerraShare right out of the box. In addition, system administrators can manage the physical data behind the scenes without affecting users.

Effortless management of your geospatial data.

Through TerraShare Client, any validated user can view

and access all TerraShare files within Microsoft Windows

File Explorer. Personnel will be able to use the distributed

image access functions immediately because the

TerraShare clients are integrated into an already familiar

environment. They may also browse through TerraShare

folders just as they do Windows folders, benefiting from

extra tools for geospatial data management and discov-

ery built directly into the Explorer window.

Instant access to your geospatial data. Whether you

have one workflow or several, images stored and man-

aged within TerraShare are instantly available across the

enterprise. CAD and GIS applications, such as GeoMedia,

or any products from third-party vendors can be made

TerraShare aware. With the resulting integrated system,

you can reduce your administrative burden significantly.

Users can be more productive because they can focus on

their jobs, rather than data discovery and management.

Customizable enterprise solution. Out-of-the-box

software doesn't always provide the solution. TerraShare

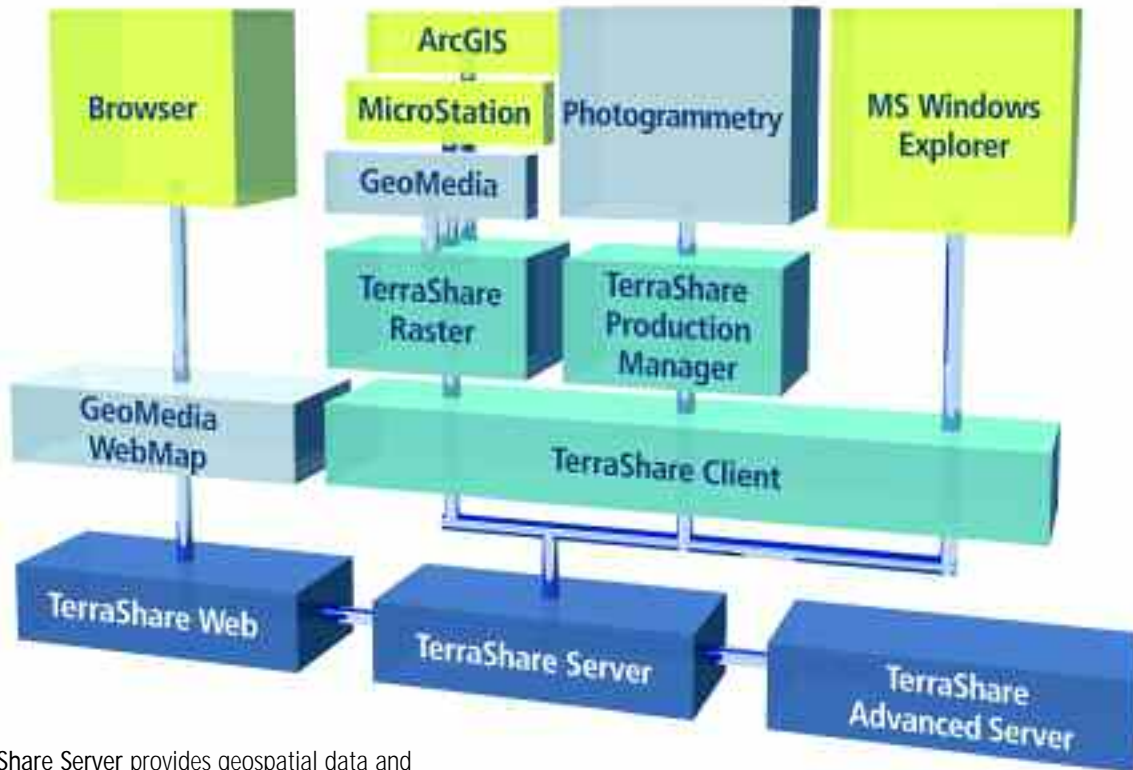
provides the configuration and customization tools that

let you tailor an enterprise solution to your data and processes. Many of the easy-to-use customization tools are part of the TerraShare Commercial-Off-The-Shelf (COTS) product, and the Software Development Kit (SDK) provides programming interfaces for maximum customization.

Meeting your needs with a modular approach

TerraShare is a modular solution designed specifically for geospatial data management, access, and distribution.

Start with TerraShare Server, then add the modules needed to address your specific needs. Your return on investment begins within days of system implementation.



TerraShare Server provides geospatial data and metadata access and management over the entire enterprise.

TerraShare Advanced Server is an optional server-side component that enables distributed processing.

TerraShare Web enables GIS Web servers to display large image collections at any scale or geographic projection directly into the Web browser.

TerraShare Client is the base client module that brings all of the standard TerraShare functionality to the desktop through the Microsoft Windows Explorer.

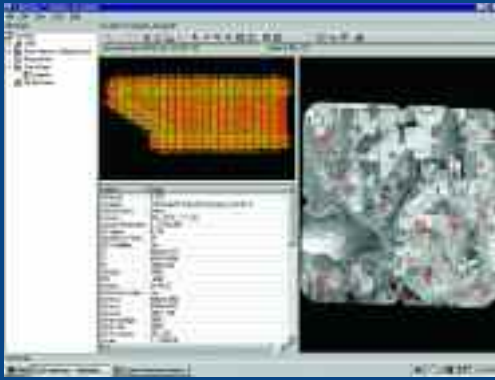
TerraShare Raster lets you view thousands of orthophotos as a single seamless backdrop in many popular GIS/CAD desktop and Web applications.

TerraShare Production Manager provides a customized client interface for production management and automation, as well as an automation framework for production applications.

Geodis Brno, s.r.o., Czech Republic

Geodis Brno, one of the most advanced mapping agencies in Central Europe, is involved in the complete spectrum of photogrammetry and remote sensing, providing services in the Czech Republic and 15 other countries. Geodis managers chose TerraShare technology to create a system that manages and distributes all geospatial and project data across their production environment.





Columbia County, Wisconsin

When land development in Columbia County altered much of the area's topography, county officials contracted with Ayres Associates' Photogrammetric Division to initiate a new mapping project. Throughout the project, TerraShare enabled technicians to find and access the correct DTMs, images, and metadata; allowed managers to see each data set as it moved through the process; and maximized data storage capabilities. Ayres reports that production time was decreased by 30 to 50 percent.

The Intergraph Solution

With 35 years of technology innovation to its credit, Intergraph understands the business challenges customers face every day. Our unique combination of pioneering technology and comprehensive professional services makes Intergraph Mapping and Geospatial Solutions the leading provider of industry-specific geospatial solutions for local, regional, and national government entities; transportation and mapping agencies; utilities and communications companies; commercial remote sensing and photogrammetry organizations; military and intelligence agencies; educational institutions; and more.

Added value through partners

Intergraph has developed a valuable partnering program, Intergraph Synergy, to create solutions around our technologies. The program provides consultants, value-added software developers, and research from leading universities to support your enterprise imaging distribution and management projects. Visit <http://synergy.intergraph.com> to learn more about how our partners can help you.

Why enterprise imaging distribution and management leaders choose Intergraph

TerraShare, an enterprise infrastructure for geospatial data management and earth imaging production, enables you to:

- Turn raw raster and elevation data into geospatial enterprise information assets
- Organize and use your data and storage infrastructure to improve productivity and quality at every level
- Manage terabytes of geospatial data and metadata, from acquisition and storage to exploitation and distribution
- Access your corporate geospatial data more easily than ever before
- Implement common image and elevation processing practices that are transparent to users regardless of the data format, storage location, and geospatial technology used on the client side
- Add TerraShare modules as needed to address your specific needs
- Realize return on investment within days of system implementation

For more information, visit our Web site at
<http://imgs.intergraph.com>.

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