



**EarthWhere®**

**GET MAXIMUM VALUE FROM YOUR SPATIAL ASSETS**

*EarthWhere is a web-based spatial data management system that automates cataloging, provisioning, and dissemination of disparate geospatial data. Its scalable architecture and ease of integration has made it a trusted, proven solution across 40 different government agencies and customers.*

### A DAUNTING CHALLENGE

Effectively managing spatial data can be extremely complex. The size, volume, and myriad of formats and types—not to mention the frequency of change—make it extremely difficult to control and access your organization’s increasingly important spatial assets. As a result, images are often not available for mission-critical tasks at the speeds and formats required, leading to decreased efficiency and poor user satisfaction.

#### With EarthWhere you can:

- Catalog new and existing spatial data efficiently
- Precisely respond to mission-critical requests
- Shorten delivery time
- Reduce bottlenecks and repetitive processing tasks
- Eliminate costly and unnecessary repurchases of images

### SATISFYING MISSION-CRITICAL REQUESTS FAST

If your organization depends on spatial data to support mission-critical objectives, EarthWhere is the answer. EarthWhere ensures fast, enterprise-wide access in the formats you require. EarthWhere’s powerful cataloging and provisioning capabilities quickly locate available imagery and allow it to be deployed into virtually any geospatial workflow. In addition, EarthWhere can automatically detect, catalog and notify you when new imagery is available on the system.

### ADVANCED CAPABILITIES YOU CAN COUNT ON

Get relevant imagery information directly into the hands of users in the timeliest possible way. Advanced search features, combined with the ability to define and construct custom data sets, significantly enhance efficiencies while ensuring customer satisfaction.

**Automatic cataloging and watch folders.** Improve efficiencies with capabilities such as automatic data discovery, image dataset and metadata indexing. New imagery can be placed into configured directories for automated cataloging, either in real time or for delayed processing. New image assets can be made available virtually immediately to support missions where quick access to imagery is vital.

**Sophisticated search and information retrieval.** EarthWhere’s ability to quickly locate required data based on any number of criteria eliminates tedious searches and unnecessary repurchases.

**Flexible job processing.** EarthWhere improves efficiencies with asynchronous processing of multiple provisioning requests from concurrent users, as well as options for synchronous processing via Web services such as email job completion notifications. Contiguous datasets can be processed in batches to enable cohesive delivery of large jobs.

**Automated workflows.** EarthWhere’s pre-defined business rules automatically match the right process components for any given dataset, reducing errors and extending utility even to novice users.

**Powerful provisioning capabilities.** EarthWhere offers extensive capabilities, including real-time ingestion (see Provisioning Services), that create on-demand, custom datasets, and derivatives in required formats (see Data Formats) while significantly speeding response times.

### PROVISIONING SERVICES

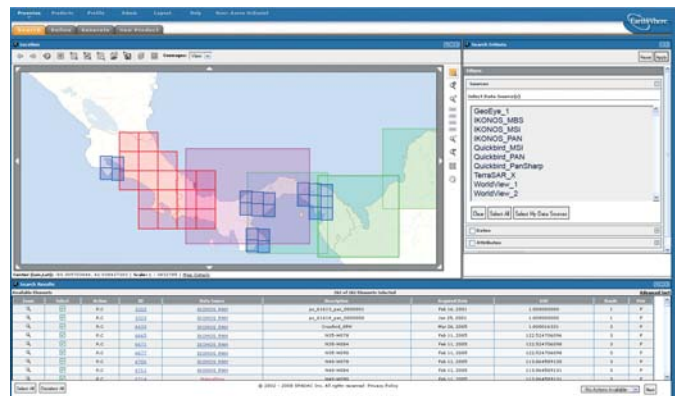
EarthWhere provisioning services provide a variety of images processing/remote sensing techniques to include:

- Native Data Handling
- Reprojection
- Orthorectification (Rigorous, RPCs)
- Terrain Correction (DTED or SRTM)
- Clipping
- Mosaicking
- Seam Feathering
- Projection/Datum Transformations
- Band Manipulation
- Histogram Matching
- Linear Stretching
- Data Format Conversion
- Bundle Copies
- Batch Processing of Tiled Regions
- Asynchronous Job Processing
- Dynamic Zip File delivery

### EASY-TO-USE INTUITIVE WEB INTERFACE

EarthWhere’s Web application makes it intuitive to use the solution and exploit sophisticated functions enabling fast value realization out of EarthWhere deployments across the enterprise.

An integrated administration console enables critical system administration activities such as user group creation, role and policy-based security, data element management, job process management and data access.



## INTUITIVE 3-STEP PROCESS

**SEARCH. DEFINE. GENERATE.** EarthWhere's easy to use interface enables users to quickly provision and produce mission-critical data products using a straightforward 3-step process.



**Search.** EarthWhere's intuitive interface allows the user to select an AOI by either drawing with the cursor or importing an ESRI® shapefile, displaying a list of source files that are available from the archive. The user can individually turn on and off selected source files to determine the optimum dataset for the requirement.

Supporting a variety of data sources in their native formats and projections, EarthWhere allows multiple data sources to be normalized into a single scene to the projection and area required.

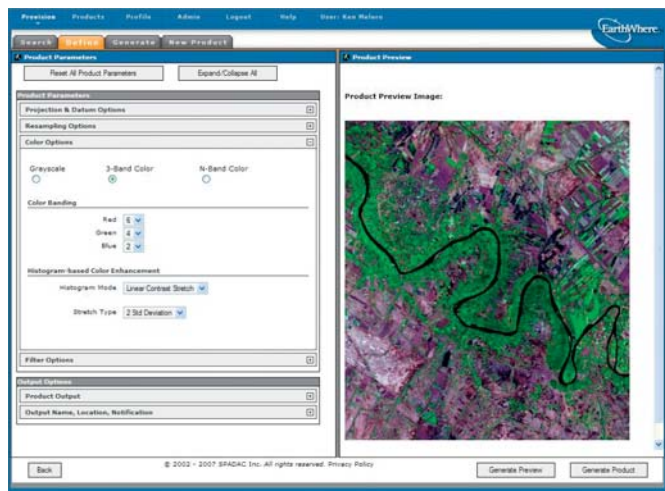


**Define.** EarthWhere defines output using a server-based image processing engine that performs five basic functions:

- Combine data from tiles and multiple data sources.
- Re-project outputs into a variety of the most widely used datums and projections.
- Resample the output to a user defined GSD (Ground Sample Distance).
- Clip out data within the defined AOI.
- Format into multiple file types



**Generate.** EarthWhere's product preview capabilities eliminates time consuming revision cycles and bottlenecks with processing and revising options such as projection, output format and size of download—all before generating the final product.



## SEARCH CAPABILITIES

EarthWhere's sophisticated search function allows tabular displays of data elements/layers which can be sorted and further filtered by any configured metadata field such as:

- Data Source
- Acquisition Date
- Catalog Date
- Location
- Description
- Provider
- GSD (x only in meters)
- # Bands
- % Cloud Cover
- Available Actions (provision, copy, link)
- Datum/Projection
- Radiometry
- Data Type (elevation, map, image, vector)
- Sensor Type
- BE Number
- Sensor Azimuth
- Sensor Elevation
- NIIRS

## SEAMLESS INTEROPERABILITY INCLUDING OGC COMPLIANCE

EarthWhere can be integrated with other web applications and desktop clients via an HTTP Web Service API and OGC Web Mapping Services (WMS). Thick client solutions allow the ability to provision images from within other geospatial applications such as ESRI ArcMap®, ERDAS IMAGINE®, Google Earth® or any other WMS compliant application.

## SERVICE-ORIENTED ARCHITECTURE (SOA)

Implementing industry standard technologies such as Service-Oriented Architecture (SOA) provides benefits and value by increasing agility and asset reuse and reducing integration expenses and the Government's exposure to risk. EarthWhere's architecture adheres to the principles of SOA by providing modularity, compliance to standards, reusable web service components, and interoperability. The Enterprise Service Bus (ESB) is the framework EarthWhere uses for SOA. It provides transparency to the services to be glued together via a standard messaging engine. EarthWhere also provides a set of web APIs.

Consumers use the web API as a mechanism to integrate EarthWhere with 3rd party applications such as ESRI ArcGIS® and Google Earth.

## SUPPORT FOR NUMEROUS DATA FORMATS

EarthWhere supports both Raster and Vector data formats to ensure enterprise agility for mission-critical solutions. Users can quickly discover all available formal metadata documents using EarthWhere's intuitive spatial search interface, and can quickly define, provision, and disseminate new data products for immediate use.



DATA FORMATS		
Format Name	Read	Write
ADRG	x	
AutoCAD DXF		x
CADRG	x	
CIB	x	
DPPDB	x	
DTED	x	
ENVI	x	
ERDAS IMAGINE Format (IMG)	x	x
ERDAS Virtual Mosiacs (VMC)		x
ESRI ArcGrid – ASCII	x	x
ESRI ArcGrid – Binary	x	x
ESRI ArcSDE	x	
ESRI MXD and LYR		x
ESRI Personal Geodatabase	x	
ESRI Shape Files	x	x
GeoJP2	x	x
GeoJSON		x
GeoPDF	x	x <sup>1</sup>
GeoRSS		x
GeoTIFF	x	x
GIF		x
GTOPO	x	
HDF5	x	
JPEG	x	x
JPEG2000	x	x
KML	x	x
KMZ		x
Landsat ETM (FastL7)	x	
LIDAR (ArcGrid formatted)	x	
MapInfo		x
MrSID	x	x <sup>2</sup>
NITF	x	x
PNG		x
Raw Binary Data	x	x
SRTM	x	
TFRD	x <sup>3</sup>	
TIFF	x	x
USGS DEM	x	
USGS DOQ	x	
VPF	x	

<sup>1</sup> Output requires GeoPDF Module  
<sup>2</sup> Output requires LizardTech Module  
<sup>3</sup> Requires Classified Module

### ADDITIONAL FUNCTIONALITY

EarthWhere provides optional modules for a variety of customer requirements to further increase productivity.

Modules	Functionality
<b>LizardTech™ Module</b>	Provides provisioning of LizardTech MrSID® files including MG2 and MG3
<b>Classified Module</b>	Provides cataloging for TFRD v4.3, NITF-SDE, and DPPDB
<b>Falcon View Module</b>	Provides a sync daemon to EarthWhere, supports NGA RPF data, automatic insertion of data
<b>GeoPDF® Module</b>	Provides provisioning of TerraGo Technologies® GeoPDF files

### SYSTEM REQUIREMENTS

#### Server

- Processor: 2 Xeon 3GHz or better
- RAM: At least 4GB of RAM
- Disk Space: 20GB on installation drive

#### Web Client

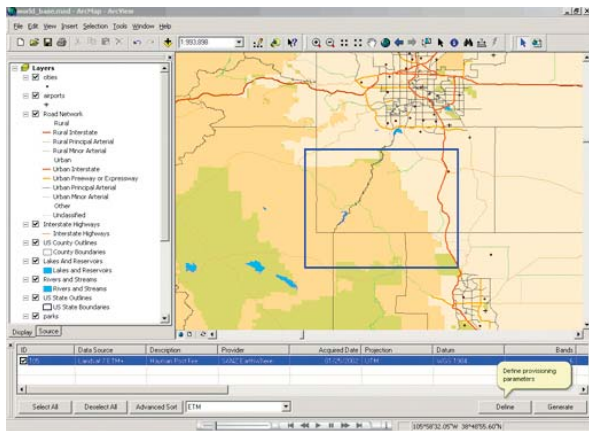
- Internet Explorer: 6.0 and above
- Mozilla Firefox: 2.x, 3.x

#### Supported OS

- Windows Server® 2003: Standard and Enterprise (32 – 64 bit)
- Windows Server® 2008: Standard and Enterprise (32 – 64 bit)

### LEARN MORE

Contact GeoEye Analytics today to find out more about EarthWhere and our wide range of advanced geospatial solutions. Go to [www.geoeye.com](http://www.geoeye.com), call 703-740-4000 or email [analytics.sales@geoeye.com](mailto:analytics.sales@geoeye.com).



Example of EarthWhere using available plug-in for ESRI ArcGIS