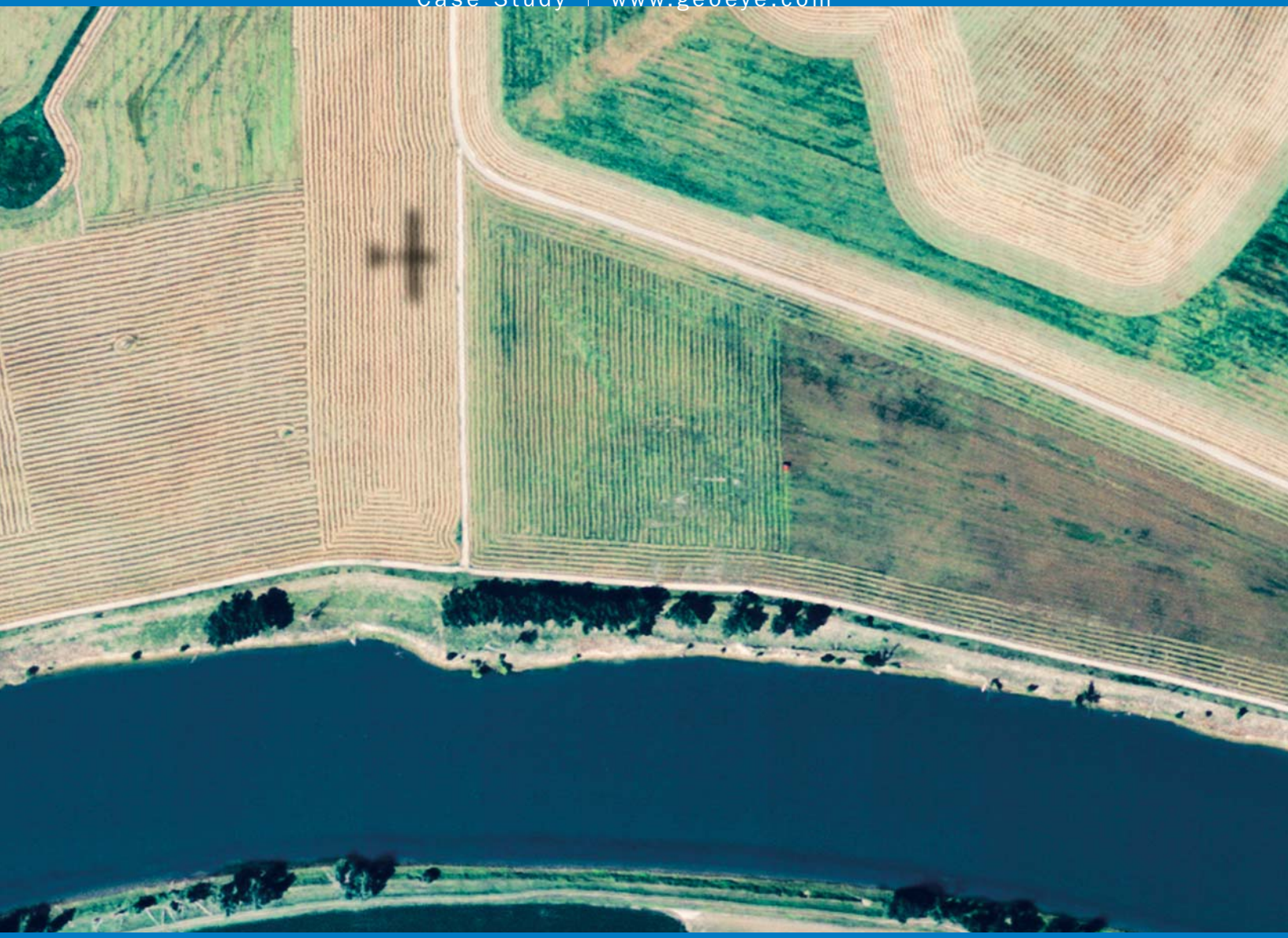


USDA, FARM SERVICE AGENCY (FSA) AERIAL PHOTOGRAPHY FIELD OFFICE (APFO)

INTRODUCTION

The APFO stores and maintains over 60 TB of imagery and is federally mandated to provide geospatial data to the public. With manual data management practices, fulfillment was time consuming, inefficient and rarely met customer requirements. The APFO needed an automated way to catalog, provision and deliver imagery to its customers.

GeoEye® **Analytics**

CUSTOMER

The Aerial Photography Field Office (APFO) was originally created under the Farm Services Agency (FSA) of the United States Department of Agriculture (USDA), as part of the department's crop compliance program. As the FSA's data steward, the APFO stores and maintains over 60 TB of imagery with additions each year of about 6 TB. The office not only serves as the authoritative source of aerial imagery for the FSA, USDA and partner organizations but is federally mandated to provision geospatial data to the public upon request.

A key initiative managed by the APFO is the National Agriculture Imagery Program (NAIP), designed to replace the existing 35mm Compliance Imagery Program. NAIP imagery is captured during crop growing seasons and delivered in both one and two meter resolutions, in natural color and color infrared.

CHALLENGE

With the advent of digital imagery, requests shifted from older, film-based photographs to current digital imagery and grew dramatically. With manual data management practices, the response required heavily strained resources and lacked proper efficiency for customers needs.

The lack of an efficient, streamlined, easy-to-use system for fulfilling NAIP requests affected the entire organization – from the sales teams to APFO management, IT staff and customers. Customers and partners became frustrated due to long delivery times. Without an automated system, IT had to spend a lot of time preprocessing and organizing information. The process of ensuring that customer requests were met through multiple revision cycles was laborious and prohibitive.

To meet customer demands and lift the undue strain on scarce resources, a system was needed that could provide raster information very quickly across the customer spectrum in the required formats. The system would need to provide sales personnel the ability to quickly and efficiently provision NAIP imagery without IT support.

SPATIAL CONTENT MANAGEMENT SOLUTION

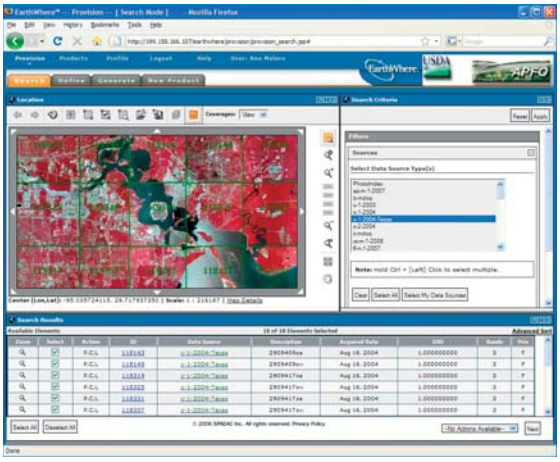
After review of various solutions, EarthWhere from GeoEye met more of APFO's business requirements than any other vendor's products. EarthWhere is a spatial content management solution that streamlines the organization, provisioning and dissemination of disparate data for fast organization-wide access in the customer-required formats. Combining sophisticated search and advanced distribution management with a scalable service-oriented architecture (SOA), it maximizes value extraction from spatial content assets and service quality while eliminating redundancies and improving efficiencies.

Aside from its powerful provisioning features, the selection of EarthWhere was based on its flexible architecture that can seamlessly integrate with other IT investments across the imagery distribution cycle and powerful out-of-the-box user interface. Additionally, the product offers asynchronous job processing of multiple requests from concurrent users as well as options for synchronous processing via web services. Contiguous datasets can be processed in batches to enable cohesive delivery of large jobs.

EarthWhere has become a key component in the APFO's overall geospatial imagery content management architecture. Sophisticated search functionality allows even novice users to quickly locate data based on a variety of metadata attributes, eliminating unnecessary procurement cycles. With EarthWhere, sales personnel, management and customer support teams have direct access to the required data and can quickly provision requested imagery to suit their needs.

"I was able to determine coverage for and fulfill two orders this morning in just 5 minutes, versus 40. With the automated interface to RIMAGE, I no longer have to deal with labels for jewel cases. It's all done for me."

Customer Service Section



BENEFITS ACROSS THE ORGANIZATION

With EarthWhere, customer order fulfillment capability significantly enhanced – with cycle times improved by more than a factor of five. Analysis of the type and frequency of NAIP quarter quad (QQ) customer orders revealed that Single QQ orders were the most requested, almost on a daily basis, followed by a high frequency of multiple QQ orders, multiple county QQs and others. The table below illustrates the improvements achieved with EarthWhere.

The time to determine coverage from a shapefile or coordinates that used to take 20 minutes was reduced to 1 minute with EarthWhere. Before implementing EarthWhere it took the NAIP an hour to fulfill about 3 Single QQ or multiple QQ orders. With EarthWhere, 13 – 20 orders could be fulfilled in an hour dramatically reducing cycle times. Additionally, about 520 hours per year of IT support were eliminated significantly reducing the strain on valuable and scarce IT resources.

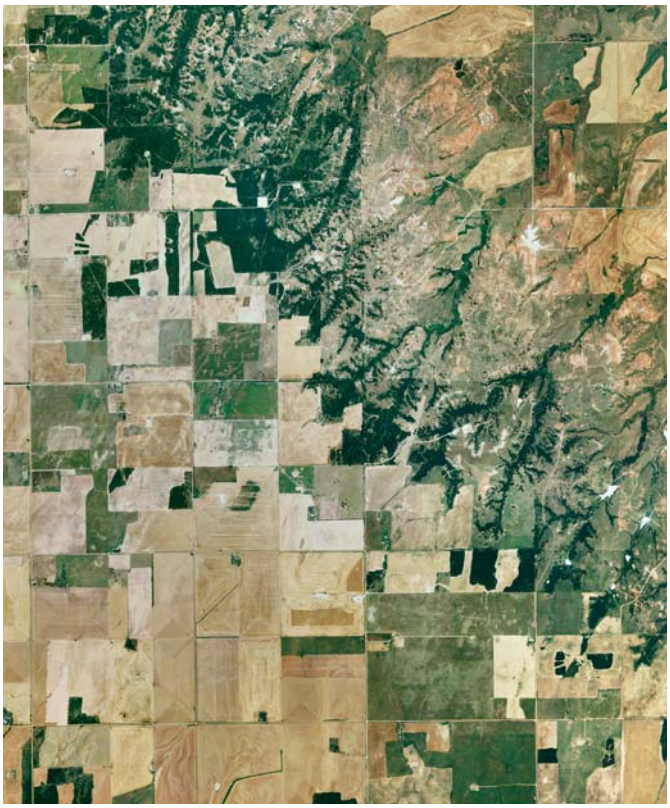
Order Type*	Before EarthWhere	Using EarthWhere
Time to determine coverage from a shapefile or coordinates	20 minutes	1 minute
Single QQ – very high frequency of occurrence	3.1 per hour	13 – 20 per hour
Multiple QQs – high frequency of occurrence	3 per hour	13 – 20 per hour
All history for a site (e.g., year 2002, 2003, and 2004) – can be single or multiple QQ – medium frequency of occurrence	1.2 per hour	5 – 6 per hour

** based on optimal network configuration, file type, and size.*

EarthWhere extended an important benefit in enhancing the value of APFO's investment in an automated RIMAGE CD/DVD publishing system. Previously a manually managed process, the decisions to output on CD or DVD were constrained by size and also affected the number of orders that could be fulfilled. Using EarthWhere's seamless interface to RIMAGE, orders are queued and processed automatically. Business rules determine the output media to be used and when the job is processed, the system notifies sales personnel so media can be picked up and shipped to the customer.

"The intangible savings in manpower and productivity are an immediate plus. Over time, these savings alone will pay for the project."

IT Manager



On the whole, the APFO implementation shows the importance and benefits a GIS and Image data steward can derive from EarthWhere. The ease of usability enabled the sales team to rapidly learn the system and use it without IT support. Plans are already in place to ingest more imagery data than just the NAIP program quarter quads. The imagery catalog will be expanded to include historic film-based products, establishing the EarthWhere system as the complete catalog of all APFO imagery.

Imagery provided courtesy of the National Agricultural Imagery Program – visit www.apfo.usda.gov for more information

CLIENT AT A GLANCE:

Client Name & Location:
USDA Farm Service Agency, Aerial Photography Field Office, Salt Lake City, UT

Industry:
Federal Government, Civilian Agency

Challenge:
Improve customer order cycle times and streamline operational support

GeoEye Solution:
EarthWhere Spatial Data Management System

GeoEye is committed to your success

Our commitment to your long-term success is second to none. GeoEye continually researches, develops and engineers new, innovative technologies and powerful, advanced solutions to meet your needs today and tomorrow.

Discover how GeoEye Analytics can help your organization minimize risk, maximize opportunity and ensure enterprise resiliency. Call 703-740-4000, go to www.geoeye.com or email analytics.sales@geoeye.com today

GeoEye® Analytics

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