

Case Study



Pinnacle Mapping Technologies, Inc.

Contractor Uses GeoExpress to Create Mosaics in Multiple Resolutions and Projections

Emergency crews save lives using applications such as the Indiana First Response Map shown below, which imports reprojected Indiana township mosaics compressed at 50:1 in GeoExpress.

Background

In 2005 the State of Indiana contracted with EarthData International to create high-resolution digital aerial imagery of all

of its counties in support of homeland security, emergency management, and multi-use government applications. As a subcontractor to QA contractor Dewberry, Pinnacle Mapping mosaicked, compressed and reprojected the high resolution image data for delivery statewide to libraries, local governments and other organizations.

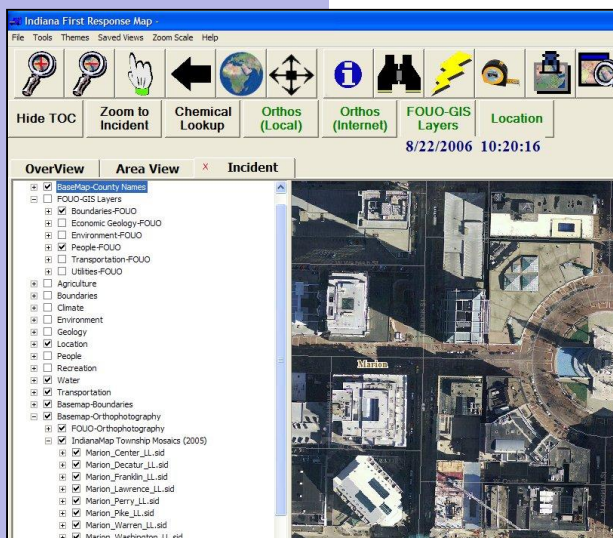
Challenges

Pinnacle started with more than 70,000 TIFFs, each from 46 MB to 183 MB in size, amounting to more than 6 terabytes of raw

image data that would need to be significantly compressed in order to be useful. Also, because 13 of Indiana's 92 counties were photographed at 6-inch resolution and 79 at 1-foot, the mosaicking process must accommodate multiple resolutions. Finally, the product would be delivered in several coordinate systems to meet the needs of varied end users.

Pinnacle's workflow solution needed to achieve the following:

- **Reduce file size of images**
- **Efficient multiresolution mosaicking and reprojection**
- **Retain high image quality even at 20:1 and 50:1 compression ratios**
- **Enable fast viewing online and in GIS applications**



Organization

Pinnacle Mapping Technologies, Inc.

Location

Indianapolis, Indiana

Industry

Photogrammetric Mapping

Product

Mapping Products and Services

Customers

Government and Private Enterprise

Project Websites

<http://www.indianamap.org>

<http://gis.iu.edu>

Solution

Pinnacle used GeoExpress to compress all 70,000 TIFF ortho tiles as MrSID files at a ratio of 20:1, create county mosaics at 50:1 for more than 1,000 political townships, then reproject the mosaics from Indiana State Plane to Latitude/Longitude for emergency responders. The MrSID mosaics are viewed in the IndianaMap Viewing Application, a portfolio of GIS projects for accessing the imagery that includes standalone viewers, Web viewers and Web map services. Pinnacle created two standalone viewing applications featuring the township mosaics for each county using ESRI's ArcReader software and DDTI's AccuGlobe software.

“GeoExpress proved to be a useful set of tools for getting high-quality image mosaics into the hands of our users in a compressed format and in multiple coordinate systems.”

Phil Worrall
GIS Director
Pinnacle Mapping Technologies

Benefits

- **Streamlined workflow** – The ability to mosaic images of different resolutions and reproject the mosaics to other coordinate systems saved time and labor costs for Pinnacle. Batch processing using GeoExpress' command line enabled further workflow efficiencies.
- **Reduced storage requirements** – GeoExpress' compression capabilities enabled Pinnacle to present the entire state of Indiana in easy-to-use, high-resolution digital orthophotos; Pinnacle delivered over 6 terabytes of imagery to the State of Indiana on a handful of DVDs.
- **Retention of image quality** – Images are visually lossless even at compression ratios of 20:1 and 50:1, upholding Pinnacle's reputation for high-quality imagery.
- **Easy online viewing** – MrSID images are viewable in free customizable viewer supported by common GIS applications and Web browsers.

For More Information

For more information about LizardTech products, call LizardTech at (206) 652-5211. In Europe, call LizardTech UK, at 44 (0) 870 922 0239. To access purchasing information or find your local LizardTech sales manager, go to: <http://www.lizardtech.com/purchase/purchase/other.php>

For more information about LizardTech solutions, visit: <http://www.lizardtech.com/products/geo/>. For more information about Pinnacle Mapping Technologies, visit their Web site at: <http://www.pinnaclemapping.com>. For more information on Dewberry, visit <http://www.dewberry.com>.

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