



DATASHEET

LizardTech® GeoExpress® Your Go-To Image Manipulation and Compression Software – Now with Alpha Channel and Hyperspectral Support

Now With  MG4

LizardTech® GeoExpress® software reduces storage costs by compressing images to less than five percent of their original size using either the industry-standard MrSID® image compression format – now updated to MrSID Generation 4 (MG4™) – or the ISO standard JPEG 2000 format, all while retaining the visual quality of the originals.

How Can You Use GeoExpress?

Save Time Creating and Viewing Imagery

GeoExpress® software enables you to save time creating or repurposing imagery for new projects by offering powerful, fast, and easy-to-use image editing and manipulation tools such as reprojection, color balancing, mosaicking, cropping, despeckling and more. And MrSID® and JPEG 2000 images load faster in applications than other file types, so your end users save time, too.

Customize Your Multispectral Imagery

GeoExpress 8.5 supports **MG4**, the new version of the industry standard geospatial image format. With **MG4**'s support for compressing multi- and hyperspectral data you can use GeoExpress software to compress up to 255 bands of geospatial data to MrSID, select any subset of output bands from multispectral source images, and specify an individual compression ratio for each band or groups of bands. Whether you need to compress 4-band color images containing an infrared channel, take advantage of the latest 8-band satellite imagery, or compress high-resolution RGB datasets, GeoExpress has you covered.

Use Alpha Channels for Transparency

With the MrSID format's support for alpha channels, you can add true transparency to your geospatial imagery. Now you can make portions of your image transparent or opaque so you have greater control over how your imagery looks, even at high compression ratios. You can also use alpha channels on existing compressed images to remove compression artifacts known as speckling. Images with alpha channels will seamlessly combine into artifact-free mosaics for accurate analysis and visualization in your favorite GIS applications.

Take Advantage of Improved Mosaicking Options

Previously, mosaics were either quick to create but slower for end users to open, or took a long time to create but opened rapidly in viewing applications. With GeoExpress 8.5 you can combine thousands of MrSID files without spending valuable time reprocessing them. **MG4** mosaics open as quickly as a single image, so you save time creating images and your users save time viewing them.

Integrate with Express Server

GeoExpress software enables you to export imagery directly to your Express Server® image serving software.* You can select Express Server as the output destination for newly encoded imagery, or publish your existing MrSID and JPEG 2000 images to LizardTech's Express Server without having to reencode them. A few clicks moves your imagery from editing in GeoExpress to distribution via Express Server to WMS, ArcGIS Image Server or Web applications. This improved interoperability makes GeoExpress the ideal command center for your real-world geospatial imaging workflows.

Administer Express Server from GeoExpress

The Express Server Management Console in GeoExpress enables you to create, index and update catalogs in multiple Express Server installations from a single location. No need to leave the GeoExpress interface to prepare catalogs for the imagery you're working with. Accessible from the GeoExpress toolbar, the Express Server Management Console enables you to create and update indexes, overviews and WMS layers in all your

*Express Server version 6 or later

How Can You Use GeoExpress? Continued

image catalogs. Managing the distribution of your imagery just got a lot easier.

Use GeoExpress on 64-Bit Systems

Take advantage of more memory than ever before – 16 gigabytes or more! – to create mosaics of imagery multiple terabytes in size. With GeoExpress software you can encode your MrSID imagery faster than ever before by leveraging today's advanced 64-bit systems.

Color-Balance Images and Mosaics

Make your imagery more eye-pleasing and easier to use by color balancing single images or mosaics. Manually or automatically adjust brightness, contrast and gamma to correct uniform imbalances and make one image more like its neighbors. For non-uniform imbalances like tilt, seam lines and vignetting, GeoExpress software enables you to set automatic corrections.

Take Advantage of Flexible Licensing

Share image compression capability and editing tools across an organization with GeoExpress software. Floating licenses combine with powerful wavelet-based image compression and a robust suite of image manipulation tools, enabling you to maximize value from your application licensing budget while increasing your organization's productivity both on the desktop and in the field. Users traveling from one office to another can check out licenses as "commuter licenses" for working offline. And GeoExpress 8.5 enables administrators to control how many floating licenses are available as commuter licenses.

Reproject Imagery

Reproject your imagery from one coordinate system to another and output directly into MrSID or JPEG 2000 format—all using the familiar GeoExpress workflow. You don't need to revert to TIFF or other raw formats in order to reproject, so you can save time and storage space by keeping your imagery compressed. Define, save and share custom coordinate systems. GeoExpress' "recently used" functionality makes it easier to select the coordinate systems you use most often. And now you can automatically generate AUX files to ensure your image metadata can be read in Esri applications.

Add and Edit Custom Metadata

GeoExpress software offers improved metadata editing tools so you can add and edit custom metadata tags in MrSID and JPEG 2000 imagery. Change the coordinate reference system of your imagery without having to reencode, and use your custom metadata tags to build flexible and robust web applications that can be served with LizardTech Express Server software.

Tailor Your Imagery to Every Need

Make existing imagery more useful with the powerful suite of editing and manipulation tools found in GeoExpress. Take advantage of mosaicking, cropping, color-balancing, reprojection, and more. If you don't need image compression or if you already have compression capability but want to improve your image processing workflow, these image editing tools are available separately in GeoExpress Tools.

Demosaic and Export Imagery

Use GeoExpress' export tools to demosaic or "tile out" your imagery for better fitting onto CDs or DVDs. No need to learn command line tools—simply draw a rectangle to decode all or part of your MrSID or JPEG 2000 imagery to GeoTIFF directly from the GeoExpress graphical user interface.

Encode with Confidence

GeoExpress software takes the guesswork out of generating compressed imagery conforming to government requirements for ISO and other standards, including Department of Defense and NGA JPEG 2000 encoding specifications (such as NPJE and EPJE) and long-time industry-standard MrSID. Predefined and user-defined encoding profiles ensure that your organization delivers the same high-quality imagery, every time.

Ensure Interoperability with Geospatial Applications

GeoExpress is designed for interoperability with the widest range of leading geospatial applications, including native support in applications from Esri, Leica Geosystems, Autodesk and Intergraph, MapInfo, Bentley, and GE/Smallworld, to name a few, enabling your users to view MrSID and JPEG 2000 imagery using their existing software.

Learn more about GeoExpress 8.5 at www.lizardtech.com/products/geo

System Requirements

Windows

- 32 Bit: Windows XP (SP3), Windows 2003 (SP2), Windows 2008 (SP2), Windows Vista (SP2) or Windows 7
- 64-bit: Microsoft Windows XP Pro (SP2), Windows 2003 R2, Windows 2008 R2, Windows Vista 64 (SP2) or Windows 7
- Microsoft .NET Framework (32- or 64-bit) 2.0 or later (included)

- Microsoft Management Console 3.0 (included)
- 1.5+ GHz Intel Pentium 4 Processor (2.6+ GHz recommended)

Linux

- Red Hat Enterprise Server 5.0 or 6.0 (32-bit or 64-bit)
- 1.5 GHz Intel Pentium 4 Processor (2.6+ GHz recommended)

Solaris

- Sun Solaris SPARC V9 9 or 10 (64-bit)
- Sun UltraSPARC IIIi (UltraSPARC IV or higher recommended)

All Platforms

- 1 GB RAM (2 GB RAM recommended for 32-bit; 8 GB RAM recommended for 64-bit)
- DVD-ROM Drive

- 200 MB free hard disk space, plus room for imagery

Purchase Options

- **GeoExpress 8.5 Standard Edition**
- Level 1 - 100 GB of annual encoding
- Level 2 - 500 GB of annual encoding
- Level 3 - 1 TB of annual encoding

GeoExpress 8.5 Unlimited Edition

- Unlimited MrSID and JPEG 2000 encoding and powerful image manipulation tools
- **GeoExpress 8.5 Tools Edition**
- Unlimited manipulation of MrSID and JPEG 2000 images
- **GeoExpress 8.5 Remote Edition**
- Unlimited MrSID and JPEG 2000 encoding and manipulation in a Terminal Services or Citrix environment

Floating License

LizardTech's optional Floating License System allows you to deploy GeoExpress on workstations throughout your organization with a flexible, token-based licensing system. The "committer" license now enables you to work offline.