

**LizardTech**

# **GeoExpress 9.5.5**

**Read Me**

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# Chapter 4: Product Overview

GeoExpress is a software solution for compressing and manipulating geospatial data. GeoExpress supports a broad range of file formats, including the industry standard MrSID format and the ISO standard JPEG 2000 format.

Here are some of the tasks that you can perform with GeoExpress:

- Compress raster and LiDAR data.
- Create seamless mosaics.
- Specify separate compression ratios for individual bands in a multispectral image.
- Reproject raster images to another coordinate reference system.
- Perform color balancing.
- Crop and demosaick raster images.
- Despeckle raster images.
- Edit image metadata.

Save the images that you create with GeoExpress to your computer or a LizardTech Express Server. Then, view the images in the geographic information system (GIS) software of your choice, including Esri®, Bentley®, Autodesk®, and more.

# Chapter 4: Installation Notes

You can install GeoExpress on the following operating systems:

## Windows

- Windows 10 (32-bit and 64-bit)
- Windows 8 (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)
- Windows Server 2012 R2 Update
- Windows Server 2012
- Windows Server 2008 R2 SP1

## Installing on Windows

To install GeoExpress on Windows, run the `AutoRun.exe` program located in the parent directory of the installation DVD. The installation process creates a shortcut in the LizardTech directory of the **Start Menu**.

## Installing on Linux

To install GeoExpress on Linux, navigate to the directory that corresponds to your operating system and run the `install.sh` script. For example, if you run a 64-bit version of Linux, you might navigate to the `Linux64` directory. By default, GeoExpress is installed in the following directory:

```
/usr/local/LizardTech/
```

---

## Chapter 4: What's New

### Version 9.5.5

#### New features

- GeoExpress no longer limits the number of concurrent jobs and threads to 8; instead, it will use as many as needed up to the number of processor cores on your system.
- GeoExpress uses the **nodata** value of the input image as the transparency for the alpha band when converting to MG4 format. Previously, this value (if present) was ignored by default.
- The option to apply RPC metadata to an image is now enabled by default.  
You can change this on the **Input** tab of the **Advanced Job Options** dialog.
- GeoExpress now optionally collects anonymous usage statistics to help us improve the user experience. You can enable or disable this during installation; to change this option within the application, choose **Help > Anonymous Application Usage**.

### Version 9.5.4

#### New features

- **Seamlines shapefile:** We added an option to generate a shapefile representing the tiles included in a raster mosaic. You can use this in another program, like GeoViewer, to identify tiles and overlap in the output image.
- **Command line tools:** We improved the method used to create MrSID mosaics from the command line.

### Version 9.5.3

#### New features

- **BPF support:** GeoExpress supports input and output of Binary Point Files often used in Geiger Mode LiDAR imagery.
- **NAD83 2011 support:** GeoExpress now supports EPSG Coordinate Reference Systems and Coordinate Transformations related to NOAA's National Adjustment of 2011.
- **Better color balancing:** We added an option for color balancing mosaics that allows you to apply the correction to each band in the image, rather than just to the intensity (the previous built-in behavior). The new option is the default behavior, but you can switch back to the previous method if necessary.
- **Custom Watermarks:** The size limitation for custom watermark files has been removed. Previously, the maximum size for a watermark was 128 pixels × 128 pixels.
- **RGB Color Transform enabled by default:** For multispectral source images, the option to compress the first 3 bands as RGB bands is enabled by default. This results in truer colors in the compressed output image.
- **Simpler licensing:** To license GeoExpress on a stand-alone system, you can import a license file. The License Server Utility makes it a snap to add floating licenses.

### Version 9.5.2

GeoExpress 9.5.2 is a patch release to enable users with a floating license to access the software via Remote Desktop. Previously, users were forced to use a special Remote Edition license.

#### New features

- A floating license now allows access via Remote Desktop
- Documentation updates (including Area of Interest changes)

### Version 9.5.1

#### New features

- **Faster default workflows:** New option to use the same output format as the input format, and compression optimization.
- **PIX support:** GeoExpress supports PCIDSK (PIX) files as input files.
- **Windows 10 support**

### Version 9.5

#### New features

- **LiDAR Compression:** GeoExpress supports compressing LiDAR point clouds in plain-text or LAS or LAZ formats.
- **Multipolygon Shapefile Cropping:** Define the area that you want to crop with a shapefile that can contain multiple polygons.
- **Batch Color Balancing**

### Version 9.1

#### New features

- **Floating Point Support for MrSID Generation 4:** GeoExpress uses quantization to create 32-bit floating point images in the MrSID Generation 4 format.
- **Dynamic Range Metadata Generation:** Use GeoExpress to write dynamic range metadata for images.
- **Improved Metadata for Auxiliary Files**
- **Improved Multi-Core Processing:** Each job that you run in GeoExpress uses less processing power and finishes faster.
- **Command Line Image Statistics**

### Version 9.0

#### New features

- **Simple Job List:** Any images that you add to the GeoExpress graphical user interface appear in a single simplified job list.
- **Intelligent Encoding:** GeoExpress automatically performs a subset of image compression and manipulation operations without re-encoding images.
- **Graphical User Interface Enhancements**
- **Concurrent Processing:** GeoExpress creates multiple threads to process jobs more quickly.
- **Image Rotation:** For images that include rotation metadata, GeoExpress creates rotated output images.
- **Custom Watermarks:** GeoExpress supports watermark images in BMP, PNG, and JPEG formats.
- **Mosaic Enhancements for the Command Line:** Create mosaics using multiple coordinate reference systems from the command line.
- **PNG Support**
- **NITF RPC Support:** GeoExpress can now interpret NITF files with RPC metadata.

## Chapter 4: Fixes

Recent versions of GeoExpress include the following fixes:

### Version 9.5.4

| BUG ID  | DESCRIPTION  |
|---------|--|
| LT-2226 | Fixed an issue where resampling an image could result in a slight change to the image extents (corner locations).  |
| LT-2149 | Fixed an issue where setting advanced alpha options for a multi-file job would sometimes result in a crash.  |
| LT-1990 | Fixed an issue where a mosaic that includes a low resolution image would shift the lo res tile by 1 pixel.   |
| LT-1720 | Addressed an issue where the GeoExpress installer could not install a required library if an earlier version was already installed.  |
| LT-1682 | Fixed an issue where the Express Cartridge Server installer was not installing some required libraries.  |
| LT-1642 | Fixed an issue where creating a mosaic from multispectral images using a subset of the available bands and an opaque alpha band would yield an image with an incorrect alpha band. |

### Version 9.5.3

| BUG ID  | DESCRIPTION   |
|---------|---|
| LT-1302 | NITF files larger than 4GB are not read correctly.  |
| LT-1293 | Both Reprojection and Color Balancing now respect the operating system's setting for number format. Specifically, if your region's standard number format uses a comma (,) to separate integral from decimal portions of a number, these values are now stored correctly. |

### Version 9.5

| BUG ID | DESCRIPTION  |
|--------|--|
| 18449  | You cannot create images from world files that contain rotation information.   |
| 18009  | When you change the resolution of an image, the image may not be aligned properly. Now you can align images to an integer multiple of the output resolution. |

### Version 9.1

| BUG ID | DESCRIPTION   |
|--------|---|
| 16133  | When you generate dynamic range values for an image in GeoExpress, the dynamic range values are stored in a metadata file with the .aux file extension. If you attempt to view the dynamic range values in ArcGIS 9.3.1 or earlier, the values are ignored. |

### Version 9.0

| BUG ID | DESCRIPTION  |
|--------|--|
| 14362  | When you reproject a mosaic, the component tiles do not rotate.  |
| 14330  | When you request a license using the license fulfillment option in GeoExpress, there is not enough space to enter the entire serial key that you received in your order confirmation email.                |
| 14038  | If you change part of the image metadata, GeoExpress may discard the existing metadata value for the image origin.   |
| 13766  | If you use the wcommute Commuter Licensing utility to check out a license, GeoExpress may not use the license that you check out.  |
| 13760  | The documentation does not include the name of the service for the LizardTech License Server.  |
| 13730  | GeoExpress may fail to open images in the IMG format.  |
| 13565  | Reprojecting images in GeoExpress may take longer than expected.   |
| 13522  | You cannot create images with custom watermarks.   |
| 13283  | If you specify that an input image has transparency information in its metadata, GeoExpress may not create output images with the MrSID Generation 4 output format.  |
| 13273  | If you run Windows 7, you cannot use remote desktop to access GeoExpress Remote Edition.   |
| 13272  | When you install GeoExpress Remote Edition, you cannot use that instance of GeoExpress from the local system.  |
| 13251  | If you use the mrsidgeoencodercommand line tool to enter your locking code, the locking code may not save correctly.   |
| 13241  | If you view the locking code in the user interface, you may only see part of the locking code.   |
| 13179  | Create a mosaic with input tiles in multiple projections. If you use world files to specify the input projections, GeoExpress cannot calculate the correct amount of data to charge to the data cartridge. |
| 13034  | When you search for coordinate reference systems in the user interface, you have to use the exact word order.  |
| 12719  | The GeoExpress trial period cannot be extended.  |
| 12250  | When you use the band selector on the Preview tab, the band selector may stay open after you navigate to another tab.  |
| 9021   | You cannot use the command line to create a mosaic from input tiles in multiple projections.   |

## Chapter 4: Known Limitations

Version 9 of GeoExpress includes the following known limitations:

### Version 9.5

No known limitations were introduced in this release.

### Version 9.1

| BUG ID | DESCRIPTION  |
|--------|--|
| 15750  | After you update your web browser, the GeoExpress help appears blank.  |
| 15329  | GeoExpress only supports color lookup tables with eight bits and three bands. If you attempt to view an image with a color lookup table that is not eight bits, the image may not display correctly. |

### Version 9.0

No known limitations were introduced in this release.



## Chapter 4: Customer Support

To contact LizardTech Customer Support, visit <https://www.lizardtech.com/support/>.

You can also call one of the following phone numbers:

- 866-725-5211
- 206-652-5211