

Extensis

GeoExpress 10

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GeoExpress 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.

Some of the tasks that you can perform with GeoExpress include:

- 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.

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

Installing GeoExpress

Overview

To set up GeoExpress, complete the following steps:

- Run the GeoExpress installer to install the GeoExpress application.
- Enter a license code or connect to a License Server.
- If you have a copy of GeoExpress Standard Edition, install a data cartridge.

Installing on Windows

IMPORTANT: GeoExpress 10 is a 64-bit application and requires a 64-bit operating system.

If you are upgrading from GeoExpress 9.5 or later, you can install GeoExpress 10 without any special preparation.

If you are running GeoExpress 9.1 or earlier, you must uninstall the older version before installing GeoExpress 10.

GeoExpress 10 requires a new serial number.

1. Log on to the computer where you want to install GeoExpress.
You don't need to log on as an administrator but you do need to be able to perform admin overrides.
2. Download the installer from [GeoExpress Support](https://www.extensis.com/support/geoexpress-10/) (https://www.extensis.com/support/geoexpress-10/).
3. Navigate to the directory containing the GeoExpress installer and double-click **setup.exe** to start the **GeoExpress Installation Wizard**.
4. The installation wizard prompts you to complete the following tasks:
 - Install the Microsoft .NET Framework, Visual Studio C++ Redistributable, and any other required libraries.
 - Accept the License Agreement.
 - Decide whether to share anonymous usage information.
To change this option within the application, choose **Help > Anonymous Application Usage**.
 - Enter your serial number or choose to run GeoExpress in Trial mode.
Serial numbers are specific to a version of GeoExpress, and determine the functionality available to you. For example, there are different serial numbers for GeoExpress Standard and GeoExpress Unlimited.
 - Select the directory where you want to install GeoExpress.
 - Follow the steps to complete the installation.

If you did not have the serial number during installation, you can enter it in later. Start GeoExpress and choose **Options > Licensing** to enter your serial number. Review this [Knowledge Base article](https://help.extensis.com/hc/en-us/articles/360007893654) (https://help.extensis.com/hc/en-us/articles/360007893654) if you need assistance.

Installing on Linux

NOTE: On Linux, GeoExpress runs as a command line-only program.

The Linux installer is available on the DVD ISO image available from [GeoExpress Support](https://www.extensis.com/support/geoexpress-10/) (https://www.extensis.com/support/geoexpress-10/).

You can burn the image to a DVD or use software that mounts it as a virtual disc.

To install GeoExpress on Linux, navigate to the mounted disc or virtual disc and run the **install.sh** script. By default, GeoExpress is installed in the following directory:

/usr/local/LizardTech/

What's new

Version 10.0.1

New features

- You can now rename jobs directly in the Job List.
Double-click a job to edit its name.
To edit a job's options, select it in the list and choose **Options > Job options**.
- You can use the arrow keys to navigate the Job List.

Bug fixes

- Fixed an issue where GeoExpress could not compress LiDAR .txt files to MrSID on Windows systems with Region set to Canada and Language set to French (Canada). [LT-3090]
- Fixed an issue where Mosaic output did not use the selected default output file format. [LT-3508]
- Improved the error message that is displayed when a badly-formed shapefile is used in a crop operation. [LT-3700]
- Fixed an issue where converting a .sid image with WGS84-based projection to NITF would result in a custom projection rather than the appropriate EPSG projection. [LT-4018]

Version 10.0

New features

GeoExpress 10 has a greatly improved user interface that can help streamline your workflow. Among the improvements are:

- **Reworked Job Properties panel:** The new organization reinforces workflow from the top down, showing the same types of information about each job and allowing you to easily identify, review, and edit modifications made to each job.
- **Reduced number of dialogs**
- **Improved mosaic creation**
- **New crop options**
- **Simplified reprojection:** Improved CRS selection and editing, new CRS source, simplified WKT viewing and editing, and improved error checking
- **Jobs:** You can now pause or cancel jobs individually or en masse, and can manually re-order running jobs.

GeoExpress 10 also includes these new and enhanced capabilities:

- You can now crop and reproject LiDAR point clouds
- You can now create mosaics from multiple sources, including:
 - Create an MG2 mosaic from MrSID sources
 - Create a TIFF mosaic
 - Create a multiresolution MG2 mosaic
- Encoding NITF imagery no longer requires a separate license. Note that encoding NITF imagery will incur a charge against the data cartridge.
- The **Crop** window always displays an image preview. You can cancel the preview if it is taking too long to render, at which point you can enter crop coordinates manually.

Bug fixes

- Fixed an issue where the command line version of GeoExpress would crash while processing some .ecw files. [LT-3169]

Version 9.5.x

New feature highlights

- **Enhanced multi-core support:** GeoExpress no longer limits the number of concurrent jobs and threads to eight.
- **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.
- **Command line tools:** We improved the method used to create MrSID mosaics from the command line.
- **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.
- **PIX support:** GeoExpress supports PCIDSK (PIX) files as input files.
- **Improved transparency conversion:** GeoExpress uses the **nodata** value of the input image as the transparency for the alpha band when converting to MG4 format.
- **Color balancing improvements**
- **Simplified licensing**

Bug fixes

- 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. [18009]
- You cannot create images from world files that contain rotation information. [18449]
- 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. [LT-1293]
- NITF files larger than 4GB are not read correctly. [LT-1302]
- 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. [LT-1642]
- Fixed an issue where the Express Cartridge Server installer was not installing some required libraries. [LT-1682]
- Addressed an issue where the GeoExpress installer could not install a required library if an earlier version was already installed. [LT-1720]
- Fixed an issue where a mosaic that includes a low resolution image would shift the lo res tile by 1 pixel. [LT-1990]
- Fixed an issue where setting advanced alpha options for a multi-file job would sometimes result in a crash. [LT-2149]
- Fixed an issue where resampling an image could result in a slight change to the image extents (corner locations). [LT-2226]

Version 9.0 and 9.1

New feature highlights

- **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**
- **Command Line Image Statistics**
- **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.
- **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.

Bug fixes

- You cannot use the command line to create a mosaic from input tiles in multiple projections. [9021]
- When you use the band selector on the Preview tab, the band selector may stay open after you navigate to another tab. [12250]
- The GeoExpress trial period cannot be extended. [12719]
- When you search for coordinate reference systems in the user interface, you have to use the exact word order. [13034]
- 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. [13179]
- If you view the locking code in the user interface, you may only see part of the locking code. [13241]
- If you use the mrsidgeoencodercommand line tool to enter your locking code, the locking code may not save correctly. [13251]
- When you install GeoExpress Remote Edition, you cannot use that instance of GeoExpress from the local system. [13272]
- If you run Windows 7, you cannot use remote desktop to access GeoExpress Remote Edition. [13273]
- 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. [13283]
- You cannot create images with custom watermarks. [13522]
- Reprojecting images in GeoExpress may take longer than expected. [13565]
- GeoExpress may fail to open images in the IMG format. [13730]
- The documentation does not include the name of the service for the LizardTech License Server. [13760]
- If you use the wcommute Commuter Licensing utility to check out a license, GeoExpress may not use the license that you check out. [13766]
- If you change part of the image metadata, GeoExpress may discard the existing metadata value for the image origin. [14038]
- 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. [14330]
- When you reproject a mosaic, the component tiles do not rotate. [14362]
- 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. [16133]

Known Limitations

- 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. [15329]
- After you update your web browser, the GeoExpress help appears blank. [15750]