WELCOME

Thank you for purchasing GPS-Photo Link. You will find that it reduces the time it takes to do your photo reporting tasks.

Help is available! In addition to the quick start guide, there are help files on the GPS-Photo Link CD that are part of the regular installation. The latest help files are always available online at www.GeoSpatialExperts.com/support/. There are training videos that can be accessed through the help menu in the software and there is instructional text across the top of every screen during photo processing. You may also ask questions on our user forum. Find the link to our forum while using the software by Clicking the Help button at the top and choosing Contact Us, Forum. You can also see the forum through our website at http://gseusers.ning.com/

This document includes detailed information about installing and using the software as well as quick start guides and hints for setting up your camera and GPS. Use the Table of Contents to navigate between sections.

Installation

Each license of GPS-Photo Link runs on one computer at a time. The license can be transferred between computers using the Transfer procedure outlined later in this document.

To install your software, download it from the GSE website and Click Run when prompted. If you have a CD, insert it into your CD-ROM drive. The installation starts automatically.

You may be asked to download some supporting software during the installation process. This means that some other software that GPS-Photo Link needs to work were not found, and we want to make sure all of these pieces are in place before you start up GPS-Photo Link.

Upon install, the software is immediately available in trial mode. In trial mode, the software will run for 15 unique days with limited features such as processing only 10 photos and adding watermarks to each photo.

ACTIVATION AND REGISTRATION

There are two ways to activate the software: Online or Phone or Email. Online

Offline (By Phone or Email)

Online

The easiest way to activate your software is over an active Internet connection. If the Activation Manager screen is not already showing, click the Tools button at the top of the screen - Activation Manager option. This will open a window that lets you type in the 31 digit serial number provided to you at the time of purchase (look at your invoice or at the sticker on the DVD case.) If you received the serial number electronically, you can copy it from the source and paste it in using the Paste button. The entire code will be entered across all fields in the proper format by using this button.

Once the serial number is entered, Press the Activate Button. Next you will be asked to provide contact information. This information will be used by GeoSpatial Experts to identify you as the user for technical support and to update you on any significant changes to the software. It will never be sold or shared with other organizations. Please provide accurate information and please update the information if the primary user, department, or company changes so that we can update our records.

Note: To update user information, click on the Help icon at the top of the screen. Next click the dropdown choice "Update Registration". Complete the form and click OK to update the user information with GeoSpatial Experts. This will make it easier for us to identify you for technical support and/or upgrades.

Click Activate to activate the software. Your license status will appear in the text box at the bottom of the Activation screen. The Activation Manager should now reflect your current license status and when your maintenance and support agreement will expire.

Once the software is activated it becomes "checked out" on the GeoSpatial Experts server.

Each license of GPS-Photo Link runs on one computer at a time. The license can be transferred between computers using the Transfer procedure outlined later in this document. Before using this license (serial number) on another computer you must "Deactivate" the license by clicking the Deactivate button. This will "check in" the license on the server making your serial number available to be used on another computer. See Transferring the License instructions for more information.

NOTE: DO NOT UNINSTALL THE SOFTWARE WITHOUT FIRST DEACTIVATING THE LICENCE OR IT WILL NOT WORK! See Transferring the License.

The Refresh button allows your software to check our server to update the license status. Use this after purchasing or extending your maintenance agreement to immediately renew your license.

The Copy Information button allows you to copy the license and version information onto your clipboard so that you can save it for your records or email it. The Email Information button allows you to quickly email information to GeoSpatial Experts. Use this if you are having trouble activating your software. The Email button works with Microsoft Outlook. Use the Copy button with any other email application.

Once you have activated your software you can go straight to:

Using GPS-Photo Link

Offline (By Phone or Email)

If you are unable to use the internet - you may email help@geospatialexperts.com or call to unlock your license manually: (303) 255-2908 during office hours (8:30am–5:00pm MST).

Here's what to do:

1. Open Activation Manager: Click the Tools, Activation Manager menu option.
2. In the Non Internet section, Click the Activate button.
3. Copy or create an email to transmit the Activation Request Code that appears in Step 1 on the screen. In that email please add the 31 digit serial number you received upon purchase.
4. Send these two pieces of information (serial number and activation request code) to GeoSpatial Experts or call us with the information.
5. GeoSpatail Experts will generate an Activation Authorization Code and return it to you via email or over the phone. This number is very long, so email is preferable.
6. Use the Paste button or type to enter this new Activation Authorization Code into the box in Step Two.
7. Click Activate to activate the software. Your license status will appear in the text box at the bottom of the Activation screen. The Activation Manager should now reflect your current license status and when your maintenance and support agreement will expire.

Each license of GPS-Photo Link runs on one computer at a time. The license can be transferred between computers using the Transfer procedure outlined later in this document. Before using this license (serial number) on another computer you must "Deactivate" the license by clicking the Deactivate button. This will "check in" the license on the server making your serial number available to be used on another computer. See Transferring the License instructions for more information.

NOTE: DO NOT UNINSTALL THE SOFTWARE WITHOUT FIRST DEACTIVATING THE LICENCE OR IT WILL NOT WORK! See Transferring the License.

The Copy Information button allows you to copy the license and version information onto your clipboard so that you can save it for your records or email it. The Email Information button allows you to quickly email information to GeoSpatial Experts. Use this if you are having trouble activating your software. The Email button works with Microsoft Outlook. Use the Copy button with any other email application.

Once you have activated your software you can go straight to:

Using GPS-Photo Link

or Set up Your Camera & GPS

TRANSFERRING THE LICENSE (TO A NEW COMPUTER)

You can easily transfer a GPS-Photo Link license from one computer to another via the internet.
Click the Help, Activation Manager.

1. On the old computer, use the Copy or Email Information button to copy the Serial Number listed. Email that information to the new computer or user.

2. On the old computer, click Deactivate button (using either the Internet button if you have internet access or the Non Internet button if you do not).

   a. If you use the Internet option the Deactivate button will immediately check the license back into our server making it available to another computer. Your original computer will no longer be able to use GPS-Photo Link.

   b. If you use the Non Internet option the Deactivate button will also immediately disable your license. However, you must send an email using the copy or email buttons to notify us of the deactivation so that we can make that license available to another user. If you do not have email access you may call us with the information.

3. On the new computer follow Activation instructions above. Use the Paste function to paste in the serial number you copied from the first computer or type it in.

NOTE: DO NOT uninstall GPS-photo Link without first Deactivating the software. Otherwise the license will be unavailable when you reinstall it.

QUICK START GUIDES

There are three Quick Start Guides. One for long time GPS-Photo Link users one for ArcGIS users and one for new users New users. The guide for long time users emphasizes what is different from previous versions while the new user guide describes the critical steps you need to understand before using GPS-Photo Link. At any time in the program you can click on the help button to get help with that screen.

The 5-Step Start (for Long Time Users)

While it looks very different, the new GPS-Photo Link uses the same steps as the old Wizard style user interface.

1. Start Page: GPS-Photo Link now begins with a Start page that looks like a webpage. If you have an internet connection this page will be updated with the latest information from GeoSpatial Experts including important information about any updates to or issues with the software.

2. Process Photos: To begin processing photos, click on the New Project button in the toolbar. You will be asked to name your project. Next a screen with tabs along the side will appear. These tabs are similar to the screens of the previous versions of GPS-Photo Link. Follow the instructions near the top of each screen and work your way down the tabs. If you have trouble, click the help button. As before, you will begin by importing your photos.

3. Editing & Watermarks: The new GPS-Photo Link allows much more flexibility in editing attribute data and incorporating these into the watermarked photos. There is also new photo editing functionality. Use the Attribute Editing screen to edit one or more photos. You can now bulk edit any field for as many photos as you select. Use the Photo Edit screen to edit the actual photograph including cropping, contrast, drawing and more. Any attributes may now be used as watermarks and there are many more spaces for watermarks to appear on your photos.

4. View Projects: The Project Manager tab at the top of the program allows you to view all the output from all your projects on one simple screen. Click on the + box to expand the view. By double clicking on the project you can reprocess the photos.

5. View Projects from older versions of GPS-Photo Link: The new GPS-Photo Link uses a completely different programming language and file system making it impossible to simply import output from previous projects into the Project Manager. You can still find previous output as you have in the past. You can also use the new version to reprocess old photos so that they are all stored together.

The 6-Step Start for ArcGIS Users (Only in GIS Pro Series)

Look for GPS-Photo Link toolbar in ArcGIS. The far right button launches GPS-Photo Link in a separate window. This allows you to use the full functionality of GPS-Photo Link including the attribute editor, photo editor and watermarking. For the fastest, simplest results you only need to complete four steps:

1. Create a Project: Give your project a name.

2. Import Photos: Browse to the file containing the photos.

3. Geotag Photos: If photos do not already contain GPS coordinates use the Geotag Wizard.

4. Select Output: Indicate whether you want to create ESRI Shape Files, File, Personal or Enterprise Geodatabases. Make sure to indicate specifics relating to each output type including whether this output will be created as a new geodatabase or inserted into a existing geodatabase.

5. Click Create Output button. GPS-Photo Link will process photos and display them in ArcGIS automatically.

6. View Photos in ArcGIS: Use View button to activate the hover feature and Set-up button to determine what is displayed in hover and clicking functions.

The 6-Step Start (for New Users)

1. Start Page: GPS-Photo Link begins on a Start page that looks like a webpage. If you have an internet connection this page will update with the latest information from GeoSpatial Experts including important information about any updates to or issues with the software.

2. To Start A Project: To begin processing photos, click the New Project button at the top of the screen. Once you give your project a name you will go to a screen that shows all the steps for processing your photos. These steps are shown as tabs on the left side of the page. There is instructional text at the top of each screen. Once you add your photos and make sure they are geotagged, you can simply use the Next button and GPS-Photo Link will create output using default settings. Customize your reports by making changes on various tabs. If you have trouble, click the help button.

3. Import Photos: Browse to the place where your photos are stored and select all or some of the photos in the folder. Icons next to the photos indicate whether GPS coordinates are already associated with the photo.

4. Geotag: The Geotag wizard walks you through steps to link your photos with the GPS coordinates you recorded on a separate GPS device. Follow the steps to link the data. Afterward, the number of geotagged photos will be displayed..

5. Attribute Editor, Photo Editor, and Watermark tabs:. Default settings allow you to skip these steps, however you may edit want to attribute data including photo location using the attribute editor. You can also edit the photo itself including cropping or writing on the photos using the Photo Editor. The Watermark and Shared Output Settings tabs allow you to format how the output will look in your final reports.

6. Select Output: Indicate which kinds of output you want GPS-Photo Link to create. Choose from printable reports (e.g. PDF, Word) or data files (e.g. ShapeFiles, GoogleEarth). Adjust settings specific to those outputs and click FINISH. Your output can be viewed under the Project Manager tab at the top of the screen.

USING GPS-PHOTO LINK

GPS-Photo Link organizes your work into separate projects. The following section describes GPS-Photo Link steps to create new projects and manager existing projects in detail. You can access this information as a help file by clicking on the Help buttons displayed in the bottom left corner of each tab in the software 💬 or as a single PDF or html document on your installation CD. Brief training videos illustrate some of the features of GPS-Photo Link. These can be accessed under the Help button at the top of the screen.

The latest updated version of all help is always available online at www.geospatialexperts.com/support.php

Start Page

Create a New Project

1 Import Photos
2 Geotag
3 Attribute Editor
4 Photo Editor
5 Watermark
6 Shared Output Settings
7 Select Output
▶ Create Output

Manage Projects: View, edit and share existing projects.

ArcGIS: Use GPS-Photo Link from inside ESRI's ArcGIS

> Note: While the tabs are in order you don't have to be. Once you import your photos you can go back and make changes or add new photos at any time. You can skip around to other steps as well. After completing a project you can always reopen it and make changes only to the pages you desire. Click Create output from any screen to create new output reflecting your changes.

Start Page

GPS-Photo Link opens on a Start Page that looks like a webpage. If you have an internet connection, GPS-Photo Link will display an active webpage showing you the latest information about GPS-Photo Link and related issues. Here you can also find links to Help including a link to our online forum. You can

also see an overview video or the latest news. The Start page appears as a tab underneath a toolbar. As you start new projects or view existing projects, they will form new tabs.

The toolbar at the top of the screen has the following buttons:

	New Project: Click here to begin using GPS-Photo Link
	Project Manager: Click here to view projects already created in GPS-Photo Link
	Tools: Links to Application Options, Project Settings, Activation Manager, Check for Updates on Startup, Check for Updates Now
	Help: Links to Contents, Training Videos, FAQ, Start Page, Update Registration, Buy Now (if in trial mode), Contact Us and About GPS-Photo Link
	Exit GPS-Photo Link: Closes this program

A description of the options associated with each button are described in this help document.

Most of the time you will use the two buttons on the left: New Project to import and process photos, or Project Manger to view existing output.

Tools

Application Options

File Locations

GPS-Photo Link automatically saves projects to the computer where it is installed. You may save projects to other places including Network drives Here's how:

1. Click Tools icon on top menu bar.
2. Click Application Settings.
3. Click File Locations.
4. Browse to the location where you would like your projects stored.
5. Click OK.

Note: GPS-Photo Link needs all the projects and associated files stored in one root folder. Once you change drives, this becomes the new default. Only projects stored here can be viewed in the Project Manager. (You can use the Include function in the Project Manager to import projects from other places.)

Project Settings

Choose settings that will apply throughout the open project. Access these settings through the toolbar or at the bottom of Project screens that are open to editing (showing the numbered tabs on the left).

	Coordinate: Allows you to format how coordinates are displayed. If you have GIS Pro you may choose which coordinate system you want to use. Next describe how you want that information formatted. The default setting is WGS-84 (Lat/Lon).

	Date & Time: Formats how the date and time are displayed throughout your project.
	Direction: Described how the direction of your photo is displayed. You can choose whether you display true or magnetic north and choose different formatting (degrees, Cardinal directions)
	Distance: Choose how to display the distance are displayed.
	Speed: Formats any speed data in units like Miles per Hour. An example of speed is the speed your GPS was moving when a point was taken. This may be displayed in the attribute data.

Activation Manager

The Activation Manager shows you information about your license. Activation Information shows you your serial number, the edition you are licensed to use and the version you are licensed to download.

Maintenance Agreement show you the current status of your maintenance agreement and when it will expire. If you purchase software without a maintenance agreement you will not be eligible for free version upgrades after 30 days.

Instructions for activating the software via internet or offline can be found in Activation/Registration section of this manual. You can register Online or Offline.Online Offline (By Phone or Email)

Check for Updates on Startup

This setting allows your computer to check GeoSpatial Experts for any new updates whenever you start the program. Turn off this feature by selecting it. Notice the Checkmark will appear when it is on and disappear when it is off.

Check for Updates Now

This selection uses the internet to check for new updates immediately. Use this if you have had the Check Updates on Startup feature turned off and want to check now.

Help

The Help Button includes the following options on the dropdown list:

- Contents: Opens the Help file for GPS-Photo Link. Use this to browse or search to find the information you need.
- Training Videos: This page lists available training videos. Watch these brief tutorials to make the most of GPS-Photo Link.
- FAQ: Launches a separate page with Frequently Asked Questions and a How Do I... guide. Use this to find quick answers to your questions.
- Start Page: Brings up the Start Page as a new tab.
- Update Registration: If someone else becomes the primary user of GPS-Photo Link, use this form to update the user information with GeoSpatial Experts. This will make it easier for us to identify you for technical support and/or upgrades.
- Buy Now: If you are in trial mode, click the Buy Now button to purchase a license of GPS-Photo Link. You will be brought to an online site describing the different editions. Make your selection and buy online or call us. Note: GSA pricing is available to those who qualify.
- Contact Us: Communicate with GeoSpatial Experts in a variety of ways.
    - Lists contact information for GeoSpatial Experts

- Forum connects you to our online forum where you can ask a question or share information with other users.
- Ask a Question brings up an email allowing you to ask a question of our technical staff.
- Submit an Enhancement starts an email to our engineers so that you can request features that you would like to see added. We will compile a list of requests and consider these as we put together future updates.
- Submit a Bug Report lets you send an email to our engineers about any bugs you find in GPS-Photo Link. Please tell us in detail how you found the problem and what the error said or did. These will be addressed as quickly as possible and, if you have internet access, you will be notified automatically of the availability of a fix. Watch the Start Page for details of updates and bug fixes.
- About GPS-Photo Link: Shows the version of GPS-Photo Link you have and gives more contact information.

Create a New Project

GPS-Photo Link organizes your work into separate projects. So the first step, even before you select the photos that you want to process, is to start a new project.

To start a new project:

1. Click on NEW Project.
2. Enter a project name.
3. Click OK. A new tab appears with your project name.

Please note the tabs running down the left side of the project tab. These tabs walk you through the process of linking your photos with the GPS data, editing and creating multiple outputs. A Description at the top of each screen explains the function of that screen.

That's all you need to get started. For more details about the powerful tools to organize and manage your photo projects, see the Manage Projects section. For more information on how to manage the global project settings (e.g. how to save projects outside your C: drive), see the section under Project Settings (e.g. how to change coordinate systems, format direction or date & time).

1. Import Photos

This screen displays photos in this project. When you start a new project the body of this project tab will be blank. Use the following steps to import photos.

1. Click the Import Photos button
2. A new window will pop up allowing you to browse to your photos. Using the navigation tree on the left, select the folder your original photos are stored in.
3. Select the photos you want to import by clicking on each file (to select it), or by clicking on the Check All in Folder button.
4. Click OK to complete the import process. During import, you will see a progress bar.

5. You may use photos from multiple folders as long as the GPS information is included in the photo (was taken by a GPS enabled camera) or the GPS information is in a single file (tracklog or way-points). You will import from one folder at a time. Once photos are selected, click OK to import from each folder. Next click Import Photos again to browse to a different folder.

6. As you import the photos that you want to import, GPS-Photo Link creates a copy of them in the project folder and saved within the project.

As the photos appear on the Import Photos screen they will be tagged with a globe.

🌐 Indicates photos that are already geotagged. Mostly likely these were taken by a camera with a GPS. If all your photos have coordinates you may skip to step 3 Attribute Editor.

🌐 Indicates photos that do not yet have coordinates associated with them. This will happen if you use a separate GPS and camera. Use the Geotag wizard in Step 2 to link the coordinates with your photos.

Other icons associated with importing photos are described in the following table. Many of these options are also available if you select a photo and right click.

⊞	Display size: Boxes of different sizes indicate the size of thumbnail images that will be displayed on this screen.
🖼	Import Photos: Click here and browse to the photos you want to include. See instructions above.
✗	Delete: Deletes selected photos from this project.
⊘	Exclude: Excludes selected photos from output. Use this when you want to include some photos in the project but do not want them displayed in the output. A typical example is test photos taken during the project.
✔	Include: Adds back any photos that were previously excluded.
🗗	Select all photos: This highlights all photos for your next action.
🗗	Unselect all: Deselects photos.
A↓Z↓	Sort: changes whether photos are displayed ascending or descending. Use the dropdown box to sort by photo name or date taken.
🖼	Reset Photo: This button only appears when a photo is selected. This changes the photo settings back to how they were when they were imported. If you make changes using the Edit Photo Externally button (described below) or the Photo Edit tab, this button will undo those changes.
🗎	Reset Data: This button only appears when a photo is selected. It changes the attribute data in the photo back to the way it was when you imported it. If you make changes to attribute data later in the software this button will undo them.
🖼	Edit Photo Externally: This button only appears when a photo is selected. Use this button to edit the photo using your own photo editing software. When you click here the highlighted photos will appear in your computer's photo editing software. Make the changes you desire, save and close. GPS-Photo Link will use the changed file.

2. Geotag - Add Location Data to Photos

The Geotag tab displays a summary of the current geotag information associated with the photos in this project. The table indicates the number and percent of your photos that already have geotags.

If your camera does not automatically geotag you will see 100% of your photos are described as Non-Geotagged Photos. In this case you need to import GPS data into the project using the Geotag Wizard. The Geotag Wizard walks you through importing the GPS data file, synchronizing the camera date/time with the GPS date time, and computing each photo location.

You may have used a camera with GPS but some of the photos were not tagged. This happens when your camera loses GPS signal. If you have another source of GPS data you may use the Geotag Wizard to geotag all of your photos. If you have no other GPS source, you may use the Attribute Editor to manually place them on a map or to enter the coordinates.

Geotag Wizard Step 1: Geotag Data Source

The first step in the Geotag Wizard is importing the GPS data into the project. This GPS data can be either in a standard GPS data file format (GPX, SHP or CSV) or from a GPS device (such as a Garmin GPS, Magellan GPS or a GPS Datalogger).

Use GPS File (GPX, SHP, CSV). Click Next

NOTE: If you are importing from Pathfinder Office, see specific import instructions in the online help guide

1. Click the radio button beside Use GPS File. Click the Next button at the bottom of this window.
2. Browse to GPS file with the GPS data and click Open.
3. Most of the time GPS-Photo Link will determine whether the file is a track log or a waypoint. If not, choose the appropriate data type. Click next.
4. Select Fields to use as coordinates, and more: GPS-Photo Link automatically selects fields that it needs to geotag your photos. Those include Latitude/Longitude, Elevation (optional), Date, Time and Direction (optional). In some cases date and time are in the same column. Columns indentified as likely fields are highlighted in green. Please review these selections to determine if they are correct. If they are review the datum and click Next. If not, use the dropdown buttons beside the fields that are blank or not correct. The dropdown buttons display all columns available in your data set. Choose the column that includes the data required for each field.
5. The Select Datum button allows you to indicate the type of datum located in this file. Change the default settings if needed. In particular, check to see whether the time in the data set is local time or UTC. Click Next. Go to Step 2 Time Synchronization.

Download from GPS device (Reads the GPS data directly from a Garmin GPS.)

1. Connect your GPS to the computer.
2. Indicate whether you will download track logs or waypoints.
3. Click Download Data File to import GPS data. Click Next to go to Step 2 Time Synchronization.

Geotag Wizard Step 2: Time Synchronization

Now that the GPS data has been imported into the project, we have both a camera date/time, and a GPS date/time. These two different sets of date and time must be synchronized in order to accurately compute the photo locations. There are three synchronization options. Click the radio button beside the option you want to use.

Use a photo of the GPS receiver

Use this if you took a photo of the GPS receiver or another reliable time source showing the time. You will visually look at the photo and use that information to complete the synchronization. Here's how:

1. Select the photo of the time source (GPS or clock) from the photos on the left.
   - If you can't read the time, you may change the size of the photo using the Zoom drop-down by the displayed photo to make the screen more readable.
2. Time Display: confirm whether the time on the device was set to local or UTM.
3. Change the GPS Date/Time displayed to match the date/time as it appears in the photo.
   - You may enter the time by hand or put the cursor over the unit that needs to change and use the up and down arrows at the end of the box to change the numbers.

The Photo Date & Time represents the camera's internal time. The calculated offset will show the difference between the camera and GPS. This will be used to geotag your photos to the right position.

4. Click Next.
5. Time Matching Options: If some of your photos are already Geotagged and you do not want to overwrite their position, click the box that says "Do not Geotag photos that already have GPS information".
6. Click Geotag Photos button. Your photos will be matched with the coordinates in the file. Next you will return to the Geotag screen which will display how many of your photos now are geotagged.

Camera date & time equals GPS date & time

Use this if you set your camera time to match your GPS. Click Next.

- Time Matching Options: If some of your photos are already Geotagged and you do not want to overwrite their position, click the box that says "Do not Geotag photos that already have GPS information".
- Click Geotag Photos button. Your photos will be matched with the coordinates in the file. Next you will return to the Geotag screen which will display how many of your photos now are geotagged.

Manually enter the time difference

Use this if you know the difference between the two devices.

1. When you compare the camera time to the GPS time note whether the camera is before or after the GPS and indicate this in the Camera Time box.
2. Manually enter an offset.
3. Time Matching Options: If some of your photos are already Geotagged and you do not want to overwrite their position, click the box that says "Do not Geotag photos that already have GPS information".
4. Click Geotag Photos button. Your photos will be matched with the coordinates in the file. Next you will return to the Geotag screen which will display how many of your photos now are geotagged.

3. Edit Attributes

This screen is divided into two primary sections. You may move the sections around to make a view that works for you. When you first open the page, the left side called "Photos" displays the photos in the project, and the right side shows tabs called "Attribute Editor" and "Map". These allow you to edit attribute data in the photos.

The attribute editing portion of this screen is divided into two parts indicated by tabs. These tabs may be changed to separate windows and moved around the screen by dragging the tabs and resizing the windows. They can also be pinned to a specific location so that they only appear as tabs until hovered over. Click on the Video button near the top of the screen for a demonstration of how to arrange this screen.

1. To bulk edit, simply select multiple photos from the list of all photos by right clicking over the photos.

2. You may reset the data on any or all photos by selecting the photo(s), Right Click - Reset Data. This will reset data to the way it was when you first came to this screen. If the photo was geotagged that data will still remain.

3. A symbol appears on photos that have been edited.

Photo Viewer

Here are the same icons used in the Import Photos screen. Many of these options are also available if you select a photo and right click.

	Display size: Boxes of different sizes indicate the size of thumbnail images that will be displayed on this screen.
	Import Photos: Click here and browse to the photos you want to add. If they are not geotagged return to the Geotag screen to link them.
	Delete: Deletes selected photos from this project.
	Exclude: Excludes selected photos from output. Use this when you want to include some photos in the project but do not want them displayed in the output. A typical example is test photos taken during the project.
	Include: Adds back any photos that were previously excluded.
	Select all photos: This highlights all photos for your next action.
	Unselect all: Deselects photos.
	Sort: changes whether photos are displayed ascending or descending. Use the dropdown box to sort by photo name or date taken.
	Reset Photo: This button only appears when a photo is selected. This changes the photo settings back to how they were when they were imported. If you make changes using the Edit Photo Externally button (described below) or the Photo Edit tab, this button will undo those changes.
	Reset Data: This button only appears when a photo is selected. It changes the attribute data in the photo back to the way it was when you imported it. If you geotagged this photo using the Geotag wizard, you will need to do this again to get the coordinates back. Don't worry, the settings you used last time should still be there. Simply click Next until you reach the end and return to Attribute Editor.
	Edit Photo Externally: This button only appears when a photo is selected. Use this button to edit the photo using your own photo editing software. When you click here the highlighted photos will appear in your computer's photo editing software. Make the changes you desire, save and close. GPS-Photo Link will use the changed file.

Using the Map Editor

The Map tab allows you to edit photo location and direction on the map. Hover over the point to see the associated photo.

Some locations do not have maps available at high resolutions. If no map appears, click the minus button to zoom out. Use the Road, Aerial and Hybrid buttons to select the type of background map you wish to view. Changes made on the map appear in the attribute table as viewed under the Attribute Editor.

To reset the photo position and other changes to attribute data, click on the photo in the left column and right click or choose the Reset Data icon at the top of the Photo viewing section. This will bring the photo back to how it was imported. If you lose the GPS coordinates, simply step through the Geotag wizard again (your settings were saved) and return to the Attribute Editor screen. Reset Photo resets changes made to the photo itself (e.g. color or cropping changes).

Note: this map is not the same as the map that will be displayed in the output. Use this for editing purposes only.

The following table describes the function of the icons in the map editor toolbar:

	Add New Location: Allows you to create a new location for a photo that does not already include the location. Select the photo, click this button, click on the map where the photo should be located. This location now appears in the attribute data for selected photos.
	Allow Edit: Allows you to edit the selected photo. Once clicked, a tool will appear over the point to be edited. Drag the point or move the arrow to change direction.
	Zoom: Moves the view in or out in relation to the selected photo.
	Zoom Extents: Zooms in to the farthest level so that all photos are displayed.
	Zoom Selected: Zooms in close to the selected photo.
	Show Mini Map: Displays a small map in the upper right corner of the larger map allowing user to see the zoomed in point in relationship to the entire map.
	Show Search: Clicking here brings up a search feature at the bottom of the screen. You can search for a location using Bing maps. Use this to place photos that are not near the other photos displayed.
	Show Thumbnails: Displays thumbnails on the map rather than dots.
	Boxes of various sizes allow you to change the size of the displayed thumbnails.

Using the Attribute Editor

The Attribute Editor tab shows you the attributes associated with each photo. There are several categories of data: Photo, GPS, Memos and Camera. Within each category there are specific fields. You can change any of the fields that are labeled in blue.

Changes may be made to individual photos, groups of photos or all the photos in the project at once. Instructions below describe the most common kinds of attribute editing.

The following table describes the function of the icons in the toolbar:

	Expand All: Expands the attribute table to show all rows.
	Collapse All: Collapses the attribute table to show only the headings.

	Add Offset Position: Allows you to choose fields in the Attribute table that indicate direction and distance. GPS-Photo Link uses this information to calculate an off-set position from where you took the photo. This new position will appear as a separate row in addition to the original coordinates. See specific instructions.

To edit any attribute for a single photo:

1. Click on a photo from the photo list to display its attributes and map location.
2. Click on the Attribute Editor to edit any editable data including photo titles, memos, comments, direction. Each section (ie, GPS, Memos, Photos) expands and contracts by clicking on the + / - .
3. Click on the value itself. Blue values are editable, black values are not editable.
4. Enter the new value. When you leave the value, the edit is completed.

To edit an attribute for multiple photos:

1. Select multiple photos from the photo list with Ctrl-Click. Shift-Click allows you to select all photos between the two you clicked on.
2. Navigate to the attribute you want to edit. If the attribute for the selected photos has different values, "Varies" appears as the value. If the attribute has no value, the field says "None". If you have multiple photos selected and you change a field that says "Varies" it will make all the selected photos say the same thing.
3. Click on the value itself. Blue values are editable, black values are not.
4. Enter the new value. When you leave the value, the edit is updated for all selected photos.

To add a title to all photos:

1. Click the Select All icon in the Photo viewing list.
2. In the Attribute Editor, click on the Title which is within the Photo heading.
3. Enter the new Title that will apply to all photos. When you leave the value, the Title attribute is updated for all photos.

To manually add or edit Direction data using Attribute Editor:

While you can use the Map editor to edit photo direction by dragging the icon to point the right way, you can also use the attribute editor to make the changes in the table.

1. Select a photo(s) from the photo list to display its attributes in the attribute editor.
2. Click on the Photo Direction attribute (in the GPS section) to edit.
3. Enter the new direction value. When you leave the value, the edit is completed.

4. Edit Photo

This tool allows you to edit the photo image itself. Select a photo (on the left) to display for editing (right). The toolbar (top-right) allows you to rotate, adjust color, change brightness, add text and markings.

The following table describes the function of the icons in the toolbar:

	Pointer: Allows you to select photos and to stop a specific editing function. Click here when you are done using another edit tool.
	Pan: allows you to move the photo around on the screen. This will not work if you have Auto Fit selected because the entire photo is already showing.

	Undo, Redo: Goes backward or forward one action at a time.
	Automatically Adjust Color: Adjusts color to find the best combination of contract and brightness.
	Brightness: Allows you to drag the arrow across the bar to the right to adjust brightness.
	Contrast: Allows you to drag the arrow across the bar to the right to adjust contrast.
	Rotate left & right: Rotates photo right or left 90°.
	Draw Freehand: Allows you to draw on the photo itself. Use the Size (number with dropdown arrow) to determine the width of the line. Use the color box (square with dropdown arrow beside it) to determine the color.
	Draw Line: Allows you to draw a line by placing one side and pulling it to the next point. Click to set the line. Use Pen Size and Color to make adjustments To stop drawing click on the pointer symbol.
	Draw Rectangle, Draw Ellipse. These allow you to draw shapes to highlight areas of the photo. Use Pen Size and Color to adjust the appearance. To stop drawing click on the pointer symbol.
	Crop: To crop your photo, select the area you want to remain by clicking on the photo in one corner and dragging to the opposite corner. The selected area will replace the previous photo in the output.
Zoom	The dropdown allows you to adjust the view of the photo. Auto Fit will make the photo fit within the editing screen. Click the down arrow to see the actual size, greater or smaller.
A	Draw Text: Creates a text box that allows you to add text to the photo image. This is not the same as watermarking. Use this tool to point label particular things on the photo itself. Use the editing tools to adjust the font style and size, color, center, halo and halo color.
Font	Selects the font you want to use for your text.
Font Size & Color	Determines how large the text will appear on the photo. The black box with the arrow allows you to change the color of the text.
	Aligns text left, center or right within the text box.
Halo	This box creates Halo or Shadow effects. Use this to make the watermarks more visible. The colored box beside the Halo box changes the color of the halo.

Click Next when you are finished editing photos.

5. Watermark

Watermarks are the attributes that are printed on or near the photo. The Watermark section of GPS-Photo Link is organized like the Attribute Editor section with three areas: 1. Attribute Picker, 2. Tabs to determine the content and location of Watermark Attributes or Logos, and 3. Preview.

These pages can be moved around the screen to suit your preferences.

Default watermarks will display in the Watermark Attributes Tab and on the Preview. You can add up to 18 pieces of data, in 6 different locations on top of or within a border. You can also add up to two logos.

4. From photo list, select the attributes to appear as watermarks on the photos. Each selected option will appear in the Attribute Picker section of the window. Click the ⊖ symbol to exclude an attribute from the watermark. For each text selected as a watermark, select the row and column where you would like it displayed. It will appear in the preview photo below. Change the sample photo used for the preview by choosing another photo from the dropdown list called Sample Photo under the

Attribute Picker. Like the Attribute Edit screen, each window can be moved and docked to suit your preferences.

5. Enter the logo data: filename, position, etc. (optional)

NOTE: If you wish to include your logo on the photos, make sure the file is in the correct size for the photos before importing it.

6. Review results in the right bottom section of the window with the watermarked photo. Adjust the appearance of the watermarks using the editing tools. See the table below for a description of the buttons.

7. Click Next

The following table describes the function of the icons in the Preview toolbar:

Font, Size	Adjust the Font and Size of the Watermark using the two drop down lists.
■	Adjust the color of the text using the dropdown box beside the colored square.
B	Make the watermarks Bold or Un-bold using this toggle.
Halo	This box creates Halo or Shadow effects. Use this to make the watermarks more visible. The colored box beside the Halo box changes the color of the halo.
⟨ ⟩	Show Place Holders: Shows the titles of the attributes included as part of the watermark.
🖼	Watermark Outside Photo: Allows you to place the watermarks on the outside edges of the photo rather than covering the picture itself.
Photo Size	Photo Size: change the size of the watermarked photo. Smaller photos create more reasonably sized output making them easier to share and print.
Zoom	AutoFit: When AutoFit is selected the entire photo with watermarks shows on the screen. Change this setting using this dropdown box to show the photos in the size you indicated in the Photo Size document. Use this to see how Watermarks will actually look on the size photo you chose.

6. Shared Output Settings

This section allows users to adjust the way reports look.

A. Click on the Report Layout button to see an outline of a typical Word, PDF or HTML report.

B. Click on the titles below to add settings which will apply across output.

Output Settings

Photo Information: Identifies how photos will be labeled.

Title Page: Creates title page.

Static Maps: Choose which maps will display.

Attribute Table: Determine which fields will display in the attribute table.

Rename Photos: Change the names of your photos using attribute fields.

Photo Information 🖼

In reports before each individual photo there are up to two lines of text. These are intended to show the title and a comment or subtitle for the photo. Use the drop down lists to select the attribute you wish to use as the title and comment. If none are selected, none will be displayed.

Title Page 🖼

The title page will be the first page displayed on any report. You may add up to two logos along with the title and other fields. The Title Page screen shows the general layout. Browse to add logos. Make sure the size of the logo is the size you want to display on your report. Enter text into other fields as desired.

Static Maps

When GPS-Photo Link processes your photos, it will download maps to display in your reports. These maps will remain static (not updated when the report is viewed.) This screen allows you to choose the source of the maps that will be downloaded for your overview map (showing all the photos) and the photo specific background maps (showing the location of one photo.) Each map may come from a different source and may be zoomed in at a different level.

- Show overview maps: Check this box to display an overview map, showing where all the photos were taken.
- Show background maps: check this box to display maps with each photo. You may choose up to two different maps using the Map1 and Map2 tabs.

Both maps have the same setting options:
- Map Source: Allows you to select which internet maps to download; choose from public Google Maps, Tiger maps, USGS Topos, USGS Aerial Images or USGS High Res Urban Photos, MS Windows Live.
- Size: Allows you to select the size (in pixels) of the maps.
- Zoom Level: Sets the maximum zoom level to allow for different resolutions in different areas.
- Show Icon on Map: Allows you to select the icon you would like to show where photos were taken. You may choose from the standard icons or select your own icon using the Icon File button. Icons may be .jpg, .bmp or .gif files.
- Rotate icon based on heading: uses the Photo Direction attribute to rotate the photo.

NOTE: If you process the photos and the background maps are blank, it can mean one of two things. In some cases there are no maps are available for your coordinates using this map source. In that case, choose a different map source and reprocess the photos. The other reason for blank maps is that the zoom level is set too low. Change the zoom level to see if maps appear.

Attribute Table

Select which attributes you would like printed in a table on the reports. The screen is divided into two areas: Title and Attribute Table. On the Title screen you can select a sample photo. This allows you to see the kinds of information you included as attributes. Next check the box next to the items you would like to appear in an attribute table on the reports. Selected items will appear in the Attribute Table column on the right.

Change the order of the attributes by selecting an attribute and clicking on the up and down arrows on the right side.

Remove an attribute from the table by clicking this symbol:

Rename Photos

This feature allows you to rename the photos using a string of attributes. Under the Attribute Picker select a sample photo to see the data you previously entered. Next check the boxes next to the fields you would like to include in the new name. Selected attributes will appear in the Renaming Attributes screen. Default fields will appear the first time you use the software.

- Separator: Determines what character will be used between attributes.

- Invalid Character Replacement: Some attributes may have characters that cannot be used in file names. Choose a different character from the dropdown list to replace any invalid characters.
- Preview: Shows you what the new photo name will look be. Once photos are processed these names will replace the previous names in the project.

7. Select Output

In this section you select the types of output you want to create. There are two kinds of output: Report Files (Word, PDF, HTML) and Data Files (Shape Files, Google Earth, Access, Text, GPX). When you click on the file type boxes, the screen to the right will show you any additional settings you need to create this output.

Report Files 🗗

Adobe PDF 🖼

- Photo: Select whether you would like the Report to display the watermarked or original photo.
- Include: Determine whether you want to show the attribute table and background maps.

Web Page (html) 🔵

- Photo: Select whether you would like the Report to display the watermarked or original photo.
- Include: Determine whether you want to show the attribute table and background maps.
- Link to Photo: Select to link the original or watermarked photo in the web page output, so that, in the output, if you click on the thumbnail, the indicated photo will be shown.
- Map Source: Determine whether you want to download static maps or use dynamic maps. Static maps will display the same map each time and can be used offline. Dynamic maps will refresh each time the file is opened. This requires an Internet connection. To use dynamic maps, choose the source of the maps using the dropdown list.

Microsoft Word 📝

- Photo: Select whether you would like the report to display the watermarked or original photo.
- Include: Determine whether you want to show the attribute table and background maps.

NOTE: If you process the photos and the background maps are blank, it can mean one of two things. In some cases there are no maps are available for your coordinates using this map source. In that case, choose a different map source and reprocess the photos. The other reason for blank maps is that the zoom level is set too low. Change the zoom level to see if maps appear.

Data Files 🗗

Shape File (.shp) 🗺

- Create an ESRI shape file for use in ArcGIS.
- You may include core raw values in addition to the attributes by clicking the appropriate box. Core raw values numeric representations of data like Lat/Lon, Altitude, Direction, etc.
- Create Field of View Shape File: Check the box if you want to display Field of View wedges as another layer with your points. By default, the size of the cones is the "Offset Distance", which if the user has a laser connected to a Ricoh, will be set to the actual distance to the object. If not, the distance is 200ft by default, but can be changed by changing the "Offset Distance" attribute

per photo, or for all photos. You can specify the length of the Field of View wedges by using the Offset Distance field in the attribute editor.

Geodatabase (.mdb, gdb...)

You need a licensed version of ArcGIS installed on your system to create Geodatabases.

If you have an ArcView license (or higher), you can create personal and file Geodatabases.

If you have an ArcEditor or Arc Info license, you can   output to Enterprise Geodatabases (SDE).

If you have no licensed version of ArcGIS, you can still create Shape Files.

- GeoDatabase Type: Choose whether to create an ESRI personal, file or Enterprise geodatabase for use in ArcGIS.
- Database Select: Determine whether you want to create a new geodatabase or use an existing database. Browse to select the database you want to use.
- Picture Table Select: Choose whether to create a new table or append to an existing table. This table must have the same attributes each time.
- Output Field of View Table: Check the box if you want to display Field of View wedges with your points. By default, the size of the cones is the "Offset Distance", which if the user has a laser connected to a Ricoh, will be set to the actual distance to the object. If not, the distance is 200ft by default, but can be changed by changing the "Offset Distance" attribute per photo, or for all photos. You can specify the length of the Field of View wedges by using the Offset Distance field in the attribute editor.
- You may include core raw values in addition to the attributes by clicking the appropriate box. Core raw values numeric representations of data like Lat/Lon, Altitude, Direction, etc.
- You may also choose to embed photos in the geodatabase as a BLOB.

Google Earth(.kml, .kmz)

- Create a file that will launch and display photos in Google Earth.
- File Type: GPS-Photo Link can creates two types of Google Earth files: .kml and .kmz. The .kml file automatically launches and displays your photos in Google Earth with live links to the original photos, watermarked photos and web pages. The .kmz files are a compressed version of the .kml file that includes photos so that you can easily email or post this file for others to see.
- Icon Options: Select the icon that will represent your photo in Google Earth. You may use a thumbnail of the photo itself or choose a symbol from the drop down menu. If you choose an arrow or an airplane, GPS-Photo Link can automatically rotate the symbol to face the heading indicated for each photo on the Attribute Editor screen. You may also determine the size of the icons.
- Show in Description Box: When you click on an icon in Google Earth a description box appears. You can determine what information to include by checking boxes in the section of GPS-Photo Link. If you want the photo to appear you must select which photo (thumbnail, watermarked or original). The three "link to" options will only work in .kml files. These files allow you to see any of those files while in Google Earth.
- Output Options: allows you to include track logs in Google Earth along with the photos. Please note: Track logs are only available for standalone GPS units. Cameras and cell phones with embedded GPS do not capture track logs. Google Earth can display information in 3D. Because GPS coordinates are less reliable for elevation, you may wish to select Lock Points to Ground if your photos were taken from the ground (not Aerial photography).
- Show Field of View: Allows you to display the area included in the photo. A default width will be assigned. The area can be shown in 2d (pie piece shape) or 3d (cone shape). The heading and

distance used for this option must be adjusted using the Heading/Distance tab. That will determine the length and direction of the shape.

GPXS eXchange Format (.gpx)

- Create a GPX file that can be read by various mapping software including Map Source.
- Determine whether you want a link in the gpx file to display the watermarked photo or the original.

Access 2000 Database (.mdb)

- Create an Access database that you can use to incorporate other data. If you have Crystal Reports you can generate your own reports using this database.
- Create an ESRI Access database. You may choose the file type (.MBD, .XML or both).

Text Files (.csv)

- Create text files that can be read into spreadsheet programs.
- Delimiter: Determine what character will be used to separate each attribute in the file.
- File Extension: Determine what kind of text file you create. Choose between .csv, txt, pts.
- Include Core Raw Values: In addition to attributes you have seen, core raw values can be included.

Create Output

Once you have finished selecting options, click the Create Output button. You will see a screen with a progress bar during processing. Once the photos are processed, your photos will appear in the Project Management Section of GPS-Photo Link. See Project Management section for more information.

PROJECT MANAGER

GPS-Photo Link stores projects in the Project Manager. When you click on the toolbar a new tab opens. This tab has a toolbar at the top and a list of all previous projects below. You may save projects on your computer (default) or on a different drive.

Project Manager Toolbar

Powerful tools allow you to manage all your projects with ease. The following table describes the function of the icons in the toolbar.

	Expand All: Expands the projects to show all output.
	Collapse All: Collapses the projects to show only their names.
	Edit: Allows you to make changes to an existing project. Clicking on Edit opens the program screens. Make any changes and click the Create Output icon at the bottom. This will overwrite previous output.
	Copy: Copies a project. This should be done before you make changes or to create a backup.
	Delete: Deletes a project completely.
	Rename: Allows you to rename a project.
	Include: Imports projects from other locations so that they will display in your Project Manager. Use this to share projects with other people.
	Exclude: Excludes the project from the Project Manager view but does not delete it.
	Save as Template: Allows you to use the settings from the selected project as the default settings for all future projects.
	Reset Template: Resets the template to the defaults that came with GPS-Photo Link.

Project Settings

Choose settings that will apply throughout the open project. Access these settings through the toolbar or at the bottom of Project screens that are open to editing (showing the numbered tabs on the left).

	Coordinate: Allows you to format how coordinates are displayed. If you have GIS Pro you may choose which coordinate system you want to use. Next describe how you want that information formatted. The default setting is WGS-84 (Lat/Lon).
	Date & Time: Formats how the date and time are displayed throughout your project.
	Direction: Described how the direction of your photo is displayed. You can choose whether you display true or magnetic north and choose different formatting (degrees, Cardinal directions)
	Distance: Choose how to display the distance are displayed.
	Speed: Formats any speed data in units like Miles per Hour. An example of speed is the speed your GPS was moving when a point was taken. This may be displayed in the attribute data.

GPS-Photo Link ArcGIS Extension

GPS-Photo Link can work within ArcGIS as an extension or as a standalone product. This section refers to using the product as an ArcGIS extension.

Once GPS-Photo Link is installed on your PC, a new "GPS-Photo Link" toolbar should be available in Arc-GIS.

If the GPS-Photo Link toolbar is not visible, right - click over the toolbar area, and select "GPS-Photo Link" from the list. You can then move or dock the toolbar.

	View Pictures: Allows users to hover over a picture so that a Thumbnail of the photo will appear. Click on the point to show the larger picture with other data determined in Setup.
	Set Up: Determines what information appears in ArcGIS when photo is displayed.
	Process GPS Photos: Launches GPS-Photo Link allowing user to import photos and GPS coordinates, edit attributes, create watermarks and create shape files or geodatabases. Output automatically loaded into ArcGIS as a layer or in designated database.

Setup Button

Click this icon to set the photo viewing criteria.

- Layers: Select the layer you created when you processed the photos. For each layer you can select different settings on this screen.
- Not a photo layer checkbox: Check this box to exclude the layer listed above from hover and clicking photo viewer. (i.e. don't popup or display photos).
- Click Filename Field: Selects the field that contains the file name you want to display when you click the point. You may choose either the Original (unedited photo) or the Picture (edited or watermarked photo). GPS-Photo Link will automatically select the fields it expects to have pictures. Only change this setting if it does not contain your photos.
- Popup Filename Field: Selects the field that contains the file name you want to display when you hover over the point. You may choose either the Original (unedited photo) or the Picture (edited or watermarked photo)
- Fields shown in popup window: Indicate which fields you want to display in popup window when you hover over a photo.
- Popup Window Options: Determine the size of the window that pops up. Indicate whether to show the filename, number of photos and number of fields selected on earlier screen as well as whether or not to show the names of those fields.

View Pictures Button

1. Select the View Pictures tool (Camera icon)
2. Hover over a point, and the thumbnail photo will popup. You MUST first select the View Photos Button for this feature to work. Now when you click on a point in the picture.shp theme, the watermarked photo will then be displayed.

Process GPS Photos

The Process GPS Photos Button launches GPS-Photo Link in a separate window. This allows you to use the full functionality of GPS-Photo Link including the attribute editor, photo editor and watermarking. Please refer to the Training Videos or Help for assistance in specific areas of GPS-Photo Link. After you have processed your photos, and exited the GPS-Photo Link window, the newly processed photos will automatically appear in the ArcGIS project.

For the fastest, simplest results you only need to complete five steps:

1. Create a Project: Give your project a name.
2. Import Photos: Browse to the file containing the photos.
3. Geotag Photos: If photos do not already contain GPS coordinates use the Geotag Wizard.
4. Select Output: Indicate whether you want to create ESRI Shape Files, File, Personal or Enterprise Geodatabases. Make sure to indicate specifics relating to each output type including whether this output will be created as a new geodatabase or inserted into a existing geodatabase.
5. Click Create Output button. GPS-Photo Link will process photos and display them in ArcGIS automatically.

Note: Once you have processed one set of photos you may save the project as a Template on the Project Manager screen. All future projects will automatically use these settings so that you will only need to import photos and make sure they have coordinates before Clicking Create Output and viewing them in ArcGIS.

FREQUENTLY ASKED QUESTIONS

Download

What version of GPS-Photo Link should I download?

- If you have never used GPS-Photo Link you should download the most recent version which is always under the Trial tab on our website.
- If you are upgrading to 5.x, download the Trial version and use the serial number given to you when you purchase the software to activate it. Once you activate your software you will be notified of any future free or paid upgrades available when you launch GPS-Photo Link. To install the upgrade close GPS-Photo Link before continuing so that you do not need to restart your computer before it takes effect.
- If you are re-installing make sure to install the most recent version that you purchased. Use the table below to determine which version you need. If you have the original disk, use it to install and upgrade to the highest free version available.

Once you reinstall you will need to unlock or activate your software. Different versions have different activation codes or methods associated with them. Versions 4.x and higher have serial numbers that were given to you at the time of purchase and may be found on your invoice or in your CD case. Contact us if you are unable to find your activation code. Versions 4.0 and earlier had a different activation system that generated an 8 digit code when the software was installed. If you have reinstall this version on a different computer you will need to contact our office for a new unlock code. If you have a 4.2.x or earlier version we strongly recommend upgrading as these versions are no longer supported.

Upgrades

Do I need to uninstall my old version before I upgrade to 5.x?

- No. Do not uninstall. Because of the new platform, previously processed photos cannot be viewed in the Project Manger. Use the older version of GPS-Photo Link to view photos as usual or use the new version to reprocess those photos so that they can be added to the new Project Manager system.

If I upgrade, does the new version overwrite the older versions?

- If you upgrade to 5.x it will not overwrite previous versions. GPS-Photo Link 5.0 is built on a completely different platform. When you install this version any previous versions of GPS-Photo Link will remain. DO NOT UNINSTALL OLD VERSIONS!
- If you upgrade to 4.x it will overwrite previous versions. There are three earlier versions: Version 4.2x, Version 4.1x, and Version 4.0x and earlier. When you upgrade any of these versions the new software is written over the old. There is no need to uninstall. The ONLY difference between the 4.1 and 4.0 versions is the system used to unlock the software. There are no differences in core functionality or bug fixes.
- If you use version 4.0x or earlier, DO NOT DOWNLOAD 4.1x or later versions as an upgrade unless you pay for that upgrade! If you do, your old unlock code will not work! If you accidently download a more recent 4.x version of GPS-Photo Link and you do not want to upgrade, you will need to uninstall the new version before reinstalling your older version of software.

Do I need to pay for to upgrade my software?

- If you have a current maintenance agreement, all upgrades to any version are free. If you are moving from 4.x to 5.0 you will need to contact us for a new serial number.
- If you do not have a current maintenance agreement you may upgrade to the highest version for the license you purchased. The following chart provides a guide. Links to these upgrades may be found at www.geospatialexperts.com/downloadupgrade.php

Version of License Purchased	Latest Free Upgrade
4.0.x or earlier (including 3.x versions). These have 8 digit unlock codes.	4.0.5 released 8/23/07
4.1.x (16 digit serial numbers)	4.1.7 released 7/18/08
4.2.x (16 digit serial numbers)	4.2.6 released 12/5/08
4.3..x (16 digit serial numbers)	4.3.7 released 9/3/09
5.0.x (31 digit serial numbers)	5.0.x All free upgrades will begin with 5.0.

What do I get when I buy an upgrade?
- You will receive a serial number for the most recent version of GPS-Photo Link plus a year of additional upgrades and support for free.

How do I know what version I have?
- In the 5.x versions of GPS-Photo Link the version number is printed in the semitransparent bar at the top of the window. You can also see the version information by clicking Tools & Activation Manager.
- In 4.x and previous versions of GPS-Photo Link click the About button at the bottom of the page and it will list the version currently installed on your computer.

Activation

My hard drive crashed or I got a new computer and when I re-installed GPS-Photo Link on a new computer it said that all my licenses have been used.
- Each GPS-Photo Link license works on one computer at a time. If possible, transfer the license before changing computers. If you cannot access the old computer, contact our office so that we can deactivate the old computer and make your serial number active again.

Transferring the License to another Computer

Can I transfer my license to another computer?
- Yes. GPS-Photo Link can be installed on multiple computers. Before it is activated the software runs in Evaluation mode. See the Transfer License instructions.

Importing Photos & GPS Coordinates

My photos are in multiple folders. How can I import them?
- In the Import Photos section begin by choosing photos from one folder and click Import. You may click the Import Photos button again and browse to a different folder to add more photos.

Note: You may use photos from multiple folders as long as the GPS information is included in the photo (was taken by a GPS enabled camera) or the GPS information is in a single file (tracklog or waypoints).If you have multiple photos in multiple folders with different tracklogs or waypoints, you will need to process them separately.

My GPS coordinates are not displayed in Lat/Lon. How do I import it into GPS-Photo Link?

- When you use the Geotag Wizard, it will ask you to indicate the coordinate system of the GPS data. GPS-Photo Link will convert it to any other coordinate system using Blue Marble technology.

Some of my photos were geotagged and others were not. How do I geotag the rest using GPS data from a file without overwriting the correct tags? (This may happen if you used 2 cameras: one with a GPS and one without. Coordinates for the second camera were recorded by a separate GPS device.)

- When using the Geotag Wizard you will go through several steps to identify the GPS data that will be used for photos without GPS coordinates. Near the end of the Wizard in the Time Matching Options screen you will be shown a checkbox that says "Do not Geotag photos that already have GPS information". Check this box to leave the photos with GPS information untouched. If you forget, all the photos will be overwritten based on the GPS data in the file with the photos matched to the position with the closest time. If that happens by accident you can reset the attributes of the photos back to how they started by selecting the photos in the thumbnail viewer and clicking the Reset Data button.

What if some of my photos were not geotagged and I have no other GPS data?

- Use the Map Editor in the Attribute Editor tab to add a position for each photo. Highlight the photo(s), Click Add New Location icon and click on the map where you want the position to be. Adjust that position using the Allow Edit icon. If you cannot find the position you want on the map you may use the search feature at the bottom of the screen. This activates the Bing search. Type in a name or address for a place to see the appropriate map.

Issues Arising While Using GPS-Photo Link

I think I found a bug or there is a feature I want to be added.

- If you encounter a problem with GPS-Photo Link you can tell us about it by clicking on the Help button at the top of the screen. Scroll down to Contact Us and select Report a Bug or Request an Enhancement. This will generate an email which you can complete and send automatically to our engineers. They will work to quickly resolve the issue and write back to you with a solution. You may also contact our office by emailing help@geospatialexperts.com or calling us at 303-255-2908 between 8:00 - 5:00 MST.

- As changes are made to the software you will be notified that there is a new version ready when you launch GPS-Photo Link. Please keep the version you have current.

When I was using GPS-Photo Link an Exception/Error screen popped up. What do I do?

- Please notify us any time you get an "Exception". Do so by sending us an email. If you have Microsoft Outlook you can click Email Exception to bring up an automated email. If you have another email program click Copy Exception and paste it into an email. Type in as much information as you can about what you were doing at the time of the error and email it to us at bugs@geospatialexperts.com. It will be assigned to one of our engineers and they will work to address the problem as soon as possible.

When I view my photos on the Map Editor, no map appears.

- In some instances the Bing map available for a particular area is not available at higher resolutions. Click the minus arrow in the top left portion of the map to zoom out until a map appears.

I accidently made changes to attribute data like title, location, etc.

- You may reset attributes back to their original state by selecting the thumbnail image(s) of photos and pressing the Reset Data icon.

I accidently made changes to a photo in the photo editor.

- You may undo up to 5 of your last actions by clicking the Undo icon or you can reset the photo back to how it looked originally by clicking the Reset Photo icon.

Problems with Output

No map appears in my Word, Web or PDF output.

- GPS-Photo Link uses the Static Maps selected under the Shared Output Settings tab to determine which maps are downloaded and displayed. If no map appears there are two possible explanations:
    - No map exists for your location in this map source. Choose another map source.
    - No map exists at this resolution for this map source. High resolution maps are rarely available for rural areas. Change the Zoom level to a lower setting until a map appears.

Where are my projects being saved and how can I change it?

- By default all projects are saved on the C: drive in the GeoSpatial Experts folder. To view this and change where projects are saved click the Tools icon at the top of the screen and select Application Options. Choose File Locations and browse to where you want files to be saved.

I can't find the output from previous projects.

- Version 5.x is written in a completely different programming language on a different platform. For these reasons you cannot view output from previous versions of GPS-Photo Link using the Project Manager. You may use your previous version of GPS-Photo Link to view output or simply use your computer's browser to find and view existing projects. To see these projects in the Project Manager you need to process those photos using a 5.x version of the software. This may be very easy if you have created and saved a template for your work in the Project Manager. Once you have saved your project settings as a Template you can simply import photos and GPS data from previous projects and click Create Output to generate your preset outputs in the new format and have them included in the Project Manager.

I don't like the output once I see it and want to make changes.

- To make changes to the output you can reopen the project by double clicking on the title in the Project Manager. This returns you to the Wizard portion. Visit the appropriate tabs in the Wizard to make changes you desire (i.e. Edit Attributes, Watermark, Output). Make sure you select all the output you want associated with this project including the one you want changed. Click Create Output and view results in Project Manager.

Note: Each time you click Create Output, GPS-Photo Link overwrites all previous results. Example: You created Google Earth and PDF output. You like the Google Earth file, but when you viewed the PDF you didn't like the title so you went back in and changed it. Thinking you only needed to change the PDF you selected only PDF output. Next when you view the output there is no longer a Google Earth file. Why? GPS-Photo Link wipes out previous

versions of output each time. Solution? Open the project again, select all output you want and click Create Output again.