



Confero

Your Image Sorting and Analysis Solution



2.1 User's Manual

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Introduction

Key Features

- Powerful automatic sorting options include: QR codes, time stamps, and GPS coordinates
- Save hours of time by naming your files in a batch process
- Perform advanced sorting and / or analysis by outputting your images' Exif data to a spreadsheet
- Automatically output compressed PDFs *and* backup your original images in separate directories with the same name
- Preserve your images by batch converting them into TIFFs

Confero Licensing

The [End User License Agreement](#) for Confero 2.1 grants a non-exclusive license to install Confero on up to 2 computers at a time.

System Requirements

- Windows 7, 8 and 10; OS X
- 4 GB RAM
- Internet access during installation

Installing Confero

Download Confero at waterlooinnovations.com/download/. Run the msi (Windows) or .mpkg (Mac) file and follow the prompts.

Mac Installation Problem Solving

If you are running OSX and receive the following error message, you need to adjust your computer's security settings. By default, OSX does not trust third party applications that are not purchased on Apple's App Store. To allow Confero to run, go to System Preferences → Security & Privacy → and under the "Allow Apps downloaded from:" section select "Anywhere."



Checking for Software Updates

Confero should prompt you to update automatically. If you want to manually check for updates, open a web browser and navigate to waterlooinnovations.com/download/.

Uninstalling Confero

Windows

Navigate to the Control Panel, click “Add / Remove Programs” and remove Confero.

Mac

Navigate to your Applications folder and delete the “Confero” directory.

Preparing for QR Code Organizing

You can use QR codes to help Confero separate your session into useful sets. This section describes several different ways you can obtain and use QR codes with Confero.

1. Use a QR code generator program. This is the option preferred by most users. Please consult our blog entry at <http://waterlooinnovations.com/finding-the-right-qr-code-generator-for-archival-research/> for recommended apps.
2. Utilize Confero's built-in QR code by:
 - a. Running Confero
 - b. Click File → "Save QR code."
 - c. Select a directory, such as the desktop, to save the file ConferoQRCode.jpg.
 - i. If you are using a scanner, print ConferoQRCode.jpg and scan it after you finish scanning each set of documents
 - ii. If you are using a camera, print ConferoQRCode.jpg or copy it to your smartphone and ensure that you can display it.

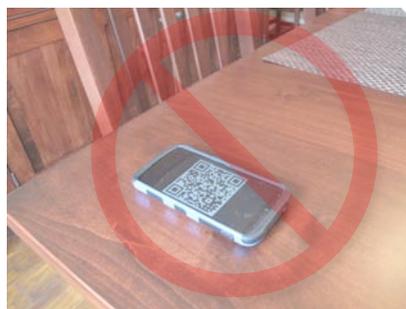
Regardless of the type of QR code you use, only photograph it after you finish photographing your subject or file. Confero treats images containing QR codes as markers and discards them during its sorting process.

Consult "Import Images" on page 12 to learn how Confero can extract text from QR codes and use it to automatically label your image sets.

Optimal QR Code Recognition:

For optimal performance, ensure that your images comply with the following guidelines:

1. Always photograph your QR code at a perpendicular angle.



2. If you use your cell phone to display the QR code, ensure that the camera does not capture glare from overhead lighting (shown below).



3. Position the QR code so that it is straight. Confero sometimes fails to recognize rotated QR codes (shown below).



4. Ensure that there are no folds in your QR code paper. Folded paper can compromise Confero's QR code recognition (shown below).



5. Ensure that your printer has plenty of ink. A partially faded QR code can compromise recognition.



Preparing for Other Import Organizing Techniques

Preparing to Sort Your Set By Time Interval

Confero can examine when your images were captured and sort them according to time gaps. Preparing for this function is easy.

1. Determine a minimum time interval between photographing or scanning your documents or subject matter in advance
2. Wait this period before proceeding the next set or subject
3. Follow the instructions described in “grouping by GPS distance” described on page 13.

Preparing to Sort Your Set By Geographic Distance

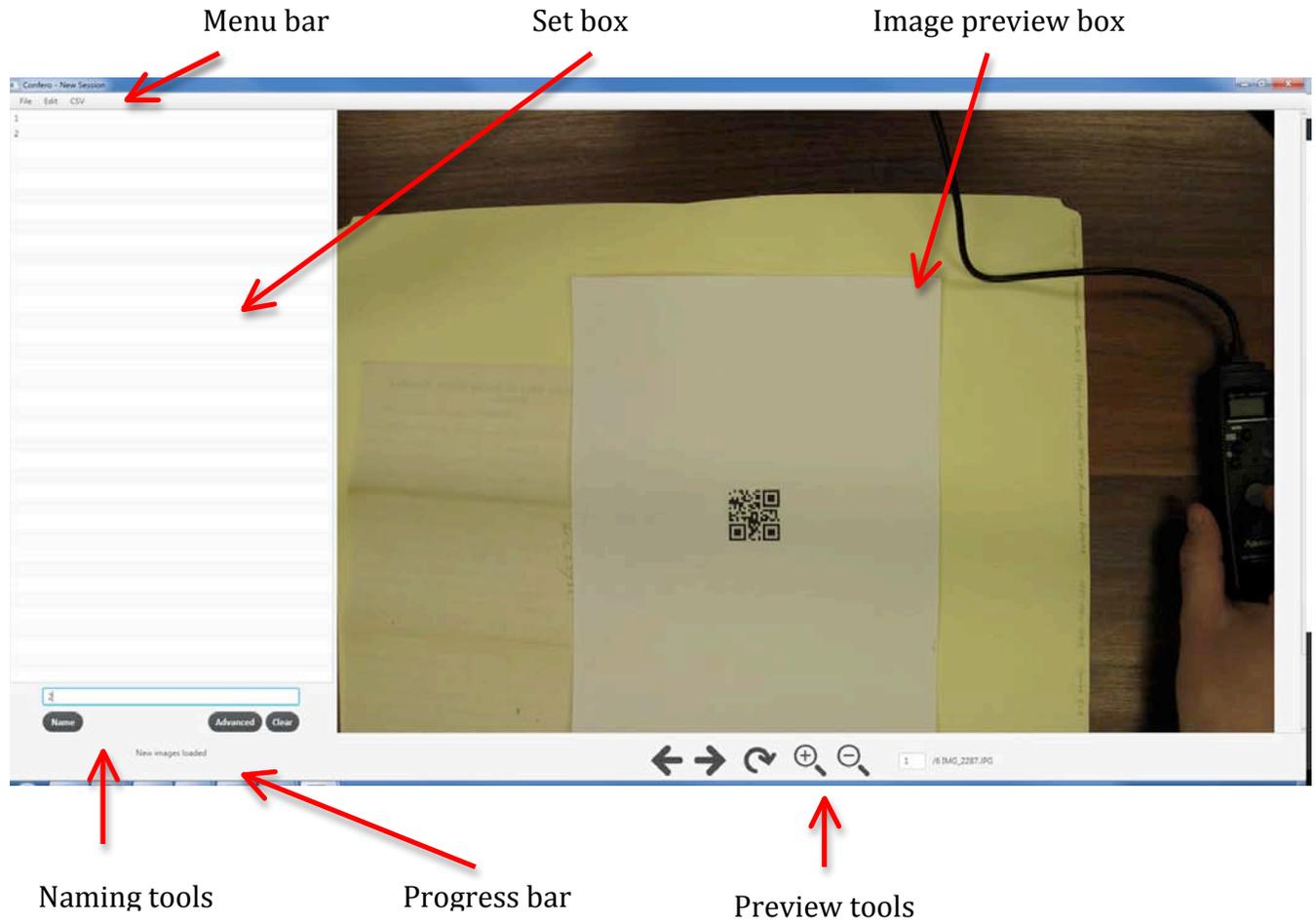
If your camera has a GPS chip, or if your camera can gather GPS data from a local wifi or bluetooth connection with your smartphone, Confero can scan this data and group your images according to a user-inputted distance interval. To learn more about this function consult “grouping by GPS distance” on page 14. By default, Confero calculates the distances in serial. For example, it will calculate the distance between image A and B, as well as the distance between images B and C, but it will not calculate the distance between images A and C. The latter sort can be accomplished by using the “Export to CSV” described on page 19.

Preparing for Advanced Organizing via CSV

Confero can facilitate advanced sorting functions by extracting the Exif data from your images and exporting it to a CSV file that can be opened in most major spreadsheet programs. Exif data can include camera type, image resolute, time stamps, GPS coordinates, and a host of other variables. You can read more about this function on page 19, but it is important to be aware of this functionality before beginning your photography or scanning.

Using Confero

This section will teach you how to use the main Confero window (shown below) to view, name, and edit your image sets.



Menu Bar: File

New Session

Clears all current session data.

Save Session

You can save your work to a *.cfo file. You can open this file at a later date by using the “Load Session” function (consult below).

Load Session

This menu item allows you to resume a previous Confero session by calling a file browser window and allowing you to select a *.cfo file.

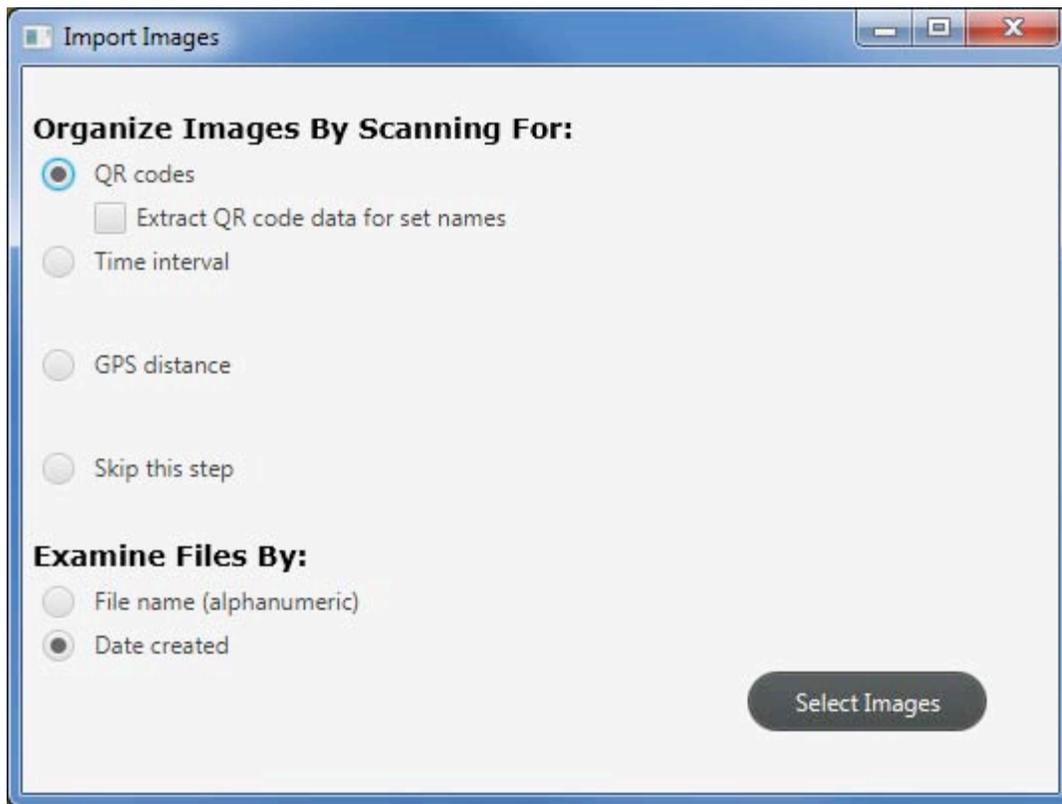
Import Images

Confero relies on stable directory structures. Do not move or rename files and folders until you finish your Confero session.

To import your images from a camera or scanner, click File → import. The import window will appear and allow you to organize images by one of four criteria:

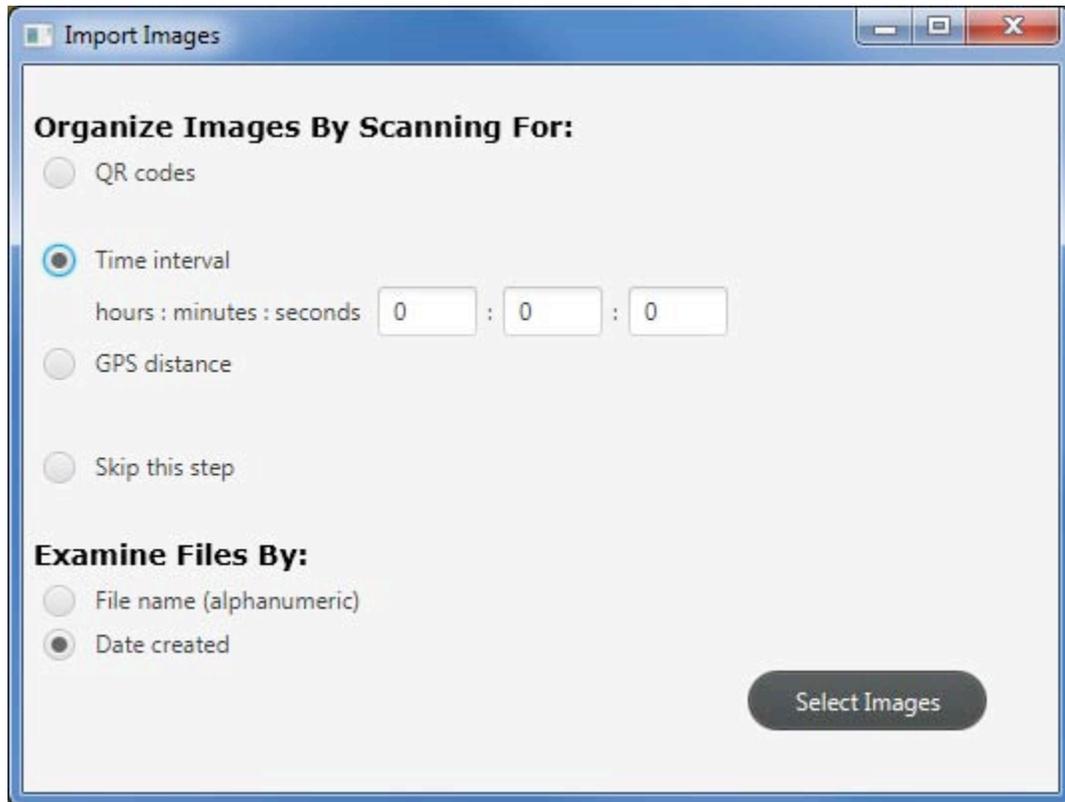
1. QR codes

This option (shown below) will scan every image in your session for a QR code and begin gathering a new set whenever it finds one. If you check “Extract QR code data for set names,” Confero will use the data within each QR code to name the set.



2. Time interval

If you select this option (shown below) and input numeric values, Confero will compare every image's time created data. If your images have no Exif data, Confero uses each file's date-created time-stamp. When the time interval between two images is larger than your inputted value, Confero will create a new set.



Import Images

Organize Images By Scanning For:

QR codes

Time interval

hours : minutes : seconds : :

GPS distance

Skip this step

Examine Files By:

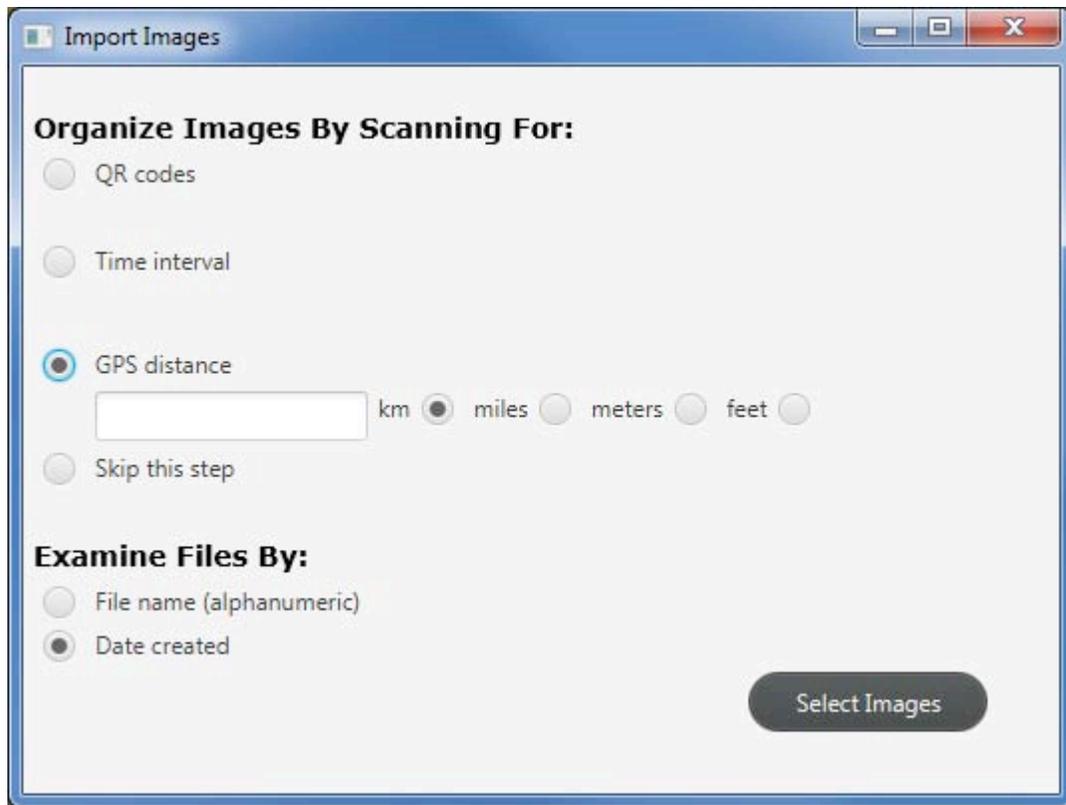
File name (alphanumeric)

Date created

Select Images

3. GPS distance

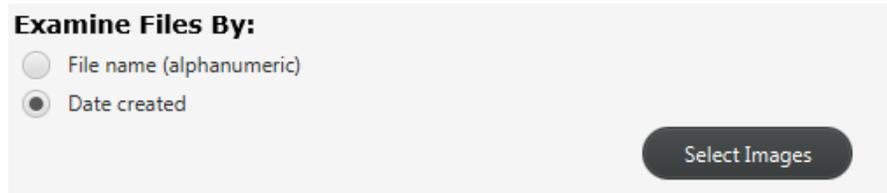
If your images have Exif GPS coordinates, select this option (shown below). Input a distance and select the appropriate unit of measurement. If the distance between two images is larger than your inputted value, Confero will create a new set. Before using this function, consult “Preparing to Sort Your Set By Geographic Distance” on pg 9.



4. Skip this step:

This option imports all of your images into a single set in the set box.

Examine Files by:



Examine Files By:

File name (alphanumeric)

Date created

Select Images

- *File name (alphanumeric)*: Confero will examine your images in alphanumeric order. This function is useful if you added files to the session or modified image file names.
- *Date created*: This function will use the images' Exif data to sort your files. If your images lack Exif data, Confero will use the image files' date created metadata.

When you are finished selecting your options, click the “Select Images” button, navigate to your image directory, highlight your images by clicking the first and last files while holding the “shift” key, and then click “Open.”

A loading bar will appear at the bottom-left corner of the window to report Confero's progress.

Export Images

When you are finished manipulating and naming your image sets, select File → Export Images. The popup window (shown below) provides you with the following options:



1. Copy your image set(s) to new directories. You can either the original files from each set to these directories, or convert your original images into TIFF, JPG, or PNG file formats.
2. Create a multipage PDF for each image set.

After you click “Export” and select a directory to store your new files, a loading bar will appear at the bottom left-hand corner of the window to report Confero’s progress.

Save QR Code

Select this option to save a pre-made QR code to your computer called ConferoQRCode.jpg. You can either print this file, or save it to your smartphone.

Menu Bar: Edit

The edit menu allows users to modify their session and / or sets using the following options:

Split Image Set

To split an image set, use the “Previous” and “Next” buttons or the page number textbox to navigate to the image that you want to begin your new set. Then click Edit → Split Image Set.

Merge Image Set(s)

To merge multiple image sets, click the applicable rows in the set box while holding the “Shift” or “Control” (OSX “Command”) key and then click Edit → Merge Image Set(s).

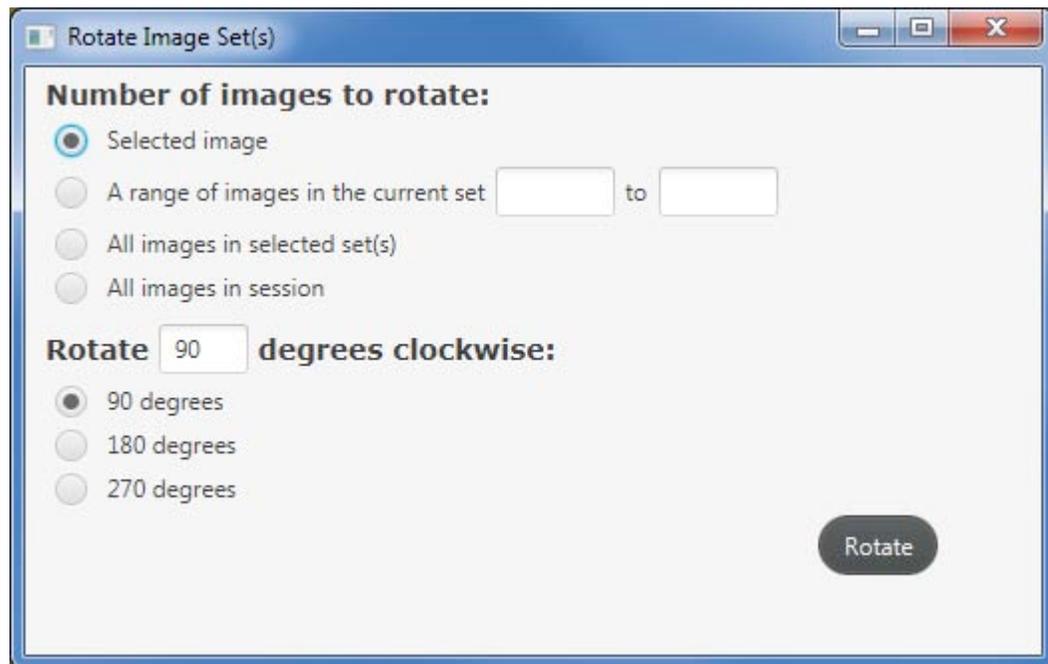
Delete Image Set(s)

To delete one or multiple image sets, click the applicable rows in the set box while holding the “Shift” or “Control” (OSX “Command”) key key and then click Edit → Delete Image Set(s).

Rotate Image Set(s)

To rotate one, some, or all of your images:

1. Choose the sets you want to modify by selecting them in the set box. To rotate images in multiple sets, just hold the “Shift” or “control” / “command” keys.
2. Go to the File Menu and click Edit → Rotate Image Set(s) or click the rotate button (🔄) at the bottom of the window with your cursor.
3. The Rotate Image Set(s) popup window will appear (shown below). You can choose how many images to rotate, or particular pages. You can also enter the precise number of degrees to rotate clockwise, or choose one of the pre-listed options. Click the “Rotate” button when you are ready.



NOTE: Pressing the “Return” or “Enter” key while this window is open is like clicking the “Rotate” button with your cursor.

Menu Bar: CSV

Export to CSV

This function is useful for doing image analysis based on Exif data, or recognizing your images into novel sets. Begin by going to the File Menu and clicking CSV → Export to CSV. After you enter a file name and select a directory using the file browser, Confero will export images' Exif data to a CSV file that can be opened in most major spreadsheet program. A loading bar will appear at the bottom left-hand corner of the window to report Confero's progress. The bar will be replaced with "CSV exported" when Confero finishes creating the CSV file. Thereafter, you can develop formulas to perform complex sorts.

When you are finished sorting in the CSV file, rename the cells in the "Set Name" column so reflect your new sets. When you are finished renaming your sets, save your changes, return to a new session of Confero and perform the Import from CSV function (consult below).

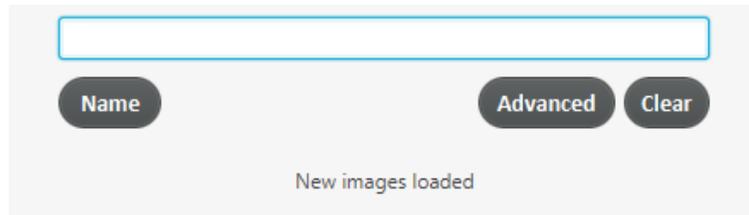
Note: Confero's Import from CSV function (consult "Import from CSV" for more information) only requires the first three columns ("Set Name," "File," and "Path") to function. The remaining CSV columns will vary depending on the camera(s) or scanner(s) that captured the images.

Import from CSV

After using the Export to CSV function (consult above), you must import the modified CSV file back into Confero. To this, go to the Menu Bar and select CSV → Import from CSV. After navigating to the correct directory, click "open." Your sets will appear in the set box.

Naming Tools

When you first run Confero, a textbox appears with phrase “Your Text Here” (shown below). This is where you type all of your set names.

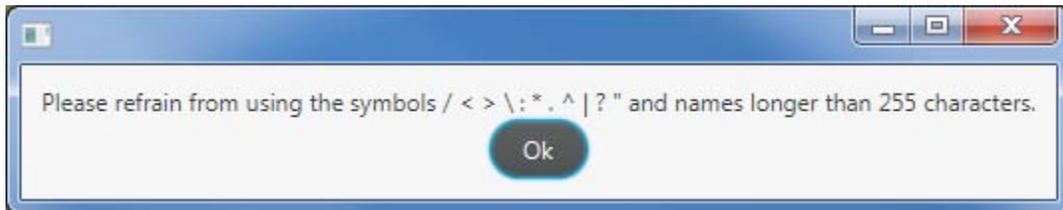


This portion of the interface has several important buttons.

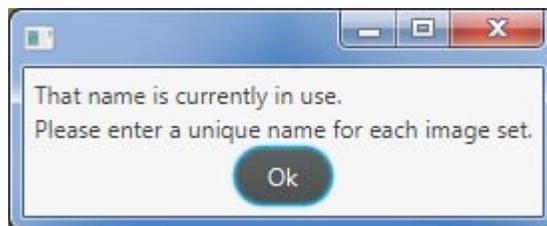
Name

When you have finished typing a file name into the textbox, press “Return” on your keyboard or click the “Name” button to label the set. The new name will display in the set box.

If the name you typed has illegal characters or is too long for your computer’s file system, a popup message will appear (shown below) describing correct file naming parameters.



If the name you typed is already assigned to another entry, a popup message will appear (shown below) explaining that you have already given a set that name.



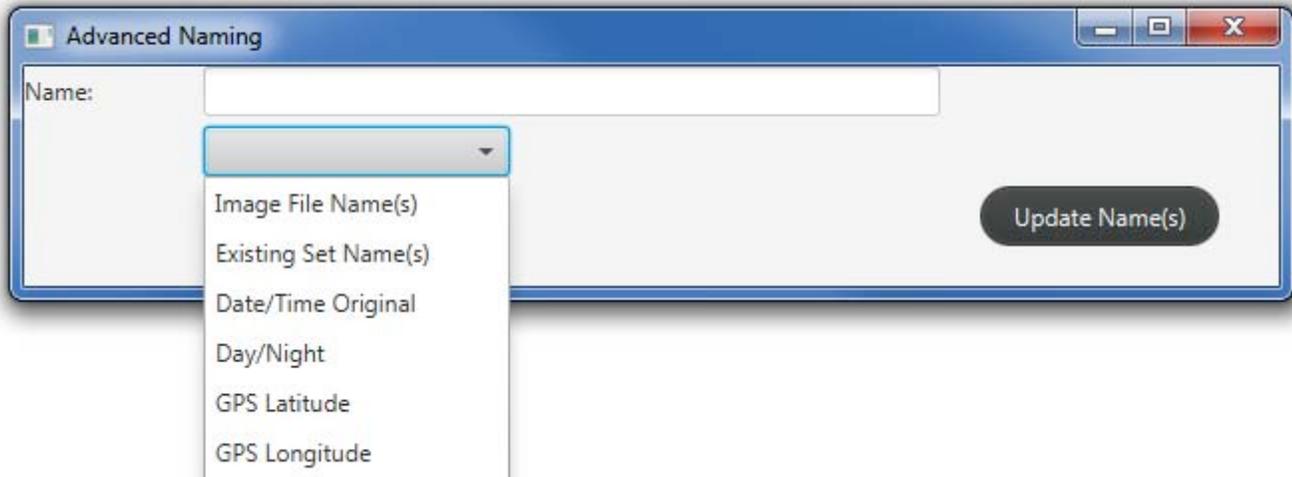
Clear

The clear button removes all text from the textbox.

Advanced

To name multiple sets simultaneously, or use Exif data to automatically name each of your sets.

1. Highlight multiple items from the set box.
2. Click the “Advanced” button.
3. A new window will appear (shown below).



4. Input custom text and/or use the dropdown menu to add Exif variables to your set names.
Note: you can resize the textbox by resizing the window.
5. Click the “Update Name(s)” button to update the set box display.

Preview Tools



Previous

Click this button to make the image preview box display the preceding image in the set.

Next

Click this button to make the image preview box display the next image in the set.

Rotate

Click this button to rotate some or all of the images in your session. For more information, see “Rotate Image Set(s)” on page 18.

Zoom In

Click this button to make the image preview box to zoom in.

Zoom Out

Click this button to make the image preview box to zoom out.

Page Number Textbox

Enter a number into this field to skip to the corresponding image in the set.

Glossary

CFO: the file format Confero uses to store your session when you click File → Save Session.

CSV file: A comma-separated values file. Confero uses this file format to facilitate advanced sorting or analysis of images via most major spreadsheet programs.

Exif: Exchangeable image file format data is encoded in most image files. Confero can use this data for advanced naming or sorting functions.

JPG: (also JPEG), an acronym for Joint Photographic Experts Group compresses images to reduce their file size. This process impacts image quality, but most users will not notice the difference.

PDF: An acronym for Portable Document Format. This format is multipage, compressible, can be imported into Optical Character Recognition (OCR) software, and is also ideal for annotating or importing into reference managers (ex. Zotero).

PNG: Portable Network Graphics format. This format is not ideal for photos and is most often used by web designers.

QR Code: An acronym for “Quick Response” code. Confero uses them because they are easy for software to spot in photographs. QR codes store data that can be used to create file names.

Session: a series of sets produced using Confero. These are accessed in the Set Box on the left-side of the Confero window.

Set: a series of images that will be grouped into a directory or multipage PDF.

TIFF: An acronym for Tagged Image File Format. These images are better than JPGs at preserving an image’s data over time because they do not support significant compression. TIFF are consequently much larger files than JPGs of the equivalent resolution.