

SPM

QUICK TIPS VOLUME II

Ten short articles on using features of the photo editing program StereoPhoto Maker created by Masuji Suto.

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SPM Quick Tip - Setting the Stereo Window

by Dennis Green

When you look at a stereo image, the edge of the image makes an apparent “window” through which you see the image’s depth. Setting the window means to move the apparent location of the image forward or back by moving the left and right images closer together or farther apart. This is done in StereoPhoto Maker by using the left and right arrow keys on your keyboard. Using the right arrow key appears to move the image farther back.

The most important reason to set the window is to make sure that everything that should be behind the window appears that way. If something



that should be behind it appears to be located in front of the window (farther forward than the window’s edge), that will cause a “window violation” which spoils the 3D effect.

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If you are not good at seeing window violations, just remember that the Left image sees Less on the Left (the 3-L Rule). This means that you should be seeing less of any object on the left side of the left image than what you can see in the right image.

For example, note that the window frame in the right image is not visible in the left image because it sees less of the left side. Just make sure when you set the stereo window that anything touching the edge of the image is farther back (farther left in the left image) than the edge itself. Use the arrow keys to move the image back (right arrow) or forward (left arrow).

[][]

SPM Quick Tip: 3D Mirror Effect

By Dennis Green

Here is a way to use the 3D Mirror Effect tool to create some interesting variations on images you may already have.



First open an image in SPM and press [Ctrl] + W to get the horizontal mirror tool. Place the vertical line at the point you would like to be in the middle of the mirrored image, then drag in the direction of the part of the image you want to keep. In this example, the line is on the right and I am dragging to the left.

You will then get a horizontally mirrored image:



Repeat that action using [Alt] + W (the vertical mirror tool) and placing the line near the bottom, then dragging up. You will then get an image with some interesting added features. It works best when the intersection lines are at the window (as opposed to being in the background). Here is my resulting image (in 3D):



It's hard to believe this came from that first image! [][]

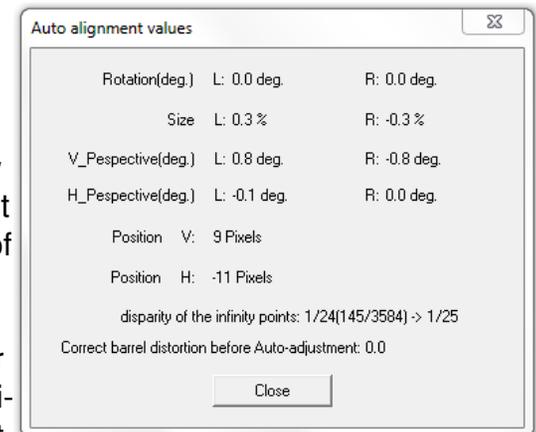
SPM Quick Tip: Auto-Alignment

by Dennis Green

One of the most valuable functions of StereoPhoto Maker, and the one that established it as the most-used stereo image editor, is the auto-alignment tool. Prior to SPM, there were no stereo digital cameras, so digital 3D was created by scanning film chips (usually individually), using images from twin digital cameras (which were often not aligned themselves) or by taking cha-cha images from a single digital camera. Using twin cameras often resulted in images that were different sizes, due to zoom lenses not being at the exact same focal length. SPM was created by Masuji Suto to correct issues with digital stereo images.

SPM's auto-alignment first analyzes both images of a pair to find similar points in each image, then calculates whether one image must be resized to match the other, as well as correcting vertical misalignment from one camera being tipped up or down, and any rotational or keystone error. Even stereo digital cameras like the Fuji W3 or Panasonic 3D1 can have minor misalignments.

To use the auto-alignment feature, just open an image and select Adjust -> Auto Alignment (or the shortcut Alt+A). SPM will take a few seconds to do the alignment and then give you a report of what changes were made.

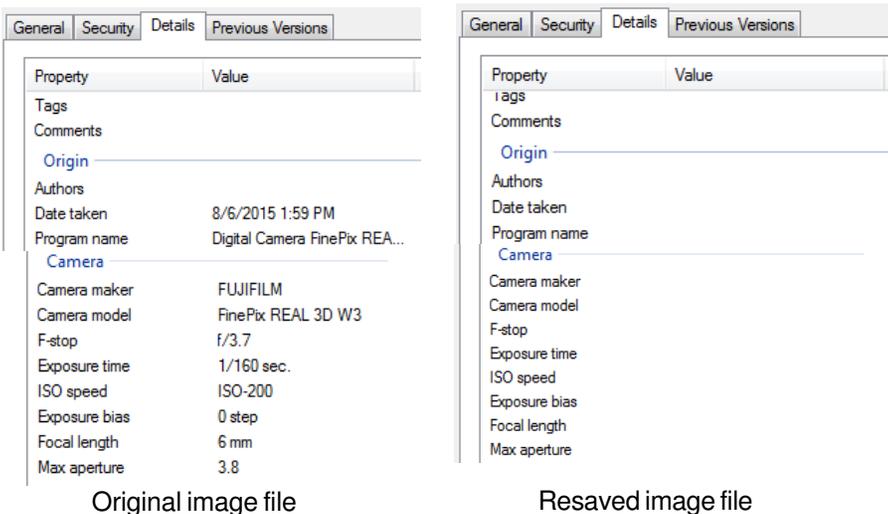


You can align a whole folder of images by using the Multi-conversion feature. In fact it is a good idea to do that before viewing a session's images to save yourself any eyestrain from viewing many misaligned images. The images can be saved in .tiff or lossless .jpg format in a separate folder to keep the originals untouched. [][]

SPM Quick Tip - How To Save EXIF Information - and Why

by Dennis Green

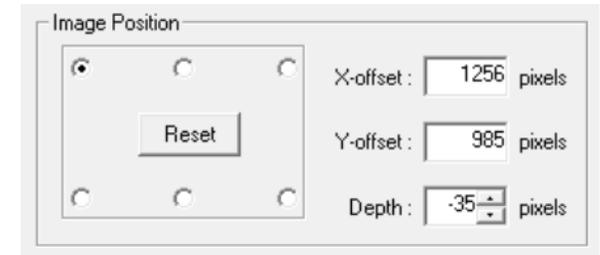
Exif data is the information in a digital photo about how the image was taken. Right click on any image file, go to the bottom and select “properties”. You will find a long list of details, which includes the date taken, the camera used, all of the settings, and a lot of other details. These screenshots show just part of the list for an image out of the camera, and for one manipulated and saved under another title. The information can be lost.



Linda Nygren shared information on how to keep this information in modified files so you can get all the details about the final image in the future.

“When you first run the SPM program, there are a few things in the ‘preference settings’ that are important. First, you want to make sure that SPM keeps your original image metadata, such as time and date of capture and camera ID and settings. To do this, go to *Edit *> *Preferences*, and near the bottom check the box for ‘When add thumbnail image to Save file, copy original exif to Save file’.

If your imported image is 3D using separate L and R images, SPM automatically detects this and adds the image to the original in 3D. You can then change the size of the imported image and move it in all three dimensions to get it just where you want it using the “image position section. For the X and Y positions, you can move the image around with your cursor, then use the up and down arrows on the “Depth” box to move it forward and back.



You can use the “Repeat” button to bring in multiple copies of the image, resizing and placing each copy independently. You can adjust the placement, including the depth, of several added image components to make a new image with all of the elements in 3D.

Grab a pair of anaglyph glasses to view this image in stereo. Note that extracting the black background allows the background items in the new image to show through the wings of each fairy, greatly increasing the realism of the new image.

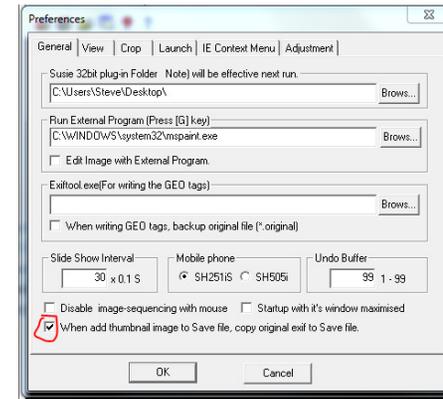
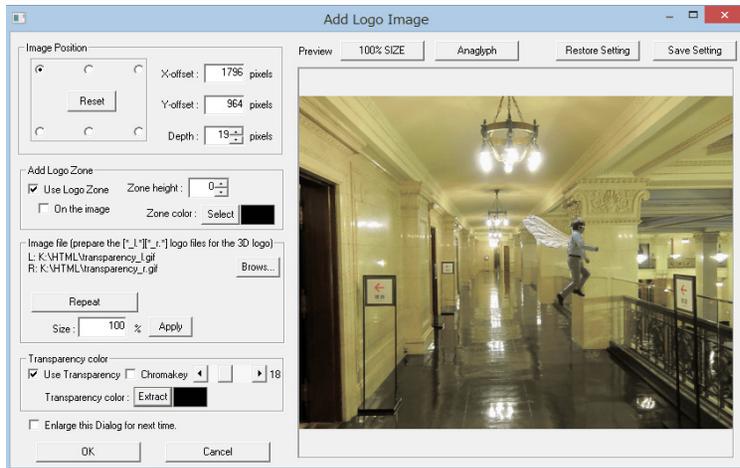
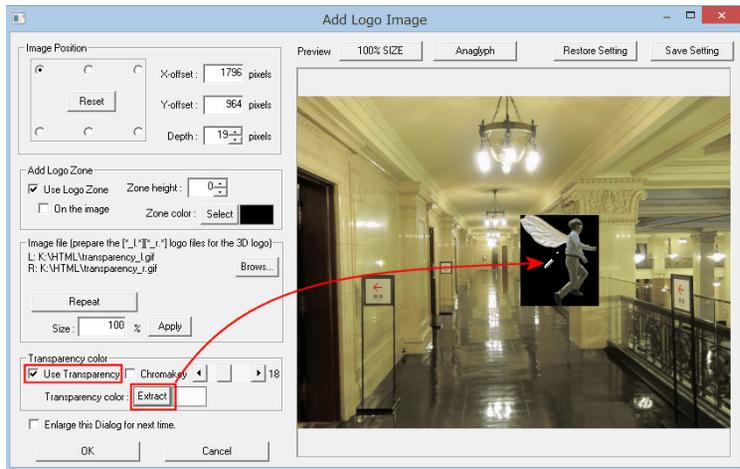


Full instructions for using this feature can be found at: http://www.stereomaker.net/eng/stphmkr/help/edit_13.htm

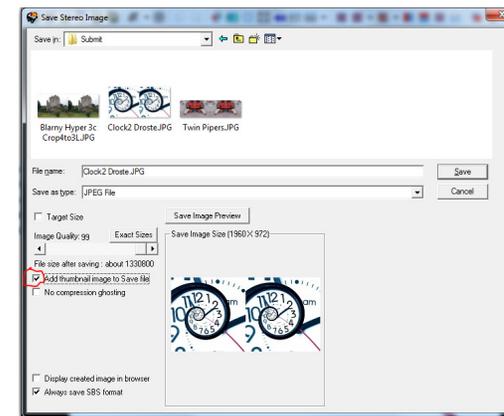
SPM Tip: Add A Component Image

Some very creative images can be made by using the “Add Logo Image” command under the Edit menu to add image components into a stereo image. Photoshop has ways of removing a background from an image component, but placing it in a stereo image is not always easy (and you have to have Photoshop). With SPM you can bring in multiple images and extract their black or single-colored backgrounds (i.e. the “green screen” process).

First, you open an image and then add another image to it. You can then use the “Extract” button and the eyedropper to select the background of the imported image to make it transparent.



“Then after you open an image, click on ‘file’ > one of the ‘Save’ options, then in the dialog box that opens up, check the box in front of ‘Add thumbnail image to Save file’. You only have to do this once, and SPM will continue to keep your original image metadata.



“If you do NOT do this, then each new edited file will be treated as if it were created on the day of editing and the details of the original capture (EXIF data) will be lost. While you are in that ‘Save’ dialog, you can also choose the ‘jpg quality’ which will be remembered until you change it. The default is 70 or 80, but most users prefer to set this at maximum while editing, which is ‘99’ for SPM. It is mostly a concern if you might be saving your images more than once, and wish to avoid the adverse effects of repeated jpg compression.” []

SPM Quick Tips - Creating an Image Gallery

by Dennis Green

Creating an image gallery with SPM will allow you to share a group of images with friends, relatives or the world in a way that will allow them to view the images in whatever way they would like. The user has the choice of several 3D modes including parallel and cross-view for free viewing or using a screen viewer, three anaglyph modes for viewing with red/cyan glasses, interlaced mode for use with a 3D monitor or 3D laptop, and a squeezed mode (SBS50) for viewing on a 3D TV.

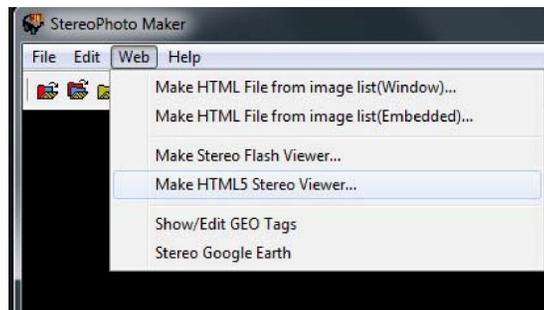
It even has the choice of viewing in 2D for someone who does not have any 3D viewing options or who prefers 2D images. It has a slideshow option, as well as allowing you to step through the images manually using the Left and Right arrow keys.

Once created, the gallery can be uploaded to a website, or it can also be copied to a CD or sent over the internet using a program like "WeSendIt". The nice thing about the gallery is that the user does not need to install any program on their computer (not even SPM) - it runs in whatever browser they already have!

Here's how to create the gallery in a few minutes:

1. Put all of the images you want included in a single folder.
2. Open StereoPhoto Maker.

3. In the "web" menu, select "Make HTML5 Stereo Viewer..."



in the order they are picked. You can even go to other folders and pick images to add to the show, and SPM will remember where each picture is located. To **create a different show**, press Ctrl+M.

To **run the slideshow** when you are done, press Ctrl+Shift+O (or go to File->Slide Show List->Open Slide Show List). You will see all the lists in that folder, or you can change to another folder. After you pick the list, SPM will open the first image. To start the show, just press "A". Press "A" any time during the show to pause.

To **remove an image** from the show list while viewing the slide show, press Ctrl+D. You can **fill the screen** by pressing Enter or Return, and toggle back out of full screen by pressing them again.

You can **edit the slideshow** easily by pressing Ctrl+Shift+H (or go to File->Slide Show List->Edit Slide Show List). SPM will open the text file that runs the show. You can change any of the parameters to get the result you want.

```
File Edit Format View Help
11,30,0,0,0,L:\Pictures\3D\BT\Recording\P1030023.MPO,,
11,30,0,0,0,L:\Pictures\3D\BT\Recording\P1030026.MPO,,
11,50,0,0,0,L:\Pictures\3D\BT\Recording\P1030029.MPO,,
11,30,0,0,0,L:\Pictures\3D\BT\Recording\P1030031.MPO,,
```

In the text file above, the first parameter is the image input format. 11 is side-by-side. A few other common formats are:
13..Interlaced
14..Anaglyph
21..Independent L/R images.

The second parameter is the length of time that image will be displayed in tenths of a second (so 30 = 3 seconds). You can have each slide displayed for a different amount of time if you want some to be on screen longer than others.

The third parameter allows you to swap the L/R images to view them with the cross-view method by changing the 0 to 1.

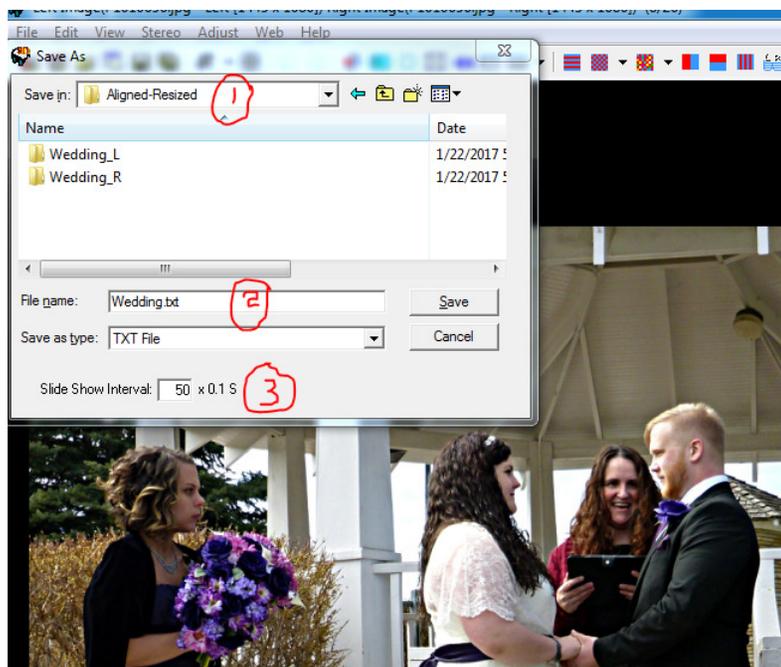
These have been tips for a simple slide show. You can create a more complex show that includes a music file or comments displayed on the screen. That may be a future Quick Tips article.

SPM Tip - Create a Slide Show

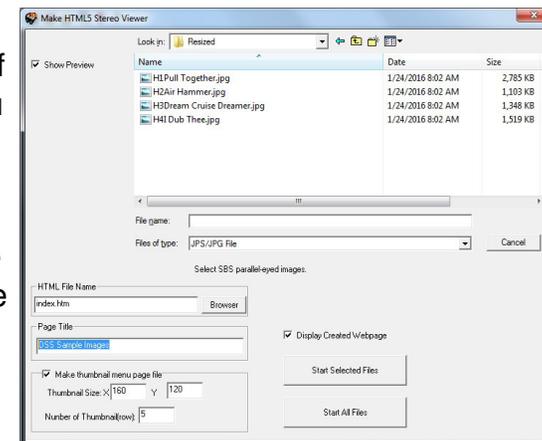
by Dennis Green

StereoPhoto Maker has a quick way to create a slideshow from images in a folder. The hard way would be to create copies of all of the images you wanted in the show, put them in a folder and name them so that they play in the correct order as you step through them with SPM. Instead, using the option of creating a slide show list, you can pick and choose image from one or more folders, and show them in any order without renaming or copying them.

The first step is to look through the images and decide which ones you want in the show, and what order you want them to appear. Then, while viewing them in SPM, when you get to the first image for the show, just press the “M” key and a dialog box will open that (1) shows the folder you are in, (2) asks you to name the list (give it a name you will remember in case you end up with more than one slideshow), and (3) specify how long you want each image to be displayed in tenths of a second (so a duration of 50 will be five seconds). After that, go through the folder, pressing “M” when you see the next image you want in the show, and each will be added,

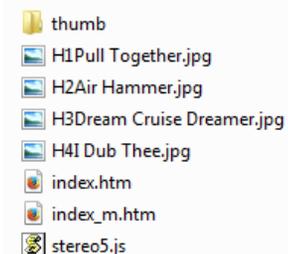


4. Navigate to the folder of images you created. If you want an index page with thumbnail images, check the thumbnail box at the bottom. Change the name in the Page Title box to the one you want. For this example we’ve used “DSS Sample Images”



5. Select the images you want displayed and click “Start Selected Files”, or if you want all of them, click “Start All Files”.

6. That’s it! Your folder will now have several additional files in it.



Double click on “index.htm_m” to view the index page, or on “index.htm” to go directly to the gallery.

Here is what the index page will look like, with your page name at the top.

DSS Sample Images



And here is the viewer in full screen mode showing one of the images (in parallel mode) with the small menu choices at the top. It’s really easy. Give it a try!



SPM Quick Tip: First Steps

by Dennis Green

I remember when I first tried to use StereoPhoto Maker. I went to the website and downloaded the program and started it - then had no idea what to do. I was confronted by this black blank screen, unlike other programs that would open with a blank document or a work area. So to get a beginner going, this article will start from the very beginning and go through just the first two steps; downloading the program and viewing some images.

Step 1: Download the program.

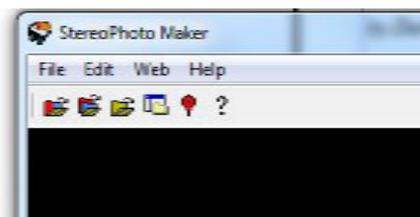
Go to the website that has a variety of Masuji Suto's programs. You can use a web search on "StereoPhoto Maker", or use this link: <http://stereo.jpn.org/eng/stphmkr/>

A few lines down the page you will see the download links:

Download;
[StereoPhoto Maker Ver5.10](#) 1411KByte 21/Mar/2015
[StereoPhoto Maker Ver4.34 include help file](#) 24429KByte 10/JUL/2011
[StereoPhoto Maker 64bit Ver5.10](#) 2075KByte 21/Mar/2015
[Online help](#)

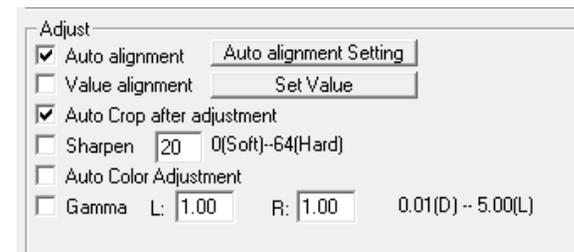
Download one of the versions and open it (you may get a message saying "unknown publisher" - run the program anyway).

Once the program opens, you will see a black screen with a few icons at the top, plus some menus. Click on the first icon to open a stereo image, like an mpo file from a stereo camera or a side-by-side image from another source. Click on the second icon to open Left and Right images, like those from a pair of cameras or two images taken with a single camera (cha-cha). These options are also available from the File menu.



Step 2: View an image. Now that you know how to open an image, let's look at the options for viewing one in 3D.

window if the deviation is less than 1/25 of the image, which will work for most images. You can always adjust the window after the alignment is done, so this is more of a general setting. You can also choose to not have the window automatically set.

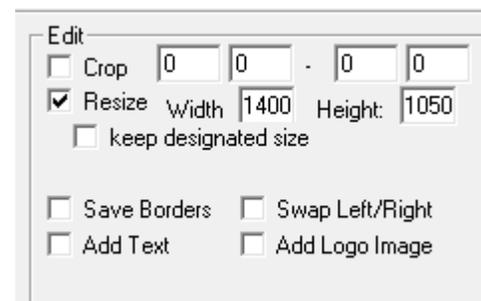


Other options include adding a little sharpening (a little helps a lot) and doing an auto color adjustment if you have two cameras that give different results - that will allow all of the images to be matched to the better camera. Save your adjusted images to a different folder, and you can change settings and redo the adjustments.

3. Edit the images:

The third category is the edit area. You would most often use this to do resizing of your images (see the Quick Tips collection in the "How To" section of the club website for details).

Beyond that, there are several added edits that will save a lot of time over doing them on each image.



One is to add a decorative border that you set up in "Border Options" under the View menu (or hit Alt-B). Another is to swap all of the L/R images, which is handy if you want to print out images for free-viewing using the cross-view method.

You can also add a logo image (which could be a copyright notice) or add generic text (like the author's name or a generic caption like "Scenes from Yellowstone - 2017").

Try a few conversions in each category on a folder of images, saving them to another location. You may save hours of work and make your picture processing faster and more fun! [] []

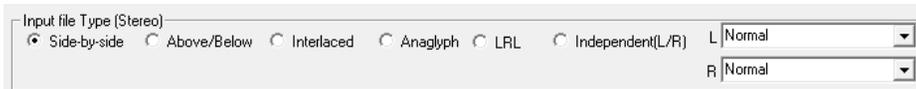
SPM Tip - Multi-Conversion

by Dennis Green

Last month we showed several ways to open files in StereoPhoto Maker. This month we will show how to use Multi-Conversion to do the most common tasks for a folder full of images. The three main categories are:

1. Change the file format:

Input:



The input format will normally be either side-by-side (.mpo or .jpg if you are using a 3D camera like the Fuji W3 or Lumix 3D1) or independent L/R images (if you are using a twin camera rig or shooting cha-cha style). There are a few other choices in case you are starting with files that are in another format, like anaglyph.

Output:



The output format has two main choices. The first is file type (side-by-side most often, but other choices are independent L/R, anaglyph, interlaced, half-width SBS for viewing on a 3D TV, etc.). The other is file extension (usually .jpg, but other choices include .tif, .jps, and most important, .mpo for use with devices that automatically recognize that .mpo implies a 3D image). You could also use this area to separate stereo images into L/R files so you could send or upload 2D images when a 3D viewing device is not an option.

2. Adjust the images:

SPM's greatest tool is probably still the ability to automatically align a folder full of 3D images with just a few mouse clicks. The button "Auto alignment Setting" allows you to determine how the alignment should be done. The most common choices are to mount the near point to the window, or to set the far points to an infinity setting or number of pixels. The default is to mount the near point at the

When you have a stereo image open, the menu options will expand, giving you more tools. We will concentrate on the viewing options.

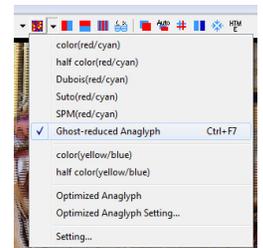


The first icon allows you to view the image in interlaced mode, which would be used if you have a passive 3D display, such as a 3D laptop, 3D TV or passive monitor. The settings for this mode (or for any of the viewing icons) can be found under the Stereo menu. Once set, SPM will remember your setting.

If you don't have a 3D display, you can use one of the next two icons to view the image in anaglyph mode using glasses with the colored lenses. You have a choice of Gray Anaglyph, which will remove the color from the image (useful when the image has a lot of red or cyan colors in it), or color anaglyph.

The dropdown next to the Gray Anaglyph icon allows you to change the anaglyph color to match your glasses. The default is red/cyan, which is the most common anaglyph colors, but you can use glasses with red/green, red/blue, or yellow/blue, you can use them.

The dropdown next to the Color Anaglyph gives you choices among several ways to view images to reduce the problems with red or cyan colors in your images. The best thing to do is to start with color at the top, and try out the different reduced color options to see which gives the best view for you.



The next viewing options is side-by-side, the default viewing mode, which can be used for free-viewing or with one of several mirror viewing devices. This icon is followed by the Above/Below mode used with viewers like the View Magic. This is good for viewing panoramic images. The final two modes are for Sharp glasses-free displays and for using shutter glasses, if you have that hardware.

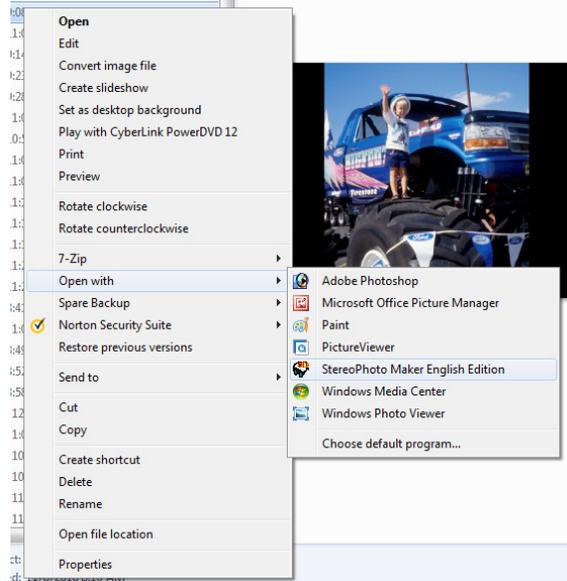
Now that you have taken the first steps with SPM, look over the other SPM Quick Tips (in newsletters or on the club website) and try one of the other tips. Before you know it, you will be using SPM for most of your stereo viewing and editing. [] []

SPM Quick Tip: Opening Files

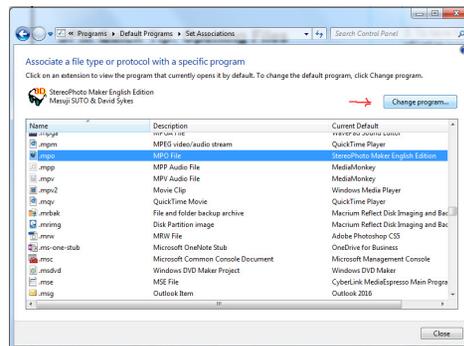
by Dennis Green

Here are four tips on opening stereo files for viewing or editing using StereoPhoto Maker:

1. To quickly open a 3D .jpg file from Windows Explorer, just right-click on the filename and hover over the “Open with” option in the dialog box. Another dropdown will appear with options. If SPM is not in the options, just click on “Choose default program...” and it will allow you to navigate to the SPM program. Once you select SPM, it will be added to the dropdown for future use.

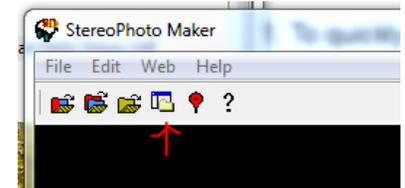


2. You can have an .mpo file automatically open with SPM instead of some 2D photo viewer when you double-click on the file. Just click on the “Start” button and then on “Default Programs”. Then click on “Associate a file type...” and wait for the list of file types to appear. Select “.mpo” and then click on the “Change Program” button at the top. Some suggested programs will appear, or you can navigate to SPM to make it the default. From then on, it will be much faster than opening SPM and then finding a file.

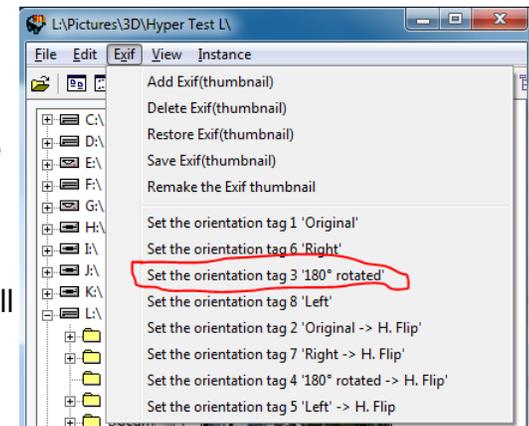


3. To have Windows Explorer show thumbnails of .mpo files instead of just an icon, you can change your registry file so that Windows will treat .mpo files just like .jpg files, allowing you to view their thumbnails in Windows Explorer or any other program that can open a .jpg image. Full directions for making this change are on Don Munsil’s website: http://www.munsil.com/MPO_registry.html.

4. SPM has a tool for viewing image files in folders. It is the fourth icon from the left - the “Open Image File List” command. Clicking on this icon will give you a window similar to Windows Explorer with two useful functions for those who are using twin cameras (which is becoming popular again) with pairs of Left and Right image folders.



The first function is that if you have images from a camera that is upside down in a twin rig, you can reorient all of the pictures for that folder by selecting the Exif menu and selecting “Set the orientation tag 3 ‘180° rotated’”. You will then be able to see all of those images right side up.



If you open another instance of the Image File List (by selecting the “Instance” menu), you can view the contents of the other folder. By now using the “D” (down) and “U” (up) keys, you can scroll both folders at the same time, which will allow you to find any orphan images before opening the files and making stereo pairs.

Once you have all the images in matched pairs, you can open them by selecting one image from the left folder and one from the right, then using the menu item “Open L/R Image” (or press the “O” key). After one image is open, you can step through the other images by just using the space bar.