

Resizing Images for Digital Projection

Actions R Us

Edition 13

Introduction

Although there have been some determined efforts to limit the number of different image sizes, etc. specified in digital projection competitions, it appears that entrants will have to continue coping with several different ones for many years to come. Experience has shown us that many entrants to PDI (Projected Digital Image) competitions have great difficulty matching their images to the requirements set out by the competition organisers.

Actions R Us have created an *automatic* method to help entrants submit their entries in the correct format. We assume that entrants are using Adobe *Photoshop* on a Windows computer. At the moment it's not possible to use *Photoshop Elements* automatically. Following a request from the Chilterns Association, we have upgraded the actions (*a*) to allow for alpha channels in an image (if you don't know what an alpha channel is, don't worry, the change won't make any difference for you), and (*b*) to let users of *Photoshop 6* and *7* sharpen their down-sized images a little (this feature is included automatically for the later versions of *Photoshop*). *Actions R Us* thank Mark Buckley-Sharp of the CA for his generous help with these upgrades.

The Solution

The heart of the solution lies in the *Photoshop* feature called 'actions'; we have written a series of actions to cover nearly all of the situations which may arise. The beauty of the solution is that once the actions are loaded, converting an image file to the format required by the competition requires a single mouse click only, a new file is created and your original image file is *untouched*.

The actions have been thoroughly tested on a variety of computers using most Windows operating systems and will work in *Photoshops 6, 7, CS, CS2, CS3, CS4* and *CS5*;

For those who have not used actions before, here is what to do to start:

- 1 We recommend that when you download the files 'Resizing Alpha 4.zip' and 'Batch Resizing Alpha.zip' which come with this article from the web site, you save them into a special folder called 'Actions' on your C: drive so you'll always know where they are. [If you don't know how to create a special folder, please look at Appendix 1 *Part (a)*.] You then unzip them by right clicking on the file name and following the instructions which appear in the little drop-down menu. [We can't say exactly what to do since different versions of Windows have different instructions and you may or may not have *Winzip*.]
- 2 With some versions of *Photoshop* you can double left click on the files 'Resizing Alpha 4.atn' and 'Batch Resizing Alpha.atn' and they will automatically be loaded into the right place in *Photoshop*. [You can check whether they've been loaded by opening the actions palette as described in the first lines of 4 below.] If that happens with your set-up, please jump over steps 3 and 4. If it doesn't happen, please follow steps 3 and 4.
- 3 Start *Photoshop*.
- 4 Open the actions palette by left clicking on 'actions' under the 'window' menu item, at its top right you will see a little arrow – depending on the version of *Photoshop* you are using, this arrow will face downwards or sideways; left click on it, a new menu opens, left click on 'load actions'. A new window opens. Navigate to your new 'Actions' folder by using the address at the top of the window. [If you're not sure how to navigate to a new folder, here's what you do: press on the small downward facing arrow on the right of the address, a list of folders will appear; move up this until you come across the one called Actions.] Left click on it, the actions window will open, select 'Resizing Alpha 4.atn' and press 'load', then select 'Batch Resizing Alpha.atn' and press load again. The actions palette will then show the new sets of actions we have written; save the new actions using the 'save' command beside the actions palette near where you found the 'load' command.

Now you have the resizing actions loaded into *Photoshop*, the rest is easy. The six actions in Resizing Alpha 4.atn will help you save your image in the formats required by nearly all competitions. All known competitions now require the colour space to be sRGB, so the previous options to allow Adobe RGB 1998 have been removed. First of all read the instructions supplied by the competition organiser *very carefully* so you know exactly what is required for the competition you intend to enter.

- (a) xga with border – the image will fit into a space 1024×768 pixels in size, have a 2 pixel wide white border all round it and will be padded out with black to use up any unused space. *For example* a portrait image will be 764 pixels high (plus 2 pixels of white top and bottom) and will have black panels on either side to fill up the rest of the 1024 pixel width.
- (b) xga no border – as for (a) but images will not have the 2 pixel wide white border.
- (c) sxga+ with border – the image will fit into a space 1400×1050 pixels in size, have a 2 pixel wide white border all round and will be padded out with black to fill up the unused part of the total space.
- (d) sxga+ no border – as for (c) but without white border.
- (e) wuxga with border – the image will fit into a space 1920×1080 pixels in size, have a 2 pixel wide white border all round and will be padded out with black to fill up the unused part of the total space.
- (f) wuxga no border – as for (e) but without white border

A small amount of sharpening (recommended by most experienced users) is automatically included for users of CS, CS2, CS3, CS4 and CS5. Automatic sharpening is not available in PS6 or 7 and a special command is inserted so that users can carry out the small amount of sharpening recommended by experienced users of those versions. *Note:* the option to save as tif has been removed since practically all competitions now accept jpg only

Example:

Creating an image with a white border for the new KCPA Digital Imaging Competition.

- We recommend that you create special folders for storing your images for each competition, it makes life easier. So, for our example, create a folder called KCPA PDI Comp 2011. [If you don't know how to do this, see Appendix 1 *Part (b)*.]
- In *Photoshop* open the image you wish to convert.
- Display the actions palette by left clicking on 'actions' under the 'window' menu item. Left click on the arrow at the left of 'resizing' to display all the actions and left click on the item called (a) above to highlight it. Then click on the right-facing arrow at the bottom of the palette. Your image will change and little windows called 'stop' and 'continue' will appear. If you're using PS6 or 7 press 'continue', otherwise press 'stop'. Save the image in the special new folder you have created as a jpg level 12 using 'save as'. [You can leave its title unchanged at this stage, see Appendix 2.] Close the image and **do not** save it again if you are asked to.

White border:

This is entirely up to you, some images look better on the projector screen with a thin white border; others look better without a border. Also, some judges dislike white borders intensely, while others remark how a white border 'ties the image in', improves it, and wasn't it a pity you didn't have one!

The End:

That's it! You have resized your image to the format required by the competition and all you had to do was press the arrow at the bottom of the actions palette and save the result.

If you have lots of images to process, perhaps you're making an AV and want to pad out the images so they will all fit neatly on the projector screen, we show you how to use the *Photoshop* batch process to take all the work out of the process in Appendix 3.

Actions R Us (John Bowsher and Ruth Brown)

Appendix 1:

Creating a new folder with the name you want.

Part (a) Creating a folder to store the actions

Starting with your computer's desktop, double (left) click on 'My Computer'; a window will open showing all the drives on your computer. Double click on the one labelled 'C:', a new window will open. Left click on the word 'file' at the top-left, a menu will drop down; move the cursor down to the word 'new' and then to the right to the word 'folder' and left click; a new folder called 'new folder' will appear; highlight those words, type 'Actions' and press the return key. You have created a new folder called Actions.

Part (b) Creating a Folder to Store Your Competition Entries

This is much the same procedure as in *Part (a)*, but we spell it out for safety. Starting with the folder where you keep your images (we can't be specific, everyone has their own ideas – it could, perhaps, be called 'my pictures'). Left click (once) on the word 'file' at the top-left, a menu will drop down; move the cursor down to the word 'new' and then to the right to the word 'folder' and left click once; a new folder called 'new folder' will appear; highlight those words and type 'KCPA PDI Comp 2011' (for example) and press the return key. You have created a new folder with your chosen name.

Appendix 2:

Image File Naming.

This is a real mine-field, practically every competition has its own naming convention and there is no easy way of coping with this great variety automatically. This is why we recommend creating a special folder for each competition and storing your images in it. Then you can read the competition requirements sent out by the organisers a few more times and rename your images at leisure. (For those who worry about opening jpg images too many times in case they lose quality – don't! Renaming does *not* involve opening the image.)

How to rename a file: right click on the file name; a drop-down menu appears, left click on the word 'rename' and type in the new name where the old name is highlighted.

Appendix 3:

Batch Processing of Many Images.

The *Photoshop* batch process is very powerful and is surprisingly easy to use. Move your cursor to the 'file' heading at the top left of the *Photoshop* window; a menu will drop down; move your cursor down to 'automate' and left click on 'batch' in the new menu which will open on the right, you will get something like our picture.

As an example, we have set the batch command to resize all the images in a folder called 'My Pictures' to the desktop using the 'Batch Resizing Alpha' action set and the 'xga no border' action which we selected using the little windows at the top. Make very sure that the ticks are as shown in our picture, if they aren't, things can go horribly wrong! When you've set everything to your liking, press 'OK' and wait a few moments. You will find all your new images at the destination (your original images are still where they started). The new images will have their original names (make sure you choose 'Document Name' with capital letters) and will have the extension 'jpg'. The new images *may* have 'copy' added to their names; this comes about as a result of handling possible alpha channels and is of no concern since the images will have to be renamed to suit the requirements of the competition you are entering. *Note: PS6 and 7 do not have automatic sharpening in the batch actions list, including this feature would involve a major rewrite of the batch action set. Sorry, 6 and 7 users will have to sharpen 'by hand'.*

