Automation

- *Actions*

- *Batch Processing*

- *Droplets*

After the thrill of being able to use the power of Photoshop in so many different ways wears off the fatigue of having to do so many of the same tasks over and over sets in. Routine tasks become... well, routine. And you'd really prefer to spend most of your time on the fun, creative things you can do with images. Now you're ready to take advantage of Photoshop's automation tools to accomplish common tasks – even complex ones – with a single click.
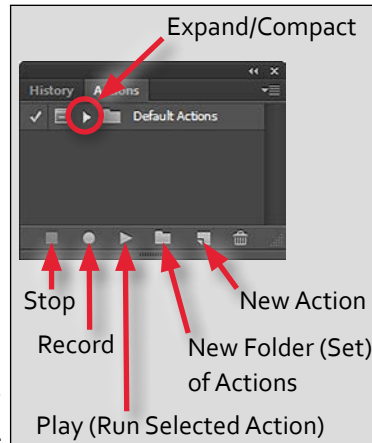
But there's more to automation than alleviating boredome, there's money involved. The old adage "time is money" is never more true than when you're charging by the hour. If you can accomplish tasks twice as fast as your competitor you can make twice as much money in the same time – or make the same amount of money in half the time and take the rest of the day off!

With automation you can do faster work, make fewer mistakes, make more money and minimize your frustration level – not to mention your blood pressure. The cliché about working smarter rather than harder is actually true here.

Actions

"Action" is Adobe's word for what most other software makers call a "Macro". It's a procedure you record while performing it once and which you can then recall with a mouse click or keyboard shortcut any time in the future. To do this on Photoshop you'll need to open the Actions Panel through the main menu (*Window > Actions*) or via a keyboard shortcut (Alt+F9/Option+F9).

The Actions Panel shown here looks something like the Layers Panel, but the folders expand into individual Actions. There are about a dozen Actions that are included with Photoshop in the *Default Actions* folder. Click the triangle next to the folder icon to see them. But the real power of Actions comes from creating your own, so let's begin doing just that.
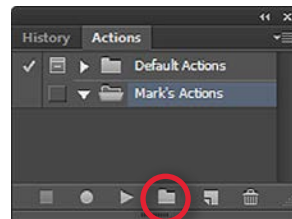

Expand/Compact

Stop
Record
Play (Run Selected Action)
New Action
New Folder (Set) of Actions

Open the Actions Panel:
Alt+F9 (Windows) or Option+F9 (Mac)

Download and open the file at
www.robertstech.com/fotoshop/italy17.php

If you expanded the Default Actions folder earlier, click on the triangle again to compact it.
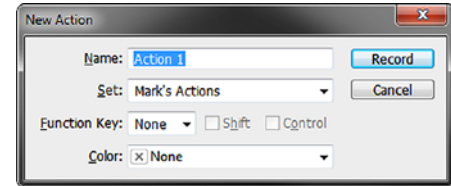
Click the *New Folder icon* at the bottom of the Actions Panel. In the dialog box that pops up enter your name or something that tells you this is your own, personal set of Actions. Now you're ready to record an Action of your own.

Recording an Action

To start recording an Action, click the *New Action* icon at the bottom of the Actions Panel.

You'll get a dialog which asks you to name the Action – you can also choose which Set (folder) it goes into, create a keyboard shortcut and assign it a color code. Enter "Web size with drop shadow" into the *Name* box and then click the *Record* button. From this point on everything you do (with some limitations to be discussed later) will be "recorded" to be exectuted whenever you run this Action in the future. Notice that the "Record" button is now lit up.

Let's begin by resizing the image. From the main menu choose *Image > Image Size* and reduce the image dimensions to 600 x 400 pixels.

Now click the *Stop* icon at the bottom of the Actions Panel. At this point, nothing you do will be recorded as part of the Action. Now click the *Record* icon to resume recording...
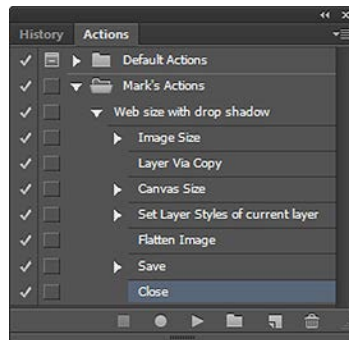
Use the keyboard shortcut Ctrl+J (Win) or Cmd+J (Mac) to duplicate the background Layer (it will be called *Layer 1*).

Press the "D" key to set foreground and background colors to default. Choose *Image > Canvas Size*, check the "Relative" box and add 50px to both width and height.

Apply a *Drop Shadow* Layer Style to Layer 1. Set the Angle to 135°, Distance to 7px and Size to 4px with Anti-Aliasing *on*.

Flatten the image and **Save As** *in a different location* at JPEG quality setting 5, progressive. Close the file (Ctrl+W or Cmd+W) and then click the *Stop* icon in the Actions Panel.

At this point you have recorded a complete action and your Actions Panel should look like this:

Any step that involves a dialog box will have a little triangle next to it. Click the triangle to the left of "Image Size", "Canvas Size", Set Layer Styles..." or "Save" and it will expand to show all the details of what was done in that step. (You can also collapse/expand the entire Action by clicking the triangle next to "Web size with drop shadow".)

Now download and open the file at
www.robertstech.com/fotoshop/stinson-beach.php

Target your new "Web size with drop shadow" Action (so it's highlighted in the Actions Panel) and click the *Play* icon. All the steps in your Action will be executed on the new image.

Many long, complex tasks that you need to perform regularly can be turned into Actions that you can perform with a single click for a potentially huge savings in time and effort.

Editing Actions

Any step in an Action that involves a dialog box can be edited after it's recorded. As we've seen, these are indicated by a white triangle to their left.

You have to have an image open to edit an Action, but any image will do. Double-click on the step in the Action you want to change and the appropriate dialog will open. Set the parameters you want, click OK and the new values will be saved. *At this point the step you specified will be performed on the open image* – just use Undo to change it back and close the image without saving.
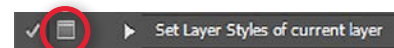
REAL WORLD PROBLEMS
Actions and Pixel Dimensions

A potential speed bump when using Actions is that some of them won't work equally well on images of all sizes. A drop shadow with the *Distance* setting at 5 pixels may work perfectly for a 300 x 400 web image but it will be virtually invisible on 4000 x 6000 image being used for print.

Any change that involves settings that are in *pixels* (rather than percentage or an arbitrary scale – 1-10, for example) will look different in proportion to image size. It is likely to be exaggerated or insignificant with images much larger or smaller than the one with which the Action was recorded.

Someday Photoshop may have the option of using a percentage (of image diagonal or long edge) instead of a number of pixels in Filters and Layer Styles, etc. but as things stand now you just have to be careful in using these kinds of processes in Actions.

You can also make a particular dialog open every time you run an Action, to customize it each time you use it. This can be useful for Actions involving pixel values that have to be changed for images of different sized (see "Real World Problems" above). Near the left edge of the Actions Panel, next to the check mark column, is a column of grayed-out boxes. Click the box next to the step you want to adjust. Now that dialog will appear with each running of the Action.

Skipping Steps in Actions

What about those check marks at the left edge of the Actions Panel? Click any one of those off and that step will be skipped when you run the Action. (This might cause trouble if later steps are dependent on changes made by the deactivated step, so do this with care.) You can create duplicate steps with variations on the same process and deactivate all but one any time you use this Action.

Limitations

Actions have definite limitations and you need to be aware of them before moving on to more advanced automation. You can't, for example, record the changes in image *view* (on-screen magnification) or any printing settings. Normally you can't record Tool use (like using the Paint Brush or Healing Brush) – but you *can* do this if you switch on "Allow Tool Recording" in the Action Panel's Panel Menu. This is made optional because manual Tool use is so image-specific it's unlikely you'll ever need exactly the same brush strokes, etc. on more than one image.

Saving Your Actions

After working with Photoshop for long enough you'll probably create your own set or sets of Actions. Though you can't save individual Actions you can save sets (folders) of Actions. Target your folder/set in the Actions Panel, go the Panel Menu and choose "Save Actions…". Your set of Actions will be saved with an ".atn" file extension. By copying this file to other computers you can have all your own custom Actions available anywhere. You can even get Actions from other people and find downloadable sets of Actions on the web.

Batch Processing

It goes without saying that Actions can save you a lot of time. Imagine having to perform the "Web size with drop shadow" Action we just created – or a much more complex process – on a dozen images manually, as opposed to a one-click step. But what if you had, rather than a dozen images, a hundred? How about four hundred? That would have you longing for a way to do *all* of them in an automated fashion, wouldn't it? That's exactly what Batch Processing does.

Batch Processing work best if you plan ahead and organize where the images will be coming from and going to before you begin. Usually it's best to place all images to be processed in one directory (folder) on your hard drive. And make result of your Action or Batch go to another.

Try Running a Batch Process

Create a new directory (folder) on your hard drive and name it "Before". Place the two original images you downloaded for this chapter into it.

Create another new folder beside the first; name it "After".

From the main menu choose **File > Automate > Batch** to open the Batch Processing dialog box shown at right.

At the top of the dialog is a section labeled *Play*. This is where you choose the Action set and the specific Action you want to carry out. Choose the "Web size with drop shadow" Action you just created ("Recording an Action", page 238).

Next down is the *Source* section. The drop-down list lets you choose what *kind* of source you're going to use, "Folder" and "Opened Files" being the most common. *Opened Files* will apply your chosen Action to any image files you currently have open in Photoshop, but no others. *Folder* will let you carry out your Action on all files within a specific folder on your hard drive. In our example we'll use "Folder"; click the "Choose" button below it and in the dialog that opens next locate the "Before" folder where you put your images.

Now let's look at the options in the *Source* section:

Override Action "Open" Commands
The Batch Process itself will open all the files in the folder you've specified, so if the Action you've chosen *includes* a "File Open" command it's unnecessary and you can override it. The Action we created has no "File Open" command in it, so leave this box unchecked.

Include All Subfolders
If you have folders within folders in your Source directory, checking this box will include all the files within them. That doesn't apply in our case so leave this box unchecked.

Suppress File Open Options Dialogs
This prevents dialog boxes that appear with options during the opening of image files – usually digital camera Raw files. Not applicable to our JPEGs so leave this box unchecked.
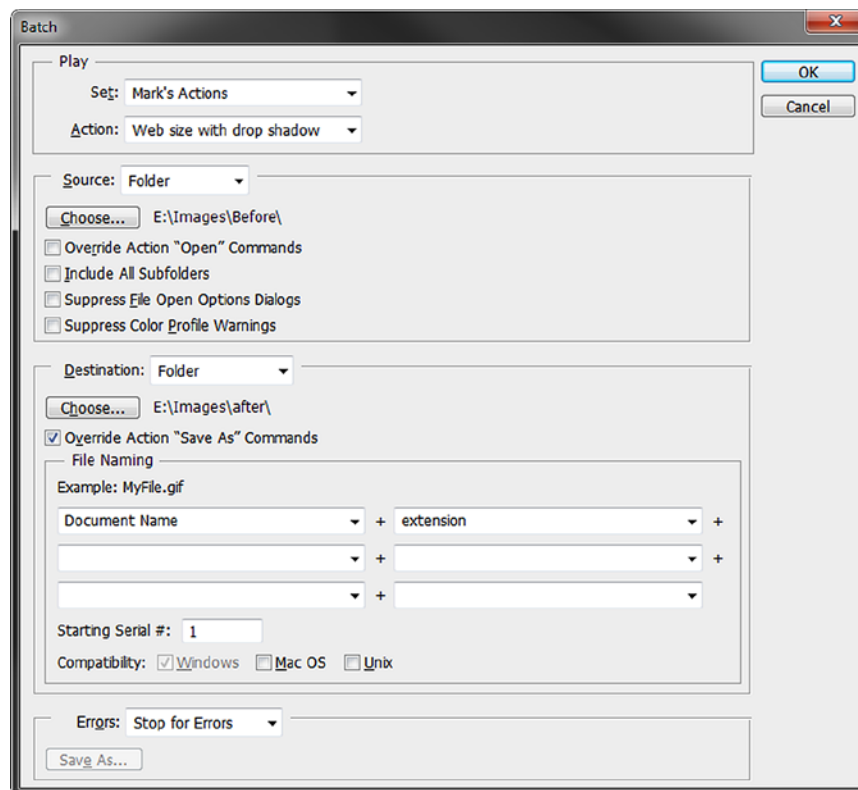
Suppress Color Profile Warnings
This makes Photoshop ignore any warnings about mis-matched or missing ICC Profiles in the images being processed. Check this box only if you realy don't want the Batch Process to be interrupted and if you're sure Color Management issues either aren't present or don't matter. We'll leave this box unchecked.

Now we'll set up the *Destination* section.

First, you have to decide where to place each file after the Action is performed on it. The *Destination* drop-down list gives you three choices: *None*, *Save and Close* and *Folder*. *None* will leave the file open in Photoshop and unsaved, unless your Action contains Save and Close steps. *Save and Close* simply saves the file in its current location and closes it after the Action (modifying your existing file rather than making a modified copy). The *Folder* option lets you specify a new location where a modified copy of your file will go – this lets you keep the original image in its original form.

Since you created a new Folder called "After" specifically for this Batch, you should choose *Folder* from the drop-down list.

Next, click the "Choose" button, navigate to the "After" folder you created and click OK. The Batch will now save all your completed files there (while it leaves the unaltered originals in the "Before" folder).

Batch Process Dialog Box

Now you'll recall we included a "Save As JPEG" step as part of our Action, but it saved the image in a different folder (we hadn't created the "New" folder yet). So we need to override that step. Check the **Override Action "Save As" Commands** box. This will make the Batch Process ignore the Save As command in the save in the "After" folder you have specified.

> **Warning:** If the Action you're automating *doesn't have* a *Save As* step but you check the **Override Action "Save As" Commands** box anyway… the Batch will run – but it won't save *any* files *anywhere*, even if you *have* specified a folder destination! You do get a warning dialog to alert you but it's not very clearly worded. This can be a dangerous bug!

There is a section below the override box where you can re-name your files as the Batch Process runs. This can be useful if you want to assign specific file names to associate all the images for one job or one client with each other. You can get quite sophisticated with your file naming if you like, but it can get pretty complex if you do. If you want to re-name your images I suggest you stick with the default options in the drop-down lists. Play with the available options as much as you like but remember to make "extension" the last one!

The "Compatibility" check boxes are there so you can decide if you want to insure that your new file names are compatible with Mac, Windows or Unix operating systems. It defaults to the operating system of the computer you're currently running Photoshop in; checking other boxes makes the file names compatible with other operating systems as well (Unix is used on many many web servers so may be helpful for web images). These options are especially useful if your file names include punctuation marks or special characters.
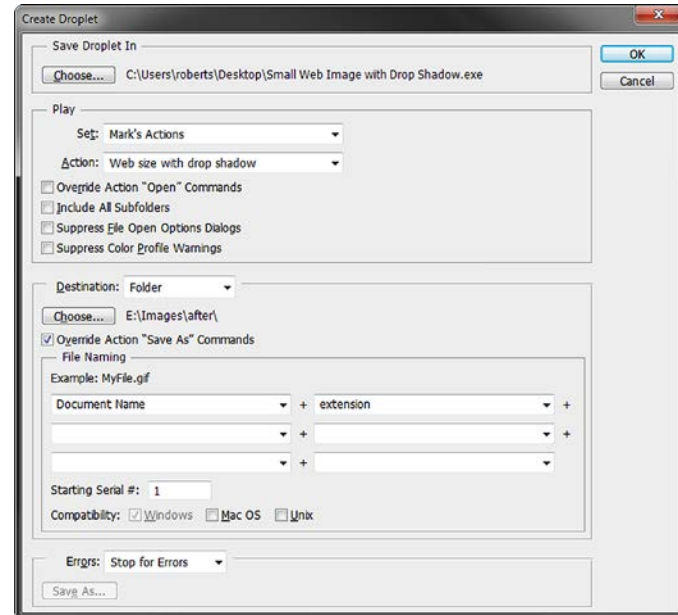
The *Errors* section is for advanced users. If something goes wrong in your batch you usually want it to stop; that's the default and I suggest you keep it. You *can* make the Batch continue (or try to continue) through any errors and leave a text file listing the errors when it's finished. In general you should leave it at its default setting of "Stop for Errors".

Now, with all these settings as shown in the illustration, click OK and the Batch Process will run. With most comput-ers these days it should only take a few seconds to process both images. You'll end up with two new small web images with drop shadows in the "After" folder and the two orignial images, unaltered, in the "Before" folder. You could easily run this Batch Process on a Folder containing hundreds of images with the same amount of effort. With more complex actions the time savings are even greater (in fact, you can create one Action that performs several *other* Actions and Batch Process *that* – the possibilities are endless).

Droplets

Droplets are little executable files that perform Actions. You can save them anywhere on your computer and use them by *dragging and dropping* image files onto them. The Droplet opens Photoshop and performs the Action programmed into it. If there's a particular Batch Process you do frequently it may be worth turning it onto a Droplet.

Choose *File > Automate > Create Droplet…* from the main menu to get the dialog box shown here. It's very similar to the Batch Process dialog except that it has no *Source* section – because a Droplet only works on files you drag and drop onto it – and it has a *Save Droplet In* section at the top for you choose where you're going to save the Droplet file.
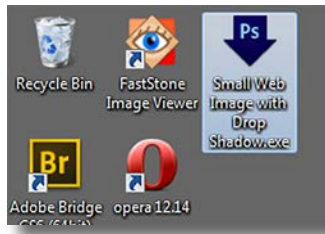

Where you save your Droplet is up to you. Click the *Choose* button at the top and pick a location (I've chosen the Desktop for this example) and a name for your Droplet. Use a name that's descriptive of the Action the Droplet performs (you can even use the same name you gave the Action).

In the *Play* section choose the same "Web size with drop shadow" Action we used in the Batch example.

Everything else works just like the Batch Process dialog.

When you click OK the Droplet file is created in the location you specified. Here's what the icon on my desktop looks like:

To use the Droplet just drag any image file onto the icon.

Automation Tips

- **Any procedures that you find yourself performing over and over are candidates for Actions and/or Batches.**

- **Group your Actions in folders (sets) with similar kinds of usage (web Actions, for example).**

- **Avoid making Actions unnecessarily complex; several short Actions can be run individually or made to run sequentially within another Action.**

- **Be aware of Color Profile mismatches and other glitches that may pop up in long Batch Processes; there's nothing more frustrating than going to lunch while a Batch of 500 images runs and coming back to find it stopped on the third one because it was waiting for you to click OK in a dialog box you didn't expect!**

- **Test your Batch Process with two or three files before running it on a really big batch (see above).**

Chapter 30 Synopsis

Automation

- Automation allows you to simplify and speed up repetitive tasks, saving you time and increasing productivity.

- ACTIONS – let you save complex processes and apply them to an image in one step.

- BATCH PROCESSES – Let you apply Actions to many images in one step.

- DROPLETS – Let you save commonly-used Batch Processes and use them by drag-and-drop.

Actions

- An Action is what other software applications call a "macro" – a saved script that records complex, multi-step tasks and allows you to perform them with a single click.

- Actons are recorded, organized and run through the Actions Panel.

- You can temporarily disable specific steps in an Action if necessary.

- Any steps in an Action that involve setting values in a dialog box can be edited after the Action has been recorded.

- You can include saving and closing a file in an Action.

- Some Photoshop tasks, like printing or changing view magnification, cannot be recorded in an Action.

- You can save sets (folders) of Actions as .atn files which can then be copied to other computers; there are downloadable .atn Action sets available on the web.

Batch Processes

- A Batch can be run on a directory (Folder) of images or on image files that are currently open in Photoshop.

- A Batch Process can either leave images open after the Action is performed or save the images to s designated location.

- Image Open and Save steps in an Action can be overridden in a Batch Process if you necessary.

Droplets

- Droplets are executable files that perform specific Actions.

- Creating a Droplet is very similar to creating a Batch Process

- When complete, a Droplet is an executable file that you save on your computer; to use it, you drag and drop image files onto it.

Keyboard Shortcuts from this Chapter:

Open the Actions Panel:
Alt + F9 (Win) or Option+ F9 (Mac)