

# ACTIONS!

## Photoshop

# CS5



An interactive eBook with over 700 original iNovaFX automated transformations for your 6 to 24 megapixel images in Photoshop CS5.

**iPad Compatible**  
**Includes Actions Software for**  
**Still Photos and Movie Clips**

By Peter iNova



iNova, Peter, 1944–

ACTIONS! Photoshop CS5

By Peter iNova

Includes media with Photoshop Actions for image improvement, correction and transformation within Adobe Photoshop CS5 for both Macintosh and Windows computer platforms.

Contributing Photographers

Peter iNova, Phil Hatten, Natasha Rhodes

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*Note: Much of the material in this eBook was released in a computer-only eBook called "Lights... Digital Camera... ACTIONS!" in 2007, back when Photoshop had grown to CS3. Since then, Photoshop has evolved two more generations and the Actions included with this volume have been tested, improved, certified and/or re-written with Photoshop CS5. Extensive revision of the current volume make it suitable for both computer viewing and reading on the Apple iPad.*

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HDSLR: The Billion Things You Need...

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DSLR: Canon Digital Rebel XT

DSLR: Canon 20D

DSLR: Nikon D70

DSLR: Nikon D200

DSLR: Nikon D80

DSLR: Nikon D40 / D40x

DSLR: Nikon D300

HDSLR: Nikon D90

# FOREWORD/FORWARD

*If your practice of photography does not involve amplifying your images—quick: close this volume and step away from the computer with your hands in the air—nobody will get hurt.*

## WHY THIS eBook?

Now that the eBook Revolution is in full swing, it is interesting for us to finally have a more public medium for our eBooks. We have specialized in interactive eBooks for digital photography since the year 2000 and this is our 19th publication in approximately this form.

Yet, this volume is somewhat experimental. With the release of Apple's iPad, a new era of eBooks is upon us. iPad users can play PDF files within Apple's iBooks app.

Previous PDF eBooks allowed embedded movies and photos that could change with a mouse move plus audio files one could click and play on computers only. The PDF reader on your iPad offers a different sort of interaction, but it is fast, intuitive and easy to control.

Our *Lights, Digital Camera, ACTIONS!* eBook appeared in 2008. Photoshop then was only up to version CS3. Today, Photoshop is up to CS5. Its Actions capability has reached new levels of maturity and functionality. As a Beta Tester, I worked with the Adobe team, championing some of the functions that made it into the final CS5 version. **All of the Photoshop Actions in this eBook have been written, re-written or tested with Photoshop CS5.**

Actions are recorded sequences of Photoshop steps. If I showed you an interesting process with more than about

five sequential steps, a month from now you would no longer be sure you remembered them exactly, but an Action would remember them for you, precisely.

Some iNovaFX Photoshop Actions are literally hundreds of steps long—far beyond what is reasonable to memorize, so Actions are a way of orchestrating complex new “features.”

With CS5, the rate of Action replay has been accelerated. For both Mac and Windows platforms, Photoshop CS5 can operate in a speedy 64-bit mode. See your Photoshop docs for instructions in setting this up.

## SOFTWARE INCLUDED

Our Action software comes *with* this volume, and that's the collection of Photoshop CS5 Actions that you must install into your copy of Photoshop so you can achieve the things you see in this document. Most will work with CS4 and earlier versions of Photoshop as well.

Photoshop Actions in this eBook are all original. All begin with a lower-case “i.”

Some execute quickly; others take several minutes, depending on the functions and number of steps they employ. A few will stop midstream, waiting for

you to provide personal input.

Often you won't know *precisely* what an Action will generate until you've tried it several times, or with several different images. After a while, the Actions begin to feel like large, complex Photoshop tools, each delivering a larger, more complex result than you get from Photoshop's usual tools, filters and functions alone.

Most Actions deliver a labeled Snapshot into the History Panel. If you don't have the History Panel visible, you can light it up through the **Windows > History** command that appears in the Header Bar.

In this eBook, the Actions are designed to work with just about any image from 6MP (about 3000 x 2000 pixels) to 24MP (6000 x 4000), and many will work seamlessly with shots as small as 4MP and larger than 50MP.

Sometimes the image will be scaled to a standard larger size before the heavy work begins. That might result in a file much bigger than the original, so you may wish to scale images back to near-original size before saving the result. A few Actions may reduce the original image to a smaller size before processing, but only if the original is



extraordinarily large. We have tried to hit a balance between final pixel dimensions and prudent processing times.

There is no real limit to the number of steps that can be applied to an image, so some of our Actions dump the memorized steps that fill up the History Panel on the fly during processing.

You can limit the number of steps that Photoshop tries to keep track of by opening **Preferences > Performance > History & Cache > History States > #** and filling in any number. To keep memory lively, put in a lower number of History States. Try 10. To be able to retrace your steps more deeply, you might try 100.

You won't find the Actions inside the eBook. They are software files in a folder called CS5Actions. There you will see over 101 folders, each of which holds between 1 and 30 different Actions.

Loading Actions is easy. You may load them by dropping an Action's icon onto the Photoshop program icon or alias. Or use the Actions Panel's own attached **Load Actions** menu function.

Bon Aperture,  
Peter iNova, November, 2010

# GETTING THE MOST FROM THIS EBOOK

*You're in the Twilight Zone of written publications. The signpost up ahead says eBook, but the definition of that is not resolved. Here's our map.*

This eBook is a ginormous PDF file, and reads directly within Adobe Reader on your computer or through the iBooks reader on your iPad. It's big because the images are extraordinarily high resolution. (A smaller, lower-resolution *ActionsCS5-Fast* file moves quicker on the iPad.)

PDF means Portable Document Format, and Adobe invented it in the 1990s as a cross-platform standard allowing text and images to play on a computer screen with color, interaction, instant jumping around and instant linking to the Internet.

Most PDF files that you download from the Internet are relatively small, with low-quality images and limited resolution. Say goodbye to all that. This volume lets you expand images up to full screen to study the picture closer than any printed book.

iPad viewing allows extreme enlargement. Just double tap on an image to have it zoom up to as big as it can get without cropping. This CS5-based revision concentrates on making iPad viewing straightforward and easy to negotiate.

Since the subject here involves Adobe Photoshop CS5 (often written as *PS CS5*), the eBook is just a mouse click away from the subject matter when viewed on your computer. And for reading on your iPad, it goes anywhere; from the loo to Timbuktu.

We encourage you to read about an Action, then wonder if it is useful to your type of photography for a while, then experiment with it several times before using it for something important.

You will need Adobe Reader 9 or greater to experience this eBook on your computer. Your iPad will need a PDF reader, too. Apple's own iBook app loads any PDF files through iTunes. In iTunes, an attached iPad shows its contents under a dedicated *Books* header where you can view all PDF volumes by icon or by name.

Variations on Adobe Reader for PC's are free for Windows, Mac and Linux operating systems, but Photoshop is only available for Windows and Macintosh computers, so you are likely in one of those two platforms.

The eBook files and Actions are compatible with all forms of Macintosh OS X and Windows that can accommodate Photoshop CS5. Many Actions will work with older versions such as CS4 and CS3.

## THUMBNAIL BROWSING

The thumbnails running down the left side of the Adobe Reader page on a computer work well as a quick finder. Adobe Reader 9 tabs this feature under the title *Pages* while some prior versions call it *Thumbnails*. Viewing on iPads doesn't show these thumbnails, rather they've become a scroll line along the bottom of the page.

Thumbnails give you a chance to scan the eBook pages fairly quickly and spot any page that looks familiar. Click on any page for an instant jump to it at the current viewing magnification. You can enlarge, shrink or eliminate thumbnails to conserve screen space.

A *Bookmarks* tab at the left of the Reader page image is a sort of miniature table of contents. Click on any of its listed items and jumping to that page will be instantaneous.

Note that Reader behaves much like an Internet browser and arrows in the header will navigate forward and backward through a string of your most recent interactive jumps.

## PRINTING OUT

You can print out ranges of pages from your computer in black and white, with a laser printer, or in color, with an ink-jet printer, any time you wish for reference.

Hint: to print a range of pages, highlight the first page, shift-click the last and use Reader's *Print Range* feature.

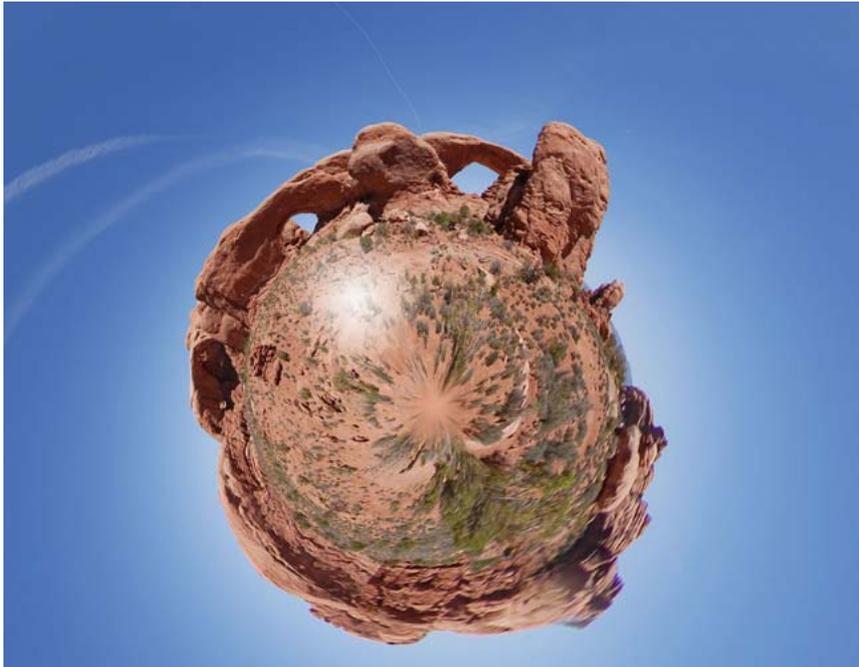
## INTERNET UPDATES

It is inevitable. Data in a timely document like this may give way to new information, become obsolete, or acquire new meanings as technology progresses.

After reading through this eBook you may wish to visit our special site holding updated information, links, special offers, new techniques, bonus Actions and the latest information, along with any errata and corrections.

<http://www.digitalsecrets.net/ActionsCS5/>





Click on any line here to jump to that chapter or page.

Use the Bookmarks tab and/or Pages tab on the upper left side of the display to navigate.

Click on **any words this color** for links, hyperlinks and instant Internet connections.

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# THREE HINTS FOR THE NEW PHOTOGRAPHY

*Aw, you missed it!*

*Liquids, dryers, the smell of exotic chemicals, the finger discoloration, nay, the shirt stains that no dry cleaner could erase. Ah, the golden days of photography where discovering that you got the exposure all wrong was merely an hour into the future or a day too late...*

Today's DSLR cameras can move you from being a newcomer to being a photographic artist. The great photographers from the past would have exchanged body parts for today's gear if you could send it back in a time machine.

Ansel Adams lived long enough to experience the first rays at the dawn of electronic photography, and he knew that cameras like these would be in our future. He smiled in envy of you. So, welcome to the expanding world of images as seen by a computer with a lens attached.

At its heart, a digital camera is all about counting. They count the number of photons from the real world and give back numerical images from the computer world. Between those two extremes, you get to intervene and decide what's Good, Bad or Ugly.

**HINT #1:** Throw away the Ugly, improve the Bad and learn from the Good.

All the historical principles of photography are still there—except the ones about wet darkroom stains. We still need to pay attention to shutter speeds, sensitivity to light, color balance, aperture settings, framing the image, composing the picture and understanding how those all work. But like magic, as soon as you shoot a picture, you get to review it at a decent size. If it displeases you, erase it. Put down the image and step away from the shot.

**HINT #2:** Reviewing via the monitor is your first line of defense from the Bad and Ugly.

By arming yourself with a wide range of digital possibilities, you can think of that review image as a starting place for things you can accomplish later. Where film photographers from the past were required to take their images through the darkroom, you have your laptop or desktop computer in which you can store,

manipulate, correct and improve your images in a near infinite number of ways.

Think of this as a *dimroom*—just enough light control to let you see the computer screen. It's the place that differentiates the snap-shooter from the photojournalist, the portrait photographer and the photographic artist. People who take photography seriously revisit their images the way Adams did—always thinking of ways to make the original moment into compelling memory.

**HINT #3:** Much of photography is about the subject, but most of it is about the photographer. Your role—Eye of the Beholder—is involved at every level, so here are hundreds of extra ways of beholding.



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(2 Actions + 2 Crop utilities)

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Total at press time . . . . . 101 Folders  
. . . . . 704 Actions

Notes:  
Minor Actions are not counted.  
\* iCrAb Actions for chromatic aberration are counted as 8 *ideas*, not the 32 individual Actions . . . 26  
Bonus Actions and undocumented fun are included.

<http://www.digitalsecrets.net/ActionsCS5/>

<b>What's on the DVD</b>
<b>The eBook file</b> (you're reading it.)
<b>The ActionsCS5 folder</b>
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Vista
<b>Adobe Reader for Mac OS X</b>
Snow Leopard, Lion
<b>Extras Folder</b>
Panoramic tutorial images
Demonstration/test images
iBannerImage folder
iBannerImage1.psd

<b>Top Action Build Shortcuts</b>
<b>Win / Mac</b>
Dismiss an Action alert window:
<b>Return</b> or <b>Enter</b>
Default Foreground/Background colors
<b>D</b> key
Change Foreground/Background colors:
<b>X</b> key
Close an open image <i>without</i> saving:
<b>Ctrl+W / Command + W... + D</b>
Save the current file:
<b>Ctrl+S / Command + S</b>
Save for Web & Devices:
<b>Shift + Alt + Ctrl + S /</b>
<b>Shift + Option + Command + S</b>

**Adobe Reader keystroke navigation shortcuts**

**Click away from page objects** in the right margin to fully activate the page's response to key stroke instructions.

**Zoom in / out** of page:  
**Ctrl** (Win) or **Cmd** (Mac) **+/-** Plus or minus keys.  
Reader remembers the order in which you have browsed pages.

Back or forward to the previously *viewed* page:  
**Ctrl / Cmd + Left** or **Right Arrow** key.

Up / down in page order:  
**Up** or **Down Arrow** keys.  
-or- **Left** or **Right Arrow** keys.  
**Page Up** or **Page Down** keys

NB: Adobe Reader works somewhat like a web browser page, in that it can step backwards through pages in the order you viewed them.  
Small arrow buttons in the header bar work this way.  
Arrow keyboard keys alone step to and fro through pages in page order, not viewing order.  
Reader's larger left/right arrow icons work this way.

**iPad Viewing and navigation tips (iBook app)**

**Pinch in / out** of page:  
iPad viewing lets you zoom in and out of images or text with expanding two finger gestures (zoom in) or pinch gestures (zooming out). You may also double tap on any image to zoom it larger or smaller.

**Tap navigation** on open pages:  
Single-tap in the middle of an open page to bring up the navigation header and footer. The footer lets you move a page selector horizontally.

**View.** In the header, next to the Library return button, a List View button lets you view pages as small, but very detailed reductions. Swipe up or down to navigate to nearby pages. Tap a reduced page to bring it up to full size.

**i** The only negative feature of iPad viewing that we've experienced is its occasional slow rendering of large blow-ups. Nearly all images will zoom to maximum screen size when tapped.

## INFOBITES

In the land of information, the bite is king. It cuts to the chase and calls a spade a shovel.

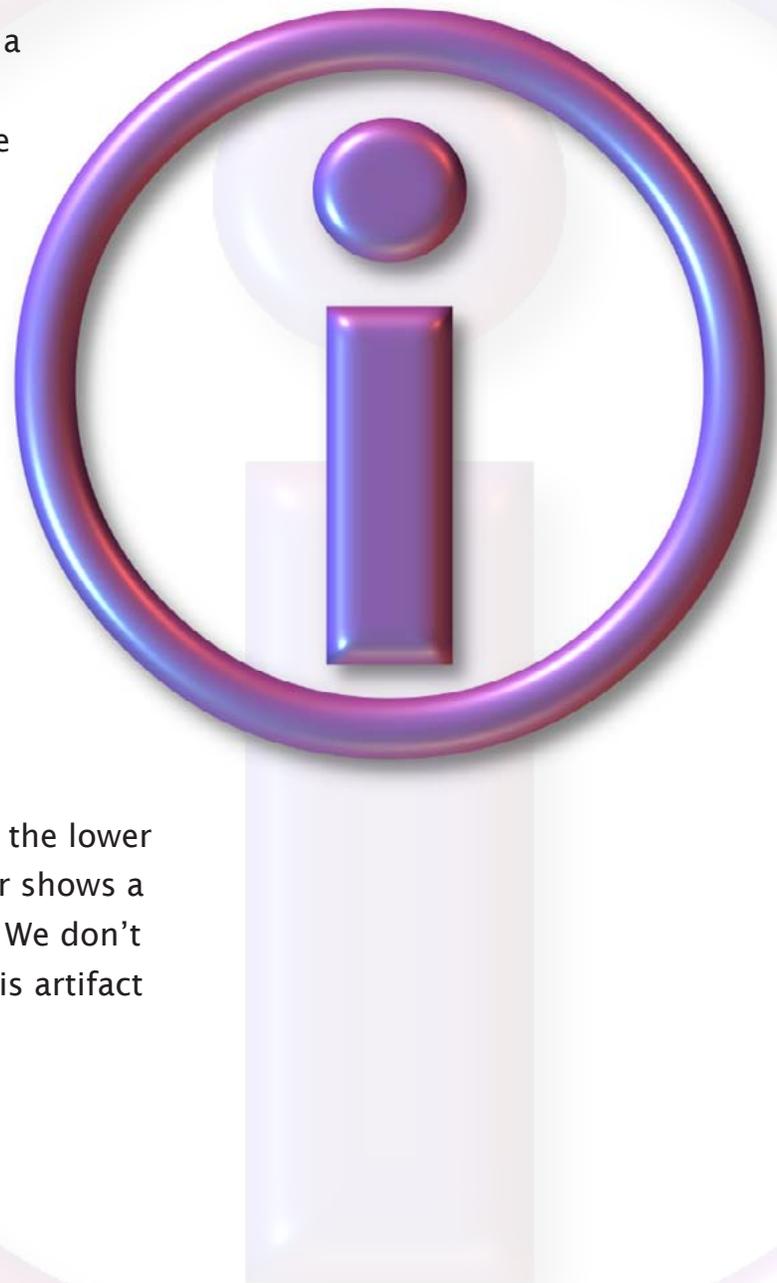
Throughout this eBook you will see paragraphs that are marked with the InfoBite symbol, ⓘ. Always purple / always pithy, infobite paragraphs tell you of things that you really should know, if even just for a few moments.

Often InfoBites are the why behind the wherefore, or explain the what behind the huh.

In most cases, they are the secrets that are better off being whispered into your ear by The Great Voice of Reason, the clues that keep you from being clueless and the icing on the cupcake of tasty data.

ⓘ You don't have to memorize the InfoBites, but they might just contain a tidbit that will trigger a memory during some future photo shoot or editing session. Here's one now:

ⓘ In some computer plus Adobe Reader combinations, if you click in the lower left corner of a page that contains an interactive image, Adobe Reader shows a transparent blue box the size of the page's largest interactive image. We don't know why. Fortunately that's its only confounding feature. So far. (This artifact has never shown up on the iPad.)



## Chapter 0

# Actions / Reactions

Before you begin...



*You don't just open Photoshop and think you've done your job—the magic is in how you work it. There are a HUGE number of hand tools at your fingertips, and each will achieve wonders. All you have to do is use each tool in exactly the right way at exactly the right time in an involved process. Often by rote. Sound easy? Maybe not. Pretty soon you'll start wishing for power tools.*

*A*ssuming you know the basics,

how to open, re-name and save image files, how to apply a Photoshop filter, make a selection and add text over an image—you are ready for Actions.

An Action is a string of steps in Photoshop. A recipe. A macro. A program. A fixed cluster of *do this, do that* commands all neatly formatted so you can run it anytime on an open image. Patiently, the string of instructions will wrestle the myriad functions of Photoshop into achieving some repeatable process, manipulation or effect. The seagull above wasn't shot with a cross star filter, but the prospect of adding it later was in my mind as I clicked the shot. The Actions in this eBook are already written. You merely load them into your Photoshop CS5, then click on them to run their instructions automatically.

The image above started as the image at left. No cross star filter there, but in the final shot an Action has supplied the twinkle rays that add the missing fantasy.



No Photoshop book is going to spend the time and effort to guide you through a process with 20, or let alone 100, distinct steps. Nor should it. Once you get past about six or eight discrete sequential manipulations, a foo-factor sets in: *The Primate Limit*. Assuming you also are an advanced monkey-brain as I am, our casual limit for remembering a new set of sequential steps in any operation is around three. Hence, “simple as 1, 2, 3!”

*It’s not for nothing they didn’t say “simple as 1, 2, 3, 4, 5, 6, 7, 8, 9!”*

Humans don’t often have the ability to quickly absorb even five steps dropped on them out of the blue. But that’s what Photoshop steps in a process can feel like. Steps are often not intuitive, and much of the time, some may seem trivial, but when the final result can be seen, oops, every step was important.

So how do we get correct results? Do all the steps in precisely the right sequence. But, unless you had the list of exact instructions at your elbow, you could forget about accurately remembering all those steps. You primate, you.

As complexity rises, our ability to deal with it while making a subtle or drastic mistake grows nearly exponentially. A 20-step process stops being obvious, interesting or even fun. But for a computer, it’s a piece of cake, a snap, no biggie.

Our minds may—read: *definitely will*—wander. We may substitute a 4 for a 6 in a critical numeric entry. We may leave out a step. Suddenly five or 10 minutes worth of mind-numbing effort ends in a visual train wreck. Oh, the humanity!

And how do we recover from errors like this? Photoshop’s History Panel gives us a list of recent operations we have made, so there is a quick way of tracing backwards by clicking on earlier steps. But will we actually recognize that the 11th step in a 20-step process was the one that went haywire?

Fortunately, the Actions Panel in Photoshop CS5 is one of its greatest tools, because it lets us memorize scores—hundreds, even—of exact Photoshop steps to produce a desired visual result again and again.

### Quick, Memorize this list of activities:

- *Blink three times*
- *Wet your lips*
- *Flare your nostrils*
- *Crook your finger*
- *Lift your gaze*
- *Purse your lips*
- *Wink your left eye only*
- *Say the word, “Sprocket”*
- *Smile slightly*
- *Look to the left*
- *Wink your right eye*
- *Clap your hands twice*
- *Sniff*
- *Slap your forehead once*
- *Clear your throat*
- *Look to the right*
- *Fake a hiccup*
- *Mutter, “Ooo!”*
- *Touch your nose with your still-crooked finger*
- *Spin around.*

Each easy to do, but virtually impossible to remember by someone who isn’t a performance artist. And this is only 20 easy body gestures. What if you had to make a sophisticated marionette accomplish all these steps? You’d probably get strung out.



*Invent a story caption for each image. I'll get you started. For the hydrant: "There's one in every crowd."*



## SEEING AND STORYTELLING

A photograph can be a story in a form analogous to speech. Every photographer is free to invent a new way of speaking through images.

Photographs start with light, composition, framing, subject matter, gesture, life and color. Good photos are somewhat like a sentence. Subject, verb and modifiers are all represented. The verb idea is what your subject is doing. The modifiers are the elements like juxtaposition, perspective, color, environment, motion and tonality that enter into the communication. At the fundamental level, a photographic sentence might be, *The Flower Exists*, and that may be fine for evidence photography, but you usually wish to say more.

*The Flower Glows with Life*, or *The Flower is Covered With Dew*, suggest an amplification of the image and tells a more interesting story by including mood and/or environmental conditions.

When you get into the idea of mentally captioning your images as you take them, you will have transcended the obvious. As your photographic prowess expands, you will feel moments of storytelling coming together as you view, frame, compose and capture.

Knowing that you have a range of options to *complete* your image later produces a mental feedback that expands your possibilities as you shoot.

## THINKING IN ACTIONS

Included with this eBook are the over 700 iNovaFX Actions. Each expands the vocabulary of your photographic/storytelling options.

- **Errors.** Things like native barrel distortion, chromatic aberration and shots made at the wrong white balance can largely be eliminated from images with a key click. *"The shot looks correct."*

- **Limitations.** Aerial photos can have atmospheric haze removed. Low contrast images can be delicately improved by applying a localized contrast effect, which doesn't alter exposure or brightness—just *snap*. Slightly miss-focused shots can be sharpness-enhanced. Higher ISO sensitivities than those available in the camera may be implemented. Grain and color noise can sometimes be reduced in special ways that preserve detail. *“In spite of unusual conditions, the shot looks like what my eyes saw.”*

- **Filters.** Grad filters, cross star filters, color tint filters, color filtration for B&W exposures, infrared, polarizing filters and controllable diffusion filters may not need to be physically present on your lens to get the effect you wish. These software filters produce camera filter effects without the glass, reflections, flare or fingerprints. *“We added some magic to the lens.”*

- **Conversions.** Photographers have always sought to turn certain images into artwork, hand-crafted illustration and bold graphic results. Now digital techniques deliver on that promise in depth. Photos processed through certain Actions become oil paintings, watercolors, striking designs and delicate line drawings. *“And you thought this was a simple photograph!”*

- **Amplification.** Some images may feel ordinary at first, but with the right Action they can become—*more*. Bigger in their impact on your mind, stronger in their inherent story or more connected to your viewer's attention span.

Since the eye of the beholder is in *your* head, you get to shape them so they reach their full potential. For some, these Actions are going to make all the difference. *“Wholly cow!”*



*Almost all images can be altered and improved. Some can be transformed into completely different representations of the original subject. The shot at left has been changed from a color scene into a pseudo-infrared monochrome image.*



**The Generic Action:**

- **RECORD MODE ON.**

**First:** You do this.

**Then:** You do that.

**Now:** You do the other thing.

**Plus:** Take a snapshot of what you did.

**And:** Change something major.

**Next:** Take another snap—what the heck, you might need it.

**Also:** Add a little bit here and there.

**After that:** Fudge it like so.

**Furthermore:** Tweak this and that.

**Then:** Take a final snapshot.

- **RECORD MODE OFF.**

**ACTION ANATOMY**

Actions\* frequently duplicate layers, adding and combining operations into an orchestrated result. In most cases, the results are simplified into just a few layers or a new single layer image.

Some Actions change the whole image, producing a completely new image. Repairs to *barrel distortion* (iBC-series), for instance, pull the image back into straight-line linearity by tugging and pushing all of its pixels around until pinches and bulges are corrected.

Some cause tonality changes to global or local areas. When white balance or color correction is wrong (iCC-series), every pixel will be altered, but geometry, sharpness and exposure will remain the same.

Others retain the original image but add to it in various ways. Glass filter effects such as diffusion, halos, grads, cross star effects and vignettes usually keep the original untouched but superimpose layers over it to change the look of the shot.

Several series add frame effects to a picture. While the image is not changed, its presentation environment is. Now it becomes a sheet of film, a stamp or one of many diverse images on a single page.

Still others sharpen contours, reduce noise in areas of color and shading, alter tonalities or re-render the image into graphic interpretations.

You will have passed another milestone when you shoot your images knowing that a particular Action will likely *complete* the shot.

**(NOTE: View this page in Adobe Reader if the list art has acquired a negative look in your browser.)**

\* “Actions” in this eBook, when capitalized, stand for the Photoshop Actions as opposed to simple physical actions or activities, such as waving your hand, thumbing your nose or clicking your mouse.

## PHOTOGRAPHY AS AN EFFECT

Photography of all kinds is its own sort of special effect. In your eye, it's natural, but in a camera, it's a huge assembly of esoteric technologies, scientific breakthroughs and oddball techniques that cause it to happen at all.

Digital photography is such a desirable capability, and so pervasive, that nobody thinks of it as special any more. But out of Einstein's initial understanding of the photoelectric effect, Galileo's appreciation of optical craftsmanship, Smith and Boyle (Bell Labs, 1969) realization that image chips were possible, Bayer's design of color separations from repeating patterns of color tiles—each of these being a wonder unto itself—digital photography has evolved into a mega wonder so commonplace that we rightfully take it for granted.



*Is it a watercolor or elaborate pen and marker illustration? Of course it is neither. Two are from a series of interpretations. The image above this text is the original.*



*The world's first snapshot; amplified. The snap, in this case, took eight hours in full daylight. © 1827 by Joseph Nicéphore Niépce. All rights reserved.*

*The above image isn't Niépce's. It has been processed with the iNovaFX iHalcyonWarm Action to make it look gratuitously "old." © 2010 by Peter iNova. All rights once again reserved.*

*Niépce's original is the smaller one at right.*



## AMPLIFY YOUR IMAGES

Most of your images will be straightforward representations of things the way they look to your eye. Snapshots of life's events, pictures that remember who was where and when. Records of what stuff looked like under certain circumstances. These are photographic staples.

But some of your shots will beg to become more than what your eye saw.

Artists play with images in ways they feel may add to their appeal. Communication is their art. Trying things in a variety of ways is common among painters, graphic artists, musicians, performers and achievers in every field. So it is with digital photography.

By applying various treatments, interpretations, alterations and adjustments to an image, you can add to its appeal, power and narrative.

Even the very first image ever captured and preserved for long term viewing is not immune from further treatment, amplifying its presence for illustrative value.

## TESTING 1 2 3

In some production processes, testing one's results for quality or effectiveness is a major part of the job. Actions provide a convenient way of testing images for expanded possibilities—because they are so effort-free. Actions that either preserve layers or save snapshots of intermediate steps may provide a basis for further manipulation. You might be only partly finished with a picture after applying just one Action.

## COMBINING 1 2 3

When a single image is tested several ways with various iNovaFX Actions, the History Panel will load up with snapshots of variations and alternative treatments.

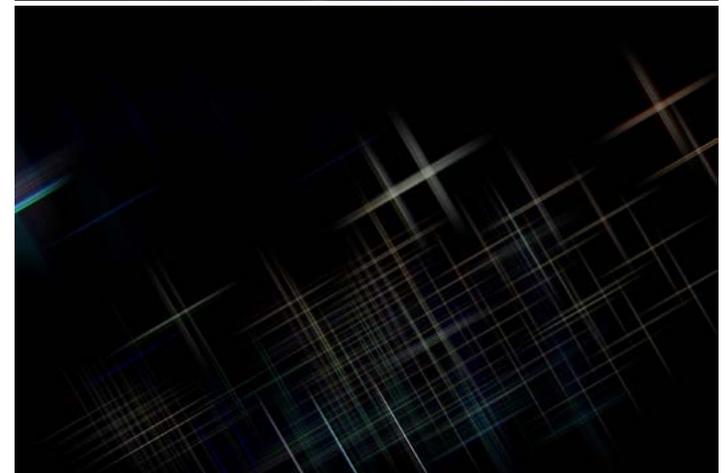
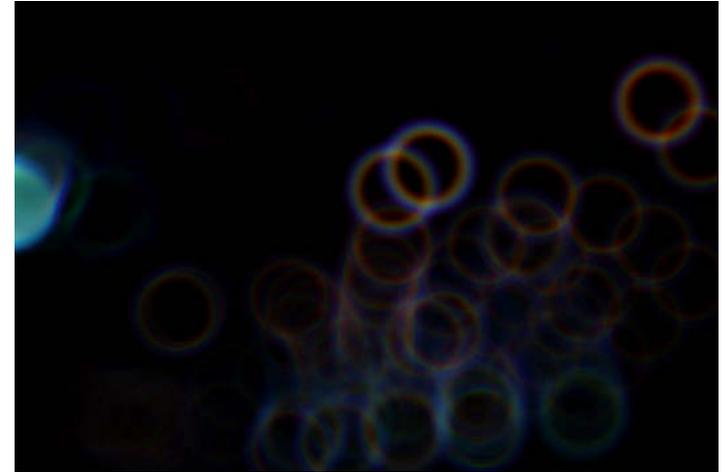
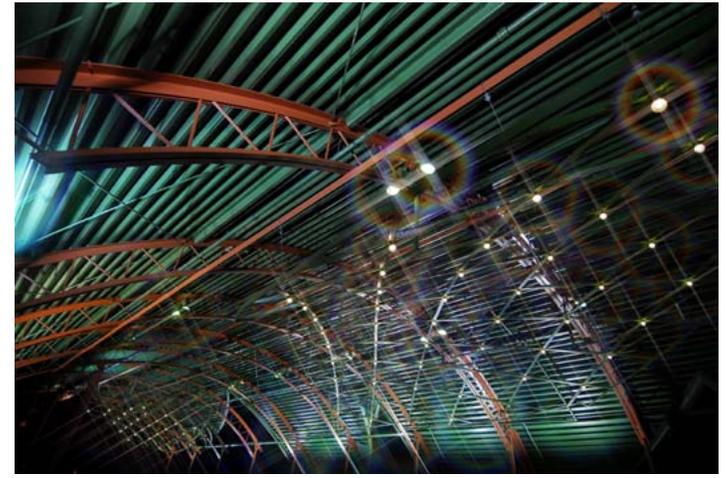
Snapshots that appear with layers usually will allow copying a layer to the computer clipboard from one version, selecting a different variation, then pasting the copied layer onto it to produce new, combined results.

For example, the **iHalo** Action effect layer at middle right was deemed not quite enough. An added **iCrosstar** Action created a different effect layer result seen at the bottom.

Are you thinking what I'm thinking? You could run both—halo, then cross star—then add both effects to the same shot by moving effect layers around. Since they're layers, you have control over how they look.

*Snapshots with several layers often retain a filtered effect as a separate layer (middle, bottom) riding above the original image. Be aware that you may have to flatten the image before saving it as a composite. If you run a different Action on the same original image, you may be able to add the effect layers together to achieve a result like the top image.*

*Here's a secret: Any light on a black background can be added over an image using the "Screen" blending mode. Screen behaves exactly like a double exposure.*





Museums are notorious for preventing tripod use. But some kinds of shots would be better if a tripod were employed. This series of images were gathered in Continuous mode, but hand-held minus a tripod. Photoshop's Load Files into Stack and Auto-Align Layers features make setting up this stack into quick work. Now it's a sort of time-lapse still image. Actions made this sort of assembly easy. The equal participation of all six images and its automatic registration were achieved with the Action called *iFrameAvg-6Shot* seen on page 223-224.

## IN-REGISTER FX

It's easy to select an Action's effect layer, copy it and paste it on top of a different Snapshot, thus combining *both* effects.

❶ Usually, the effect layer is combined with the original image using a Blending Mode (Multiply, Darken, Screen, Overlay, etc.), which is displayed in a box in the upper left corner of the Actions Panel.

❷ Alas, selecting and copying a layer doesn't copy its *Blending Mode*, so when you paste it in a different image, you will have to change its Blending Mode to the desired state.

❸ Screen Blending Mode produces the *exact same effect* you would see from a double exposure.

Think: two slide projections onto the same screen, one projecting the picture, the other projecting

the effect. For effects like **iCrosstar** and **iHaloCS5**, Screen is the usual Blending Mode you will use, since those effects are made of light.

❹ With PS CS5, you can shoot images that are close to being in-register and have Photoshop line them up for you later. Look for iNovaFX Actions called **iStackCS5**, **iReRegister** and **iBlend[# of layers]** in the **iRegister** folder. (The hand-held image here used **iBlend6** and is made from six images shot at the Getty Museum in Los Angeles.)

❺ The CS5 Action, **iStackCS5** asks you to identify the shots as either ones currently Open, or all that are in a specific folder. If you check the *Attempt to Automatically Align Source Images* box, it will perform what **iReRegister** does, as well.

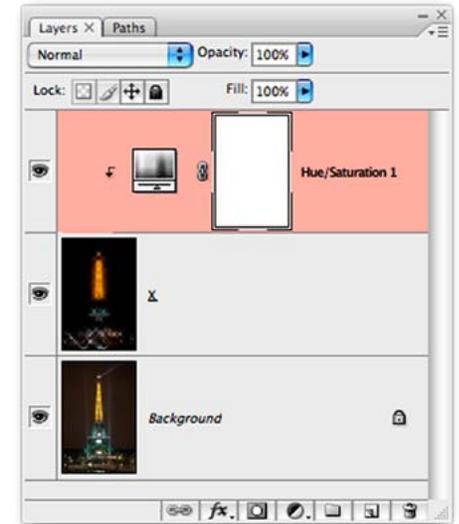
## LAYER EFFECTS

Many iNovaFX Actions take advantage of Adjustment Layers, which alter only the content layer immediately below them. Look for the tell-tale Adjustment Layer graphics and a bent, downward turning arrow to the left of icons and matte windows.

The chief advantage to leaving a snapshot in this state is that further adjustment of layers is instantly available, later. It's easy to flatten all layers into a composite, single layer image, then save it under a new name, but as long as an Adjustment Layer remains active, its current condition can be regarded as a recommendation rather than as a final decision. The existence of an Adjustment Layer means that editing to this point has been nondestructive (not yet resolved).

In Photoshop CS5, Adjustment Layers can be live instances of Curves, Hue/Saturation, Levels, Solid Color, Gradient, Pattern, Color Balance, Brightness/Contrast, Exposure, Photo Filter (color), Selective Color, Channel Mixer, Vibrance, Gradient Map, Black & White, Invert, Threshold or Posterize. Previous Photoshop versions offer fewer options.

❶ If you do move a layer to a different snapshot, then select any other snapshot, the move will be lost. After adding anything to a snapshot, immediately make a *new snapshot* to preserve both the move and your ability to backup a step.



Here's a cross star effect overlaying the original image. Above the effect layer is an Adjustment Layer for Hue/Saturation. It is connected only to the layer, X, below it and does not affect the Background layer. The inset shows what the natural color of the cross star effect looks like with the Adjustment Layer turned off.

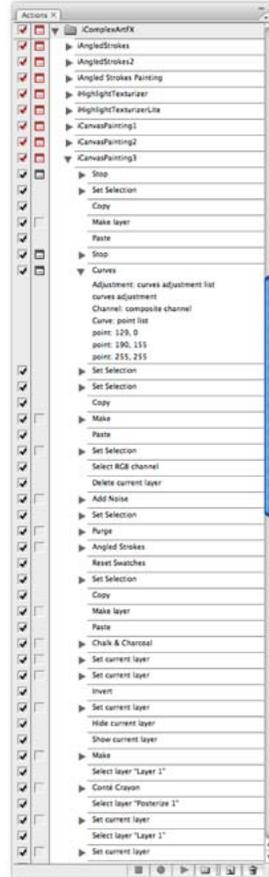
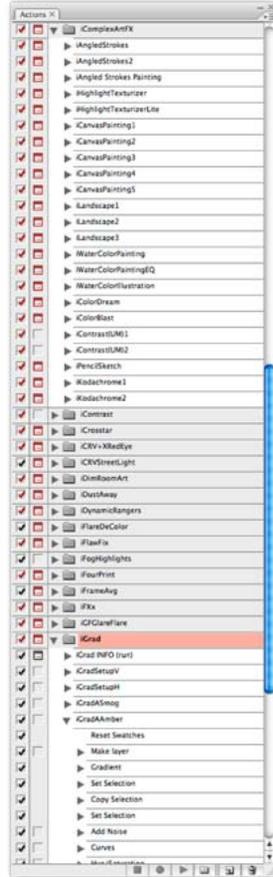
If you make an Adjustment Layer but forget to tie it exclusively to the next layer down, there's a quick fix: Highlight the Adjustment Layer and press Control + Alt + G (Windows) or Command + Option + G (Mac).



Top, Button Mode with the *iBaby1V* (one of several variations) identified, but when it is stopped mid-stream (bottom) the button becomes bright red. In use, a second click resumes carrying out operations until it pauses, stops again or finishes.

At right, List View showing that both the *iComplexArt* folder and the *iGrad* folder are open, and the individual Action, *iGradAmber*, is open, showing its list of instructions. At far right, the *iCanvasPainting3* has been opened—one of the *iComplexArtFX*-series—showing everything farther below. Note that the seventh instruction, **Curves** is also open with a down-pointing arrow, showing its internal settings.

No wonder Button Mode seems so simple and List View seems so complex. But most of the time, List View is collapsed to a list of Action names, making it more accessible.



## ACTION BEHAVIORS

Two basic modes exist within Photoshop to select and implement Actions. They're called *List View* and *Button Mode*.

Button Mode creates a window full of individual Actions by name, each in its own rectangular box that can be pressed (with a mouse click) like a button.

If an Action includes an instruction that stops all continuing operation—perhaps to accommodate input or manipulations you make manually—the button becomes fierce red, indicating that it should not be ignored. Re-clicking the bright red button continues from where it left off.

Neither mode is perfect. Button Mode feels overly simple, and List View can seem like too many details to absorb at a glance. List View allows you to edit and create Actions, so it's worth studying.

When using List View, any stop in the stream—even just for a cautionary note—will open the usually collapsed list. Now you see all its instructions in a vertical column as in the top example here. The cautionary note can be a reminder, a heads-up concerning something that is about to require action from you or a note telling you of some special condition that now is in play.

## STOP

Sometimes you will come to a full STOP, and *Continue* will not be an option. This can occur for a variety of reasons. The Action may have stopped so you can perform some activity that can only be done by hand, such as a painting or retouching operation.

Some Photoshop activities can't be fully controlled by an Action and you must do something manually. We've tried to spot these and warn you about them in alert windows. Reducing an image so 100% of its pixels are seen is needed when a basic *Paste* command is issued. *Paste* attempts to drop a clipboard element smaller than a full frame into the dead center of the *existing view*. If that view is offset—as is often the case when it extends beyond the current frame—the pasted image won't be perfectly centered and this might mess things up. In some few Actions, the incoming *Pasted* image MUST be centered. Where that's needed, a *Stop* command plus an alert window will clue you into what's needed.

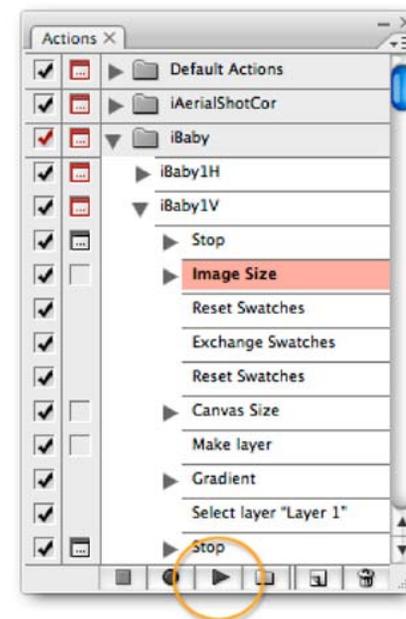
❶ You can shrink an open image window to fit on your computer screen with a handy keyboard shortcut. For Windows, hold down the Control key and tap the minus (-) key. Each tap shrinks the image by about 33%. For Macintosh computers, the same idea uses the Command key with the minus key. Enlarging the image employs the plus key (+) in the same way.

❶ For all other keyboard shortcuts, we will write out the Key(s) that must be pressed, followed by a plus sign, followed by the character key that activates the operation. Microsoft OS / Mac OS commands will be written in that order. Oddly, the unique command to enlarge the image window would look like this: **Control ++ / Command ++**, which is slightly confusing.

This one makes more sense: **Shift + F**, which steps through a loop of three different display formats, but you must press it three times to get back to your original floating image window.

## RESTARTING

To move forward from a stopped place, close the alert window (when **Continue** is an option), automatically rejoining the next steps. Or if you have Stopped to do some more complex operation, click on the right facing *Play* arrow at the bottom of the Action Panel. It will continue with the next instruction, continuing until finished or another Stop is encountered.



With the Actions Panel in List View, the right-facing arrow in the bottom border is the RUN command.



## HOW AN ACTION WORKS

As an Action unfolds, it's a sequence of steps in a unified process. You could perform these actions manually. While that is simple in principle, in many cases it is unreasonable to ask mere mortal human to apply even 10 discrete steps of manipulation to an image to produce a single, seemingly minor adjustment to it.

❶ **Bear with us.** We'll show you what's going on under the hood of an Action, then get to the juicy, automatic Actions in a few pages. If you just can't wait, you can jump ahead by clicking on [this link](#).

Here's an example. **The Goal** here is to adjust a photographic image that has a noticeable degree of chromatic aberration, caused by a particular setting of zoom and focus. Photographers often refer to chromatic aberration by the acronym *CA*. Photoshop CS5 has a built-in feature that simplifies elimination of chromatic aberration, but bear with us before you decide it's all you'll ever need.

Lens designers try to avoid artifacts like this, but they are faced with multiple goals of radial sharpness, tangential sharpness, zoom magnification, barrel and pincushion distortion, dimensional linearity, flatness of field, evenness of light distribution and CA. If they fail, the image may bulge, have astigmatism, be soft in its corners, vignette its light distribution or show small color fringes, especially in the extreme corners of the image.

CA appears when light of particular color is either focused behind or in front of the image plane while other colors arrive in a more coordinated manner. Alternatively, light of a particular narrow spectrum can form an image that is in focus but is a tiny percent larger or smaller than other colors. This last version is the most common, so let's fix it with a series of manual tweaks.



*Image corners reveal classic chromatic aberrations. The phenomenon (enlarged crop) appears as a color fringe around contrasty detail. Changing the size of an individual red, green or blue color channel can improve the view. The CA seen here is a combination of Red/Cyan and Magenta/Green, producing a Red/Green result. Digital images are sharpest in their Green channel, so it's prudent to only alter the scale of the Red and/or Blue channels.*

**Theory of adjustment.** We know that the green layer of an RGB image accounts for most of its perceived sharpness, so we use that layer as the standard to which other color layers will be compared. We see that a Red/Cyan fringe is showing up in the corners of our shot, so we will first size-adjust the Red channel of our shot, aligning it more in-register with the Green and Blue channels.

1. First we select only the Red channel. (Windows: **Control + 1** / Mac: **Command + 1**) Now we see a black and white image of the Red channel by itself. If Photoshop's *Preferences > Interface* has been instructed to Show Channels in Color, then the image is a red and black image. Intuitive, but more difficult to see in detail.

**Operational caveat.** Re sizing the individual channel can only happen if that channel can be scaled larger or smaller about its optical center. Its optical center is only intact in an original file that hasn't been cropped.

2. We select the whole Red channel image with a Select All command (**Control + A** / **Command + A**). Selection's marching ants surround the Red channel image at its farthest edges.

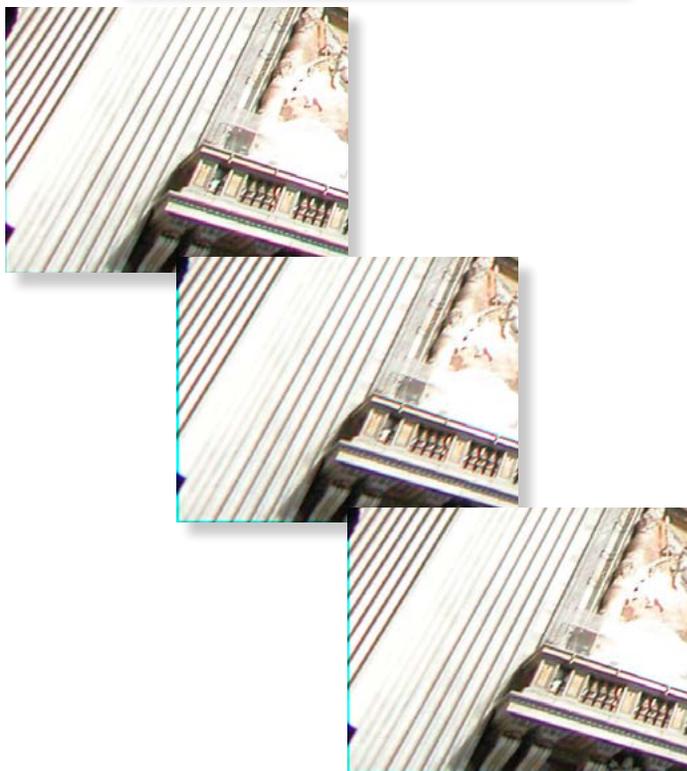
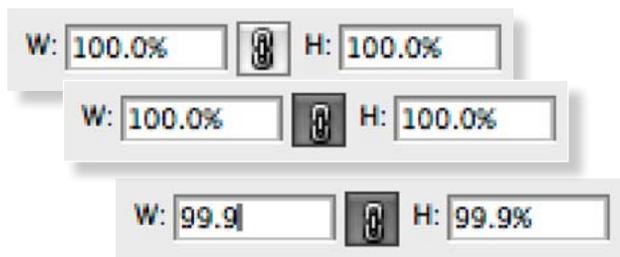
3. To scale the image, we will change its size with the Transform feature (**Control + T** / **Command + T**).

**Photoshop Tool Behavior requirement.** Selecting an image is one thing, but we must make sure that any change originates in its center. In the upper left corner of the Transform tool header is an icon called the *Reference Point Locator* that causes transformations to operate from any corner, from the middle of any side, or from the center of the image. If it isn't already selected, click the center box.



*The optical center of the full frame, above, is the same point from which chromatic aberration phenomena radiate (middle). When the image is cropped and leveled, the optical center (yellow) stays with the image's pixels, but any attempt to repair chromatic aberration will be tied to the center of the remaining cropped image (bottom). The moral to the story: Only repair chromatic aberrations with full, original frames.*





At 99.9% scale, the CA still shows (top). The middle image shows what we see at 99.7% scale. The fringe is now on the other side of details. At bottom, we see 99.8% scale. This is about as close to correct as we can produce numerically.



4. We want the scaling to be linked in both vertical and horizontal directions, so we look for the W and H (Width and Height) boxes. Between them is a link. Click the link. Now they are tied.

**Experience notation.** Photoshop's scaling via numeric entries is only 0.1% accurate. Image size adjustments don't change with two decimal places of precision.

5. We guess that the amount of needed change to the Red channel is about 99.9%, so we enter that amount in either of the W or H boxes and hit return. Our image twitches slightly. The Red channel has become 99.9% of its previous horizontal and vertical dimensions.

6. Dismiss the Transform tool (**Control + Return** / **Command + Return**), so we can view our result.

7. View the full color image by pressing the tilde (~) key, or use **Control + ~** / **Command + ~**. The slightly smaller Red channel has a cyan border a few pixels wide surrounding the image.

Whoops, it isn't quite perfect. Some residual CA still colors the shot.

8-15. Go back to the original image and try steps 1-7 it again, but this time, put in a value of 99.7% and see if you like it better.

Drat. Too much correction. Now the CA is inverted with colors on the opposite side of small details.

16-23. Go back to the beginning and try 99.8%.

That's much better (at least for our example image it was). But there is still just one more thing.

**Final tweak.** The Red channel has shrunk, leaving the Green and Blue channels at full size. A thin cyan border one or two pixels wide surrounds the color image.

**25.** Interestingly, the Red Channel is still selected, even when the RGB image is showing, so clicking on *Image > Crop* will trim to it exactly. The picture will have lost a few pixels in dimension, but nobody will ever notice that. What's far more important is that you will know you've done your best to lift your image above the limitations of DSLR technologies.

**26.** Save that picture with a new name to a convenient place in your photo library.

It was simple; it was easy. Somewhere between 10 and 26 steps later you will have improved any red fringing from chromatic aberration that showed up in the corners of your image.

**By now you will be wishing for some sort of power tool to do all this grunt-work for you. Until PS CS4 showed up, that's where Actions came in.**

Conceivably, you could record an Action that followed all nine image tweaking and cropping steps, thus saving yourself all that work for every shot made with this lens at this zoom setting.

We have gone one step farther. An Action set called **iCrAb**, which contains a bunch of individual Actions for reducing chromatic aberrations.

Near the top of the list is **iCrAbRedShrinkMaster**. It is to be used ONLY with an original image, not a crop, and it automatically performs every Red channel size reduction possible from 99.9% to 99.1% in 0.1% decrements, leaving each variation as an individual snapshot in the History Panel, so you can click on them and find the one that seems to do the job best with the current image.

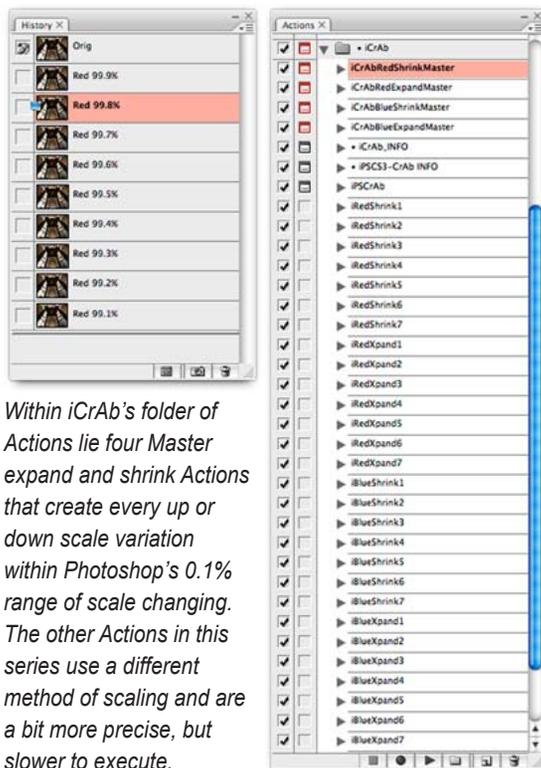
There are also **iCrAbRedExpandMaster**, **iCrAbBlueShrinkMaster** and **iCrAbBlueExpandMaster** Actions as well, each doing reductions or enlargements of individual color channels by 0.1% changes, leaving snapshots in their wakes.



*The final image with all its complex detail is far freer of chromatic aberration and this is very detectable in prints larger than 4 x 6. But the real story here is not how well you fixed the picture, it's all about how much work you went through by scaling individual color channels to get there.*

*The Actions set, iCrAb (Chromatic Aberration), may be used with Photoshop versions clear back to PS7.*

*Photoshop CS5 has Lens Correction settings that eliminate the need to use this manual process or the iCrAb Actions. Though tempting, these may not be as precise as you may wish.*



Within iCrAb's folder of Actions lie four Master expand and shrink Actions that create every up or down scale variation within Photoshop's 0.1% range of scale changing. The other Actions in this series use a different method of scaling and are a bit more precise, but slower to execute.

- ❗ You may need to alter Red *and* Blue to achieve a more perfect result. Often it is not technically possible to completely reduce CA to zero, but usually you can reduce it significantly.
- ❗ To move both Red and Blue, run Red first, since its effect is easier to spot. Select the Snapshot that seems to reduce its effect the best, then use that for your new starting place as you apply a Blue correction.

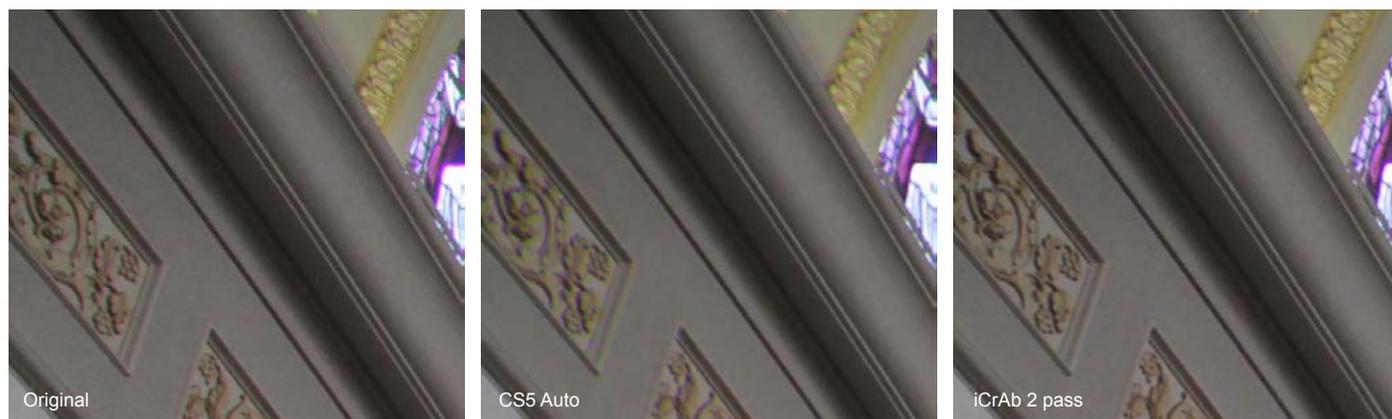
Other iCrAb Actions in the set (**iRedShrink1, 2, 3 ...7**, etc.) work through different principles, so you may wish to try them on problem images.

- ❗ All of the iCrAb Actions work with all sizes and orientations of image, but must be used on original camera files before other alterations or Actions modify the shot.

### HISTORICAL NOTE:

- ❗ This process of expanding or shrinking individual color channels was first embodied in the original iCrAb Photoshop Actions that appeared in the year 2000 and were distributed with our first digital photography eBook back then. Copies were purchased by people at Adobe, Nikon, Canon and other software producers. Around 2005, Adobe and others acted on the idea that size control of RGB channels held the key to chromatic aberration repair. Adobe's latest embodiment of CA repair appears in CS5's *Filter > Lens Correction > Chromatic Aberration* and neither the *Auto Correction* (which uses a numerical look-up database for each camera body/lens combination) or *Custom* (Manual) options appear to be as accurate and aberration-free as our own iCrAb series. For speed, use the CS5 version. For the greatest precision, use the iCrAb versions.

Original with CA / Photoshop CS5 auto correction repair (linked to lens database) / iCrAb two-pass version. This is the upper left corner of an 8-megapixel original. Fine details show that the PS CS5 automatic option didn't improve it much, but running the iCrAbRedShrinkMaster followed by the iCrAbBlueShrinkMaster (after selecting the Red 99.8% snapshot) produced the image on the right. iCrAb in CS5 runs extremely quickly and not only produces a superior result, but takes very little extra time.



## POP CA QUIZ:

Find an image in your collection that shows corner chromatic aberration somewhat like the **iCrAbVatican.jpg** image on this CD to practice the steps that reduce this aberration. That practice shot is in the folder called **Example Images**.

But before you do, close this eBook and no peeking. It's not hard. It's only a 10-step, easy-as-pie fix with each step logically leading to the next.

If you are like most people, you will gravitate to the power tool of an Action or other chromatic aberration reducing utility the next time you need to adjust an image this way.

And that goes for almost any image correction, enhancement or transformation that you will wish to apply frequently. In the coming pages you will learn how to make Actions, how to modify them and how to use the hundreds of iNovaFX Photoshop Actions as power tools for your digital darkroom.

❶ Photoshop CS2 - CS5 have a new feature not seen in previous versions. It's found under **Filter > Distort > Lens Correction** and provides some basic Barrel / Pincushion distortion, Chromatic Aberration, Vignette, Perspective transformation and tilt correction accompanied by a convenient grid overlay. Our thirty-second review of this feature is seven on a scale of ten. Its CA and Vignette corrections are well implemented and interactive, while its Barrel distortion and Perspective correction features are less accurate or less convenient than using other means within Photoshop to achieve the desired results. The best implementation of this feature appeared in PS CS4.

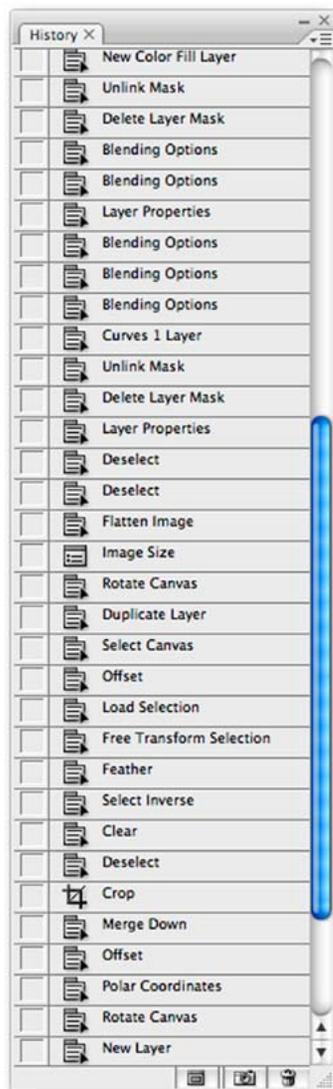
❷ Photoshop CS5 moved this function to a more directly accessible place right under the Filter menu item, added a *Green/Magenta Fringe* manual correction slider to The Red/Cyan and Yellow/Blue versions and changed the emphasis of the numerical readouts associated with each adjustment. We wanted this feature to be wonderful, but it doesn't improve much on the previous version and the Auto Correction option is not as precise as we had hoped.

# Pop Quiz

No Peeking  
 No Turning Pages  
 No Crib Notes  
 No Cheating  
 No Asking Your Neighbor  
 No Using the CA Actions

You must do all the steps from memory, applying the principles of CA reduction using Photoshop's tools alone.

Begin.



Clearly the problem with a small fix like this is that you might have to try a number of different values to find the one that best matches the problem. And each time you did the test, you would have to do all of the steps perfectly, or your results would be untrustworthy.

So our **iCrAb(color)(shrink/expand)Master** Photoshop Actions do the grunt work for you. They perform a series of color channel scale reductions and leaves a string of Snapshots in the History Panel for you to choose from. They work with any size image, horizontal or vertical. Click on any snapshot to see how much better it has adjusted any single color fringe, then run the other color of Shrink or Expand on your first result, then look for a snapshot that is even more refined. The green channel is not touched, nor should it be, since the green channel of an RGB image contains the most accurate record of detail (59%).

❗ By appropriately adjusting the Red and/or Blue channels, all variations of color fringing may be repaired. Magenta/Green fringes are due to both Red and Blue being together in their degree of offset. Yellow/Blue fringes result from Blue channel offset alone, and Red/Cyan fringes are the result of only the Red channel being offset.

## HISTORY PANEL VIEWING

It is common to have the History Panel open and accessible when using Photoshop. If it isn't open right now, you can make it visible by selecting **Window > History** in the header bar. Most iNovaFX Photoshop Actions generate a new Snapshot when they finish working, and it joins others at the top of the History Panel.

Sometimes it's simply called Snapshot 1, 2, 3... or it has been custom labeled with the Action's name and shorthand notes such as "xxxLayers" or "Blue 99.5%."

① The **iCrAbRedShrinkMaster** series creates Snapshot titles like this:

**Red 99.9%**

**Red 99.8%**

**Red 99.7%**

**Red 99.6%...**

It doesn't take much code-breaking effort to tell at a glance what the critical magnification factor is, what sort of operation has been performed, and which color channel was involved.

In some Actions we have renamed the original file before running an operation, for technical reasons. Often it becomes *Original* so subsequent steps can identify it.

① In the **iCrAb...Master** series, you end up with ten images in the History Panel. Your original, intact with its original name or file number, plus the nine incremental variations in 0.1% steps. You won't see many images with more than 0.5% chromatic aberrations, but the other, higher values are there for emergencies.

① When you zoom into a snapshot, then select a different snapshot, the zoomed-in scale and framing are retained, so you can inspect and compare enlarged areas sensibly.

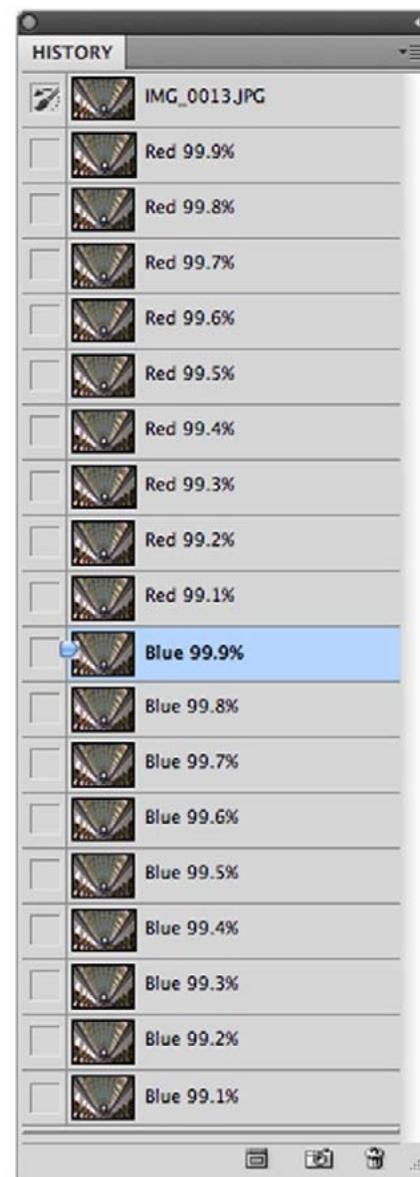
① You can step forward or backward through multiple snapshots with these keyboard shortcut strokes:

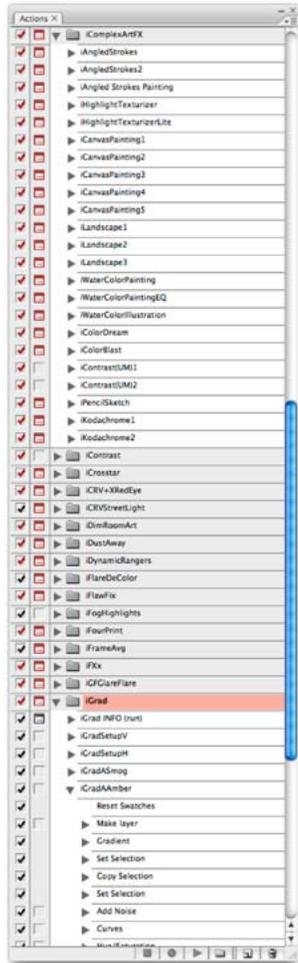
Windows forward: Control + Shift + Z

Windows backward: Control + Alt + Z

Macintosh forward: Command + Shift + Z

Macintosh backward: Command + Option + Z





Actions load into the Actions Panel, a window that you can show or hide within Photoshop. List view allows you to see them enclosed within folders. The side arrows twirl to reveal individual Actions. Twirling an Action's arrow reveals its internal steps.

## INSTALLING ACTIONS

Photoshop Actions load into the window called the Actions Panel, which can be made visible through the **Window > Actions** command in the Menu bar.

By default, this window will open on the right side of the screen and can be sized small or large to your taste. Grabbing its tab and dragging that to another Panel will make Actions one of several tabs in that group, only one of which can be seen fully at one time.

The current Photoshop is Photoshop CS5, in its twelfth generation, and many of its features are updated, enhanced and improved from CS4 and earlier versions.

A case in point is the **Edit > Automation > Photomerge** feature in CS5, which stitches overlapping panels of a panoramic image into a corrected single larger image. Prior versions of Photomerge were not nearly as precise.

**i** The shot here is a three-segment example that used the Photomerge Cylindrical option. A special iNovaFX Action in a folder called **iPanoCylinderEdge > iPMCylinderEdge3** (different Actions are numbered matching the number of panoramic elements) provides a bonus that Photoshop alone won't give you: The clean round edges seen here are very different from the rough, stepped edges Photomerge intrinsically produces.



What's with this panoramic image? It's an elaborate sculptural musical instrument installation at the Getty Museum in Los Angeles. The people are waiting for it to play. Sadly, the magic was that it issued notes and sound at all, not that it sounded good. But I digress. The smoothly curved edge of the stitched panoramic image is the result of **iPMCylinderEdge3** which works on panoramics you've assembled using the superior Photomerge feature of CS5 with three original images. Without the Action, the edges would be stepped, not smooth.

## ACTION REACTIONS

Every Photoshop Action causes its own reaction. For some, like the correction of a mistake, aberration or flaw, the viewer never knows a correction has been applied. Had no fix been made, perhaps a negative reaction would have occurred.

For others, like the conversion of a photograph into a watercolor painting, the reaction from viewers can be strong and positive. Much of the impact of an image depends on how well its visual treatment mates with its subject matter and technical attributes.

One rule dominates: Select the Action to produce the viewer reaction you wish to bring forth.

① Sometimes you will have to predict how an Action may complete the image as you shoot. For instance, the **iPolarizeSky** Actions work best with strong blue skies since they trigger most cleanly off of clear blue pixels.

## CORRECTIVE ACTIONS

Flaws from optics, camera settings and pilot errors made while shooting are sometimes correctable. Truly awful color balance isn't always fixable, but often it can be steered into a decent looking version of reality. Most lens distortions can be tweaked into a non-distorted state by manipulating image geometry selectively.

Sometimes nature hands you a photographic problem with excessive haze or natural atmospheric phenomena. Aerial views look washed out, but can be largely repaired with the right Action.



*A real photographer would never make the mistake of shooting outdoors with the camera set to incandescent white balance. But if I ever do, there's always the iCCDaylight/IncanWB Action.*



*Action intervention. No polarizer was used to deepen the clear blue sky, above, and the sky behind the rider was bleached to maximum white.*



## OPTICAL FILTER ACTIONS

Optical filters require you to decide to use them before taking the picture. They embody the *Law Of The Haircut*. Un-cutting is impossible. Many iNovaFX Actions let you make these sorts of decisions on your computer where you have much more control.

Gradation filters, cross star effects, selective focus, refined exposure, diffusion filters, halo effect filters, polarizing filters and color filters for black and white photography previously were decisions you could never make later when things were quieter and more contemplative.

## GRAD FILTER ACTIONS

Cinematographers frequently use grad filters to control the extreme contrast between sky and foreground subjects. Imaging systems like digital cameras often can't catch the scene the way our eyes do. Not so surprising, considering that our eyes—once brightness adapted to the local lighting—operate over a tonal range of about 30,000:1. Film, video and digital photography are usually working with less than a 2,000:1 ratio between blackest black and bleached-out highlight white. RAW images provide a superior tonality range for interpretation in the digital dark-room, but they're something you must plan for. For JPEG images, you may have to resort to a grad filter to supply some missing sky dynamics.

Usually grad filters are clear on one half and dark or colored on the other half, blending gradually (grad; get it?) from one state to the other.

## FRAMING ACTIONS

Border treatments can complete an image by adding a graphic treatment to expand the context of the image. While numerous border treatment programs exist to provide this function, we have concentrated our efforts in making borders that look like the native frames caused by certain film photographic processes. Roll film, sheet film and 35mm frames are here.

Additionally, stamp borders with a graphic perforation allow you to make images that appear to be stamps enlarged dramatically.

## MULTIPLE IMAGES ON A PAGE

With more than one image per page, collections of images that complete a theme, sequence or story can be tied together. Actions to assemble these in groups of four and 16 are included.



*Assembling images is an advanced form of storytelling. Placing an image in the context of a film frame suggests to viewers that the image is free of manipulation. Like a novel advertised as "Based on a true story."*



*Photoshop's own "Filters" can often seem difficult to wrestle. Our variations use them to deliver more interesting results quickly.*

## VISUAL EFFECTS ACTIONS

The digital darkroom offers more control and a greater range of basic image alteration and manipulation opportunities than anything previous. Skies can be completely replaced, lighting apparently altered, and Photoshop's own plug-in special effects filters can be used in alternate ways to achieve a wide range of new image treatments.

## PHOTOSHOP FX ACTIONS

Photoshop has "Filters" that produce dedicated effects, most with special controls with names including

- Stroke Width
- Paper Brightness
- Edge Simplicity
- Brush Size
- Glow Brightness
- Stroke Detail
- Definition
- Scaling
- Edge Thickness
- Relief
- Direction Balance
- Spray Radius
- Fiber Length
- Cell Size
- Grout Width

...and many more.

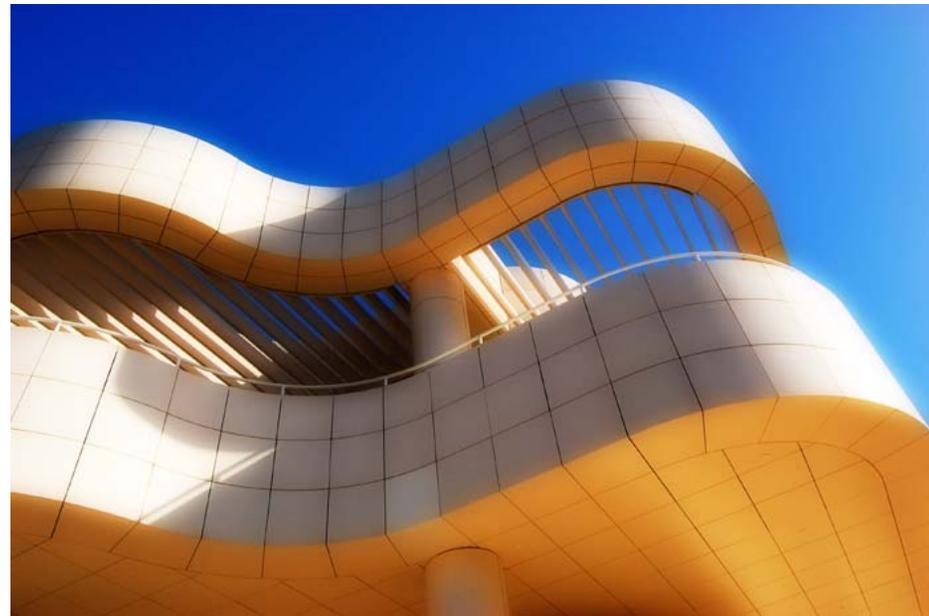
Memorizing the implications of all of these will take you months.

Some of our iPS-series of Actions provide alternative starting places for photographic image manipulations using these effect tools. Others add some steps to get a better result from the primary Photoshop Filter, and still others combine several PS Filters into a logical variation.

## PRINT PREPARATION ACTIONS

Wet darkrooms had special chemicals and handling procedures that produced numerous printing options. These Actions emulate and expand on those techniques.

You can create printer-ready duotones, tints, sepia effects, aging effects, contrast enhancements and color tweaks that are more effective in printing than in viewing on the computer screen or Web.



*We recommend that you shoot in color, even if monochrome will become the final result. Above, a distressed Sepia aged print effect, at right an Action has brought out an inner glow. Below, one image as if seen through B&W filters in green, blue, red, orange and yellow.*

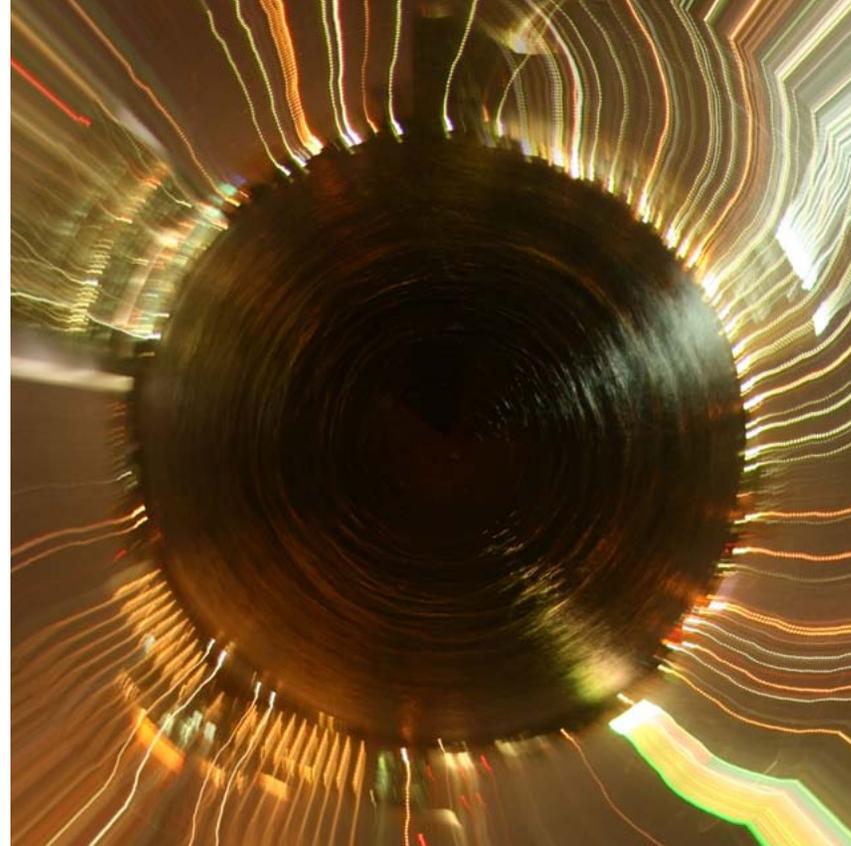
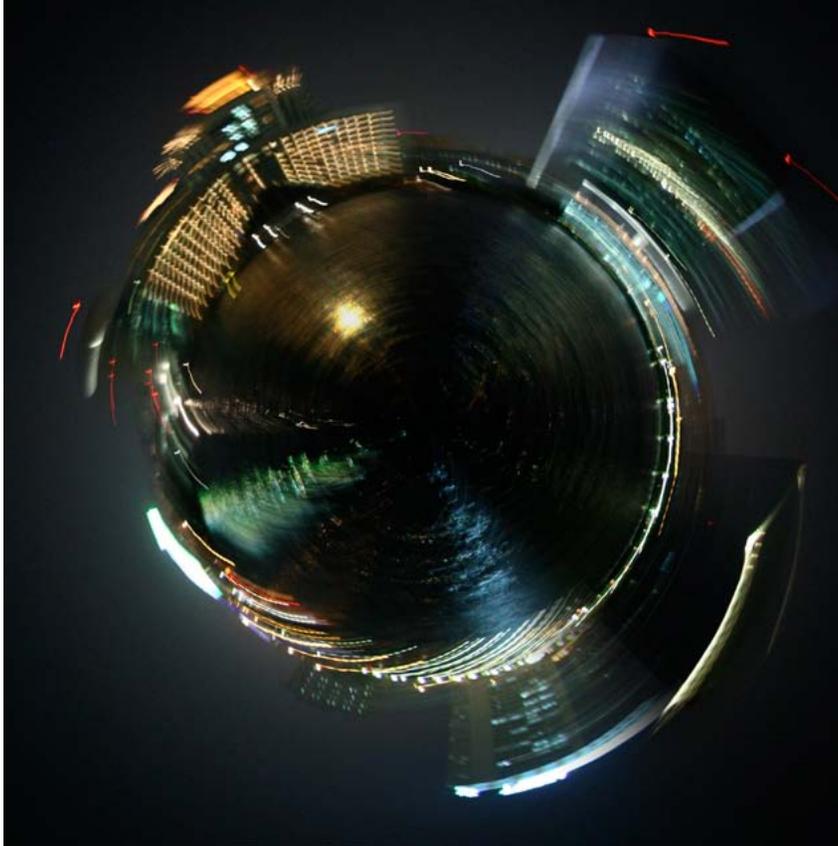




## GRAPHIC PHOTO FANTASIES

The eye's the limit. Anything you can visualize adding to an image can be achieved, if you have enough time and money. Or the complete set of iNovaFX Photoshop Actions.

*There is no rule that states you can only apply one idea to an image. Within iNovaFX Actions several ideas are usually at work. Sometimes you will wish to add some of the ideas as you shoot, and some of them later in the digital darkroom. At left, a panoramic was shot in three segments and later turned into a stylized graphic with iSumi-E. Below, two shots made within moments of each other have been turned into wild graphics with iBubble Actions. Intentional camera motion produced the streaks.*



## ACTION PACKING

Actions are a box. They produce the same result over and over. But that doesn't mean you aren't free to think outside the Action.

Tweaks you make to the image—before or after an Action runs—can drastically change the result. Sometimes the lens only makes the initial sketch. You have to add the rest of the picture by hand, by computer, and by experience.

Running an Action is not the end of the process. It can be—as with the top image—just one step in a tangled path. Here, a fisheye image wasn't a full frame circle, so a circular mask was artificially introduced to force the idea. Extra black margin was added to serve as a matte frame.

Areas of extra sky and foreground sidewalk were retouched to extend the original image into the full circle. The **iLiner3A** Action provided the unexpected cartoon-graphic interpretation of the manipulated, cropped, retouched, bordered fisheye point of view.

The bottom image was easier. It used the same Action, but was shot with a full-circle fisheye adapter<sup>1</sup> over the lens.



<sup>1</sup> Nikon (not Nikkor) FC-E9 mounted on several step-down rings onto a zoom lens. This optic is currently very hard to find. Originally it sold for about \$250 US.

# Chapter 1

## Action Creation

Making simple and complex Actions yourself



Most people might not notice the flaw in this image, but the architect would. The straight lines of the building, at the edges of the shot, are not really straight. Straight yellow lines superimposed over selected straight features reveal the geometric flaws. Especially the line at the top of the window. You will soon learn how to fix this.

*Of all the mighty features in Photoshop, the ability to write and recycle sequences of steps as Actions is up at the top of the list for power, usefulness, and accomplishment, but many Photoshop users don't use the Actions Panel very much. It's almost a Big Hidden Secret.*



Secrets are only mysterious when they are kept. I'll let you in on the Big Secret: Actions often seem more complicated at first than they really are. In this chapter you will build two different Photoshop Actions—one relatively simple, and one relatively complex—and save them, so any time you wish to accomplish their results for a new picture, all you will have to do is look them up and click.

The image on this page is emblematic of a condition that you may or may not have noticed. The zoom lenses that make digital photography such a pleasure contain a fatal flaw: Barrel distortion.

**📌 Bear With Us, Part II.** Chapter 1 shows you how to make Actions. But if you just want to get to using them, jump to **Chapter 2**.

While you will likely never perceive distortion in images of people, flowers, skies or sports activities, any time a straight line cuts across your image, such as a horizon, building or flag pole, you will see a slight curve distorting the subject. A prime lens won't show this effect unless it is a fisheye lens which shows the phenomenon on purpose.

## BARREL DISTORTION REDUCTION

Zoom lenses produce geometric distortions that change as the zoom lens moves from wide to telephoto. Typically, barrel distortion at wide zoom positions and pincushion distortion at tele positions.

Barrel distortion bulges the image out from center and pincushion distortion pinches it inward. Lens designers try to minimize this as much as possible, but inevitably they must compromise the prescription and accept some balance of distortion at the extremes of the zoom range.

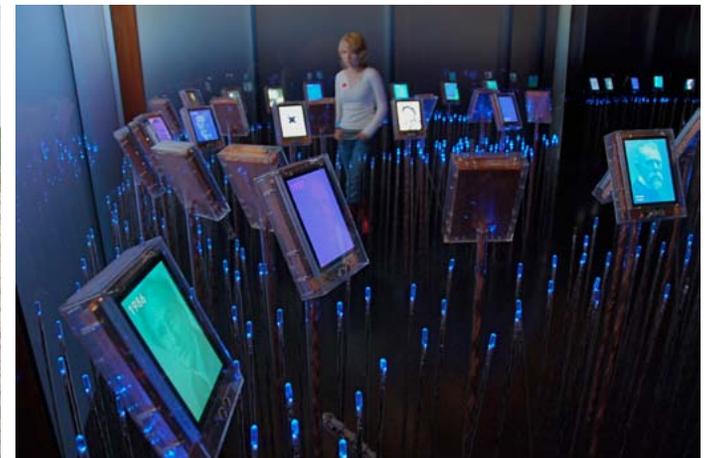
We are going to create an Action that rectifies linearity for a particular lens at a particular zoom setting. Before we begin to record the Action, open **Images-Demos > ActionsExtras > Example Images > BarrelAction.jpg**.

We use this image because it shows architectural, straight-line detail.

As you write an Action, you want an example image that will show unambiguous results when you get the numbers and operations in your Action correct. Once the de-barrel Action is right, you can use it with any image from that lens and zoom setting, knowing that straight lines will be preserved.



*Not every image shows its barrel distortion as much as this. Look at the top line of the windows. Below are two additional images made with the same lens at the same zoom position. Neither cries out for barrel correction.*



## Chapter 2

# Border Crossings

Where film and digital converge

*You knew it was pixels when you shot it, but now it's time to have a little fun. Convert your digital image into a sheet, frame or chip of film and print the whole image for instant chemical-cred.*



Film is so then while digital is so now. But when your image needs a touch of then, digital can supply it now. This group of iNovaFX Photoshop Actions are complex—far too many operations to list out on a page and expect a user to follow—but they reward the photographer by framing the image with the appearance of realistic traditional *film* borders.

We have all seen photographs printed along with the border effects of various film formats. It's usually a message from the photographer to his buddies. The photographer is saying, "Look how perfectly I framed this shot. Right in the camera, I got it just right, and obviously nothing has been tweaked after the shutter click. See that film border? Notice how the composition is amazingly well coordinated to the limits of the available film area? Oo, I'm hot!"

Now you can be that hot. Or even hotter since you have managed to spoof the eye of the observer by pushing your pixels into a film frame. Oo, la, la!



## THAT'S ALL FAUX

Three iNovaFX film border series are available to you, one series for roll film borders, one for sheet film—similar to 4x5 view camera frames, and one for 35mm film chips and strips.

They all include potential marginal titles and notations identifying them as digital images by default, but you will be able to customize this text with any memorable or pithy commentary you wish.

## ROLL FILM BORDERS

In the heyday of medium format film, one of the standards dating to 1901 was roll film with opaque backing paper called simply “120.” The paper backing was printed with marks that could be viewed through a window on the back of the camera to line up fresh film for the next shot.

Most film was sold in 12-exposure rolls, although 24 exposure rolls eventually appeared for light-tight film holders. Cameras like Hasselblad, Bronica and Rollei-flex shoot the 6x6 format of square frames (2¼ by 2¼ inches of film) of which the image actually covers about 56 x 56mm, and other cameras shot different format images on the same stock.

These formats had names like 6x7, 6x9 or 2¼ x 3¼.

- ① A similar format, 620, had identical film and paper backing materials on a slightly thinner spool.
- ① The margin outside the image had pre-exposed factory markings embedded in it. Most viewers ignore it, but we let you type in anything for the more observant beholder. Like the real deal, our text color and brightness is purposely kept low to avoid distraction.





## Chapter 3

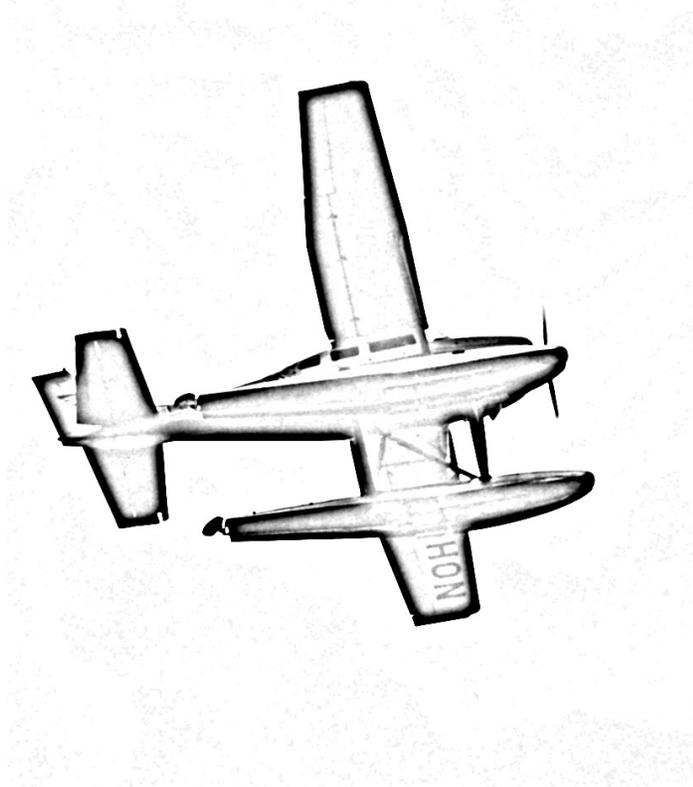
# Photoshop™ Filters, Plus, Plus, Plus

New life for the old standbys

*Since day one, Photoshop has had a sturdy complement of “filters” as a major feature. When you open them for the first time, they have default settings that greet you. We have regarded them with a more photographic eye and have come up with new, improved default settings and expanded steps that deliver tastier images.*

**A**t first look, the Photoshop set of Filters seems capable of anything. They have categories like *Artistic*, *Blur*, *Brush Strokes*, *Distort*, and so on—14 in all. Within each is between two and 15 different filters for a grand total of 107 unique items. The list has been growing slowly with every new version of Photoshop. Version 6.0 had 101 distinct items, all of which are included in Version CS5, so these are solid, continuing features of Photoshop in a broad sense.

They have hundreds of adjustments. Each one may have three or more sliders, settings, options or choices with names that are unique to the current filter. Getting used to them takes time. But once you understand a filter, it will be your friend forever.

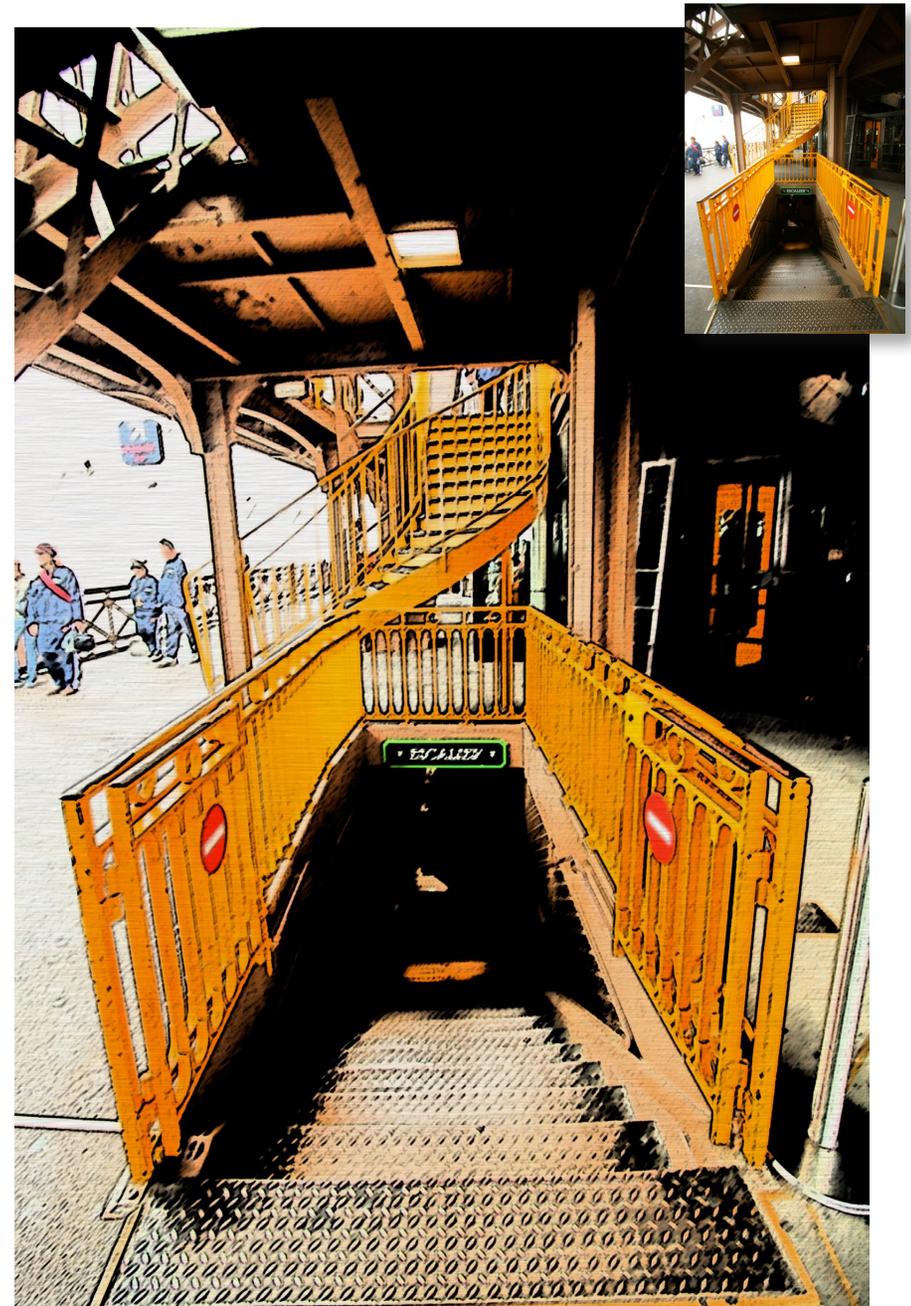


iNovaFX **iPS-series** Photoshop Filters are collections of settings we favor commonly with the Photoshop Filter sets. Here are new starting places for you to use on photographic images—places that we think will give you a better, more graphic image treatment right away.

Most of them go beyond this simple premise. Extra steps are added that complete the general idea of the Photoshop Filter. You will find 98 individual treatments here, many of them bringing your image into a new light.

We employ Photoshop's own designations to group them into eight categories found in the current version of Photoshop CS5, and we recommend that you set aside an afternoon or three to play with them on your images. The categories are:

<b>iPSArtistic</b>	<b>21 Actions</b>
<b>iPSBrushStrokes</b>	<b>10 Actions</b>
<b>iPSDistort</b>	<b>23 Actions</b>
<b>iSPixilate</b>	<b>6 Actions</b>
<b>iPS+Noise</b>	<b>2 Actions</b>
<b>iPSSketch</b>	<b>29 Actions</b>
<b>iPSStylize</b>	<b>15 Actions</b>
<b>iPSTexture</b>	<b>9 Actions</b>



## Chapter 4

## Camera Filter Fantasticks

## Glasstronomic Delicacies

*Covering the lens with glass to produce a desired effect is nearly as old as photography. Here are filters that can't be chipped and won't take fingerprints. But it's a trade-off. They won't protect your lens, either.*

**F**ilters protect and serve. But once you have protected your lens with a Clear, UV, or Daylight filter, adding *another* effect filter becomes a management chore: Take off the protector, then add the effector. Total time: way longer than it takes an emu to e-move. What if you could have many of those filter effects instantly—later?

This section deals with several types of filtration phenomena that can be achieved digitally, rather than optically. They can produce results similar to—but not exactly the same as—optical, polarizing, or even holographic filters.

**iFiltersX**

As Photoshop has evolved, so have the number of interesting things you can do with its features. The halo filter seen here can only be achieved in PS CS2 or higher. But until the Action that produced it appeared, its effect was not easily available *at all*, unless you used a very expensive piece of glass and committed to the effect during exposure. What follows are iNovaFX Actions that take the place of glass—and beyond.



*Night images that include spectral highlights can trigger certain effect filters. Here is one that produces circular halos around each fixture suggesting dynamic movement. This is the iHalo2X Action.*

### A Typical Day At The Lens

Glare from a back-lit sky filled the viewfinder, dominating the scene. But it was the foreground that held the interesting subject matter. As the photographer squinted, the sky diminished, but no photograph would hold sky and foreground in the same shot just right. Only one thing would help. The photographer would have to darken the sky without darkening the foreground. Reaching into her camera bag, her fingertips found the Master Dimming Control. Slowly she twisted it, darkening the sun and sky while leaving the foreground subject in perfect light. "There," she whispered, peering into the viewfinder once again. "Just what I needed."

Bystanders hardly noticed how the photographer had altered the output of the sun and achieved a more pleasant image. Then again, what did they know about photography?

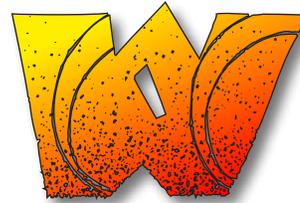




## Chapter 5 Corrective Measures

### Fixing images on the fly

*Like any complex technology, digital image errors can crop up from numerous sources. Film had its own special set of errors, but not much could be done with them in that world. Now we can fix more things than we can shake a digital stick at.*



**Whopping** **ho among us** has *never* made a big whopping image error—show of hands? I didn't think so. When we shoot fast, shoot under pressure, shoot after a few days without that camera in our hands, our humanity sets in, and there can be only one outcome for that: we forget to (fill in the blank), so we shoot a less than stellar picture. Sometimes it can't be helped:

- The zoom lens has barrel distortion at wide angle, and only a few cameras have settings to fix it. Yours doesn't.
- You're shooting at 20,000 feet and no camera adjustment will see the ground the way your eye sees it. The camera sees haze.
- You walk outdoors and leave the white balance back in the living room/studio/office, sunlight turns out cyan-blue images instead of the colors our eyes were certain they witnessed.

If only we could fill in those blanks, later.

With the right repair Action, the correction is often just a mouse click away.

## GEOMETRY REPAIRS

Typical zoom lenses have 7 to 24 elements. The ability to twist a ring and cover all the focal lengths from widest to most telephoto is such a useful quality that attributes like image distortion take a bit of a back seat. Current DSLR lens designs have as much as 14:1 zoom ratios, making these a good choice for photographers on the go who don't want to swap lenses frequently. Wide range requires many elements to keep focus and aberrations under control. Zoom range. Image quality. Number of elements. Cost.

It's a juggle out there.

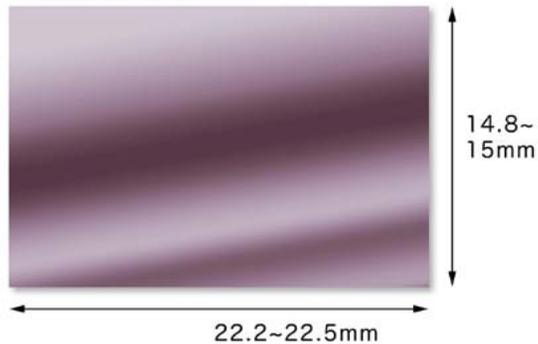
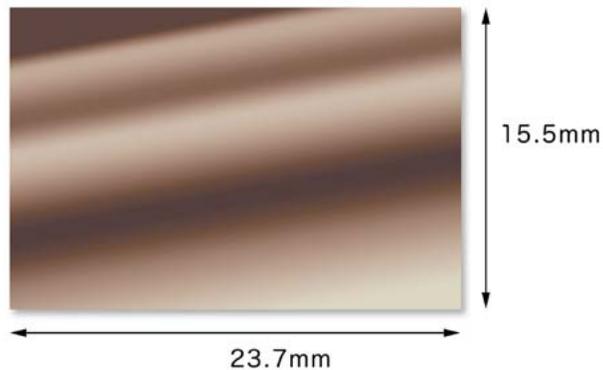
When the image comes back distorted, due to an intrinsic compromise in lens design, it's time to hug your computer. Barrel distortion and its complement, pincushion distortion, are things you can correct with Photoshop. Look for the **Filters > Distort > Lens Correction** tool in PS CS2 through CS5. It does a pretty good job of flattening barrel and pincushion distortion.

If you are using an earlier version of Photoshop, then the Lens Correction tool is not available, but the iNovaFX **iBC** Actions may help.

① As noted **earlier**, you can adjust barrel and pincushion distortion yourself in a few steps, but doing these numerous steps for every image you wish to fix is an activity that gets old, fast.

① As with the CA filters, Photoshop is your best tool when you are working quickly. When you wish to achieve exacting results, you may find the iNovaFX Actions more precise.



**Canon** APS-C sensor**Nikon** DX sensor

35mm movie frame (Super 35 at 24.8 x 18.7mm).  
Images are to scale.

Most DSLRs use an image chip that is smaller than a full frame of 35mm film. A film format called *APS-C* made images approximately the size of movie frames, and many DSLR image chips are referred to as being “APS-C size,” but it’s only a rough scale reference.

At their largest, 35mm movie frames are 3:4 aspect and half the size of 35mm still frames. In DSLR photography, this means that all the image qualities you see in a theatrical movie can be achieved by your DSLR. Depth of field and angle of view per mm, especially.

Nikon calls their small DSLR sensors, *DX format* and their full frame format is called *FX format*. DX sensors have about 367 mm<sup>2</sup> of surface area. 35mm full frames (36 x 24 mm) have 864.

Canon refers to their smaller DSLR sensors as *APS-C Size* with an area of about 330 mm<sup>2</sup>. Full frame DSLRs are simply referred to as being *Full-Frame*.

Cameras with 4/3 (four thirds) format imagers contain a chip in 4:3 aspect with a 17.3 x 13 mm sensor covering a 225 mm<sup>2</sup> area. Close enough to APS-C or movie frames to share almost the same DOF and optical behavior characteristics.

All of the zoom lenses we have seen for any of these formats exhibit some degree of barrel or pincushion distortion. Barrel distortion appears at wide angle, and pincushion effects show at the longest focal lengths. Some lenses show nearly zero distortion at one extreme or the other, and most that show distortion have a middle zoom setting that is distortion-free.

❗ Once you find it, you could use this setting for distortion-free copying.



iGraphic3.

## Chapter 6

# Artistic Conversions

### Painting with Light

*Canvas / print. Oil paint / photons. Vision plus hand-eye coordination / lens and shutter. On one side, the tools of traditional art / on the other, the tools of photography. People used to debate if photography qualified as art. Now no art museum would be without it.*

*It is, however, perhaps the most flexible of the graphic arts.*

## **A**rt is in the eye of... hey, it's you!

The beholder has found its source. When you make a picture with photons, it tries to portray the light and tonalities before the camera. After all, the major convenience of photography is that when the shutter has been pressed, your work is done.

Maybe not. Perhaps you wish to take your image farther. A lot farther. Perhaps that shot will best be appreciated as a painting, drawing, technique-rich graphic or cartoon. Some images deserve a life beyond photography as an illustration or iconic picture above and beyond the call of photons.

Here is a collection of iNovaFX Actions that convert photons into photo illustrations, generating a new presentation and appreciation of the subject.

📌 Close, magnified viewing of these helps in their appreciation.

*NB: The framing treatments in this chapter are not part of the Actions.*

## iLiners

Many graphic styles marry color shading with lines that define the subject. The *Hayes Island Effect*—a popular digital-to-art conversion effect seen on the Internet recently—inspired these Actions.

**iLiner** series of iNovaFX Actions convert your digital image into several realms of artistic interpretation that go far beyond the Hayes.

Five basic alternate approaches are provided along with a “Carnet” Action that runs them all. Start with only the target image appearing in the History Panel. It will be renamed “Original” by the Carnet series. At the end of the series you will have all eight variations, plus, of course, the original for comparison.

**iLinerCombo** is a variation worthy of experimentation by itself.

① Some will only work well with certain images. All crops shown here are from the default Carnet results using a slightly light exposure.

① Note that **iLiner5** expects to be run after the **iLiner5Prep** utility has been run first.

**Special high-res demo page.**  
**Zoom into images to see more detail!**

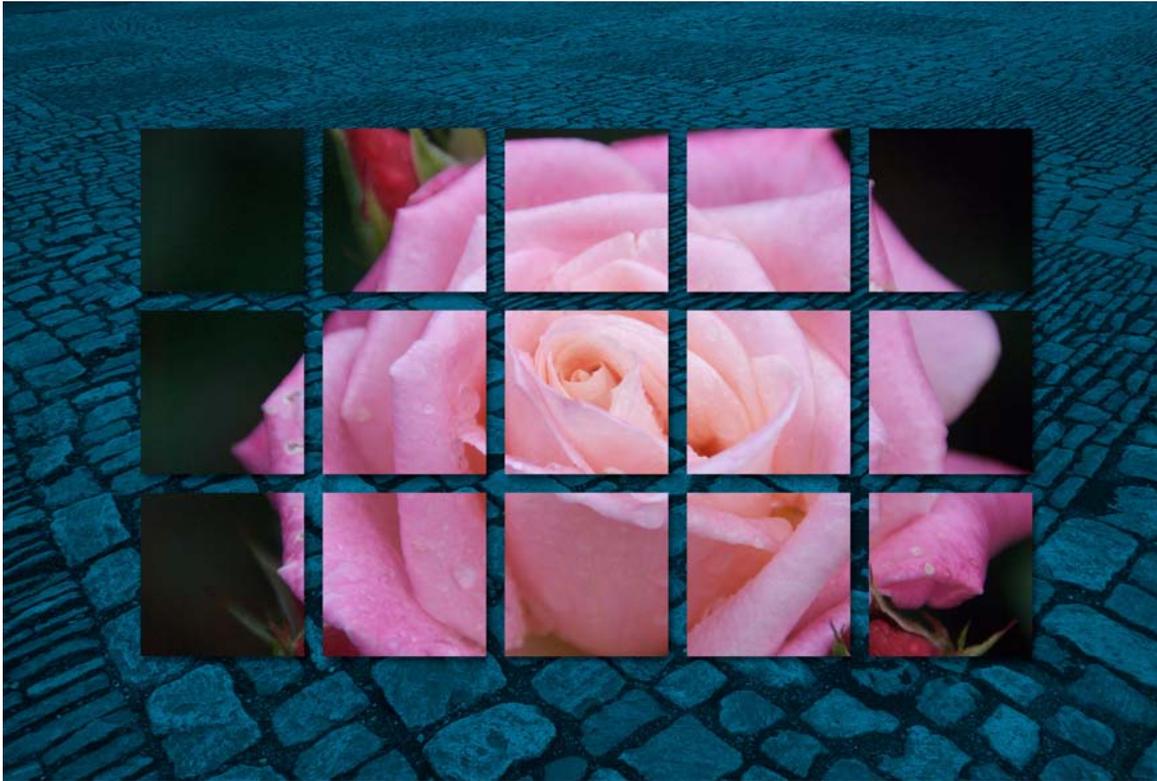
*Five basic techniques  
 produce eight final “looks.”  
 Experimentation is  
 encouraged.*



## Chapter 7

## Enhancements/Utilities

## Improving the Details



*Images are technically made of light, color, shading, sharpness, blur, framing, optical angle, grain, contrast, artifacts, anomalies and dynamic range. As you exercise dominion over each of these qualities, your images grow in stature.*



Enhancements can take many forms. Some eliminate an attribute while others emphasize a characteristic. Many of the Actions seen so far

deal with image elements you may wish to change, and the ones in this chapter add to that repertoire.

Often, you won't be aware of the need to fix, adjust or enhance an aspect of a shot while you are gathering it, but later, when the mood becomes more contemplative, some property will become noticed that will make you dig into these Actions looking for some help.

① Some of these require a degree of art direction or planning. You may have to shoot an image—or multiple images—in a way that prepares it/them for a specific result.

## iDynamicRangers

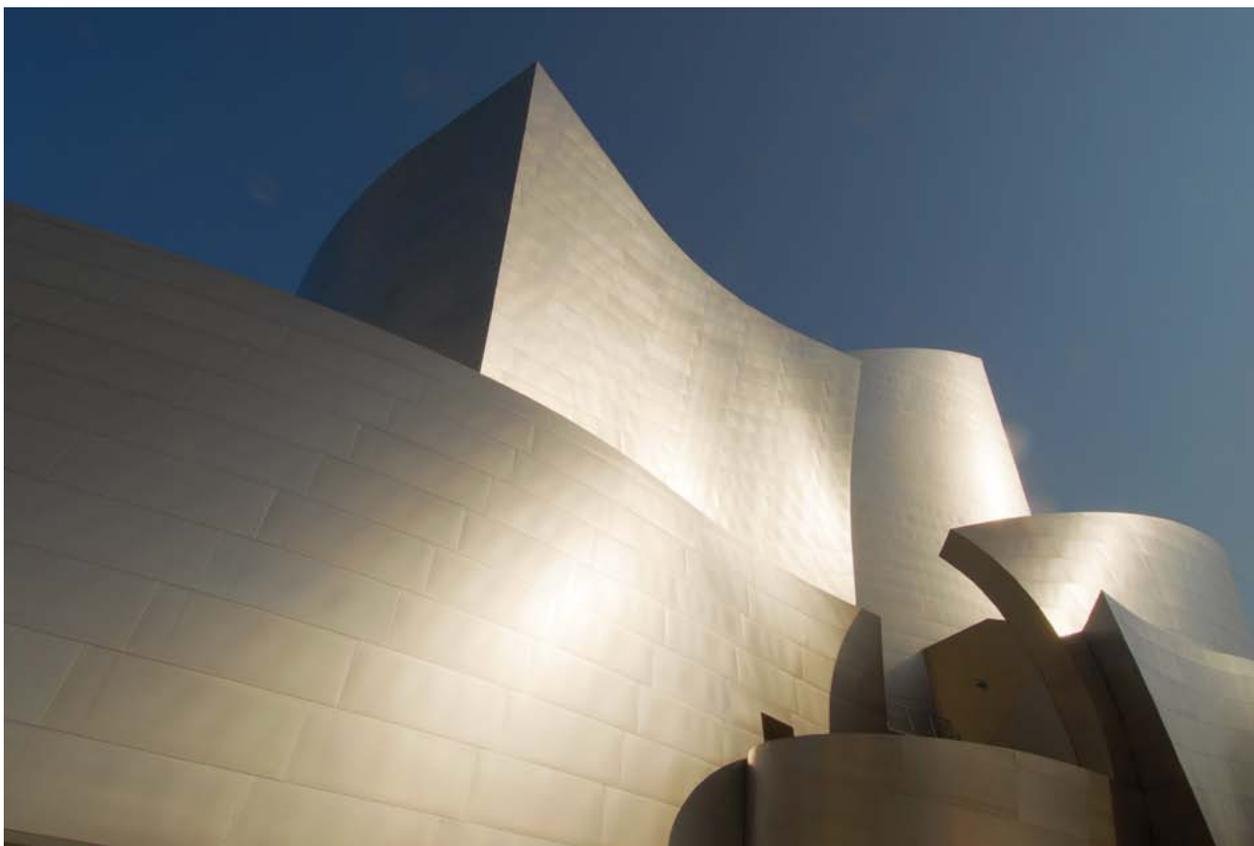
Film negatives capture highlights better than digital cameras do. It's a fact of light. Negatives get denser with brighter highlights, so they hang on to bright gradations, but digital images reach a point of bleaching out—similar in principle to slide film.

What if you could shoot digital images with your camera that *trounce* the dynamic range of film? Photoshop offers the HDR technique, but results aren't very easy—nor fast—to tweak and produce practical, *intuitively clean* images. HDR is able to do wonderful things, but not the one on this page.

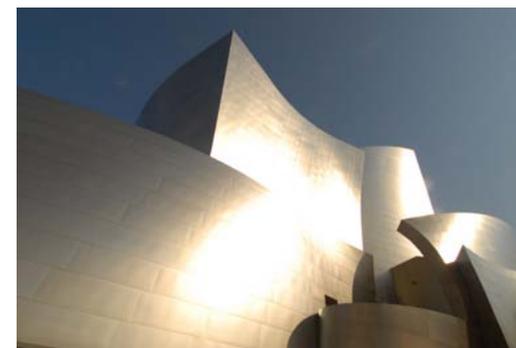
With the iDR series, a new kind of appealing image can be built. It is created from *three separate exposures*, each up to two stops apart from each other. The optimum shooting condition would be with the camera rigid from shot to shot, think tripod + remote.

❶ A special version (**iDRv3toTaste-SelfAlign**) uses the **Edit > Self-align Layers** procedure, for shots made without a tripod.

The subject must be non-moving over the span of exposures. Slow moving clouds may work, but fast moving features like vehicles, flags, animals, waves, hurricanes or kids will give poor results.



*This image looks intuitively natural. Yet it's the product of separate -4, -2 and 0-EV images. The extreme blown-out highlight has been controlled with the iDRv3toTasteSuperCS3-Self-Align Action in PS CS3-CS5. Below is the "normal" exposure, its highlight detail completely lost to the physics of light and the tonal dynamics of digital cameras.*





The trick, is to shoot all three images very close together in time without moving camera or focus.

Some work with over and under exposures, but the king of this series is the **iDRv3toTasteSuper** versions. These create an elaborate stack of image layers and Adjustment Layers, giving you ultimate control over each individual element, plus the whole group as a unit. This series is for high-light extremes and starts with a normal image plus -2 and -4 EV captures.

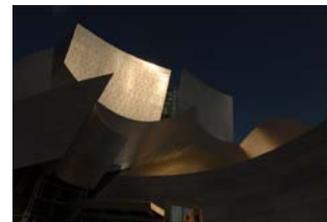
There are four variations covering  $\pm 1$ -stop and  $\pm 2$ -stop exposure groups in RGB and Lab modes.

❗ Only the **iDRv3toTasteCS5-SelfAlign** version allows you to do this hand held.

If you don't have a remote release, use the camera Self-Timer and touch the camera lightly as you set each shot with hands off during the exposure.

❗ Manual exposure mode requires you to touch the camera between shots. Careful! Lock manual focus and don't touch the zoom between shots.

All three shots are then brought into Photoshop and stacked over each other with the **darkest on top and the lightest on the bottom**. If necessary, use Photoshop's *Edit > Auto-Align Layers (Reposition)* command before running Actions without self-alignment.



Another view from the same session started with a slightly lighter "normal" exposure as its base, so that exposure contributed more to subtle shadow detail. Below, the whole stack of Adjustment Layers. Each separate exposure layer has its own Curves and Hue/Saturation adjustment giving you instant control over its contribution.



*iButterfly stretches any image into butterfly wings. The iDisplayBox version allows you to change the type label to any text.*



## iButterfly

Almost any picture in your library can become the wings of a graphic butterfly with **iButterfly2**.

An extra Action, **iDisplayBox** creates a display box to house an existing butterfly image. It presents a title under the image that is a type layer you can modify.

It's a graphic novelty, but you will find that many people—especially kids—want one made from their portrait. Open any image and run the Action.

❗ The subject file must be the only thing open in Photoshop as you begin.



After some initial housework, the Action opens the original subject image with a crop rectangle already in Transform mode. Its position, size and rotation are up to you. The rest is automated. Separate layers for wings, body, eyes and background paper will appear.

Each will have its own color adjustment layer in one of the snapshots the Action saves. **iDisplayBox** adds type and title card layers for manual placement.

❗ Note that a *right-facing* subject works best. If your original image faces left, use the **iFlip** utility in the **iButterfly** folder to turn the shot to the right before running the **iButterfly2** Action.

❗ An **iButterfly Flattener** utility lets you generate new snapshots after working on the multi-layered one.

❗ Use the **iButterfly-Layers** snapshot to modify the body, eye, wing and/or paper colors separately.



The *iButterfly2* Action produces three Snapshots in the History Panel. The first has each layer separate and ready for fine tuning. You can stop and change the color of the butterfly's eyes, wings, body and background paper. Secondly, a labeled Snapshot is saved with the full butterfly on one layer over the background paper. If you switch off the visibility of the paper, leaving the butterfly over a transparent background, you can save the butterfly image in PNG-24 format, which is found in File > Save for Web and Devices > Preset: (PNG-24). This image is self-matting in many web layout or page design programs. The last Snapshot delivers the flattened image of the butterfly married to its background paper. Only the *iDisplayBox* Action adds the frame and title strip, and you have to come up with the title. Think Latin. Then think Road Runner.



## Chapter 8

# PhotoShop eXtended

## Actions That Work With Movies

*Photoshop comes in a second version designed for use by web page designers, advanced 3D artists and movie scene manipulation. It costs \$300 more than straight Photoshop CS5. If you already own Photoshop Extended, here are Actions that work with HDSLR movie files.*

**M**ovies can be shot with today's HDSLR cameras. Now what?

HD + DSLR = HDSLR mash-up. In movie mode, many recent DSLRs can acquire high definition motion picture clips with frames as large as 1920 x 1080 pixels—about 2MP per frame. Photoshop Extended (PSX) facilitates working with movie files, and the Actions here do a number of interesting and useful things by combining these two ideas.

Movie scenes in Photoshop? Why not? Movies are subject to the same needs for imaginative treatments begged for by still images, but the elements of motion over time adds unique complexities. Digital photography is blurring the distinction between still and movie tools, and PSX allows you to work in two universes at once.





## MOVIES TO PANORAMICS

In 2010, Sony introduced pocket cameras that were able to capture a panoramic image by sweeping the lens in a panning motion, wiping a much wider image into an image file. They call it *Sweep Panorama*. Now you can do that with your HDSLR plus the **iPanoHD** Action (**iPanoFromMovies** folder), and get far more professional results, quickly. And if you want, you can capture 360°+ images!

For panoramic images, several adjacent shots are collected. Traditionally you do this by methodically shooting overlapping still images. But now you can do it by shooting in movie mode with an HDSLR, then letting PSX plus an Action do the work.

The **iPanoHD** Action is optimized to lift every 30th frame from the movie file, up to 14 panels wide. The restriction is that the final movie **MUST** be 390+ frames in length. Movie format can be 1080p24/25/30 or 720p30.

*CS5 Photomerge works best when it has many images to work with. At 1080p30, the shot took about 15 seconds. It was captured under the most primitive conditions standing on a rolling dock, shooting gently rolling boats hand-held—which by rights should have polluted the image with a great deal of parallax error, yet only tiny stitching errors remain.*

A pan using 720p60 will work, but less well because it must pan quicker showing potentially more smear. The orientation of the camera can be either horizontal or vertical and the movie clip should be shot with a **high shutter speed** (1/1000 sec or faster) to avoid blurred frames.

❶ With the camera horizontal, it is fairly easy to shoot a full circle panoramic movie clip in 390 frames (13 seconds at 30 fps). With the camera vertical, you would be struggling to shoot more than about 210° in that time.

❶ Best results will come from mounting the camera on a tripod, monopod or precision panoramic pan head. Since the Action is capturing only single frames, almost any tripod pan head (fluid not required) works quite well.



A big HDSLR advantage is the ability to instantly select still images, movie images or, in this case, a movie panoramic. Each type of image brings a different sort of memory. Side story: I met the late Edith Shain at an eBook signing. She was the nurse in Alfred Eisenstaedt's Life Magazine photo. So naturally, I gave her a similar kiss. Minus some of the original passion. She was in her 80's. "You're not my first," she said, demurely.

Your capture technique is critical, but there are some guidelines that will help.

❶ You can roll the camera well before panning. As you pan, start a count-down in your head from 15, 14, 13... 0. Later, in PSX the Animation Panel will let you trim off any pre-panning frames.

❷ If you achieve the end of your pan before your count has run out, that's okay, but keep recording until the time is up. The **iPanoHD** Action will ignore most redundant frames without a fuss.

❸ The worst shooting technique would be to move the camera in a wide arc in front of you. That displaces the lens, causing parallax between selected frames. It's best to pivot the camera around the nodal point of the lens—approximately the center of the lens barrel—as you shoot.

❹ Remember that any subject moving through the scene (pets, kids, tourists, actors, cars) may create problems for the Photomerge feature in PSX. That said, PSX Photomerge is very crafty in selecting subjects that appear in overlap areas.

❺ You don't have absolute control over the pose of people or moving objects in the final, but you do have control over your start frame. If a person or subject is in an awkward pose, adjust the start time, so the Action will pick a different frame when it gets to that part of the pan.

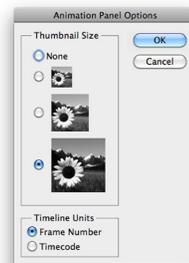
❻ When monopod shooting, here's an advanced trick: Extend the pod to full height. Angle the camera down about 2° (very slightly) so when the camera is dead level, the pivot point of the back-slanting monopod is *under the lens*, not the center of the camera body. This helps reduce parallax.

❼ Practice shooting and processing movie panoramics before you gather critical shots.

## PANORAMICS WITH IPANOHD ACTIONS.

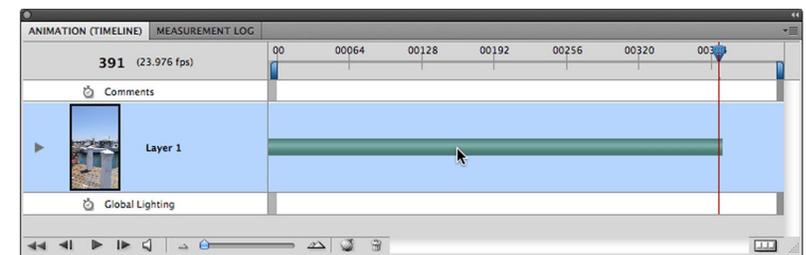
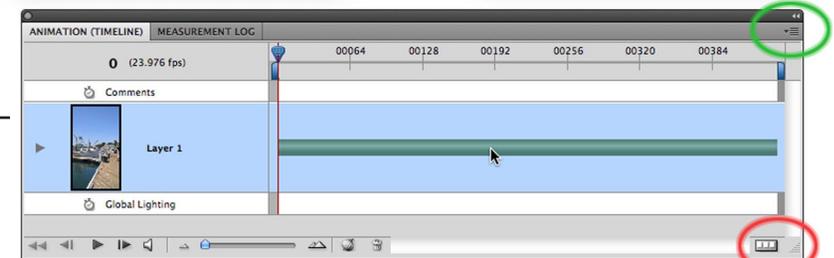
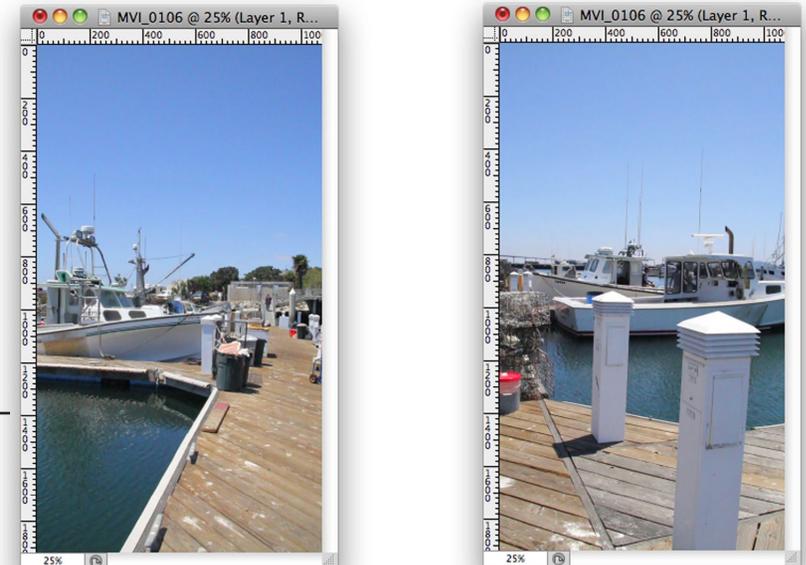
This example uses a clip which was shot vertically. Most of your shots will probably be horizontal panoramics, but this shows how either orientation will work with the Action **iPanoHD**.

1. Close all other Photoshop files and Open the movie panoramic file. You may need to spin a vertical capture 90° to cause the movie file to be oriented correctly. Not all cameras present vertical movies in a vertical window. Two utility Actions, **iTwist90CW** and **iTwist90CCW\*** make this a snap.
2. Open the Animation Panel and change it to timeline mode, if it is not already in the form at right (red oval). In the upper right corner of the Timeline Panel (green oval), a panel-specific menu icon lets you open settings turning the time into frames and allowing you to adjust the timeline's scene icon to *Large*, as has been done here. Those settings simplify the next operations.
3. With your cursor, you can click on the green timeline bar and slide it left or right. Here we have moved it to the left to trim off some of the head of the clip before the camera started its pan. You will need at least 390 frames, so you can move the *End Of Work Area Indicator* to that point and slide the *Current Time Indicator* there to confirm the condition for your end frame.



① One Action does horizontal and vertical images, and smooths the edges adding a drop shadow as in the **iPanoCylinderEdge** sets of Actions. Optionally twist vertically shot scenes using the **iTwist90CW** or **iTwist90CCW** utilities before running iPanoHD.

\* CW=clockwise; CCW=counter clockwise.



When you turn a 16:9 frame vertically, it looks quite tall. Here are the start and end frames from a hand-held slow pan of about 200° with the camera held vertically. The Animation Panel's timeline mode allows easy shifting of the full clip to the left, to trim off repetitious start frames captured before the pan began. The initial, uncropped result is at the top of the next page.



All these were shot within moments of each other in San Diego. The top three show how they emerged before cropping. The impossible-to-find-a-place-to-put-your-car shot (Parking Lotto) is over 340°. If you obtain a full 360° sweep, you will be surprised to see that you have no control over where the shot ends occur. Photomerge doesn't differentiate its first and last images. PSX will arbitrarily decide for you. So try to shoot slightly less than full circles, unless it is not critical to your use.

4. For this shot, a 1080p30 HD file, we used iTwist90CW to make the image read correctly on screen. Any frame rate will work, as long as the total frames are 390+. The Action stops to let you make adjustments, but the above step 3 already completed those, so you can *Continue* past all alert windows with simple carriage returns.
5. Before the Action completes, it has automatically generated a *cylindrical* panoramic image, and if it is a vertical pan—say, up a building—it will have magically twisted the image 90 degrees to work on it. It will smooth the edges and add a drop shadow, pausing so you can place, scale and tune the shadow to taste.

Along the way, several layered Snapshots will appear in the History Panel ready for tweaking.

1. The first multi-layer pano assembly,
  2. The flattened smooth edge layered version and
  3. The final version with drop shadow.
- ❶ Want to change the shadow? Re-open the *fx* item and re-adjust it.
  - ❶ Want a rectangle instead of a bubble? Crop to the maximum as we did in the bottom example here and on pages 248 & 249.
  - ❶ You can use these Actions with vertical iPhone 4 HD shots, but you may need to twist the movie files 90° to horizontal before importing them to PSX.

## PHOTOSHOP'S TRICKIEST SECRET

When you open a RAW image, it appears in the Raw Interpreter Panel, and a comprehensive array of tools are immediately at your fingertips.

You can change exposure, add fill light for shadow detail, control blooming highlights, level, lens correct, sharpen, color adjust and dozens of other things.

Wouldn't it be nice to have this suite of tools for immediate manipulation of all your JPEG images as you open them?

You can.

But it's so well hidden you will need to tell PS CS5 exactly how to do that for you.

Open *Preferences* (Command + K or Control + K) > *File Handling* > *File Compatibility* > *Camera Raw Preferences* > *JPEG and TIFF Handling* > *JPEG:* > (Automatically open all supported JPEGs). By my count that's tucked away no less than six layers deeper than anything obvious. But now every time you drop a JPEG image onto your Photoshop icon, it will pop open using the Raw Interpreter Panel.

❗ The only downside: You must confront the image(s) and use the Raw Panel to complete the idea of opening them every time.



*One window; a billion possibilities. The Raw Interpreter Panel delivers more image manipulation tools into your immediate control than anything else. Here it has opened three JPEG images at once from two different cameras. You can select them all and give them all the identical settings, if you wish, for an instant batch processing. Here the top image has been Leveled (angle), Exposure adjusted +15% of a stop, and a small amount of Fill has been added to dark shadow areas. With practice, you can perform enhancements, corrections and improvements on your images before opening them in the main Photoshop window. Be aware, though, that JPEGs won't tolerate the large corrections that RAW files comfortably enjoy.*

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