

START

# Game On

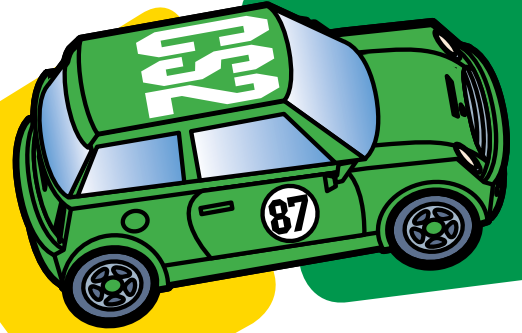


ROLL THE DICE AND MOVE AHEAD WITH ADOBE PHOTOSHOP'S

CREATE  
THREE-PASS  
SHARPENING  
SCRIPT—  
MOVE AHEAD  
2 SPACES



# SCRIPT EVENTS MANAGER FROM START TO FINISH



*Imagine this:* You're a creative person working in Adobe Photoshop CS2 and you come across a new feature called the Script Events Manager. Doesn't sound very exciting, does it? And it's likely a feature you haven't explored much. Even though the name may sound scary, the Script Events Manager is actually one of the best-kept secrets in Photoshop CS2 when it comes to getting things done quickly and efficiently.

We asked Marc Pawliger and Tom Ruark from Adobe Systems Inc. for their input on this new feature, so let's see if we can help open the door to the secrets of the Script Events Manager.



**BY MATT KLOSKOWSKI**

Matt Kloskowski is an Education and Curriculum Developer for the NAPP and has authored or co-authored several books on Photoshop and Illustrator. He also teaches an advanced Photoshop course for [www.sessions.edu](http://www.sessions.edu).

When Photoshop CS2 was introduced, a new feature went largely unnoticed: the Script Events Manager. It didn't get much exposure but as more and more people acquired this new version of Photoshop, questions began coming in about this new feature in the File>Scripts menu (see "Q&A" on page 39). As people began digging around to find out what it did, we began hearing and reading a lot of, "Wow..., this Script Events thing is sweet!" And rightly so, because the Script Events Manager gives us a revolutionary new way to automate things in Photoshop. If you like using actions and scripts, then you're going to absolutely love this new tool. And if you don't, then read this article anyway to see what the Script Events Manager can do to save you time. You'll soon be creating more actions (and if you're brave, maybe scripts too) just to take advantage of this feature.

HOLD CONVERSATION  
WITH NON-GEEK—  
MOVE AHEAD  
3 SPACES

INSERT COPYRIGHT  
IN ENTIRE PHOTO  
LIBRARY—  
MOVE AHEAD  
5 SPACES



### WHAT IS AN EVENT?

When it comes to software and your computer, the word "event" is a techie term that programmers use to describe a message that your software sent to announce that something has happened. In Photoshop, think of an event as a signal telling Photoshop that something important just occurred. For example, when you click on a tool in the Toolbox, your computer signals Photoshop that a "Click" event has occurred. When you open a photo, an "Open" event occurs.

As you can imagine, the list of events can go on for quite a while, but the most important point of this explanation is: The Script Events Manager "knows" when events occur, so you can tell it to do something when the event happens.

### NOT JUST FOR SCRIPTS

One essential message that we want to convey is that the Script Events Manager isn't just for those programming-code-savvy people who know how to write and use scripts. If you can create an action in Photoshop, then you can use (and I mean really take advantage of) the Script Events Manager—it's that simple.

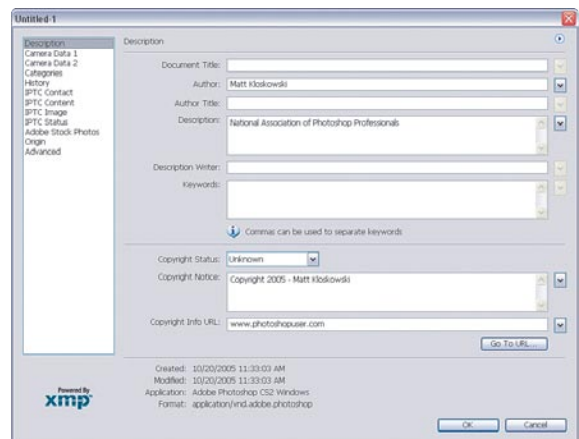
In fact, I encourage you to take the word "Script" out of this tool's name. Just think of it as an "Events Manager." Now that you know what an event is, think about all the things that happen in Photoshop for which you wish you could automatically run an action. Well, instead of manually running an action (or script), you can let the Script Events Manager do it for you based on events that occur when you're working on your digital images.

### GETTING STARTED

The good news is that you don't need to install or configure anything to use the Script Events manager. Everything you need is right in front of you in Photoshop CS2.

In this example, we'll add some file information (metadata) to any documents that we create in Photoshop so that we always have our copyright and contact info in our images. To do this, let's create a new action by clicking on the Create a New Action icon at the bottom of the Actions palette (Window>Actions), record a step that chooses File>File Info, add contact and copyright information, then click OK to close the dialog. Press Stop recording to stop the action and your action is ready to use. Now let's move on to the nuts and bolts of the Script Events Manager.

[NAPP members may download this sample action, an action for centering guides, and one for the "rule of thirds" from [www.photoshouser.com/members/magcenter/2006.php](http://www.photoshouser.com/members/magcenter/2006.php).]



# ← DETOUR



## An Interview with Marc Pawliger

As Director of Product Engineering at Adobe, Marc Pawliger is responsible for the engineering, testing, and ultimately the delivery of each version of Photoshop. He has been at Adobe for 11 years, working on and around Photoshop the entire time.

*Photoshop User* asked Adobe's Marc Pawliger, about the history and special features of the Script Events Manager.

**PHOTOSHOP USER:** How did the idea for Script Events come about? What was the motivation to turn them into a feature in CS2?

**MARC PAWLIGER:** We get a ton of user requests for customization, for example, "When I open a file, I want Photoshop to automatically zoom to fill the screen," or, "When I save a document, I want to automatically make a backup copy of the previous version." We had a hard time figuring out how a user would configure all these various customizations. Where would that go in Preferences while still remaining usable? It was a common question we couldn't answer in a general enough way to be useful for the many ways users wanted to use the capability.

The first attempt at an answer was the addition of actions in Photoshop 4.0 and it has taken a long time to get our users to create their own actions. But since actions have to be run manually, it still doesn't answer those requests. Users want these things to happen automatically.

Photoshop 5.0 added the ability for software developers to write plug-ins to run commands automatically, but that was still too complex a solution for most users, as the learning curve for writing a plug-in is very high.

Then Photoshop CS made things a little easier by enabling scripts—small programs written in the JavaScript scripting language—to run commands. Writing JavaScript is much easier to learn than

creating a plug-in, so we started to see more users creating scripts. But again, this was still a manual solution. We still needed a way for users to connect the pieces together.

Finally, Photoshop CS2 allows easy access via the File>Scripts>Script Events Manager dialog for a user to trigger a script or action based on some type of event that occurs in Photoshop.

**PSU:** If the Script Events Manager isn't just for programmers, can you tell us about its wide range of use?

**MP:** We're always amazed with what users can do with Photoshop. We'll put in a feature like Script Events and users will come up with amazingly creative ways to use the feature to do things we just couldn't imagine when we added it. Users can create actions or scripts that do just what you would have to do manually via menu commands, and they can run automatically.

**PSU:** How can our readers (Photoshop users) extend the Script Events Manager to customize it for their specific needs?

**MP:** You can do this in two ways: The first is to create an action or write a script and use the Script Events Manager to run the script when, say, you print or open a file.

If the available trigger events aren't enough, you can add more events that are triggered when you run another script. You need only write a script to create these new events. If you have Photoshop CS2 installed, you already have some examples to start with. You can find them in Applications:Adobe Photoshop CS2:Presets:Scripts:Event Scripts Only (PC: Program Files\Adobe Photoshop CS2\Presets\Scripts\Event Scripts Only). Then you tie the event to the script you write via the Script Events Manager, and you're on your way.

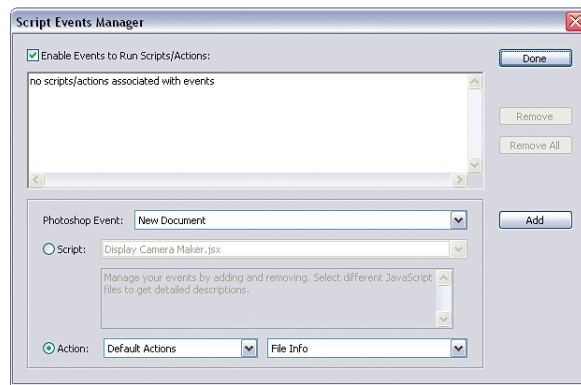
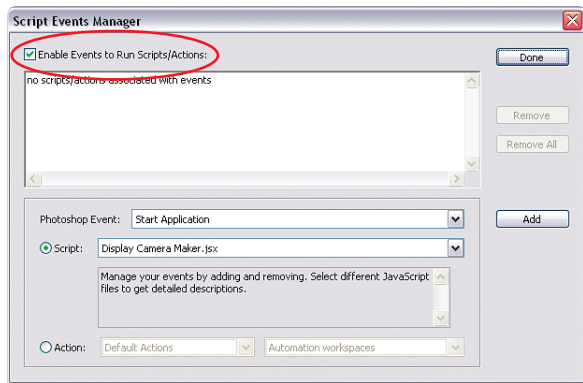
CREATE  
DUPLICATE  
LAYER IN NEW  
DOCUMENTS—  
MOVE AHEAD  
1 SPACE

PHOTOSHOP  
CRASHES—  
GO BACK  
TO START



The first thing to do is open the Script Events Manager dialog by choosing File>Scripts>Script Events Manager and the most important thing to remember when you open this window is to click the Enable Events to Run Scripts/Actions checkbox. Now we're ready to start doing the cool stuff.

doesn't take any extra time, and it's "insurance" against forgetting to add your copyright.



For more ideas on using the Script Events Manager, see "Try 'em, You'll Like 'em" on page 40.

Under Photoshop Event, choose New Document from the drop-down menu. (This is one of those "events" that we talked about earlier.) Every time you create a new document, a notification is sent to Photoshop and we can intercept it to perform some step, such as running the action we just created. So, we'll select the Action option and choose the File Info (copyright) action.

Press Add then Done and that's it. Whenever you create a new document in Photoshop from now on, it will automatically have your copyright information added to it. It's easy to set up,

### WHAT'S NEXT?

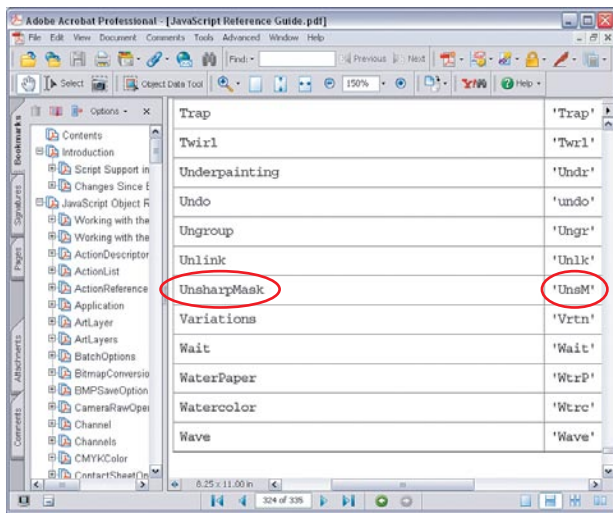
You've seen how to start using the Script Events Manager but what happens if the event you'd like to capture isn't part of the event list. As you can see, the event list does have a good share of useful events to capture, but there's definitely more that you can do. Glen Stephens wrote a great article for the "Mastering Photoshop with Video" column (see *Photoshop User*, October/November 2005, p. 72), where he discussed the ability to add an event to the Script Events Manager. But why would you want to add an event?

Let's say you're a digital photographer and want to do something automatically after sharpening a photo with Unsharp Mask. For example, I always duplicate the layer before using a sharpening filter, then I sharpen the duplicate and add a mask to selectively take away any areas that may have been oversharpened. To speed this up, I can capture the Unsharp Mask filter event after pressing OK and create the layer mask automatically. Just create an action to add a layer mask, set this up in the Script Events Manager, and there you go.

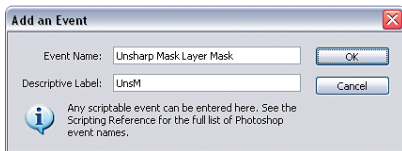
NOMINATED  
FOR PHOTOSHOP  
HALL OF FAME—  
GO STRAIGHT  
TO FINISH

USE TAPE  
TO REPAIR  
GLASSES—  
LOSE A TURN

To illustrate, here's the Event Codes in the JavaScript Reference PDF file that comes with Photoshop CS2. If we scroll down to the Unsharp Mask event (in Appendix A), you'll see the code to the right. In this case it's "UnsM" (note that this text is case-sensitive).



To use this, open the Script Events Manager dialog again. Under Photoshop Event, select Add an Event. The dialog that appears prompts you for an Event Name and Descriptive Label. Under Event Name, type in a descriptive name, such as Unsharp Mask Layer Mask, then type in the event code from the JavaScript reference document—in our example, it's UnsM—then click OK to close this dialog.



Now back in the Script Events Manager, select Action and point this setting to an action that adds a layer mask to the current layer. Nothing major: a one-step action will do just fine. Now, whenever you apply the Unsharp Mask filter to a layer, Photoshop will automatically add a layer mask to that layer for you. If you're editing a lot of digital photos, this can be a huge timesaver.

## WHERE TO GO FROM HERE?

Obviously, there are many options available to you once you start using the Script Events Manager. Hopefully, we've whet your appetite with the potential of this new feature in Photoshop CS2, but the real power comes from examining your workflow and thinking of repetitive tasks that you can replace with the Script Events Manager.



## Q&A

YIELD

Tom Ruark, Senior Computer Scientist at Adobe, fields questions from Script Events Manager users.

**Q.** What do I need to know to use the Script Events Manager?

**A.** What you don't need to know is how to write Scripts.

First, you need to know where it is and how to configure it. Look under the File>Scripts menu for Script Events Manager. Make sure to turn on the Enable Events to Run Scripts/Actions checkbox at the top of the dialog.

Second, if you find yourself using actions a lot, then you can automatically "fire" actions based on what you're doing and when. You can push a lot of decisions into the script that's running after you do something. This is the real power of the Script Events Manager.

**Q.** As a die-hard Photoshop user, what are the "insider" (developer) secrets I should know about the Script Events Manager?

**A.** The Script Events Manager is set up so that one event fires one script. But the secret event is "event all" (All). This will run your script on any event that occurs. It's a great way to get feedback on what's happening while you execute things in Photoshop.

Another cool thing about the Script Events Manager is that the source code is available. If you're a script writer wondering how to add something that you see the Script Events Manager doing, simply grab the code. All the scripts found in the File>Scripts can be found here: Applications: Adobe Photoshop CS2:Presets:Scripts (PC: Program Files\Adobe Photoshop CS2\Presets\Scripts) and the scripts in the other menu are found in the same location under Event Scripts Only. Just open the file in a text editor and modify/copy/paste to suit your needs.

**Q.** Is there anything the Script Events Manager can't do?

**A.** The Script Events Manager runs into the same problem that the Actions palette runs into: everything in Photoshop isn't scriptable. Paint strokes, Extract, Vanishing Point, and others don't have scripting hooked up, so you can't run scripts on those events. You can work around this problem by manually using scripts inside actions, but it still involves some type of manual process.



As Sr. Computer Scientist at Adobe, Tom Ruark is responsible for the SDK, plug-in API, and scripting API for Photoshop. He's been at Adobe for eight years and now works on Photoshop 100% of the time. Tom says he is continually amazed by the popularity of Photoshop and the passion of its users.

STILL LIVE IN  
PARENTS' BASEMENT—  
GO BACK 4 SPACES



## TRY 'EM, YOU'LL LIKE 'EM

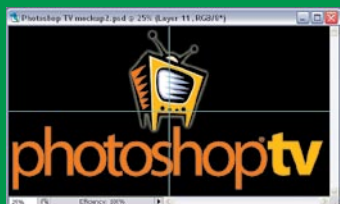
This Script Events idea may be a little overwhelming at first, so here's a short list of ideas to help you get started:

Automatically add certain copyright file information (name, year, website) to every new document you create (or save) in Photoshop (then you don't have to remember to add it).

Convert the Background layer to a regular layer (so it's not locked) whenever a new document is created. You could also convert the Background layer into a Smart Object so you can resize it later.

Create an action that automatically views your images and photos at 100% (View>Actual Pixels) when you open a document.

Do you like to have guides that show you the center of a document in Photoshop? Create an action that does this and assign it to the Open Document event.



While we're on the topic of guides, photographers can create an action to add guides that conform to the "rule of thirds" in photos, then you can move, crop, and straighten your photos accordingly.

When I duplicate a layer, it's often because I want to do something to the top copy, such as sharpening, and still have the bottom copy there so I can selectively use the two. You can create a duplicate layer event and assign an action to it that automatically creates a layer mask. This way, you can sharpen the entire photo and then selectively remove parts of it using the layer mask.

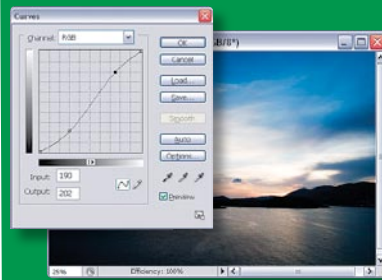
When you open a document, automatically have your images and photos viewed at 100%.

Here's one from NAPP's own Dave Cross (leave it to him to come up with this one). A good prank to play on your co-workers or friends is to set up an action that flips their images upside down (Image>Rotate Canvas>Flip Canvas Vertical), then add this to the Open Document event in the Script Events Manager. Now, every time they open a file, it'll be upside down.

Okay, Dave Cross redeems himself with this one: Let's say you're a photographer and the first thing you do when you open a photo is duplicate the Background layer (Layer>Duplicate Layer) so you always have your original intact (a very good habit). Why not create an action that does this and set the Script Events Manager to run this action every time you open a file?

Let's say that you have a bunch of photos shot under the same lighting conditions that you're color-correcting with a Curves adjustment layer (maybe from a product shoot at a studio or even photos taken outside that are all similar). Wouldn't it be cool if, when you open the photos, you could have the same Curves adjustment layer applied to them? Then you'd be free to fix other problem areas or even change the settings in the adjustment layer if one specific photo needed it. Well, here's how to do that using the Script Events Manager:

Open one of the photos and create an action that adds a Curves adjustment layer, then make your corrections, and press OK to close the dialog. Stop recording the action, then set up a Script Event for Open Document, and specify this action. You could even create multiple adjustments for other purposes and have your photos automatically populated with the adjustment layers as you open them.



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Create an action that shows all (View>Show>All) extra information in a Photoshop file (guides, smart guides, slices, grids, etc.), then assign this to the Open event and you'll always see the extra information associated with a Photoshop file.

Reset to the Default Workspace whenever you start Photoshop (Window>Workspace>Default Workspace). ■