



# Photoshop for Geeks

## Photoshop World

Wednesday, April 4, 2007

**Jeffrey Tranberry**

Adobe Systems, QE Product Lead



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**[www.tranberry.com](http://www.tranberry.com)**



# Photoshop for Geeks

## What you will get out of this class

- What's is Scripting and how is it different from Actions?



# Photoshop for Geeks

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- Examine some existing scripts and the problems they solve.



# Photoshop for Geeks

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- Discuss some strategies to make scripting more approachable.



# Photoshop for Geeks

## What you will get out of this class

- **What's is Scripting and how is it different from Actions?**
- **Examine some existing scripts and the problems they solve.**
- **Discuss some strategies to make scripting more approachable.**
- **Write a very simple script.**



# Photoshop for Geeks

## What you will get out of this class

- What's is Scripting and how is it different from Actions?
- Examine some existing scripts and the problems they solve.
- Discuss some strategies to make scripting more approachable.
- Write a very simple script.
- Look at the Photoshop DOM and documentation



# Photoshop for Geeks

## What you will get out of this class

- **What's is Scripting and how is it different from Actions?**
- **Examine some existing scripts and the problems they solve.**
- **Discuss some strategies to make scripting more approachable.**
- **Write a very simple script.**
- **Look at the Photoshop DOM and documentation**
- **Build up several different scripts into a more complex workflow scripts.**





# Photoshop for Geeks

**What's is Scripting and how is it different  
from Actions?**



# Photoshop for Geeks

## How is Scripting different from Actions?

- Actions are easy to use. You hit record, do your steps, hit stop and play back.
- Actions while powerful enough for most users, are basically “monkey see, monkey do.”



# Photoshop for Geeks

**How is Scripting different from Actions?**

## Get information from Photoshop

- **Get names of Documents, Layers, Channels, and do intelligent renaming of files.**
- **Perform Conditional Actions based on the name of the file, the kind of file, the image size, aspect ratio, color mode, bit depth, or layer type.**



# Photoshop for Geeks

**How is Scripting different from Actions?**

## Process multiple Images

- Process folders of images.
- Process all open documents.
- Spawn or create multiple documents.



# Photoshop for Geeks

**How is Scripting different from Actions?**

**Process multiple parts of documents**

- Layers
- Comps
- Channels
- or a subset of Layers, Comps and Channels



# Photoshop for Geeks

**How is Scripting different from Actions?**

**Create text files with information from  
processed images**

- .csv/spreadsheets
- .xml
- .html
- .js/javascript



# Photoshop for Geeks

**How is Scripting different from Actions?**

## Manipulate the file system

- **Create new folders.**
- **Save, copy, and move files.**



# Photoshop for Geeks

**How is Scripting different from Actions?**

## Design User Interfaces

- **Create an easy to use interface for non-scripters.**





# Photoshop for Geeks

## What's exactly is Scripting?

- Photoshop supports 3 scripting languages:
  - AppleScript
  - VB Script
  - JavaScript
- AppleScript and VB Script are platform specific scripting languages.



# Photoshop for Geeks

**What's is exactly is Scripting?**

## JavaScript

- **Cross-platform, and widely used in web creation.**
- **ExtendScript is Adobe's flavor of 'extended' JavaScript.**
- **JavaScript, ExtendScript, ActionScript are all flavors of standardized ECMAScript**



# Photoshop for Geeks

**What's is exactly is Scripting?**

## JavaScript

- JavaScript is NOT Java.
- JavaScript is not compiled.
- Requires only only a text editor to create.
- Like HTML, it's easy to start with templates, and/or learn from someone else's code.



# Photoshop for Geeks

## Existing Scripts and case studies

### Shipping Scripts

#### **File>Scripts>**

- **Export Layers to Files**
  - **Layer Comps to Files**
  - **Layer Comps to PDF**
  - **Layer Comps to WPG**
- 
- **Iterate over elements in a single document.**



# Photoshop for Geeks

## Existing Scripts and case studies

### Shipping Scripts

- Iterate over elements in a single document.
  - Duplicate the document
  - Iterate over each layer
  - Add a name prefix
  - Flatten the image
  - Include ICC profile
  - Save the file to one of seven file formats



# Photoshop for Geeks

**Existing Scripts and case studies**

## Shipping Scripts

**File>Scripts>**

- **Image Processor**
- **Iterates over multiple files**



# Photoshop for Geeks

## Existing Scripts and case studies

### Shipping Scripts

- Iterates over multiple files
  - Open the image
  - Resize Image
  - Run an action
  - Add Copyright info & Include ICC Profile
  - Generate and Save new files (JPEG, TIFF, PSD)
  - Close the file



# Photoshop for Geeks

## Existing Scripts and case studies

### Shipping Scripts

**File>Scripts>**

- **Script Events Manager**
- **Attach a script or action to run after a specified event has occurred.**





# Photoshop for Geeks

**Existing Scripts and case studies**

## Custom Scripts

- **Export Layers to Files\_PNG**



# Photoshop for Geeks

## Existing Scripts and case studies

### Custom Scripts

- **Export Layers to Files\_PNG**
  - **Preserve the transparency**
  - **Trim Layers**



# Photoshop for Geeks

**Existing Scripts and case studies**

## Custom Scripts

- **Airtight Interactive Post Card Viewer Script**



# Photoshop for Geeks

## Existing Scripts and case studies

### Custom Scripts

- **Airtight Interactive Post Card Viewer Script**
  - **Copy SWF file to gallery folder**
  - **Generate XML snippet for each image opened**
  - **Generate HTML**
  - **Generate Javascript for Flash detection**



# Photoshop for Geeks

**Existing Scripts and case studies**

## Custom Scripts

- **PayPal Web Photo Gallery Script**



# Photoshop for Geeks

## Existing Scripts and case studies

### Custom Scripts

- **PayPal Web Photo Gallery Script**
  - **Generate shopping cart code for each thumbnail**
  - **Generate a preview HTML page for each image**
  - **Copy frame set and instructions HTML pages**

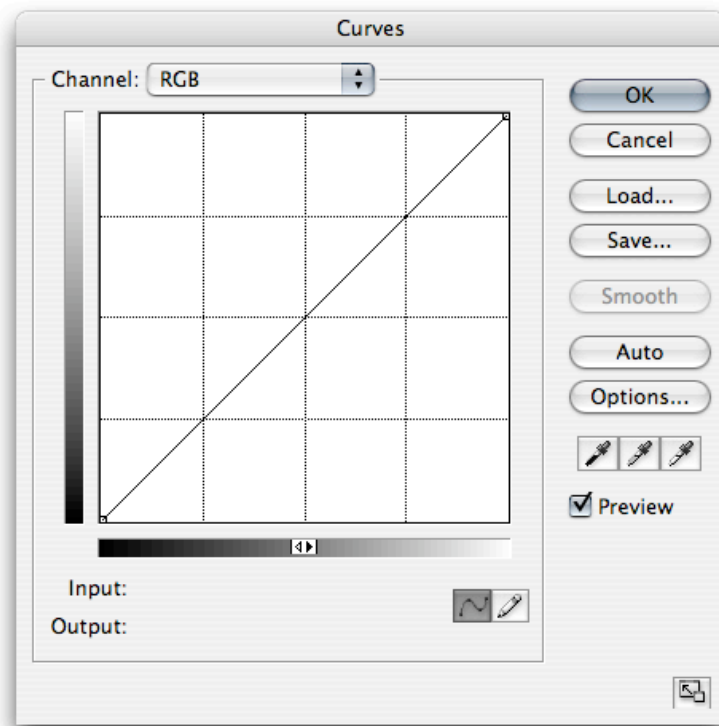


# Photoshop for Geeks

**Where do you begin scripting?**

# Photoshop for Geeks

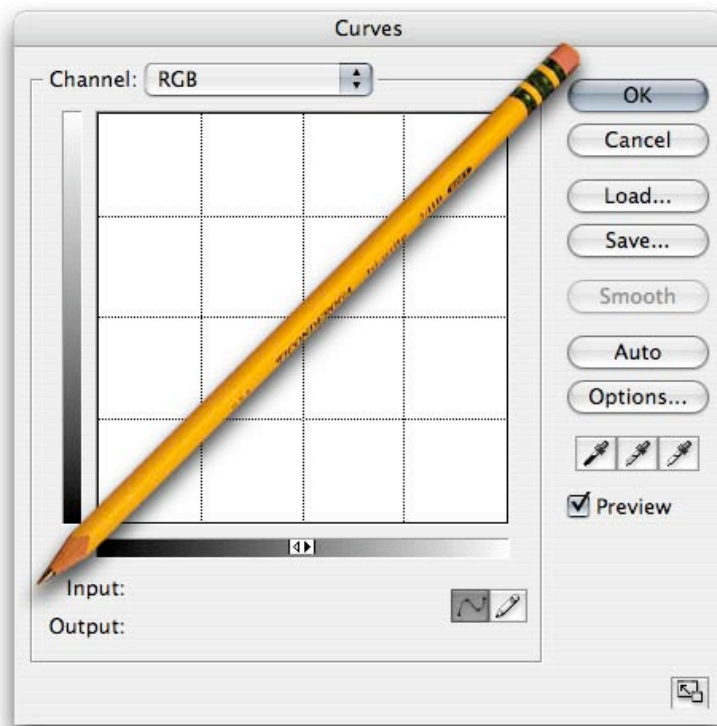
## Where do you begin scripting? Metaphors





# Photoshop for Geeks

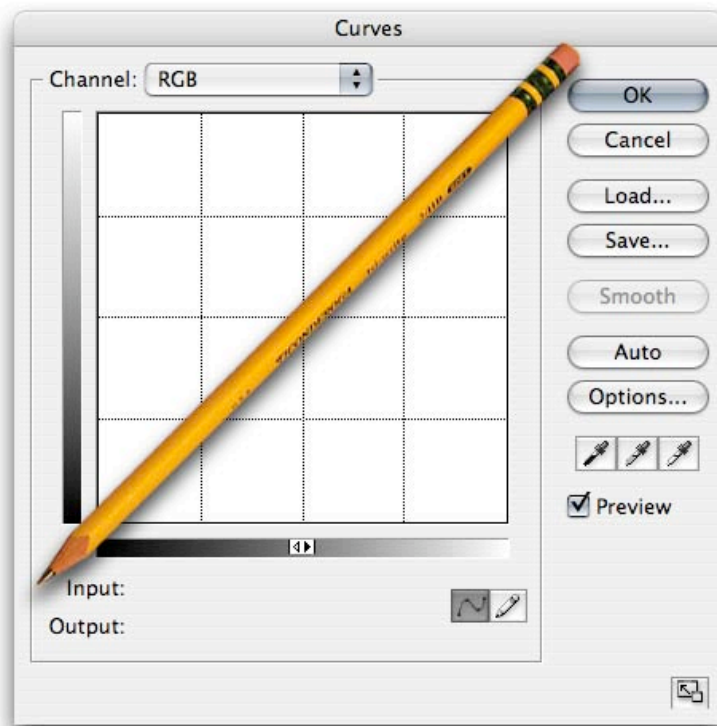
**Where do you begin scripting?  
Metaphors**





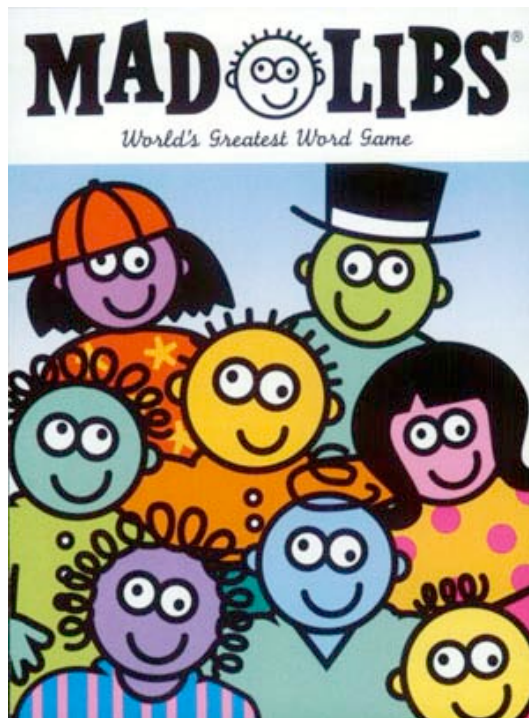
# Photoshop for Geeks

**Where do you begin scripting?  
Metaphors**



# Photoshop for Geeks

## Where do you begin scripting? Metaphors

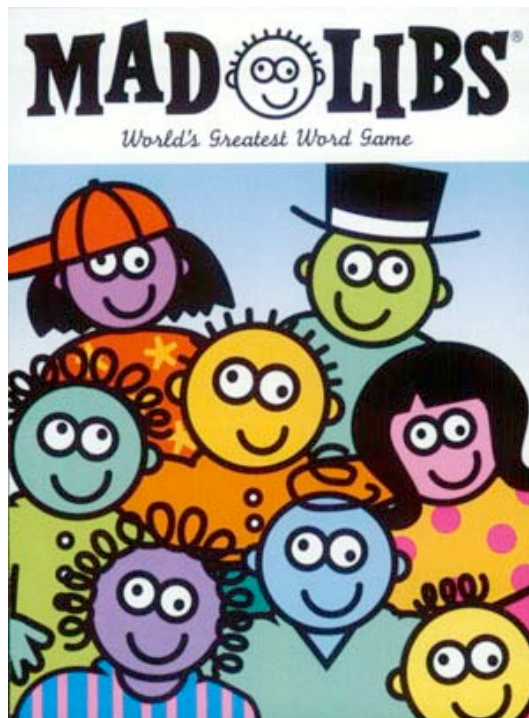


**MAD LIBS**  
**PILOT TO PASSENGERS**  
Ladies and gentlemen, welcome aboard smudged Airline's Flight  
750. This is your captain and pilot, Julie Andrews. We have  
a/an cochety tailwind and will soon be flying through a  
heavy road storm. So I'll have to ask you all to fasten your  
hair raising belts and wallow your trays to the long  
position. In the meantime, I hope you have a/an hard trip.  
For tomorrow's Mad Libs® choose:



# Photoshop for Geeks

Where do you begin scripting?  
Learn scripting grammar



- You didn't have to write the whole story
- You just had to know a few things about grammar and parts of speech
- Things like verbs, nouns, and adjectives



# Photoshop for Geeks

**Where do you begin scripting?  
Learn scripting grammar**



- You don't have to know how to write an entire script
- You just have to know a few things about the programming language



# Photoshop for Geeks

**Where do you begin scripting?  
Learn scripting grammar**



- Nouns = Documents, Layers, and Channels
- Verbs = Methods/Functions





# Photoshop for Geeks

## Where do you begin scripting?

### Errand List:

#### Target:

##### Return items:

Coat (too big)

Lamp (broken)

##### Purchase:

Cat Litter

Dog Food

Coke

#### Grocery Store:

##### Purchase:

Milk

Cheese

Garbage Bags

##### Recycle:

Plastic bags

Batteries

#### Bank:

Deposit Checks



# Photoshop for Geeks

## Where do you begin scripting? Learn to Pseudocode

### Errand List:

Target:  
  Return items:  
    Coat (too big)  
    Lamp (broken)  
  Purchase:  
    Cat Litter  
    Dog Food  
    Coke  
Grocery Store:  
  Purchase:  
    Milk  
    Cheese  
    Garbage Bags  
  Recycle:  
    Plastic bags  
    Batteries  
Bank:  
  Deposit Checks

### Open a folder of images:

For each image:  
  If the image is bigger than 1000px  
    Resize the image (1000px)  
  Unsharp Mask (amt = 105%, r = 1.1px)  
  Save as:  
    w/ fileName.jpg  
    JPEG (Qlty = 10)  
  Resize the Image (300px)  
  Save as:  
    w/ fileName\_Thumbnail.jpg  
    JPEG (Qlty = 5)  
  Close file



# Photoshop for Geeks

**Where do you begin scripting?**  
**Use Recipes**



# Photoshop for Geeks

**Where do you begin scripting?**

## **Use Recipes**



1 cup boiling water

1 pkg. Strawberry JELL-O

2 cups mixed berries

1 pkg. (8 oz.) PHILADELPHIA Cream  
Cheese

1-1/4 cups cold milk

1 pkg. Vanilla JELL-O Instant Pudding

1 tub (8 oz.) COOL WHIP Topping,  
thawed

1 pkg. (12 oz.) pound cake, cubed



# Photoshop for Geeks

Where do you begin scripting?

Use recipes & reuse complex Ingredients



Ingredients: sugar, gelatin, adipic acid (for tartness), less than 2% of artificial flavor, disodium phosphate and sodium citrate (to control acidity), fumaric acid (for tartness), and the colorant red 40.

# Photoshop for Geeks

Where do you begin scripting?  
Use recipes & reuse complex Ingredients



```
// Given the a Folder of files, open them

function OpenFolder(outputFolder, inputFolder) {

    var filesOpened = 0;
    var fileList = inputFolder.GetFiles();
    for ( var i = 0; i < fileList.length; i++ ) {
        // Make sure all the files in the folder are comp
        if ( fileList[i] instanceof File && ! fileList[i]
            open( fileList[i] );
            filesOpened++;

        var docRef = activeDocument;
        var myImage = docRef.name }
```



# Photoshop for Geeks

## Writing your first Script



### Extend Script Toolkit (ESTK)

#### Macintosh:

Applications/Utilities/Adobe Utilities/ExtendScript Toolkit

#### Windows:

C:\Program Files\Adobe\Adobe Utilities\ExtendScript Toolkit



# Photoshop for Geeks

**Where to go for more help with scripting**

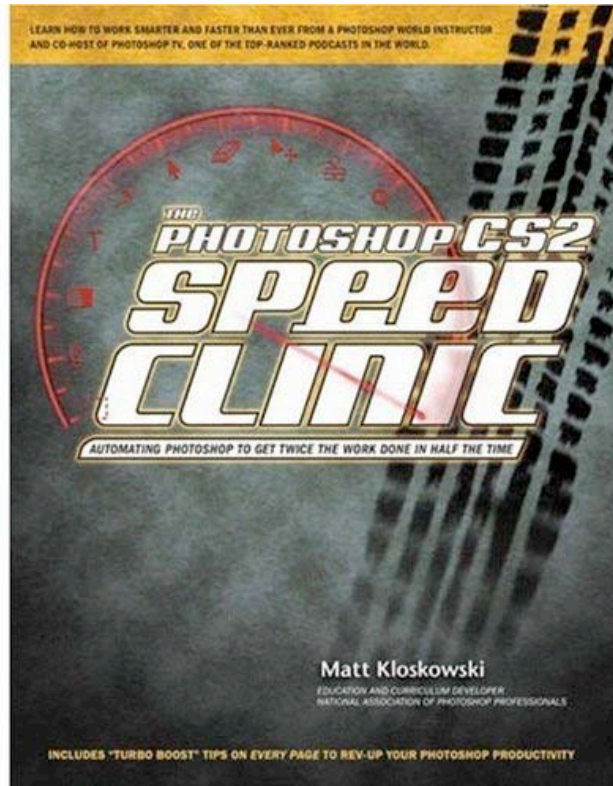
**<http://www.tranberry.com/>**





# Photoshop for Geeks

**Where to go for more help with scripting**



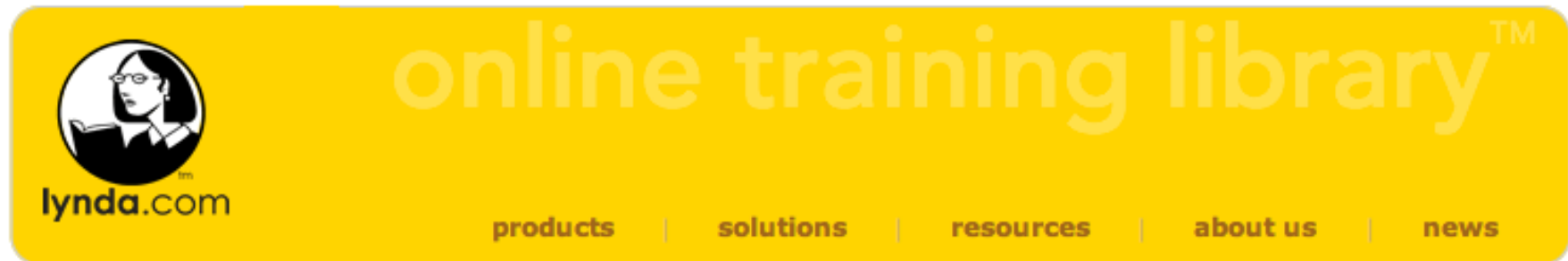
The Photoshop CS2 Speed Clinic:  
Automating Photoshop to Get Twice  
the Work Done in Half the Time

by Matt Kloskowski



# Photoshop for Geeks

## Where to go for more help with scripting



[Online Training Library™](#) » [Adobe](#) » [Photoshop CS2 Actions and Automation](#)

**Photoshop CS2 Actions and Automation**  
with: [Deke McClelland](#)

## 6.5 hours of scripting training

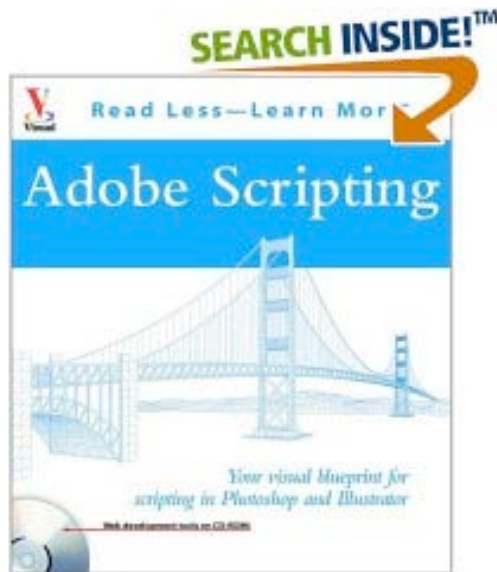
Recording actions and automating common tasks saves time and makes performing repetitive tasks more efficient. In *Photoshop CS2 Actions and Automation*, Certified Adobe instructor Deke McClelland teaches users how to build actions more efficiently and reliably, identifies places where automation functions can be improved, and provides an understanding of JavaScript commands to dramatically expand automation possibilities. Better still, he discusses how to troubleshoot when things go wrong. The instructor also explores the power of workspaces and batch processing, and describes Droplets inside out. The training shows how to turn Photoshop into an industrious, image-crunching, timesaving tool -- and the instructor shares his top insights and techniques. This training title offers expert guidance and instruction to prepare users to automate common (and occasionally complex) tasks.





# Photoshop for Geeks

**Where to go for more help with scripting**



**Adobe Scripting: Your Visual  
Blueprint to Scripting in  
Photoshop and Illustrator**

**by Chandler McWilliams**