COVERS
PHOTOSHOP
3.0

025

Photoshop

Techniques

How to produce

QUICK, CLEAN DESKTOP HALFTONES.

From a production standpoint, if you have Adobe Photoshop and a desktop scanner you probably already have the capability to produce good-quality halftones. How good is largely determined by the quality of your scanner and how well you understand the halftone process.

This issue covers the basic steps to create quick, clean halftones. The other issues in this series help you understand the background information behind these steps. I would strongly encourage you to read through the other issues in this series:

#026 - How to Evaluate and Use Desktop Scanners.

#027 - How to Prepare a Photo for the Printed Page.

#028 - Understanding the Unsharp Mask Filter.

In this issue I've tried to balance getting the best results possible while staying within a simple step-by-step format. The steps covered here will do a lot to improve most of the bread and butter photographs you will need to reproduce in daily work.
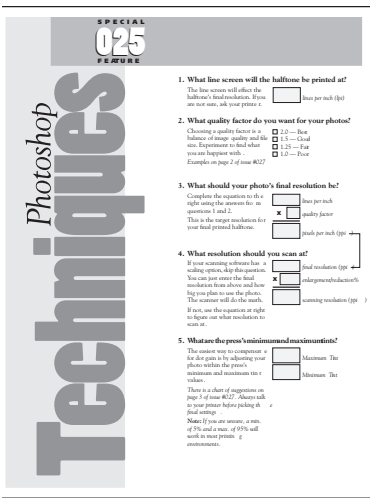
Before we get into the step-by-step procedures of creating halftones, there is a bit of preparation to do. Follow the two preparation steps listed below. It would also help to read through issues #026 and #027 to familiarize yourself with some of the concepts involved in producing halftones.

Fill out the "Preflight Checklist."

A one-page checklist is included with this issue. Find this sheet and carefully fill it out. This form will help you collect the information you need to know before beginning.
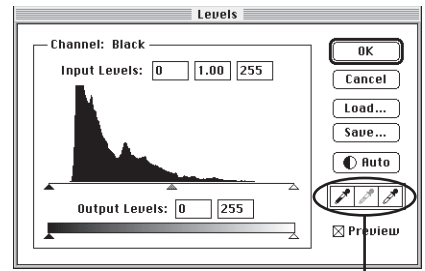
Note: Make a copy of this form before filling it out the first time. You can use it to help you prepare for future projects.

### Set targets for min. and max. tints.

Question #5 of the checklist has you identify your press's minimum and maximum tint values. You must enter these values into Photoshop before using this technique.

In the Levels Dialog box, double-click on the two black and white eyedroppers. Each of these icons allows you to enter your target min. or max. values. Photoshop will bring up a standard color picker dialog box. Enter the values from question #5 on the checklist. (Set C,M and Y to zero in the picker)

Set White and Black Targets

Once you have set these, Photoshop can automatically trim your photos within your press's limitations.

Max. Tint   Min. Tint
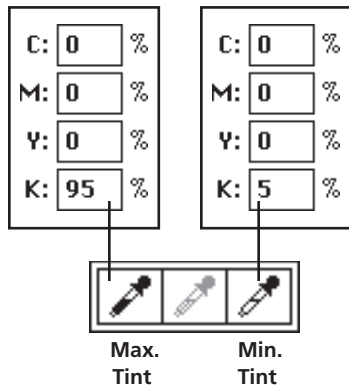
Double-click on the eyedroppers to enter the printing limits for your particular

Step 1

Scan your original photo.

Every scanner is different. Most scanning software will have the setting listed below. You will need to work with your scanning software to learn the controls.

Scan Mode: Grayscale (not Halftone).
Scan Area: Crop in preview window.
Scale: Planned enlargement/reduction.
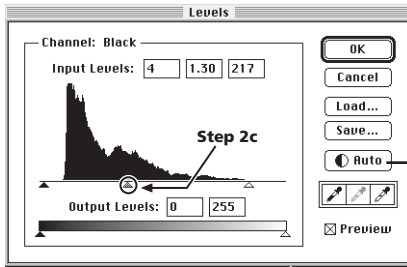**Resolution:** Question #3 in the checklist.*

*Note:** If your scanner does not allow you to enter a scaling size, you will need to calculate the correct scanning resolution. Use the answer to question #4 on the checklist.

Step 1: Raw Scan
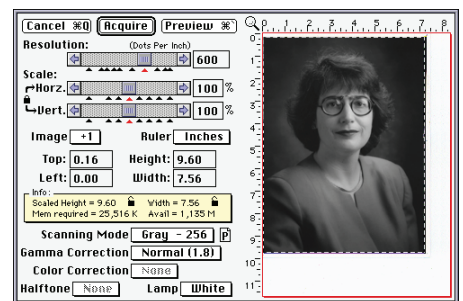
Example scanner dialog box from a LaCie SilverScan III.

Step 2: Adjust Levels

Step 2

Adjust the photo's tonal balance.

After you have scanned in your image, you will want to adjust it to provide the best printed result. After your adjustments, the image may look a little light on the screen, but it should be optimized to print well on your final printed piece.

A: Choose Adjust → Levels from the Image menu.
The Levels dialog box will appear.

B: Set the highlights and shadows.
Click on the Auto button.
Photoshop will trim the photo within the min. and max. tint values you chose in the preparation steps for this technique.
Note: You must set your printing limits for this to work properly. Follow the preparation steps before clicking Auto.

C: Adjust the photo's midtones.
Move the middle slider to change the balance of your photo's midtones. Most desktop scans will need to be lightened by dragging to the left.
Click OK to apply the changes.

D: Choose Adjust → Auto Levels from the Image menu.
This is optional. If you make a large midtone adjustment, the highlight and shadow values can be effected. This command resets them to your original target.

Step 3

Apply the Unsharp Mask filter to the image.

Almost all images will benefit from some amount of sharpening. The right use of sharpening can pull detail right off the page: wood grain becomes more visible; a model's smile shows defined teeth; products pop off the page; and overall photos seem more clear and focused.

A: Double-click on the zoom tool.
This zooms your photo to a 1:1 ratio. Because of the way this filter works, you should only make Unsharp Mask judgments when viewing photos at a ratio of 1:1.

B: Choose Sharpen → Unsharp Mask from the Filter menu.
In the Unsharp Mask box, set the Radius and Threshold settings to the values below. Vary the Amount setting to sharpen your image to taste. (These settings are intended as a starting point, read issue #028 and experiment on your own)
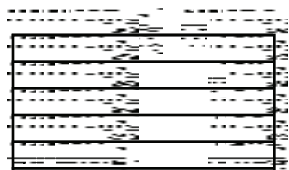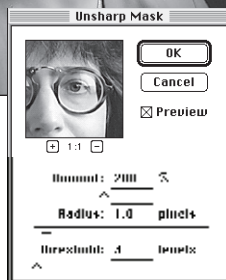**Amount:** 200% to start, then adjust to taste.
Radius: Your Photo Resolution divided by 200 (see chart).
Threshold: 3 pixels.

Step 4

Save your photo as a TIFF.

If you have completed the previous three steps correctly, your photo should be ready to add to your project. Place the image into your page layout software and complete your layout.

Step 5

Print your final project.

Chances are your laser printer will not be the final form of your project. You will want to have it printed and distributed to your audience as needed.

There are few times that you will be able to use your laser printer for the final output. Most of the time you will need to have your pages output for final printing on a high resolution imagesetter.

Review page 4 of issue #026 and talk to your press representative about the best way to print your final project.

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