

Photoshop Halftone for Print



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All print processes are binary; which means there is either ink or no ink, you cannot have more or less ink to create tonal variation. In order to create images with tonal variation printers use a technique called halftone printing. A halftone splits an image into a grid of dots; by varying the size of each dot the optical illusion of tonal variation is created. The following handout describes how to give a monotone digital image a halftone screen for screenprinting or lithography.

Stage 1 Open your file in Photoshop

- 1. Click on the Ps icon in the dock to launch Photoshop
- 2. File > Open...
- 3. Navigate to your file and click Open





Stage 1Convert your image to Grayscale

- 1. Image > Mode > Grayscale
- 2. Click Flatten (if asked)
- 3. Click Discard



File:

- 1. Image > Mode > Bitmap
- 2. Set output to 600 Pixels/Inch
- 3. Method Use: Halftone Screen...
- 4. Click OK



For Screenprinting...

- 1. Set Frequency: 75 Lines/Inch
- 2. Angle: 45 degrees
- 3. Shape: Ellipse
- 4. Click OK

Halftone Screen Halftone Screen OK Lines/Inch ¢ 1 Frequency: 75 Cancel 2 Angle: 45 degrees Load... Shape: Ellipse \$ 3 Save...

For Lithography...

- 1. Set Frequency: 150 Lines/Inch
- 2. Angle: 45 degrees
- 3. Shape: Ellipse
- 4. Click OK







With Halftone (25lpi to show dots structure)

4

1. Image > Mode > Grayscale

- 2. Size Ratio 1
- 3. Click OK

You don't have to change your file back to Grayscale, but it will make it more compatible with other programs and printer drivers.

| • | Bitmap | | | |
|---------------------------|--|---|---|---|
| • | ✓ Grayscale Duotone | ◄ 1 | | Grayscale |
| ዕዝL ርዕዝL ዕዝB | Indexed Color RGB Color CMYK Color | | 2 | Size Ratio: 1 OK Cancel |
| て第1 て第C | Lab Color Multichannel | | | |
| • | ✓ 8 Bits/Channel 16 Bits/Channel 32 Bits/Channel | | | |
| | Color Table | | | |
| | | , | | |
| | ◆ 分第L 乙分第L 公第B で第B て第C 下第C ◆ | ▶ Bitmap ☆ Grayscale Duotone □ 𝔅 𝔅 L Indexed Color □ 𝔅 𝔅 L RGB Color □ 𝔅 𝔅 B CMYK Color □ 𝔅 𝔅 C Multichannel □ 𝔅 𝔅 C ✓ 8 Bits/Channel 16 Bits/Channel 32 Bits/Channel Color Table Color Table | ▶ Bitmap ↓ Grayscale Duotone Indexed Color □ RGB Color □ CMYK Color Lab Color Lab Color Multichannel ✓ 8 Bits/Channel 16 Bits/Channel 32 Bits/Channel Color Table Color Table | ▶ Bitmap ↓ Grayscale □ Duotone □ Indexed Color □ RGB Color □ CMYK Color Lab Color Multichannel □ ✓ 8 Bits/Channel 16 Bits/Channel 32 Bits/Channel Color Table Color Table |

Stage 4 : Printing your image

- 1. File > Print
- 2. Choose a printer
- **3.** Choose the Orientation
- 4. Click Print Settings...

| 000 | Photoshop Print Settings | 1 |
|---------------------|--|--------|
| 20.99 cm x 29.67 cm | Printer Setup Printer: ACE Yellow Room ÷ Copies: 1 Print Settings Layout: 🗟 🗟 | 2 4 |
| | Remember to enable the printer's color management in the print settings dialog box. Document Profile: Dot Gain 15% Color Handling: Printer Manages Colors ‡ Printer Profile: Adobe RGB (1998) ‡ Send 16-bit Data Normal Printing ‡ Rendering Intent: Relative Colorimetric ‡ | |
| Match Print Colors | Black Point Compensation | |
| Gamut Warning | | |
| Show Paper White | Cancel Done Print | |

- 5. Click on the Show Details button (you may not need to do this)
- 6. Set your paper size7. Click on the Layout menu option and from the options choose Colour/Quality
- 8. Set printer resolution to 600
- 9. Set Economode to Highest Quality
- 10. Click Save
- 11. Click Print

| Print |
|--|
| Printer: ACE Yellow Room |
| Copies: 1 🗘 🗇 Two-Sided |
| Pages: Single 💠 1 |
| PDF • Show Details Cancel Save |
| T 5 |

| | Print | |
|---|---|-------------|
| | Printer: ACE Yellow Room Presets: Default Settings | |
| | Copies: 1 Two-Sided Paper Size: A4 8.345 by 11.69 inches | 6 |
| | Resolution Enhancement: Printer's Current Setting | |
| | Printer Resolution: 600 dpi ÷ Levels of Gray: Printer's Current Setting ‡ | |
| 9 | EconoMode: Highest Quality + | ↓ 10 |
| | | |