

Platform: Mac/PC

Level of Difficulty: Beginner

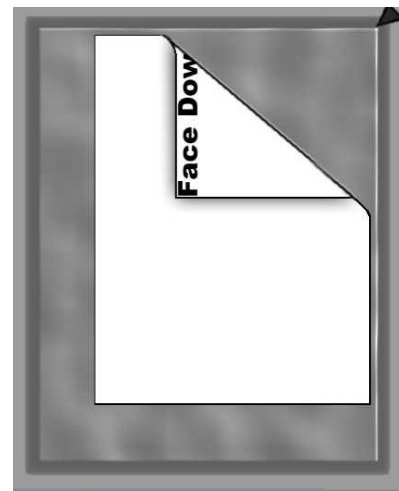
This document will teach you how to create digital images from photographs, drawings, documents, etc. using the scanners at the Campus Computing Facilities hub labs.

Introduction

A scanner is a device used to create electronic versions of physical media. A “picture” of the item is taken by the scanner and stored on the computer itself, saved as a file. As files, pictures can be edited and then included in presentations and word processing documents, attached to an email, compiled in a digital photo album, or posted on a web page.

Scanning Policy

Under no circumstance may any official document be scanned. Examples of prohibited documents include currency, drivers’ licenses, IDs, diplomas, and passports. If you are found attempting to scan a document prohibited from duplication you will be reported to the proper authorities without advance warning. If you have any question as to whether or not scanning your document is prohibited, ask a consultant on duty or contact the issuer of the document.



Preparing Your Document

Before starting the scanner software, position your document on the scanner itself. Lift the cover on the scanner and place your document face down on the glass. It does not matter where you place it on the glass, but it is a good rule of thumb to have the top of the image flush against the top right corner of the glass. Once you have positioned your document, close the cover.

Opening Adobe Photoshop

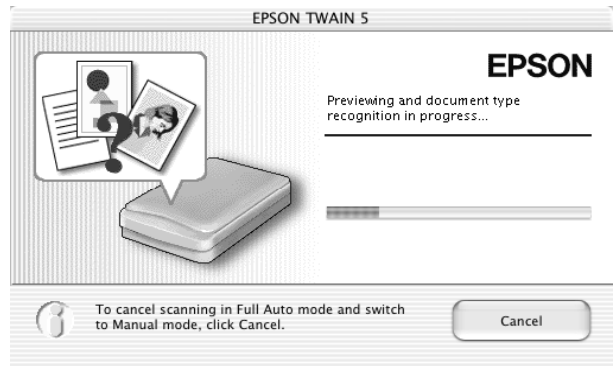
The USB scanners in the labs operate through Adobe Photoshop. To open Adobe Photoshop on a Mac, go to the **Applications** folder in the top left corner of the screen, click on the **Adobe Photoshop 7** folder and select the **Adobe Photoshop** icon. You can also open the Photoshop program using the icon on the **Dock Bar**.

On a PC, click on the **Start** button and find the **Programs** folder at the top. On the menu that appears to the right, select **Adobe**. From there find **Photoshop** and click on **Adobe Photoshop** to open the application.

Once in Adobe Photoshop, go to the **File** menu, put the mouse on **Import**, and select **EPSON TWAIN 5**. This will bring up the scanning part of the application.

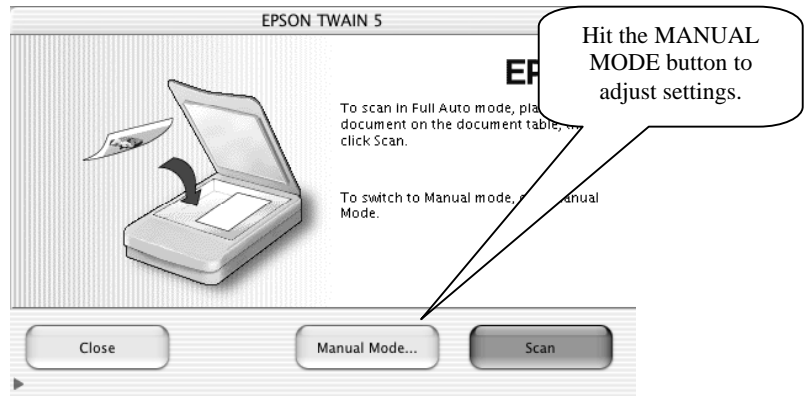
Automatic Scan

If you do not wish to adjust the resolution, scanning area, scale, or any other option available on the Epson scanner, do nothing at this point if you are on a PC. The scanner will scan your media and give you what it thinks is the best scan for the type of media it detects. If you are using a Macintosh, you will need to click the **SCAN** button. Your image will appear within the Photoshop application for editing and saving. The scanning portion is now complete. However, if you do not like the way your image comes out or you would like to adjust some of the features, please see the instructions below.



Manual Scan

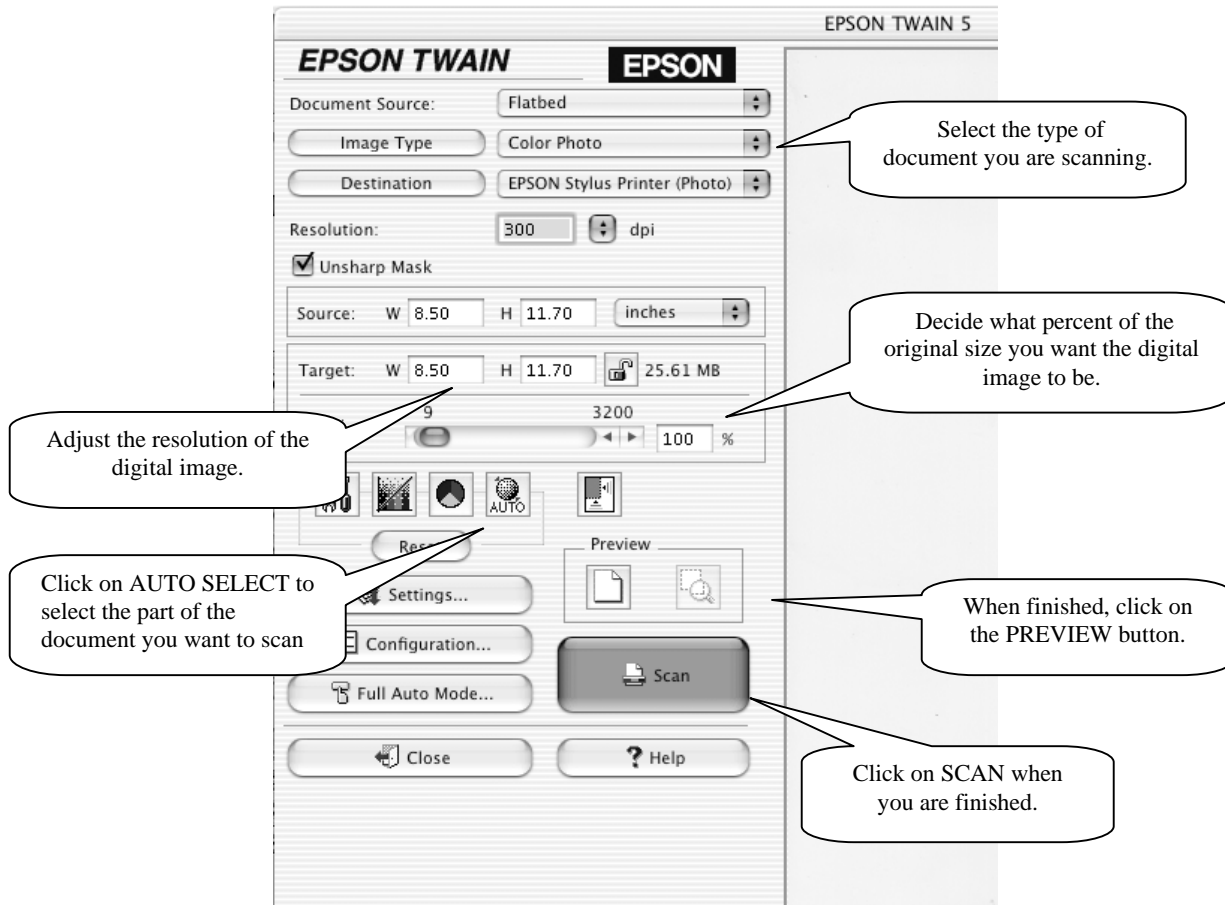
To do a manual scan on a PC, start the automatic scan and then hit the **CANCEL** button on the scanning window. In the next window that appears, click on **MANUAL MODE**. On a Macintosh, simply click the **ADVANCED** button.



A manual scan will allow you to set the way the scanner will turn your media into a digital image. This option is preferred if you only want to scan a portion of your document, if you need the digital image to be very high quality, if you would like to use OCR software to recover text from your document, if you want to change the scale of the image, or if the automatic scan does not produce the image you expected.

Adjusting Options and Scanning

Once you decide to do a manual scan, you will be presented with this window:



After you set all of your preferences and click on the PREVIEW icon, the scanner will take a preliminary scan of the scanner bed. You will see your document surrounded by white space (the scanner surface that is not covered by your media). If you want your entire document to be in the final scan, click on the AUTO SELECT button right below the scale options. This will select (selection marked with a dotted line frame) a rectangular area that the scanning software detects to be your image. If this is correct, you are ready for the final scan.

If this is not correct or you would like to scan an area larger or smaller than selected, click in the white area of the preview with the mouse to remove the frame. Click on any corner of the rectangular region you wish to scan and drag the mouse to the opposite corner, creating your own frame around the area that will appear in the final scan. When you are satisfied with the selection and all settings, click SCAN. A final scan is performed and your digital image will appear in a new Photoshop window, ready for editing and saving. For help using Adobe Photoshop, see the CCF document at <http://nbc.rutgers.edu/ccf/main/documentation.html>.

Recommended Graphic File Formats

Adobe Photoshop saves your scanned document in a file with a particular format. A file format is simply the way a file stores information. Some file formats are better at storing certain kinds of information than other formats. Since you can choose the format of your file, you should know what the most common file formats are and why you should or should not choose to use them.

PSD: PSD (Photoshop Document) files save layer information. If you add a layer or make significant changes to your file, you should save it as a .psd file. This file format is not publishable on the web and is not recommended for sending through email because many people do not have the Adobe software and cannot open the file without a copy of Photoshop on their computer.

TIFF: Files saved as TIFF (Tagged Image File Format) files use a large amount of disk space (a single TIFF file can exceed the space on a floppy disk), but are very high quality. The TIFF file format is ideal for presentations, word processing documents, or when you wish to retain the detail of the print document.

GIF: GIF (Graphics Interchange Format) is a format frequently used on the Internet, specifically for icons, animations, and cartoons. Files saved in with the .gif extension tend to retain details very well and take up very little disk space. However, they can only display 256 colors. Their use should be limited to web page graphics and less detailed charts and graphs.

JPEG: A file saved in the JPEG (Joint Photographic Experts Group) format is commonly used for web pages on the Internet. This format takes up very little space and it can hold up to 16.7 million colors. This makes the .jpg extension ideal for color photos, although it does sacrifice some of the detail to preserve its small size. The relatively small amount of disk space that it takes up makes it ideal for storing on floppy disks, sending it attached to email, or posting it to the Internet.

Where to get more help...

- A Consultant on Duty
- The HELP menu in Photoshop
- CCF Document on Adobe Photoshop