EPSON®

Expression®

836XL

MonacoSCAN™ User's Guide

For Microsoft® Windows® 95, Windows 98, Windows NT® 4.0,
and Apple® Power Macintosh®

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Introduction

MonacoSCAN™ color management software lets you create a unique input profile for your scanner by calibrating the scanner colors. When you use the profile, the colors in your scanned image more closely match the colors in the original.

To create an input profile, you first scan the industry-standard IT8 target image that came with your scanner and save it as a TIFF file. Then you use MonacoSCAN to compare the TIFF file with a color reference file. MonacoSCAN reports a measure of the color differences and creates an input profile that adjusts for those differences as you scan.

MonacoSCAN also comes with an output device profile you can load into Adobe® Photoshop® as a separation table for soft proofing images that you'll output on a MatchPrint.™

See your scanner *Setup Guide* for instructions on installing MonacoSCAN on your system. Then see these sections for instructions on creating your input profile and using the output profile for color separations:

- Calibrating with MonacoSCAN
- Loading the MonacoSCAN Separation Table

System Requirements

Before installing MonacoSCAN, make sure your system meets the following requirements.

Windows System Requirements

- PC with a Pentium® or higher processor
- Microsoft Windows 95, Windows 98, or Windows NT 4.0
- 20MB RAM available for MonacoSCAN
- VGA or higher standard monitor with a 24-bit display adapter

Macintosh System Requirements

- Apple Power Macintosh computer running system 7.5 or later operating system
- 20MB RAM available for MonacoSCAN
- Color monitor with a 24-bit display adapter

Where to Get Help

If you need help using MonacoSCAN, contact Monaco Systems technical support as follows:

World Wide Web address: **monacosys.com**

Electronic mail address: **support@monacosys.com**

Telephone number: **(978) 749-9944**

Calibrating with MonacoSCAN

When you calibrate your scanner colors with MonacoSCAN, you'll be performing these procedures:

- Scanning the IT8 Target
- Selecting Your Target and Reference Files
- Cropping the Target Image
- Calibrating and Evaluating the Results
- Saving Your Calibration Profile

When you're ready to load your calibration profile into your application, follow the instructions in your application documentation.

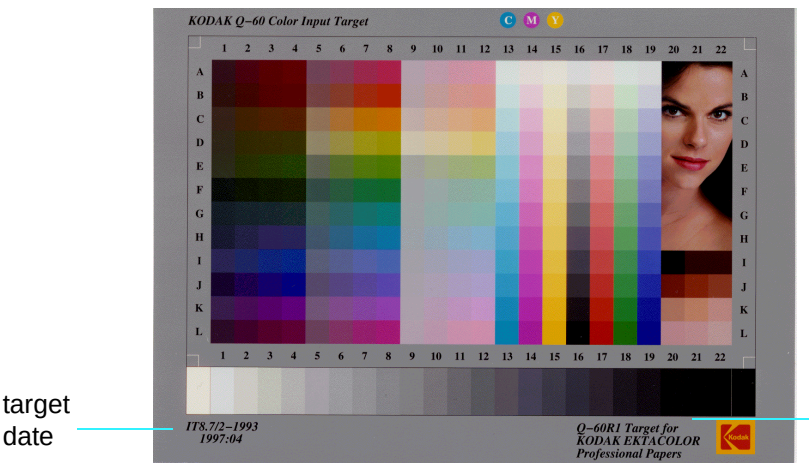
Handle the IT8 target very carefully. If it becomes bent, torn, or scratched, it won't be able to give you a true calibrated profile.

You cannot use the enclosed IT8 target to create a profile for transparencies.

See the documentation that came in the target package for information on caring for your target and purchasing replacements or transparency targets, if necessary.

Scanning the IT8 Target

Before scanning the IT8 target for reflective images that comes with MonacoSCAN, make sure you have successfully installed your scanning application program and either the EPSON® TWAIN Pro driver or the LaserSoft® SilverFast® plug-in for Photoshop.



You may have already verified that your scanner and software are working by following the instructions in your scanner *Setup Guide*. If you haven't scanned yet, be sure to try it before scanning the IT8 target.

If you're creating the profile for scanning with EPSON TWAIN Pro, use TWAIN Pro to scan the target. If you're creating the profile for LaserSoft SilverFast, use SilverFast to scan it.

1. Make sure your scanner is turned on and its document table glass is clean and lint-free.
2. Place the IT8 target facedown on the document table with its upper left corner aligned with the upper left corner of the scanning area.
3. Start your application and open your scanning software (either EPSON TWAIN Pro or LaserSoft SilverFast) as described in its online *User's Guide*.
4. Click the **Preview** (EPSON TWAIN Pro) or **Prescan** (LaserSoft SilverFast) button to prescan the target image.
5. Now turn off the automatic features in the scanning software.

   In SilverFast, hold down the **Alt** (Windows) or **option** (Macintosh) key and click the  Auto Adjust button to turn off the automatic adjustment feature.

   In EPSON TWAIN Pro, click the **Reset** button on the Preview window to turn off all the automatic adjustment features.
6. In SilverFast, adjust the frame on the image until it contains only the IT8 target.

   In EPSON TWAIN Pro, draw a marquee around the edges of the IT8 target image.
7. Click the **Scan** (or **Scan RGB**) button to scan the target.

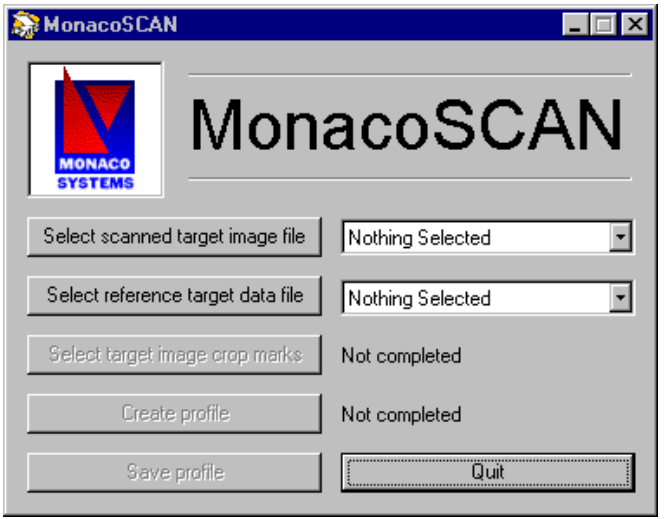
8 Save the scanned image as a TIFF file in your application program.

So you can find the file easily when you load it into MonacoSCAN, it's a good idea to save it with the rest of the MonacoSCAN files. In Windows, save it in the **C:\Program Files\MonacoSCAN** folder. On a Macintosh, save it in the **MonacoSCAN 2.6** folder. (See your program documentation for instructions on saving files.)

Now follow the steps in Selecting Your Target and Reference Files to select your files in MonacoSCAN.

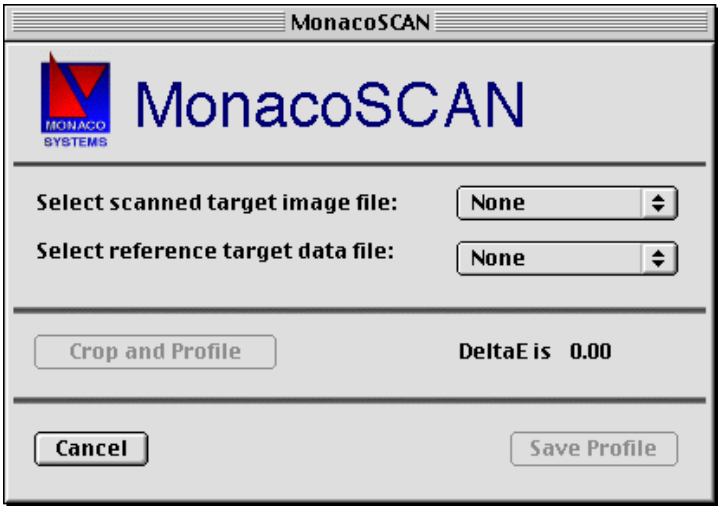
Selecting Your Target and Reference Files

1 In Windows, click **Start**, point to **Programs**, and click **MonacoSCAN**. You see the main window:



Windows main window

On a Macintosh, double-click the **MonacoSCAN 2.6** icon in the MonacoSCAN 2.6 folder. You see the main window:



Macintosh main window

2. Click the Select scanned target image file list box arrow and select **Open**.
3. Locate and select the target image TIFF file you created and click **Open**. You see the main window again, with the target image TIFF file name in the Select scanned target image file list box.
4. Now click the Select reference target data file list box arrow and select **Open**.

5 Select the **R1199704.Q60** file, or the appropriate file based on the name (Monaco or Kodak) and date that appear on the target. (In Windows, the file is in the **C:\Program Files\MonacoSCAN\IT8 References** folder under Kodak or Monaco. On a Macintosh, it is in the **MonacoSCAN 2.6\IT8 References** folder.)

6 Click **Open**. You see the main window again, with the R1199704.Q60 file name in the Select reference target data file list box.

Now follow the steps under Cropping the Target Image.

Cropping the Target Image

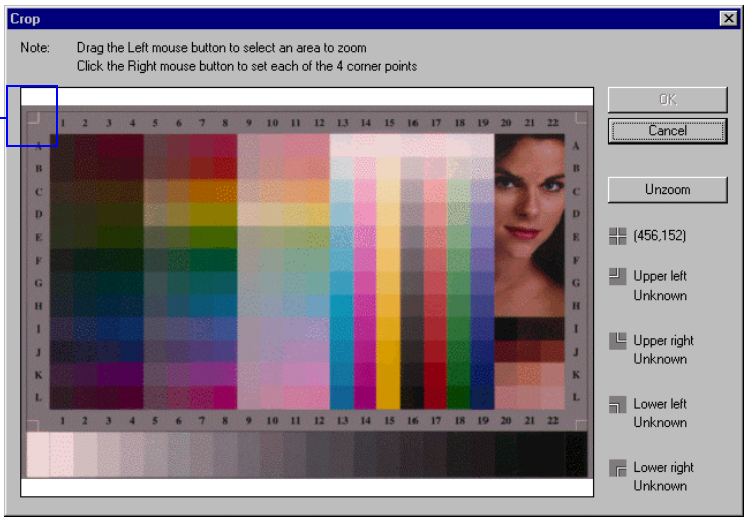
Follow the steps in the section for your operating system to crop your target image:

- Windows 95, 98, and Windows NT Instructions
- Macintosh Instructions

Windows 95, 98, and Windows NT Instructions

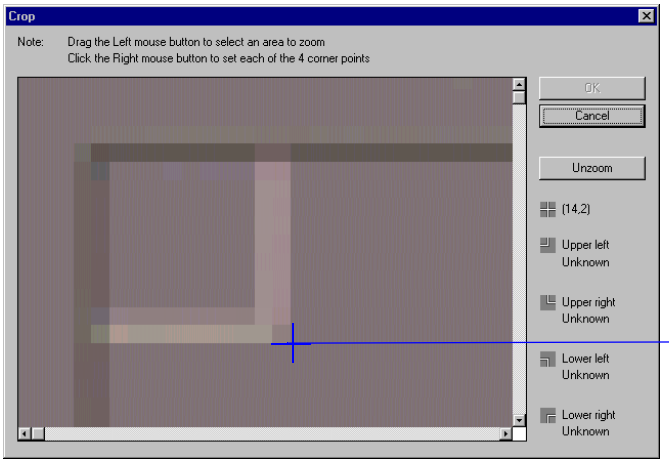
1 In the MonacoSCAN main window, click the **Select target image crop marks** button. You see this window:

Draw a frame around this corner to zoom in



2 To zoom in, move the mouse pointer to the upper left corner of the target image; the pointer changes to a cross hair. Click the **left** mouse button and drag down and to the right to frame the white angle bracket in the corner.

When you release the mouse button, the program zooms into the corner.



3 To mark the corner point, place the cross hair pointer in the lower right corner of the angle bracket. When the cross hair is in the exact corner, click the **right** mouse button to mark it with a green angle bracket.

The icon on the side lists the coordinates for the cross hair pointer location as you move the mouse. When you've marked the corner with a green angle bracket, the coordinates for the upper left corner appear under the icon, such as 15,15.

4 Use the up/down scroll bar to scroll down to the lower left angle bracket, almost at the bottom of the dark area of the screen.

Note

The coordinate points must be within 1 point of their exact positions for the crop to succeed. If they aren't, MonacoSCAN informs you at the end of the process and you can correct their positions.

5 This time, position the cross hair in the upper right corner of the white angle bracket and check the coordinates for the pointer position.

Move the cross hair until the first coordinate is the same as the first coordinate for the upper left corner. For example, if the upper left corner coordinates are 15,15, the first lower left corner coordinate (listed under the icon) should be 15 and the second coordinate can be another number, such as 263.

When the cross hair is positioned correctly, click the **right** mouse button to mark it with a green angle bracket.

6 Use the right/left scroll bar to scroll over to the lower right angle bracket. Position the cross hair in the upper left corner of the white angle bracket and check the coordinates for the pointer position.

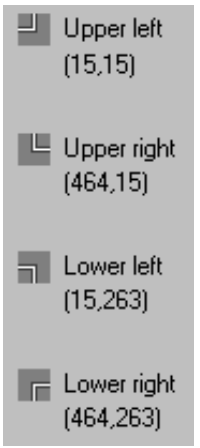
Move the cross hair until the second coordinate is the same as the second coordinate for the lower left corner. For example, if the lower left coordinates are 15, 263, the second lower right corner coordinate (listed under the icon) should be 263 and the first coordinate can be another number, such as 464.

When the cross hair is positioned correctly, click the **right** mouse button to mark it with a green angle bracket.

7 Scroll up to the upper right angle bracket. Position the cross hair in the lower left corner of the white angle bracket and check the coordinates for the pointer position.

Move the cross hair until the first coordinate is the same as the first coordinate for the lower right corner, and the second coordinate is the same as the second coordinate for the upper left corner. For example, if the coordinates are 464,15, they match the first coordinate for the lower right corner and the second coordinate for the upper left corner.

When the cross hair is positioned correctly, click the **right** mouse button to mark it with a green angle bracket. The resulting coordinates now look something like this:



8 If you need to correct the coordinates, scroll to the corner of the image that you need to adjust. Then right click the cross hair at the correct position to move the green angle bracket to it.

If the coordinates are where you want them, click **OK**. If the coordinates are correct, you see the MonacoSCAN main window with **Completed** shown beside the **Select target image crop marks** button.

If the coordinates are not within 1 point of being exact, you'll see an error message. Click **OK** and move the angle brackets as necessary.

Now see Calibrating and Evaluating the Results for steps to complete your calibration.

Macintosh Instructions

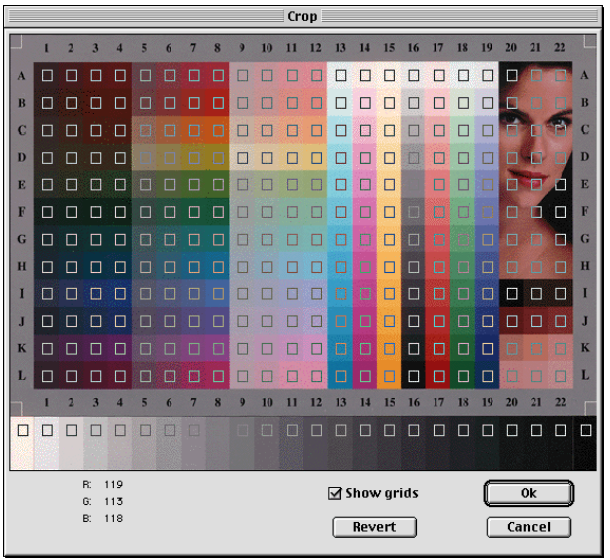
1 In the MonacoSCAN main window, click the **Crop and Profile** button. You see this window:

2 Draw a frame around the entire image. Place your mouse pointer in the upper left corner of the image; the pointer changes to a cross hair. Click and drag the mouse all the way to the lower right corner, including the grayscale at the bottom.

3 If the frame is where you want it, place the mouse pointer **inside** the framed area; the pointer changes to a scissors icon. Click the mouse once to accept the frame as is.

If the frame is not where you want it, click **Cancel**, then repeat steps 1 through 3.

4 Once the frame is where you want it, click the **Show grids** check box. The display changes to look like this:



5 Each white square should be relatively centered in one of the squares of the image behind it, including the grayscale at the bottom.

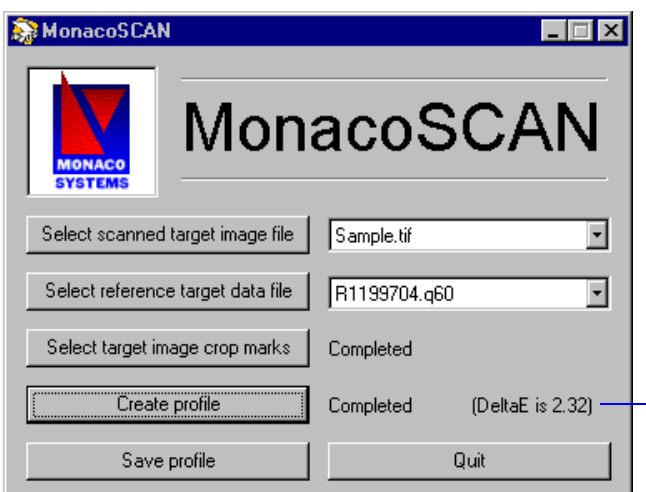
If the squares are centered, click **Ok**. You see the MonacoSCAN main window. See Calibrating and Evaluating the Results to complete the calibration steps.

If any white squares lie outside any image squares, deselect **Show grids** and click the **Revert** button. Then repeat steps 2 through 5 to crop the image again.

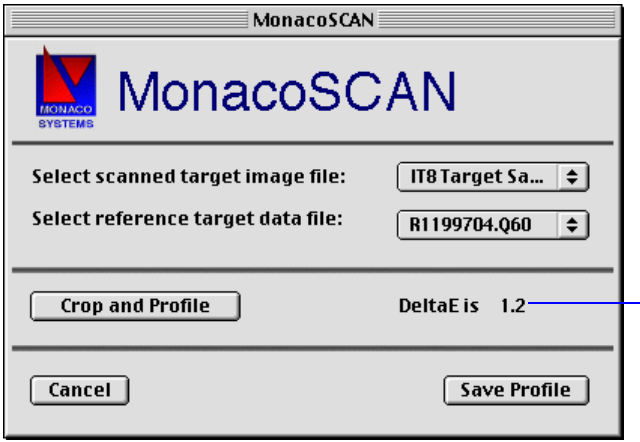
Calibrating and Evaluating the Results

Once you've successfully cropped your image, you're ready to calibrate and evaluate the calibration results. MonacoSCAN compares the colors in the image you've cropped and aligned against the reference image that came with the program and then gives the results of the color comparison.

In Windows, click the **Create profile** button on the MonacoSCAN main window. **Completed** appears beside the button and the calibration results are listed to the right.



On a Macintosh, the MonacoSCAN main window already displays your calibration results next to the **Crop and Profile** button.



The numeric value displayed is computed in Lab color space and indicates the average distance between the color captured by your scanner and the color in the MonacoSCAN reference file.

If the value is 3.0 or less, you'll achieve acceptable color accuracy when you use the resulting profile as you scan. See Saving Your Calibration Profile for instructions on saving the profile.

If the value is greater than 3.0, rescan your target image and calibrate again. Begin at Scanning the IT8 Target and follow all the steps carefully.

Saving Your Calibration Profile

Follow the steps in the section for your operating system to save your calibration profile:

- Windows 95, 98, and Windows NT Instructions
- Macintosh Instructions

Windows 95, 98, and Windows NT Instructions

1. At the MonacoSCAN main window, click the **Save profile** button. You see the Save As dialog box.
2. Select the **C:\WINDOWS\SYSTEM\COLOR** folder and type a name for your .ICM file. Then click **Save**. MonacoSCAN closes automatically.

Now you can use your calibration profile in your application program; see your program documentation for instructions.

Macintosh Instructions

1. At the MonacoSCAN main window, click the **Save Profile** button. You see the dialog box for saving ColorSync profiles.
2. Select the **System Folder\Preferences\ColorSync Profiles** (or **System Folder\ColorSync Profiles**) folder (if it's not already selected) and type a name for your ICC file, such as **836XL 06/99R**. Then click **Save**.
3. Select **Quit** from the File menu to close MonacoSCAN.

Now you can use your calibration profile in your application program; see your program documentation for instructions.

Loading the MonacoSCAN Separation Table

You can load the MonacoSCAN output profile as a separation table in Adobe Photoshop so you can proof images that you'll be printing on a MatchPrint device. The profile simulates the appearance of an image using the 320 GCR setting.

Start Photoshop and follow the steps in the section for your program version to load the output profile as a Photoshop separation table.

Photoshop 3.0 or 4.0 (full versions only)

1. From the File menu, select one of the following, depending on your version of Photoshop:
   - **Preferences** (for Photoshop 3.0)
   - **Color Settings** (for Photoshop 4.0)
2. Select **Separation Tables**.
3. Select **Load**.
4. Locate the MonacoSCAN output profile on your system:
   - In Windows, click the **Monaco MatchPrint 320.ast** file in the C:\Program Files\MonacoSCAN folder
   - On a Macintosh, click the file **Monaco MatchPrint 320 GCR** in the MonacoSCAN 2.5 folder.
5. Click **Open**. You see the Separation Tables window with the file listed in the To CMYK and From CMYK sections.

6 Click **OK**.

When you select **CMYK** in the Mode menu, you can soft proof your image as it will appear on a MatchPrint with a setting of 320 GCR.

Photoshop 5.0 (full version only)

1 From the File menu, select **Color Settings**.

2 Select **CMYK Setup**.

3 Select the **Tables** radio button.

4 Select **Load**.

5 Locate the MonacoSCAN output profile on your system:

- In Windows, click the **Monaco MatchPrint 320.ast** file in the C:\Program Files\MonacoSCAN folder.
- On a Macintosh, click the file **Monaco MatchPrint 320 GCR** in the MonacoSCAN 2.5 folder.

6 In Windows, click **Load**. On a Macintosh, click **Open**.
You see the CMYK Setup window with the file listed in the **To CMYK** and **From CMYK** sections.

7 Click **OK**.

When you select **CMYK** in the Mode menu, you can soft proof your image as it will appear on a MatchPrint with a setting of 320 GCR.