Effective scanning with your Scanhancer 5LE - a manual
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This document describes a method of scanning **negative film** by means of the Minolta Dimâge Scan Multi Pro and the Scanhancer 5LE. There are many ways of making good scans and this is one of them. The method described here has proved to be very effective when using a Scanhancer 5LE, but it will work well without it too. I advise you to learn, practice and keep this method as a standard to be optimized for your own workflow. Please keep in mind that everything here has been described with the highest quality standards in mind only. It is up to you to decide to let go of these standards and choose the 'easy' way.

Happy scanning!
Erik.

A. Before scanning

1. Turn your scanner on **at least 20 minutes** before you are going to scan with it. The tube light inside the scanner needs this in order to fully warm up and stabilize to its full spectrum. Also uneven brightness of the light is leveled out as much as possible. This way possible banding in your scans will be minimised. After proper pre-heating hit the control(apple) + shift + i keys to recalibrate the scanner to the heated light.

2. Keep dust away from your Scanhancer. Avoid static by breathing on it. Do not breathe on your film since this will cause Newton rings to occur.

B. Making a scan

During this stage it is of the utmost importance to capture **all** information that is in the negative and that might be of use for your final picture. It is very easy to throw away information later in Photoshop, but you will never be able to use it when it is not collected first. For that reason we need to scan the negative as if it were a slide. The Minolta software cripples the info when you use the negative settings.

1. Making basic settings

First we have to set the basic settings of the scanner. Auto expose for slides must be off. **Allways** choose 16Bit. Choose **at least** 4 times sampling and pre-ferably more, depending on the time you can spend on a good scan. Turn Color matching off. In Photoshop we can set our working space.
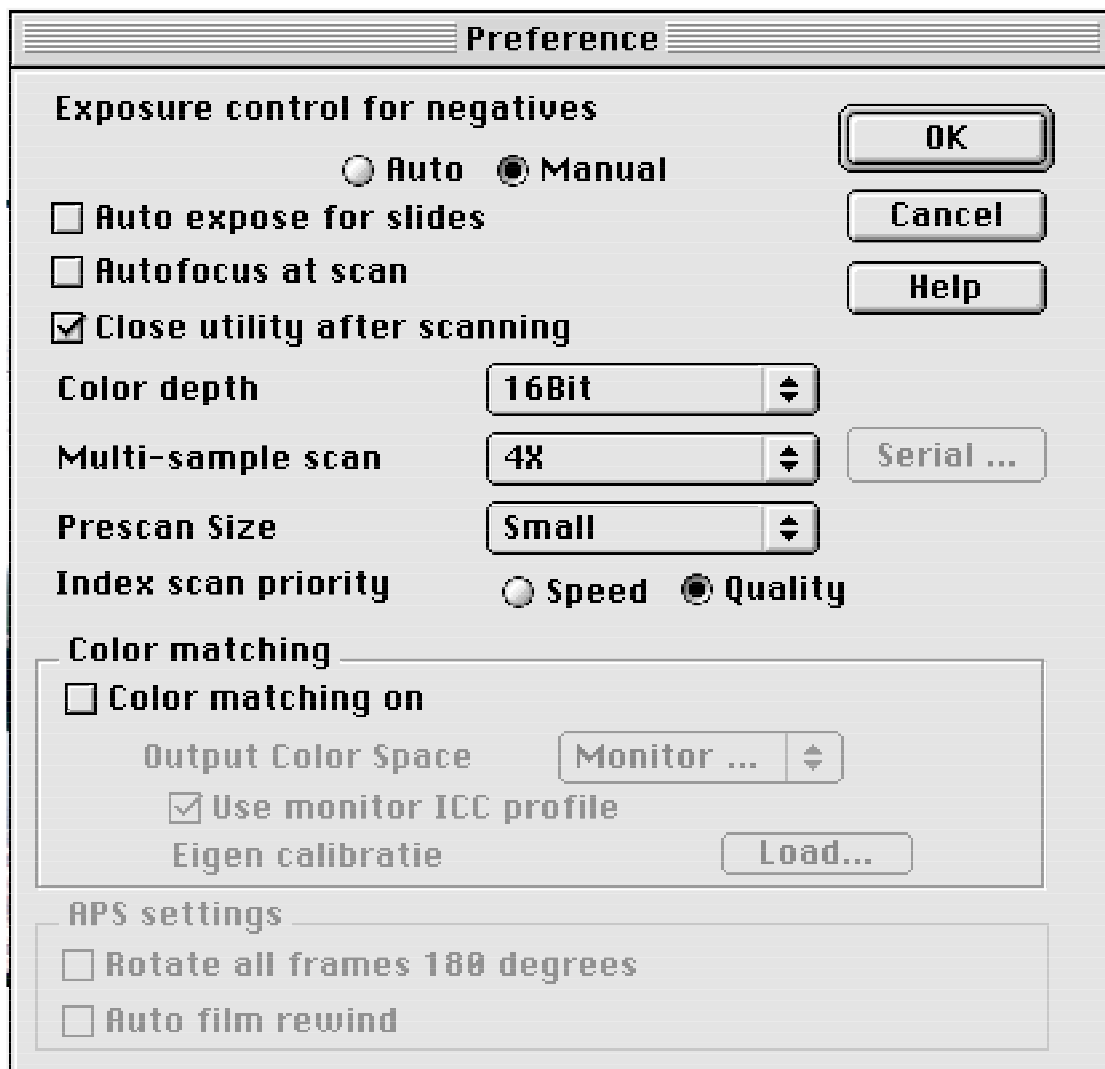
Click OK.

2. Other basic settings & making a prescan

We are going to use the medium format glass holder in order to maintain maximum film flatness. Because we are going to scan a 35mm negative in this example we have to cut a thin paper or plastic mask with an opening along the exact middle of the glass area first. Put the film in the holder and drop in your Scanhancer 5LE. Insert the holder into the scanner.

By choosing the setting Multi Format 35mm we will be able to scan only the appropriate area at *true* 4800 dpi resolution. Choose Slide Film in the film type selector. **Always** set input resolution at 4800 dpi. Later you can downsample to a lower resolution in Photoshop if you want. The advantage of this method is that the downsampled pixels will have an average value of several colour dots, thus resulting in much smoother gradients. Select ICE.
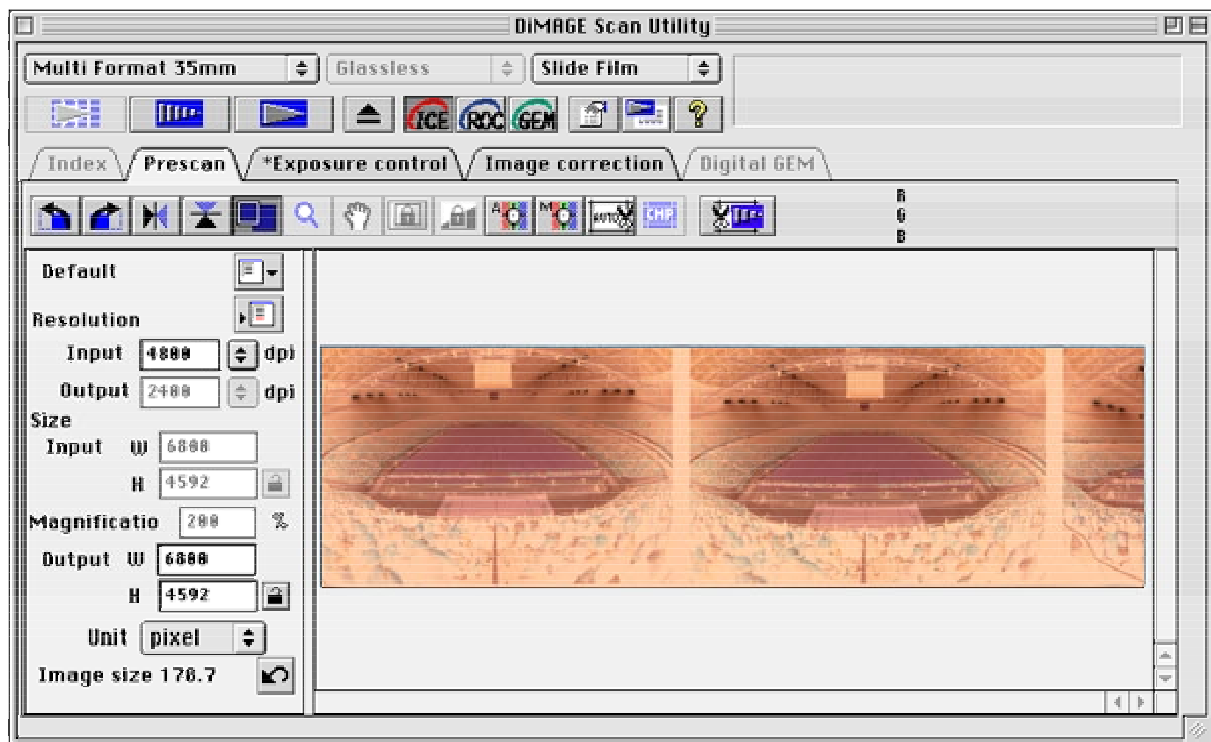

Hit the prescan button. After prescanning, select the area that you want to scan later. **Be aware that you do not select anything outside the picture, like holder edges and such!** This will wrongly influence your histograms.

3. Setting the Exposure controls

Set the master slider to +2 when using the Scanhancer. Set the separate colour channels roundabout the values as displayed hereunder. Click the rescan button. (Please note that newer versions of the Dimage Scan driver show histograms with each slider.)
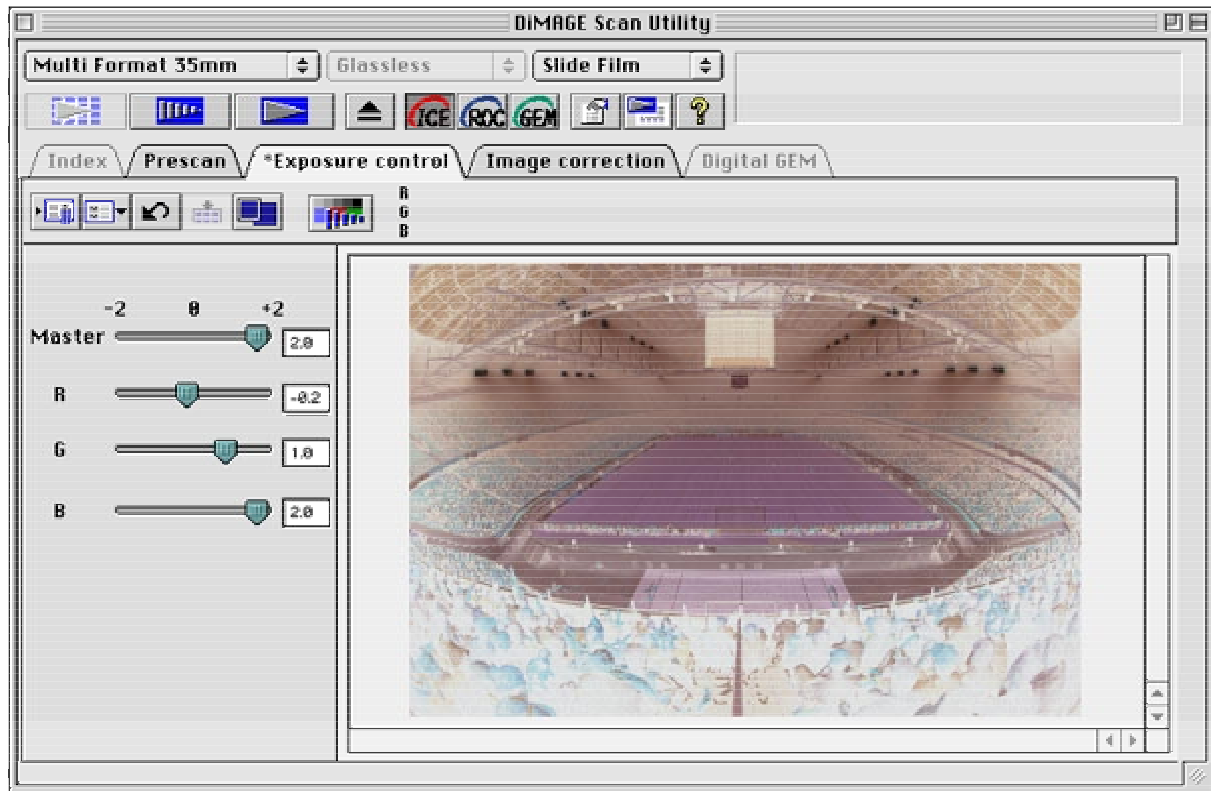
Now click the Image correction tab and click on the tone curve and histogram button. (Make sure that all settings of Image correction are reset by clicking the reset button if needed. **Never** make any adjustments under the Image correction tab! They're 8 bit.) With the newer driver with histograms in the Exposure screen you won't have to go to the Image correction tab.
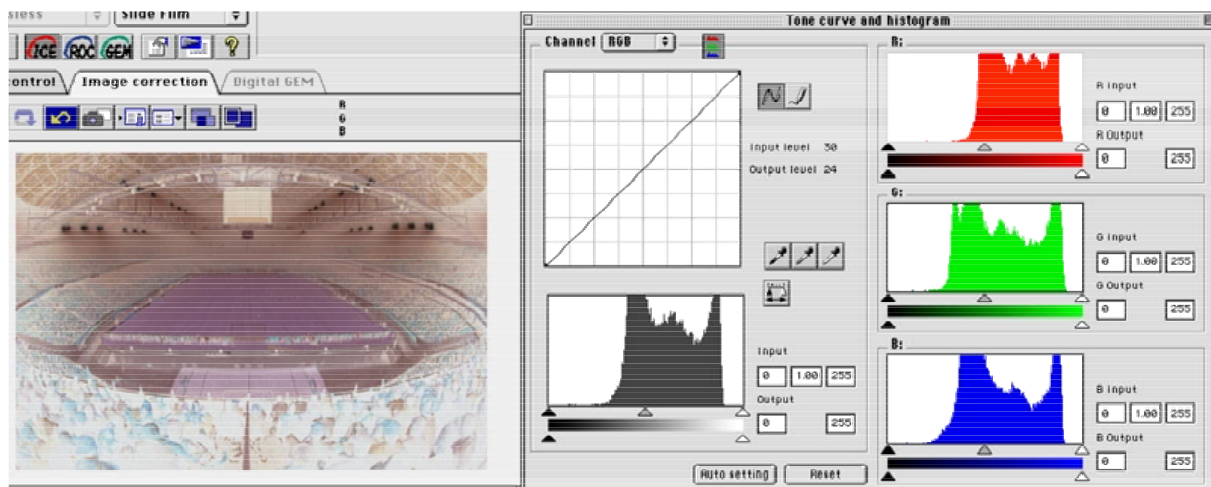

Check the different colour channel histograms to see if they are fully visible a n more or less synchronised with their highlight peaks. When they are not, toggle

back to the Exposure control tab (or hit rescan button when you have the version with histograms in the Exposure screen) and change the sliders to your needs, until you get the histograms the way you want them. Now you are almost ready to scan.

4. Focusing and scanning

Click back to the Prescan screen and select the Manual focus button. Choose a spot with good grain contrast to focus on. Even, mid-gray areas work best for this purpose because there is only grain contrast and no image info that can confuse the contrast meter. Adjust the focus meter by keeping depressed the slider arrows. It takes some practising, but after a while it will turn out to be the best way to focus accurately.
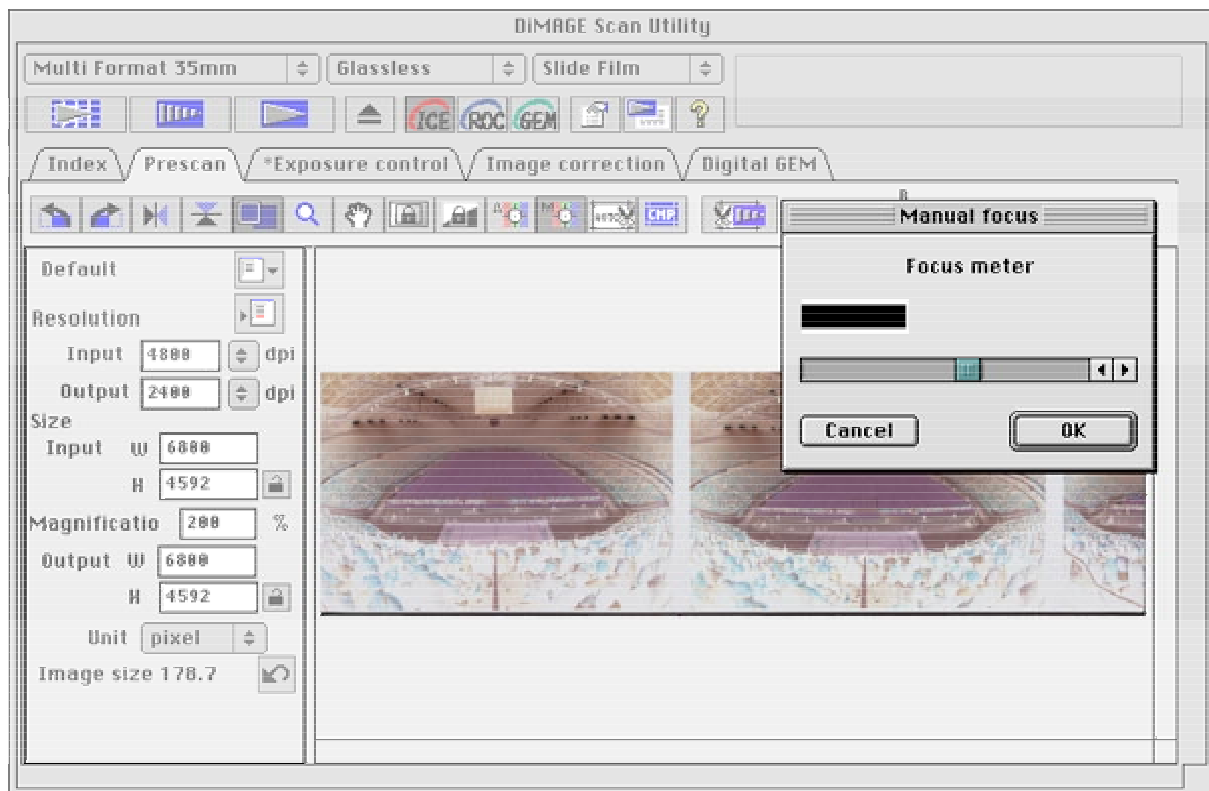

When focus is maximized click OK, wait until the prescan is redrawn and check the exact cutout of the frame. Now hit the Scan button and go do something else.

## C. Creating a nice picture from your scan in Photoshop 7 or higher

1. Open the image in Photoshop in your favorite color space. For colour negs Adobe RGB is a good start. Crop off any unwanted border information that might influence your histograms:


2. Invert the picture and go to Levels:
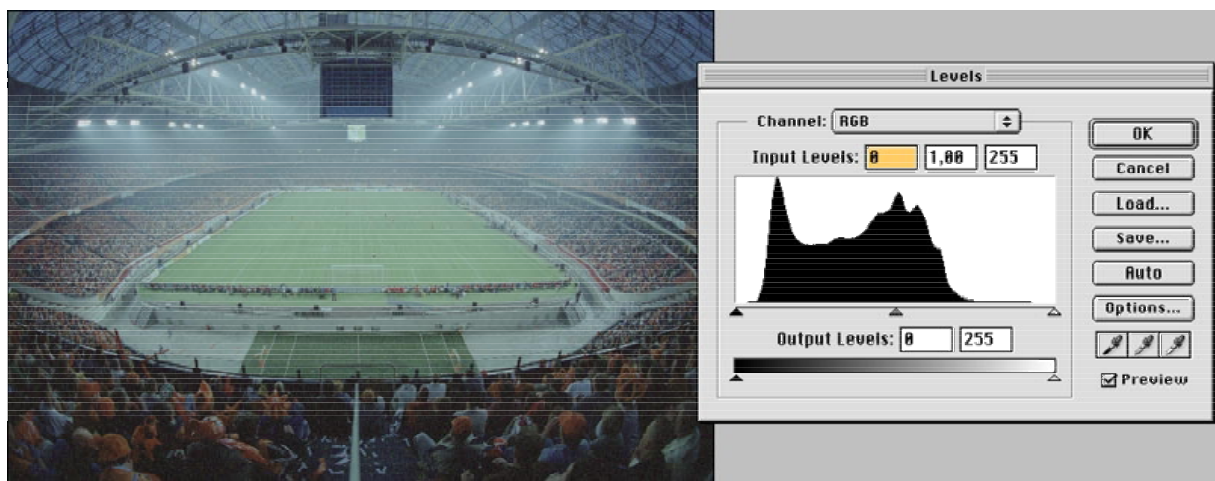
3. Click Options in the Levels palette. You will see the Auto Color Correction Options. Choose Enhance Per Channel Contrast, select Snap Neutral Midtones and set Shadow- and Highlight clipping to 0,00. This way we avoid the discarding of any relevant information.
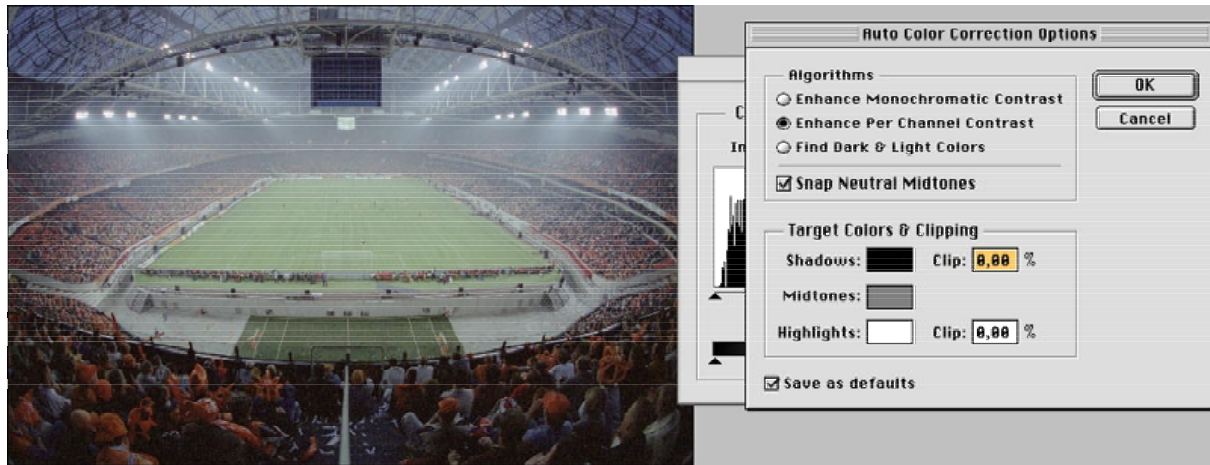

If this is the first time you make these settings, choose Save as defaults. Keep in mind that you have to reselect the Snap Neutral Midtones function every time again. It will not be saved. Click OK. You will probably see a spiked histogram now, but that is only a preview:
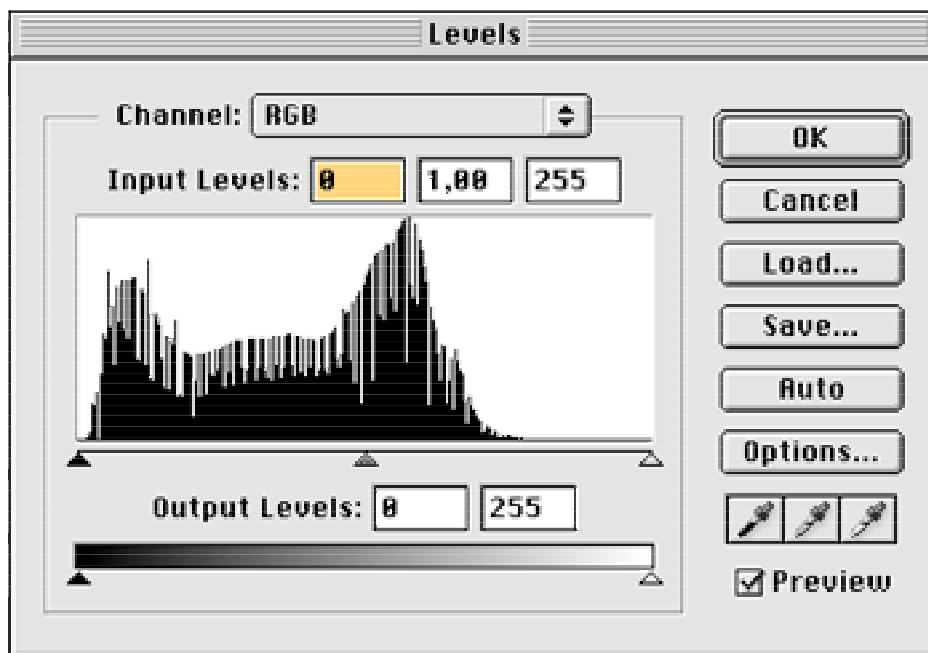
Click OK.

4. Go to Curves now and adjust so that highlights look fresh while dark area's lose their grittiness. Mostly this will require an S-shaped curve:
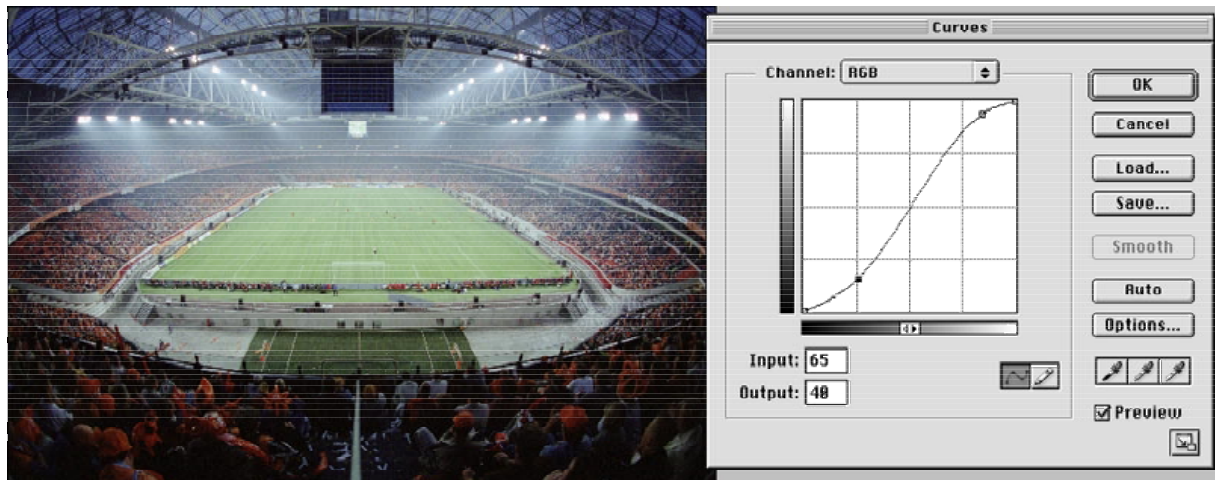

Click OK.

5. Again, choose Levels and press Options. This time select the Find Dark & Light Colors algorithm and again select Snap Neutral Midtones:

This way the picture mostly gets balanced in a very realistic colour tone. Of course you are free to experiment with other settings that might suit the needs of your specific picture. Click OK. And OK again.

6. In case you need it, you may now make your final colour adjustments with Color Balance.
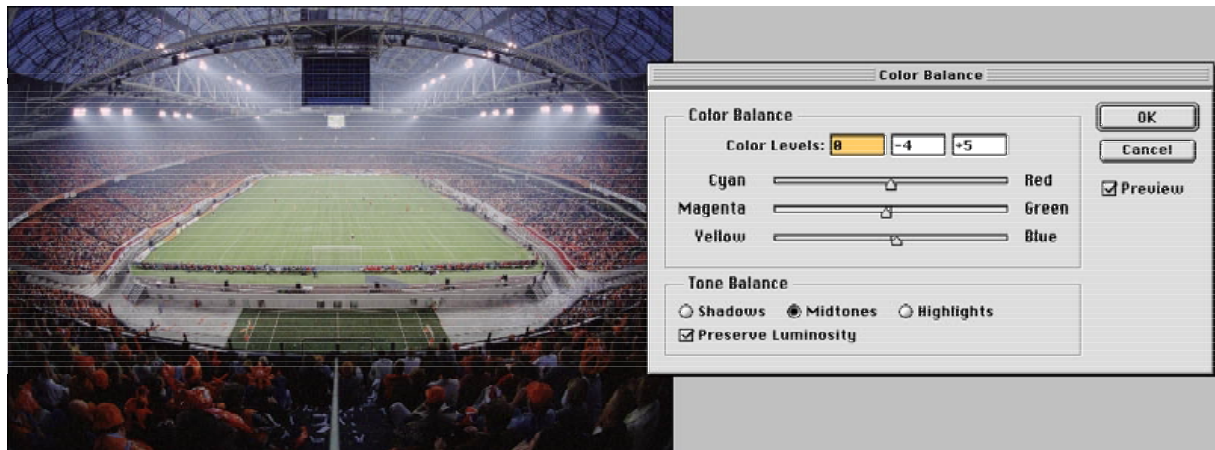
Your picture is now finished and can be prepared for further use by retouching or converting to 8Bit:

Check www.scanhancer.com for more tips & tricks.