Nikon Coolscan 9000 ED operation

Problems? Do not attempt to fix them by yourself, find or call Misha or Mike. Nikon scanner is expensive, as well as downtime. If you need to deviate substantially from the existing protocols, consult with Misha or Michael first.

This scanner is easy to use but delicate. Please treat it gently. **Do NOT** force anything. Most of the operations are straightforward. Use your common sense, but get help if you have any problems.

1. **Login** scanner computer
2. **Turn the scanner ON** by pushing the upper right button (Figure 1, *a*)
   a. green LED (Figure 1, *d*) will blink several times, which is normal
   b. it stops blinking in 2-3 min. when the scanner is ready
   c. the scanner needs to be turned on prior to starting the scanning program
3. **Start Nikon Scan** program by double clicking the icon on the Desktop (Figure 2)
   a. If you forgot to turn the scanner on, the program will report "no scanner found."
   b. Turn the scanner ON, and restart the program. We have Nikon Scan version 4
   c. Expand the program window to full screen; so that none of the sub-windows will be hidden behind others.
4. **Load film** into the modified FH-869M holder (Figure 3)
   a. This holder has two frames. Load the film (emulsion side down) into the larger frame with the upper door with a hinge (Figure 3, little arrow).
   b. The frame has two glasses to keep the film flat.
   c. These are special anti-Newton ring glasses that should prevent artifacts in scanned images. Be careful with them (they are expensive!), and keep them clean.
   d. Always align the film against frame the same way, with the film text box close to you (farther from the door hinge). This will minimize the unscanned area of film.
   e. Remember that scanner can not scan the full area of film. Our films are 3.5x4 inches (~8x10 cm^2) but the actual scan size is ~6x9 cm^2. Therefore strips around the film sides will not be scanned; the width on each side depends on how the film is sitting in the holder.
5. **Insert the holder into the scanner**,
   a. Look for the arrow printed at the end of the holder opposite the film end. It goes in the scanner first (Figure 3, wide arrow).
   b. **Do not force it** in. Push it gently until the scanner loading mechanism grabs it. The holder will move in and out several times until scanner senses which holder was inserted. Then it will stop in a half way-in position. This is normal.
6. **Find scan window** (Figure 5) with various controls within the main window of the scan program (it may be minimized at the lower left corner).
   a. This window has several areas. Most of the buttons etc. are self-explanatory.
   b. There is a thumbnail drawer tab to the right of the controls, (upper rectangle in the scan window). **Pull it and select frame 2** for scanning.
7. **Check color mode, media type, and media size settings** before scanning films; they should read "Neg (mono)" "Medium format" and "mono".
8. **Check the orientation** (letter "R" in the upper left), **image size in pixels** (8,964x13,356) **file size** (should be 288 MB), **Digital ICE** (Off), **Multi Sample** (1x) and **Bit Depth** (14).
   a. This information is found in the area below the control panel
   b. These parameters may be changed in the Tool Chest window (button on the bottom right of the control area).
9. **To Preview,** push the Preview button. (You may preview your scan or go directly to scan)

a. After the preview scan appears in the preview window, you may use the "Curves" palette in the tool chest window to **adjust the histogram** for the actual scan.

b. In most cases it is unnecessary to adjust the histogram before scanning. With full resolution, 14 bit depth in the scanned data should be enough to resolve densities within particles.

10. **To Scan** push the scan button

a. During scanning, another blank window appears within the main program window where the actual scan will be displayed

b. Once the scan is completed you may **save** the scanned image to your area.

c. **Make yourself a directory** in the "users" folder on disk D and save the scans you want to keep to that directory.

11. **Shut down procedure**

a. **Save** all scanned images

b. **Exit** Nikon Scan program

c. **Eject holder** from the scanner, by pushing the lower right button,

d. **Remove film**, put a piece of Kimwipes between the glasses before closing the door to prevent scratching the glasses

e. Put holder on top of the scanner

f. **Free up disk space!** After the session do not forget to transfer data to your machine and clean up disk space for the next user.

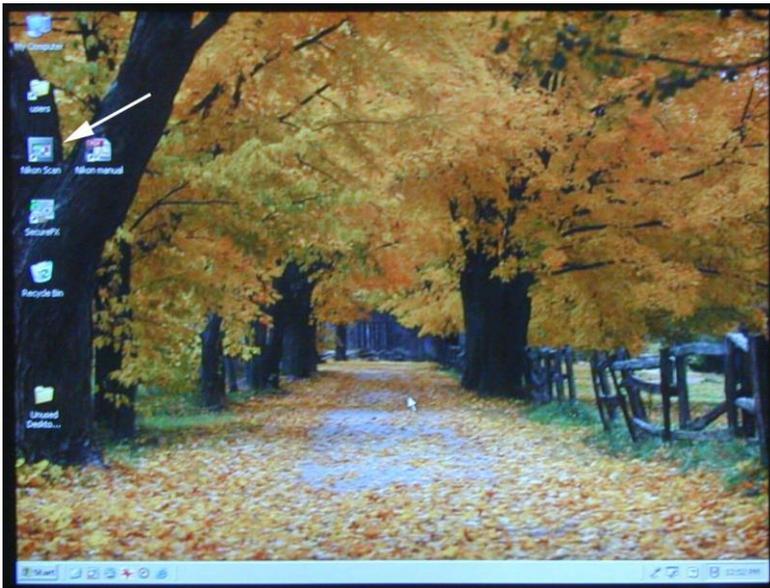Figure 1. Nikon Super CoolScan 9000 front view. *a*. Mains button; *b*. Eject button *d*. LED

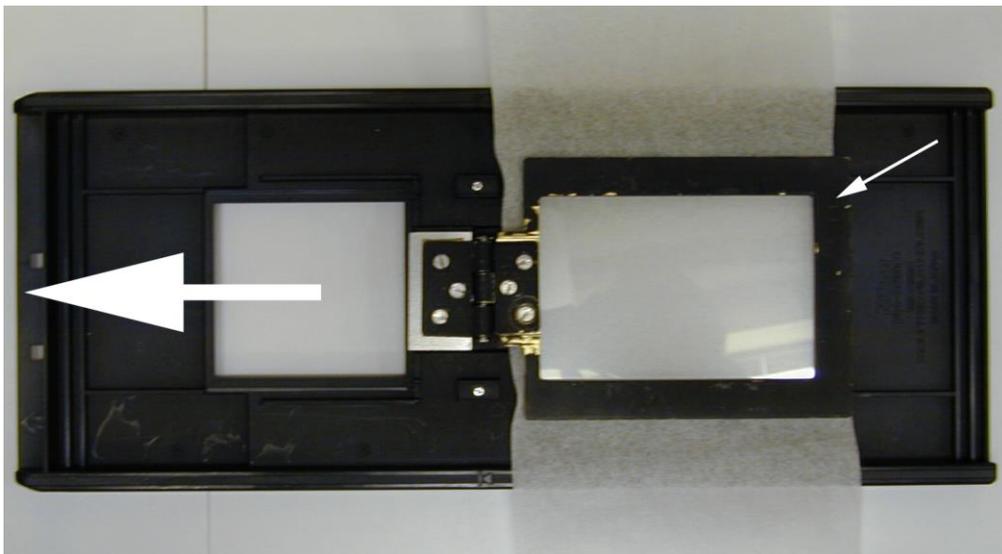Figure 2. Desktop with Nikon Scan program icon (white arrow).

Figure 3. Modified FH-869M holder. Little white arrow shows the frame used for scanning EM negatives. A protective paper kept between upper and lower glasses to prevent scratches. To insert a negative swing the door open, remove dust particles, align the film (emulsion side down) and close the door. Wide arrow shows direction to load the holder into the scanner
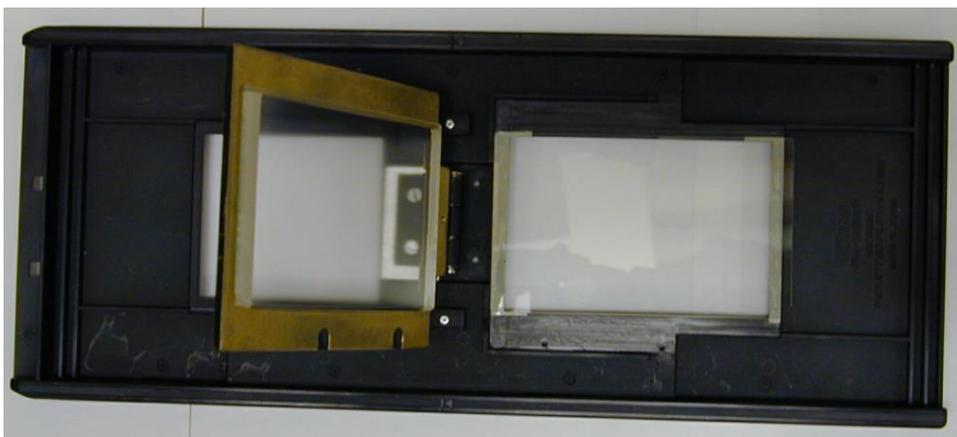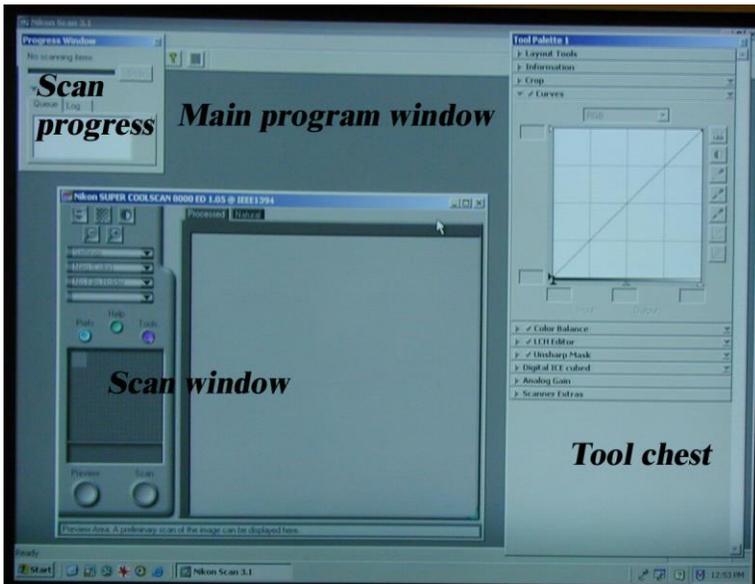

Figure 4. Modified FH-869M holder. The door in frame 2 in open position

Figure 5. Nikon Scan program windows