

# ArtixScan 1100

## Hardware User's Guide



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# 1 Introduction

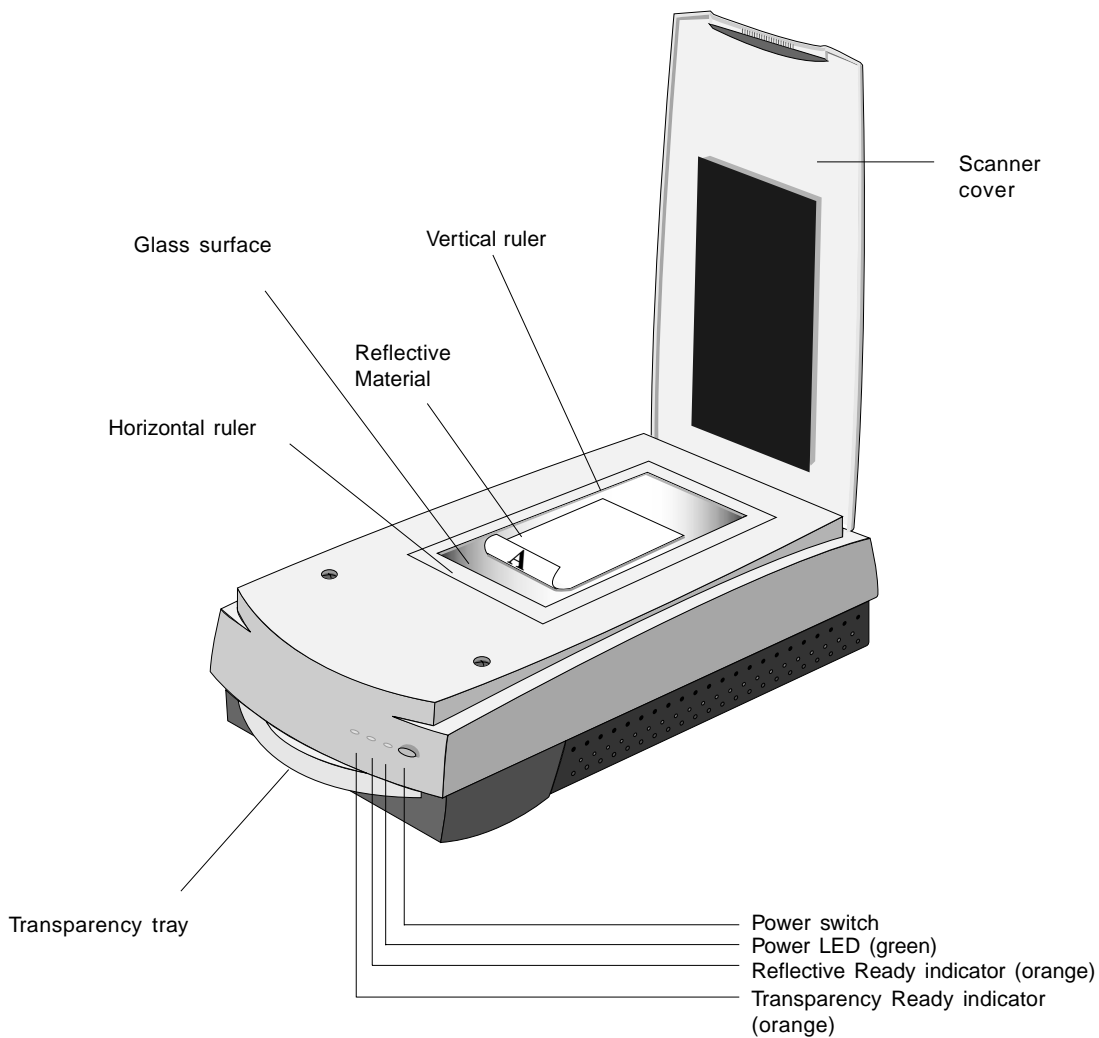
Congratulations on your purchase of the ArtixScan 1100 scanner! The ArtixScan 1100 is a single-pass, 36-bit, high-resolution scanner with dual beds — the upper bed for scanning reflective materials such as photos and prints, and the lower bed for scanning transparent media such as film, slides, and filmstrips. This manual will help you in the installation and operation of your scanner, and the information provided covers both Macintosh and PC environments for Windows 98 / 95, as well as Windows NT 4.0. See the notes below on how to use the manual, based on the environment in which you operate.

- If you are operating under the Macintosh environment, go to the *General Installation* section of the manual, then proceed to *Installation on the Macintosh*, then go to *Operating the Scanner*.
- If you are operating under Windows 98 or Windows 95, go to the *General Installation* section of the manual, then proceed to *Installation on Windows 98 / Windows 95*, then go to *Operating the Scanner*.
- If you are operating under Windows NT 4.0, go to the *General Installation* section of the manual, then proceed to *Installation on Windows NT 4.0*, then go to *Operating the Scanner*.

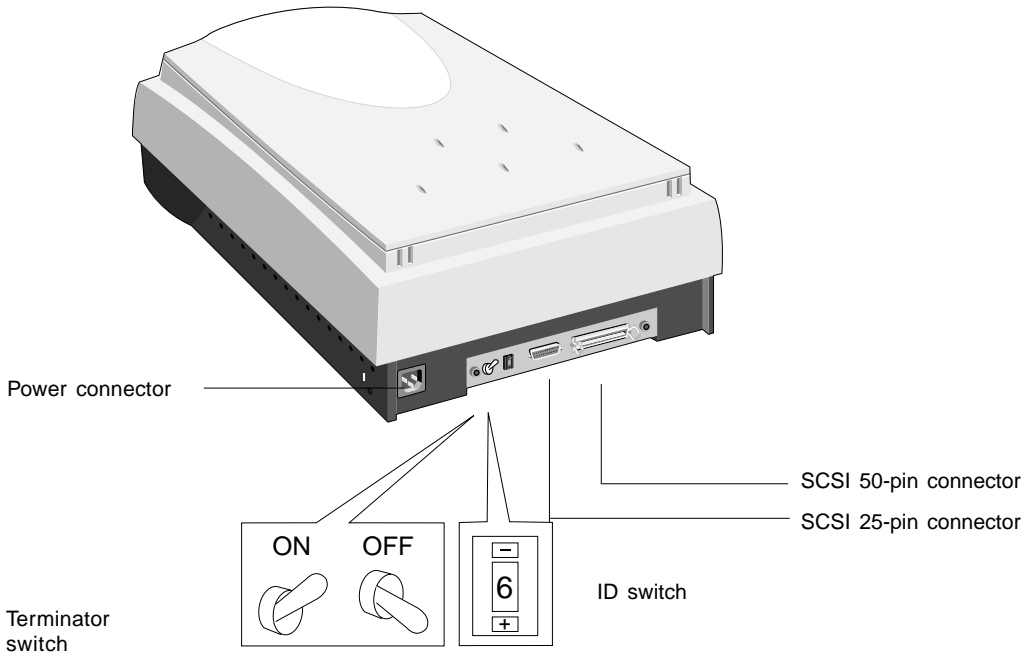
The last section of the manual provides information on the Scanner ICC Profiler program, which applies to both Macintosh and PC environments, and shows you how to use the program to ensure the most accurate color for your scanner.



# ArtixScan 1100 Scanner



# ArtixScan 1100 Scanner



## 2 General Installation

This section provides information on procedures you need to perform or things to check on your ArtixScan 1100 scanner regardless of the environment in which you operate — whether it is on the Macintosh or on the PC. The general installation procedures cover the following subjects: 1) unpacking your scanner; 2) unlocking the scanner; 3) resetting the scanner's SCSI ID if necessary; 4) powering up the scanner; and 5) choosing your scanning station.

### 1. Unpacking the Scanner

While unpacking the scanner, inspect the shipping carton for any signs of mishandling or damage. Your scanner's packing carton and padding material has been carefully chosen to prevent damage to the unit in shipping and can withstand a reasonable amount of abuse.

Refer to the package contents checklist included with your scanner to ensure that you received all of the parts necessary for scanner setup. Should you observe any damage or missing parts, contact the shipper and your dealer immediately.

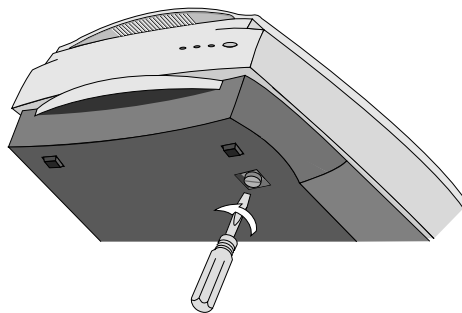
### 2. Unlocking the Carriage

To prevent damage to the scanner's moving parts, the scanner carriage is locked into place prior to shipment. You must unlock the carriage before powering up the scanner. Failure to do so may damage the scanner and will void your warranty. Follow the unlocking instructions below:

The carriage lock of the ArtixScan 1100 is located on the underside of the scanner.

To unlock the carriage, insert a flathead screwdriver or a coin into the locking screw slot and turn the screw a quarter turn counter-clockwise. Once unlocked the screw head will pop out slightly but will remain in the scanner.

*Note: The scanner must be relocked prior to any future scanner transportation or relocation.*





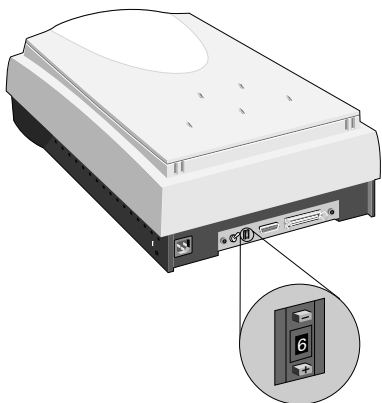
### 3. Resetting the scanner's SCSI ID

*Note: This procedure is provided as a reference, and you may or may not need to change the SCSI ID on your scanner.*

A SCSI ID is assigned to each SCSI device in your daisy chain to differentiate the devices from one another. The SCSI ID for your Microtek scanner is factory-set to 6.

You do not need to change the SCSI ID on your scanner unless another SCSI device on your system (such as an external hard drive, additional scanner, etc.) is using the same number.

To change the SCSI ID: Locate the SCSI ID switch, then press the upper opening “-” to decrease the SCSI ID number, or press the lower opening “+” to increase the number.



Valid SCSI ID numbers are 0 to 6. **Do not use SCSI ID #7, which is used to carry out a self-test for the scanner and make the carriage move back and forth.** SCSI ID #8 and #9 are also not used.

### 4. Power-up test

All scanners are factory tested. To ensure that your scanner has not been damaged during shipment, however, you will need to perform the following preliminary power-up test. Contact your dealer immediately if the scanner is not in proper working condition.

#### A. Operating Voltage

Your scanner is preset to the voltage in your area. There is no need to manually select the voltage; however, make sure that the label next to the power entry module indicates the correct voltage. Contact your dealer if the label indicates an incorrect voltage.

#### B. Connecting the Scanner to Power Source

**Caution! Make sure your scanner carriage is unlocked prior to connecting it to a power source (refer to step 2).**

Connect the scanner to a voltage source directly by using the supplied power cord; do not use extension cords. Make sure that the power outlet will not be overloaded when the scanner is turned on, and ensure that other devices requiring significant power are not plugged into the same outlet. Ideally, no other devices should share the scanner's power source.

#### C. Powering up the Scanner

The power switch is located on the scanner's front panel. After verifying that the scanner is plugged into a live outlet, turn on the Power Switch.

## D. Observing the Scanner Boot Process

The following sequence of events should take place after power up:

- The scanner performs a self-test by homing the carriages and camera box. Through the platen glass, you will be able to observe the carriage moving, and you will hear a series of clicking noises associated with the operation of the scanner motors. These “clicking” noises are normal. However, if you hear loud grinding noises or any other abnormal sound, turn the scanner off immediately and contact your dealer.
- The Orange indicator light located on the front panel will flash, indicating that the scanner is running.
- After the self test is complete, the indicator lights will shine steadily, and the fluorescent lamp inside the scanner will light up, indicating that the scanner is ready.

If an error occurs and the scanner is not able to boot up properly, the status indicators will display a steady red light in all three indicators. If this happens, turn the scanner off immediately and contact your dealer.

## 5. Choosing the Scanning Station

If no errors were encountered and the scanner booted up normally, you are now ready to set it up. Turn off the power switches and disconnect the cord.

~~Before you can install the scanner, please read the following information carefully.~~

### Requirements for the Operating Environment

- Make sure that the operating environment for the scanner is free of dust and other contaminants.
- Allow adequate ventilation space (no less than ten inches) around the scanner.
- Place the scanner on a flat, stable surface that is not subject to vibration.
- Make sure that the scanning surface will not be exposed to direct sunlight or other sources of bright light.
- Avoid placing the scanner close to sources of extreme temperature.
- Try to ensure that the scanner is situated in its ideal operating temperature range — between 50° and 104°F (10° and 40°C).
- Keep the relative humidity in the scanner operating area between 10% and 85%.
- Avoid connecting the scanner to a power source that might experience power surges.
- Avoid positioning the scanner in the path of heavy traffic where it may get bumped.

Once the scanner has been placed in a suitable location and is ready to be connected to the host computer, it is time to proceed to installing the necessary hardware and software components for the scanner. Please go to the appropriate section in this manual for the installation procedures to follow, and perform the procedures corresponding to your environment (Macintosh, Windows 98 /Windows 95, or Windows NT 4.0).

## 3 Installation on the Macintosh

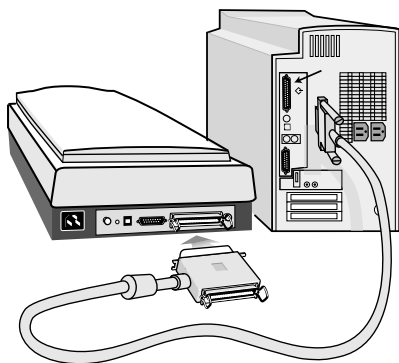
This section provides information on installing the ArtixScan 2020 on the Macintosh. The procedures are divided into two main sections: 1) Installation for Macintosh computers that feature built-in SCSI ports; and 2) Installation for the new Macintosh G3 computers (with no SCSI ports). For the new G3 computers, you will be installing the SCSI interface card included in the scanner package.

### A. Installation for Macintosh computers with built-in SCSI ports

#### 1. Connecting the scanner

1. Shut down your computer.
2. Connect the scanner to your computer, using the SCSI cable provided in the scanner package.

*Note: See the next section for details on termination.*



3. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source or wall outlet.
4. Turn on your scanner and wait for all the lights on the front panel to stop blinking and stay on steady.
5. Power up your Macintosh.

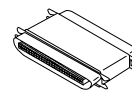
#### 2. Termination

A terminator is included in your scanner package and should be installed on your scanner in the following situations:

- If the scanner is the only SCSI device in your SCSI chain; or
- If you are daisy chaining the scanner with other SCSI devices AND the scanner is the last device in your SCSI chain.

Normally, a terminator is not required is when the scanner is part of a daisy chain and is NOT the last device in the SCSI chain.

To install the terminator, plug it into the SCSI port at the back of the scanner (beside the cable connecting the scanner to the computer).



## B. Installation for the new G3 Macintosh computers (without built-in SCSI ports)

### 1. Installing the interface card

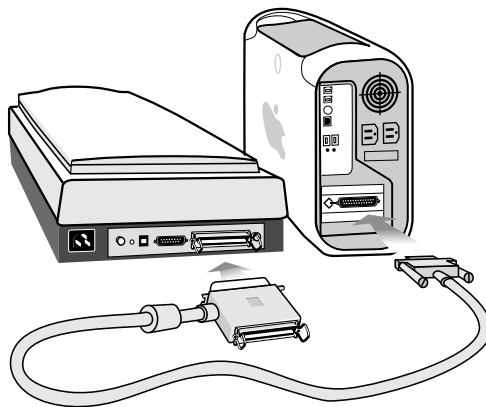
Before installing the interface card, make sure you turn off your computer and peripherals. Then follow the steps below:

1. Shut down your computer and unplug the power cord. Next, open your computer.
2. Look for an available PCI card slot (typically white or ivory) in your computer. Remove the slot cover, and insert the Adaptec PCI SCSI card into the slot. Push the card in to make sure it is seated all the way in the slot. This is important, as an improper card connection will make you unable to use your scanner, and you will then have to remove the computer case and reinsert the card.
3. Close the computer, then plug the power cord back in.

### 2. Connecting the scanner

1. Shut down your computer.
2. Connect the scanner to your computer, using the SCSI cable provided in the scanner package.

*Note: See the next section for details on termination.*



3. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source or wall outlet.
4. Turn on your scanner and wait for the lights on the front panel to stop blinking and stay on steady.
5. Power up your Macintosh.

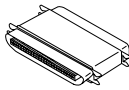
### 3. Termination

A terminator is included in your scanner package and should be installed on your scanner in the following situations:

- If the scanner is the only SCSI device in your SCSI chain; or
- If you are daisy chaining the scanner with other SCSI devices AND the scanner is the last device in your SCSI chain.

Normally, a terminator is not required is when the scanner is part of a daisy chain and is NOT the last device in the SCSI chain.

To install the terminator, plug it into the SCSI port at the back of the scanner (beside the cable connecting the scanner to the computer).



### C. Installing the software

Install all the software in your Artix CD-ROM.

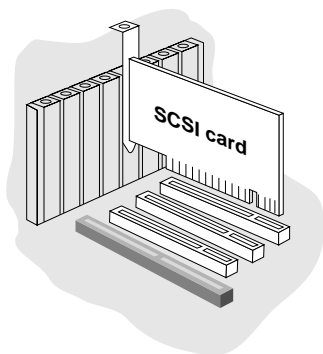
To do this, insert the Artix CD-ROM into your CD-ROM drive. When the CD-ROM icon appears on your Macintosh desktop, open the software folders individually, then double-click the Installer icon on each folder to install the respective programs one at a time.

## 4 Installation on Windows 98 / 95

### 1. Installing the interface card

1. Turn off your PC and peripherals, and unplug the power cord. Next, remove the cover from your computer.
2. Before handling the interface card, touch a metal frame (such as your computer casing) to discharge any static electricity buildup in your body.
3. Look for an available PCI card slot in your computer, then insert the Adaptec PCI SCSI card (such as the Adaptec AVA-2903E or 2906E) into the slot. Push the card in to make sure it is seated all the way in the slot, then put the screw back into the bracket.

Proper card connection is important, as an improper card connection will make you unable to use your scanner, and you will then have to remove the computer case and start the process of card insertion all over again.

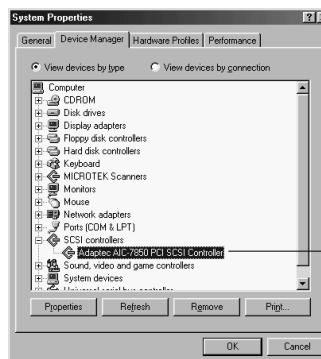


4. Replace the cover of the computer, then plug the power cord back in.
5. Turn your PC back on.

### 2. Checking the interface card status

When Windows starts with the Adaptec SCSI card installed in your computer, the card is detected and the driver automatically installed. You may be asked to insert your Windows CD-ROM. Do so, and follow the steps below to check your card status.

1. In Windows, click **Start, Settings**, and then select **Control Panel**.
2. Double-click on the **System** icon in Control Panel and select **Device Manager** from the top.
3. Double-click on **SCSI controllers** to display the screen below. The string “Adaptec 7850 PCI SCSI Controller” indicates that the driver is installed.




The result of the check is displayed here

The message “Adaptec AIC-7850 PCI SCSI Controller” displays indicates that the driver is installed and that the interface card works properly.

If a conflict exists, either of the following will occur:

- a yellow exclamation mark appears next to the phrase:

 Adaptec AIC-7850 PCI SCSI Controller

- or -

- nothing is listed under “SCSI Controllers”. In either case, refer to the *Troubleshooting* section.

### 3. Installing the software

Install all the software in your Artix CD-ROM, which includes Microtek ScanWizard Pro and the Microtek Scanner ICC Profiler programs.

To do this: Insert the Artix CD-ROM into your CD-ROM drive; the *Scanner Software* installer should come up automatically.

*Note: If the Scanner Software is not automatically displayed, click **Start**, select **Run** and type `d:\cdsetup` (where `d:` is your CD-ROM drive).*

Click on the “Install” option on each software program in the order that it appears on your screen to install the software.

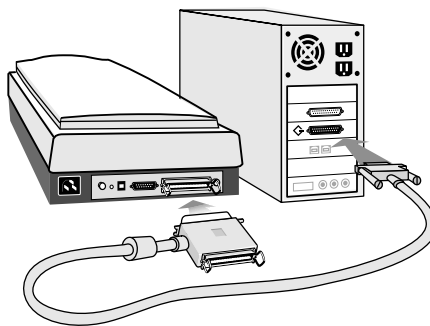
During installation of ScanWizard Pro, make sure you choose **Adaptec SCSI Interface Card** as your interface type.

After all the software has been installed, shut down your computer.

### 4. Connecting the scanner

1. Turn off your PC.
2. Plug the 25-pin end of the SCSI cable into the Adaptec card at the back of the computer. Then plug the 50-pin end of the SCSI cable into the back of the scanner.

*Note: See the next section for details on termination.*



3. Plug the power cord into the back of the scanner and plug the other end of the power cord into a power source or wall outlet.
4. Press the scanner's power button on the front panel to turn the power on, then wait for the Ready indicator lights also on the front panel of the scanner to stop blinking and to stay on solid.
5. Turn your PC back on. When Windows starts up, it will automatically detect the scanner.

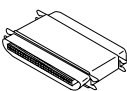
## 5. Termination

A terminator is included in your scanner package and should be installed on your scanner in the following situations:

- If the scanner is the only SCSI device in your SCSI chain; or
- If you are daisy chaining the scanner with other SCSI devices AND the scanner is the last device in your SCSI chain.

Normally, a terminator is not required is when the scanner is part of a daisy chain and is NOT the last device in the SCSI chain.

To install the terminator, plug it into the SCSI port at the back of the scanner (beside the cable connecting the scanner to the computer).



## 6. Troubleshooting

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

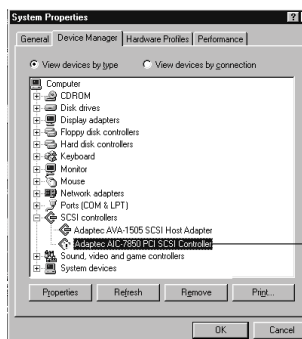
- Situation A Your interface card is not properly seated in the PCI card slot on your computer.
- Situation B Your interface card conflicts with another device.
- Situation C Windows 98 / 95 cannot recognize your interface card.

### Resolving situation A

Power off your computer, then remove the interface card from your computer. Re-install it and make sure the card is seated all the way in and secured into the PCI card slot.

### Resolving situation B

1. Click **Start, Settings**, and select **Control Panel**.
2. Double-click on the **System** icon in Control Panel and select **Device Manager** from the top.
3. Double-click on “**SCSI controllers**” to display the dialog box below.



A yellow exclamation mark appears next to the message “Adaptec AIC-7850 PCI SCSI Controller”.

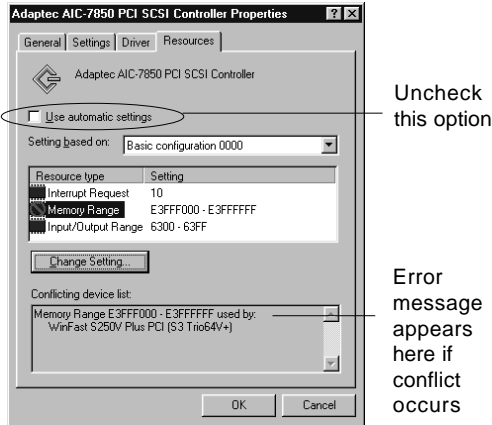
4. Click on the **Adaptec AIC-7850 PCI SCSI Controller** option, and then click **Properties**.
5. Select Resources from the top. The dialog box gives you information about the 3 resources: Interrupt Request (IRQ), Memory Range, and Input/Output range. Any conflict in the 3 resources is detected and displayed in the “Conflicting device list”.



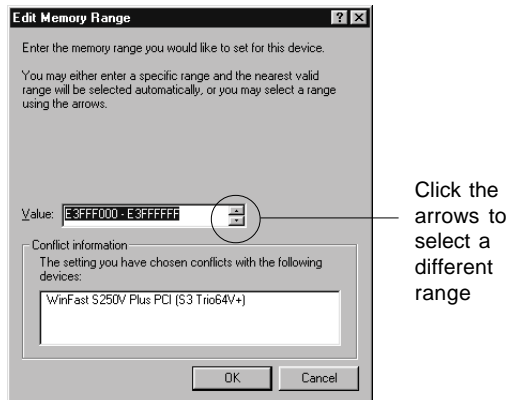
6. To resolve the conflict, uncheck “Use automatic settings”, then click to modify the individual resource, one after another, until the message “No conflicts” appears in the Conflicting device list.

For example, to resolve the Memory Range conflict, take these steps:

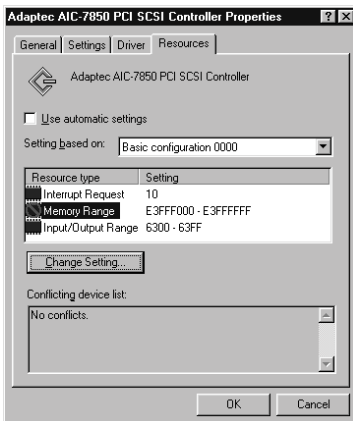
- a) At the Resource type, double-click on the Memory Range string, the Edit Memory Range dialog box is displayed.



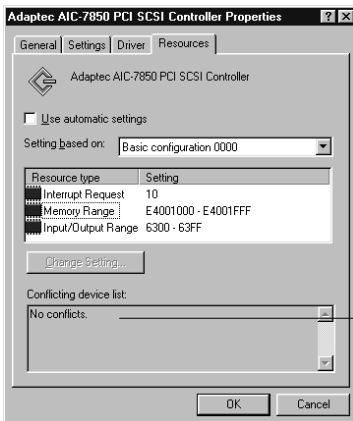
- b) When the next screen appears, go to the **Value** box, then use the Up/Down arrow keys to select a different range.



7. When you get a “No conflicts” message in the Conflicting device list, the Memory Range conflict is resolved. Take similar steps for the Interrupt Request (IRQ) and Input/Output Range resources. If all of IRQs are taken, you need to contact your computer dealer for help on how to free up an IRQ for you.



8. When the settings are all correct, click **OK** to save the modifications. The dialog box should now show the correct Interrupt Request, Memory Range, and Input/Output address settings.



No conflicts found

If you are asked to shut down your computer, select **No**, then click **Close**. You will be asked whether you wish to restart your computer. Click **Yes** and restart your computer.

## Resolving situation C

1. Click **Start, Settings**, and select **Control Panel**.
2. Double-click **Add New Hardware**.
3. Click **Next** and select **No** for “Do you want Windows to search for your new hardware?”.
4. From the next menu, select **SCSI controllers** and click **Next**.



5. Select **Adaptec** on the left and “**Adaptec AIC-7850 PCI SCSI Controller**” on the right. Click **Next**.



6. When the “Add New Hardware Wizard” dialog box appears, click **Finish**.



7. When installation is complete, Windows will ask if you wish to shut down your computer. Select **No**.
8. Click **Start, Settings**, and select **Control Panel**.
9. Double-click on the **System** icon in Control Panel and select **Device Manager** from the top.
10. Double-click on “**SCSI controllers**” to check whether conflict happens. If a conflict exists, follow the steps in *Resolving Situation B*.
11. When the settings are all correct, click **OK** to save the modifications. The dialog box should now show the correct Interrupt Request, Memory Range, and Input/Output address settings. If you are asked to shut down your computer, select **No**, then click **Close**. You will be asked whether you wish to restart your computer. Click **Yes** and restart your computer.

## 5 Installation under Windows NT 4.0

### 1. Installing the interface card

See page 10 for details. Card installation on Windows NT 4.0 is the same as that under Windows 98 / 95.

### 2. Installing the Windows NT driver

- Start your computer, and log in as **Administrator**. *Note: You must be logged in as Administrator in order to install the scanner software components and use the scanner.*
- In Windows, go to **Start, Settings**, then double-click on **Control Panel**, and double-click on the **SCSI Adapters** icon.
- Select the **Drivers** tab in the SCSI Controllers dialog box, and click on the **Add** button.
- From the list of drivers that appear, select **Adaptec** for manufacturers on the left, and **Adaptec AIC-78xx PCI SCSI Controller** on the right. You may be asked to insert your Windows NT CD-ROM at this point; do so.
- You will be asked to restart your computer. Click **Yes** to do so.

### 3. Installing the software

Make sure you have logged in as **Administrator**. Then see page 11 for more details. The software installation instructions for your scanner under Windows NT 4.0 are the same as those for installation under Windows 98 / 95.

### 4. Connecting the scanner

See page 2-4 for details. Connecting the scanner on Windows NT 4.0 is the same as that under Windows 98 / 95.

### 5. Checking the scanner status

- Double-click the **SCSI Adapters** icon in Control Panel; the string **Adaptec AIC-78xx PCI SCSI Controller** should appear on the list.
- Double-click on this option, and it should expand with the scanner listed below it. Close all dialog boxes to continue.

### 6. Troubleshooting

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

**Situation A** Your interface card is not properly seated in the PCI card slot on your computer.

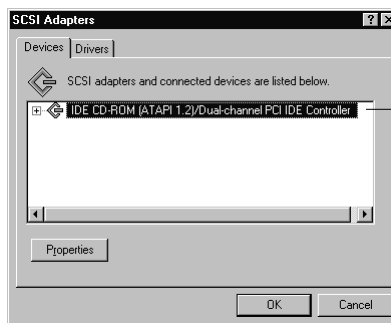
**Situation B** The driver for the interface card is not properly installed on your computer.

#### Resolving situation A

Power down your computer, remove the interface card from your computer. Then re-install it, make sure the card is seated all the way in and secured into the PCI card slot.

#### Resolving situation B

- Restart your computer.
- In Windows 4.0, click **Start, Settings**, and select **Control Panel**.
- In the Control Panel window, find **SCSI Adapters** and double click it. A window like the following below will appear.



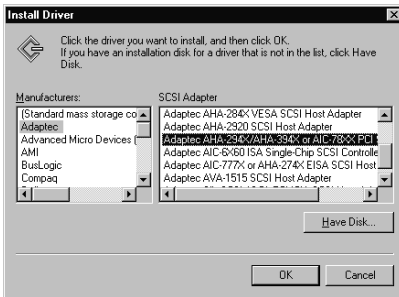
Adaptec  
SCSI driver  
is not listed  
here

The **Devices** screen will list any SCSI controllers that may already have been installed in your computer.

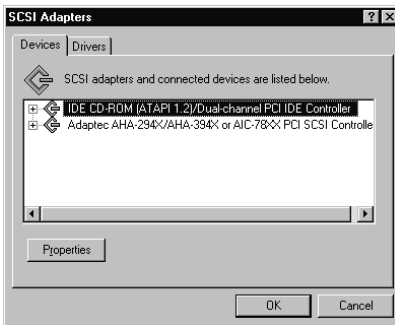
*Note: IDE CD-ROM drives are not SCSI, but Windows NT 4.0 will still list it on the screen because*

*of the way the driver is implemented*

- Click on the **Drivers** tab, and click on the **Add** button to select **Adaptec** on the left and “Adaptec AIC-7800 PCI SCSI Controller” on the right.



- Click OK to bring up the following screen. The Adaptec card should now be listed as “Adaptec AIC-7800 PCI SCSI Controller”, indicating the driver is installed.



- Restart your computer.

## 6 Operating the Scanner

This section provides information on how to operate the ArtixScan 1100. The subjects covered in this section include how to position your images for scanning and how to use the various holders included in your scanner package when scanning transparent film.

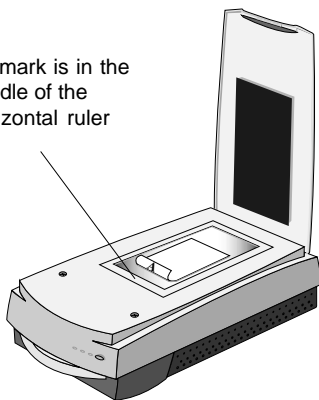
### 1. Positioning reflective materials

This procedure applies when you use the upper scan bed of the ArtixScan 1100. The upper scan bed is used for scanning reflective materials such as photos and prints.

#### A. General scanning

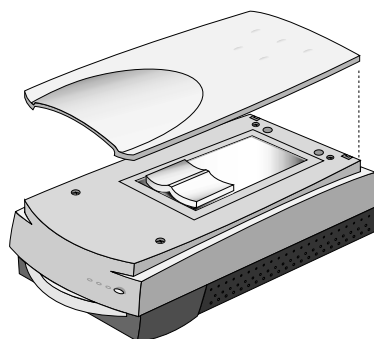
1. Lift the scanner lid.
2. Place the image to be scanned face down on the scanner glass. Center the top of the image at the "0" position along the horizontal ruler on the scanner. Then lower the scanner lid.

"0" mark is in the middle of the horizontal ruler



#### B. Scanning thick documents

To scan thick documents, lift the scanner lid high enough so that there is room to place the document on the scanner glass. Then lower the scanner lid.



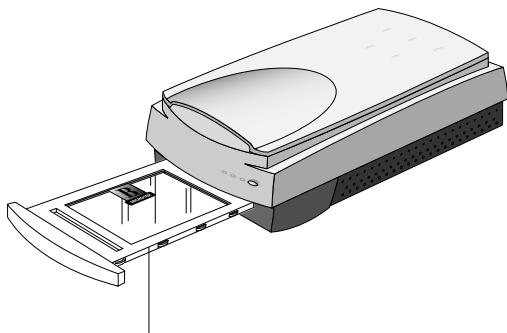
## 2. Positioning transparent film

This procedure applies when you use the lower scan bed of the ArtixScan 1100, which has a transparency tray that is used for scanning transparent film.

There are two ways to scan transparent film: 1) By using the Universal Glass Film Holder; or 2) By using the Main Holder with the various other holders also included in your scanner package. See below for more details.

### Using the Universal Glass Film Holder

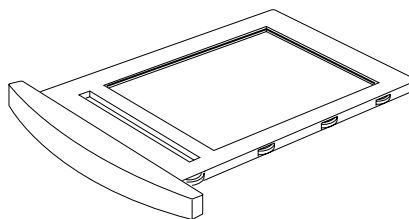
Use the Universal Glass Film Holder together with the transparency tray when you wish to scan non-standard-sized transparent film.



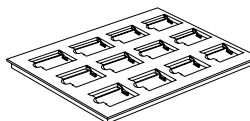
Universal  
Glass Film  
Holder

### Using the Main Holder with other film holders

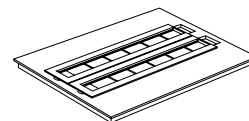
Use the Main Holder with other film holders for scanning a particular type of standard-sized film. For instance, use the 4" x 5" Film Holder to scan 4" x 5" film, or use the 35mm Filmstrip Holder to scan 35mm filmstrips.



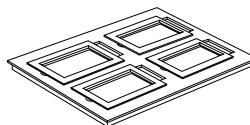
Main Holder



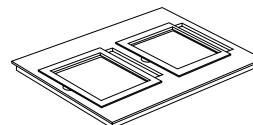
35mm Slide Holder



35mm Filmstrip Holder



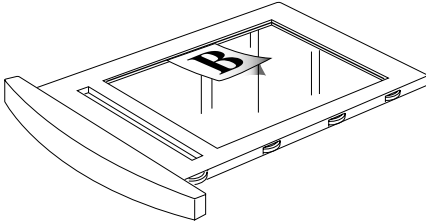
4" x 5" Film Holder



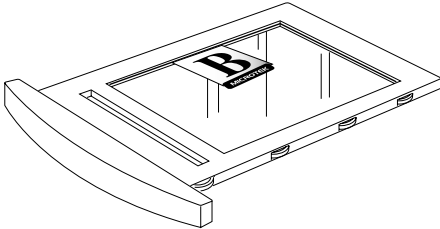
6x9 cm Film Holder

## A. Using the Universal Glass Film Holder

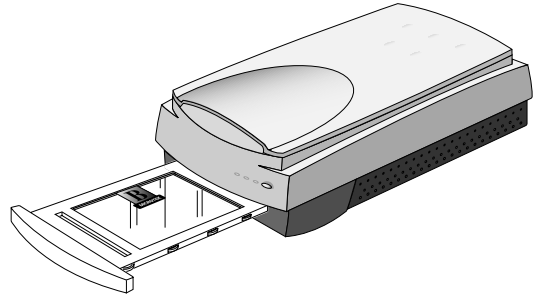
1. To scan non-standard-sized transparent film, place the film face down on top of the glass surface of the Universal Glass Film Holder.



2. To secure the film to the Universal Glass Holder, place the vinyl strip on the edge of the transparency.

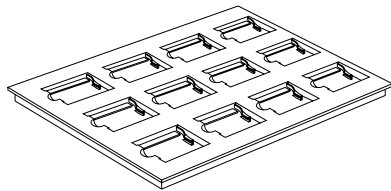


3. Insert the Universal Glass Film Holder into the transparency bay (the drawer or lower compartment) of the scanner.





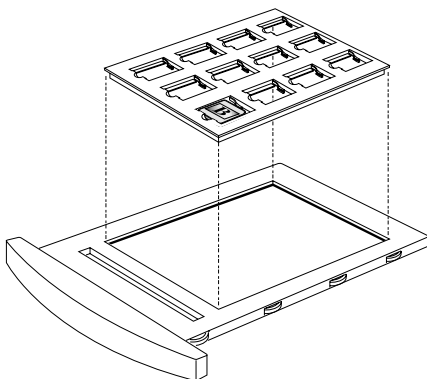
## B. Using the 35mm Slide Holder



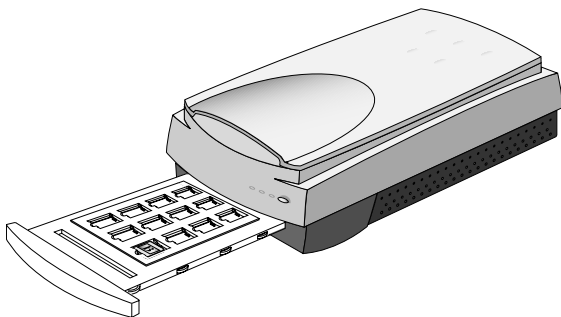
1. Insert the individual 35mm slides to be scanned into the 35mm Slide Holder.



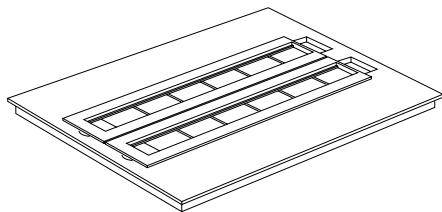
2. Place the 35mm Slide Holder in the Main Holder.



3. Insert the whole assembly into the transparency bay (the drawer or lower compartment) of the scanner.

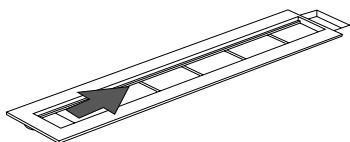


## C. Using the 35mm Filmstrip Holder

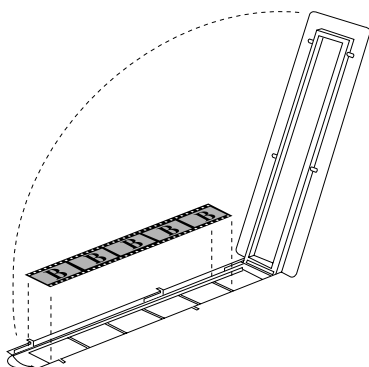


1. Insert the 35mm filmstrip to be scanned into the 35mm Filmstrip Holder.

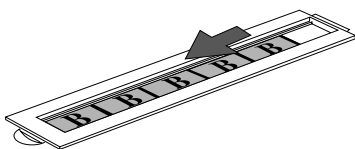
a) Push to open the 5-piece 35mm filmstrip holder.



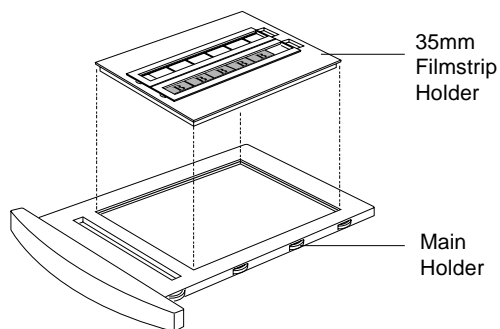
b) Place the 35mm filmstrip in the holder.



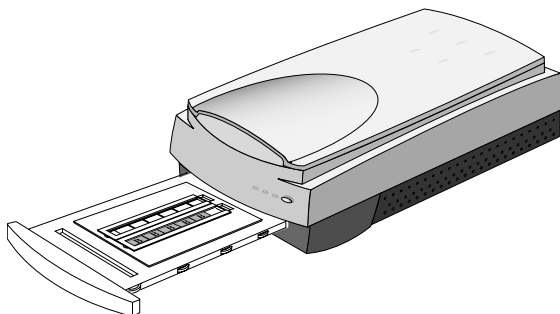
c) Pull to close the 5-piece 35mm filmstrip holder.



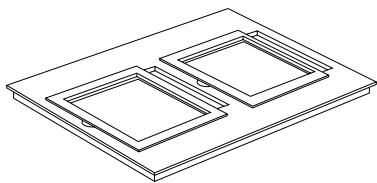
2. Place the 35mm Filmstrip Holder in the Main Holder.



3. Insert the whole assembly into the transparency bay (the drawer or lower compartment) of the scanner.

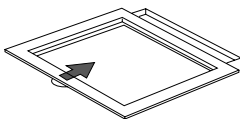


## D. Using the 6 x 9 cm Film Holder

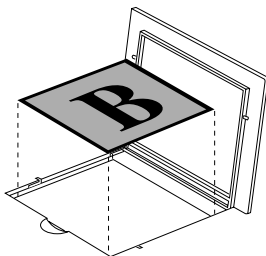


1. Insert the film to be scanned into the 6 x 9 cm Film Holder.

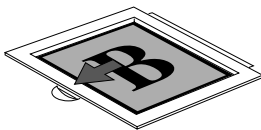
a) Push on the side to open the holder.



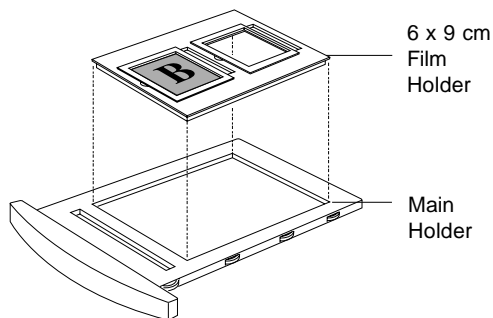
b) Place the film in the holder.



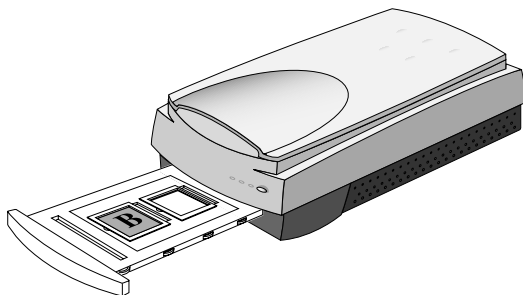
c) Pull the side down to close the holder.



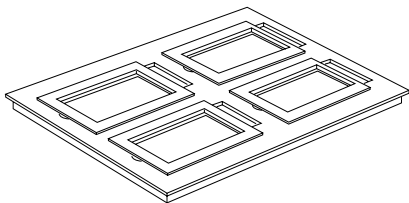
2. Place the 6 x 9 cm Film Holder in the Main Holder.



3. Insert the whole assembly into the transparency bay (the drawer or lower compartment) of the scanner.

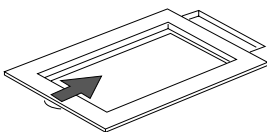


## E. Using the 4" x 5" Film Holder

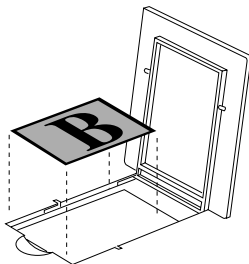


1. Insert the film to be scanned into the 4" x 5" Film Holder.

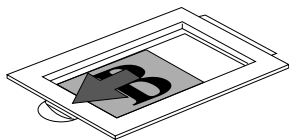
a) Push on the side to open the holder



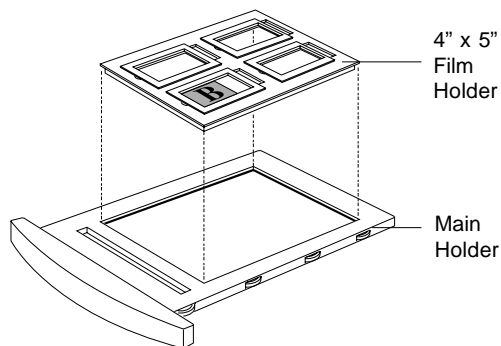
b) Place the film in the holder.



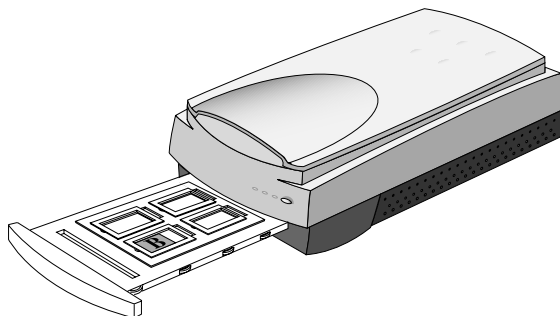
c) Pull down the side to close the holder.



2. Place the 4"x5" film holder in the Main Holder.



3. Insert the whole assembly into the transparency bay (the drawer or lower compartment) of the scanner.



# 7 Using the Scanner ICC Profiler Program

## 1. Introduction

The Scanner ICC Profiler is a scanner calibration and profiling utility program designed exclusively for use with Microtek scanners, including the ArtixScan 1100. The Scanner ICC Profiler lets you calibrate the color attributes of your scanner and lets you create an ICC color profile customized and tailored especially for your Microtek and Artix scanner.

Why do you need the Scanner ICC Profiler?

For each Microtek and Artix scanner, a generic factory-set ICC color profile is built in and included for use with the scanner controller program — in this case, ScanWizard Pro. This factory-set profile delivers high color quality in general. But scanners, like any high-end device, interpret colors differently, resulting in subtle variations and differences in color imaging. In addition, individual scanners may also perform differently due to other factors, such as aging of the scanner lamp or ambient temperature.

With the Scanner ICC Profiler, such color variations and differences can be minimized or eliminated, as the program calibrates the scanner and compensates for subtle color deviations. The customized color profile resulting from the use of the Scanner ICC Profiler, in effect, delivers more accurate color and contributes to overall improved image quality.

To keep the colors in your scanner consistent over time, it's recommended that you use the Scanner ICC Profiler regularly. Professional photographers or others who require extremely precise color may wish to use the Profiler every time before they use their scanner, but for most general usage, calibrating twice a month should be sufficient.

## 2. Calibration target

Your Scanner ICC Profiler kit includes two industry-standard IT8 color targets for calibration.

- **Kodak Q-60R1:** This is a reflective target for calibrating the upper scan bed. Calibrating the upper scan bed ensures color accuracy when you scan reflective materials such as photos and prints.
- **Kodak Q-60E1:** This is a transparent target for calibrating the lower scan bed. Calibrating the lower scan bed ensures color accuracy when you scan transparent media such as slides and filmstrips.

## 3. Taking care of the target

The calibration target is very delicate and must be handled carefully. Make sure you follow these rules in caring for the target.

- Gently take the target out of its protective sleeve.
- Do not touch the target image with your fingers or with any other object.
- When not in use, keep the target out of light — even interior lighting.
- Always return the target to its protective sleeve immediately after use.
- Store the target away from light in a cool, dry place, since long exposure to heat and light can change the colors on the target.

## 4. Replacing the target

With proper care, your target should hold its original colors for about a year or so starting from the date of use. After that, it will begin to fade, as is the nature of most photographic materials. The change may be unnoticeable to the naked eye, but even very slight changes in the target decrease the performance of the Scanner ICC Profiler. To maintain color accuracy, Artix recommends that you replace the target once a year, or when you notice a loss of image quality in your scanned images.

## 5. Installing the Scanner ICC Profiler

*Note: The Scanner ICC Profiler program should have been installed at the time you performed software installation procedures (discussed earlier in the manual). If for some reason you have not installed the Scanner ICC Profiler, follow the steps below to install the program.*

### A. For the Macintosh

Before installing the Scanner ICC Profiler, you should have ScanWizard Pro and the Kodak CMS programs installed on your computer.

To install the Scanner ICC Profiler program: Insert the Artix CD into your CD-ROM drive. Open the ICC Profiler folder, then double-click the Installer icon to install the program.

### B. For Windows 98/95/NT 4.0

Before installing the Scanner ICC Profiler, you should have ScanWizard Pro and the Kodak CMS programs installed on your computer.

To install the Scanner ICC Profiler program: Insert the Artix CD into your CD-ROM drive. When the Software Installer screen appears, click on the "Install" option for the Scanner ICC Profiler program, then follow the on-screen instructions until the program finishes installing.

## 6. Placing the color target

- Positioning the target in the upper bed: Place the reflective color target in the upper scan bed and make sure it is positioned correctly, following the illustration below. See the additional notes in the next section for important notes on how to position the reflective target correctly on the upper bed. Then proceed to the calibration procedures discussed in the succeeding pages to calibrate the upper scan bed.
- Positioning the target in the lower bed: After completing the entire calibration process for the upper bed (detailed in the next few pages), return to this section to see how to position the transparency target correctly on the lower scan bed. Then proceed again to the calibration procedures discussed in the next pages to calibrate the lower scan bed.



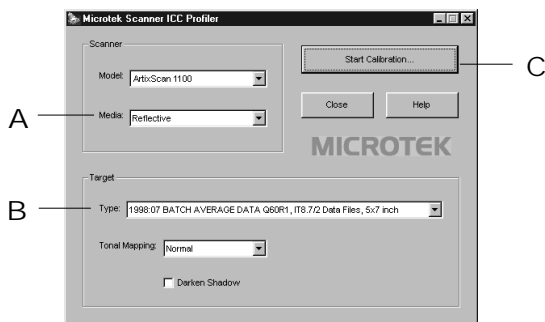
Positioning the target on the upper scan bed



Positioning the target on the lower scan bed. In the example above, the target is placed in the 4" x 5" Film Holder, and the Holder is then placed into the transparency tray of the lower scan bed.

## 7. Calibration

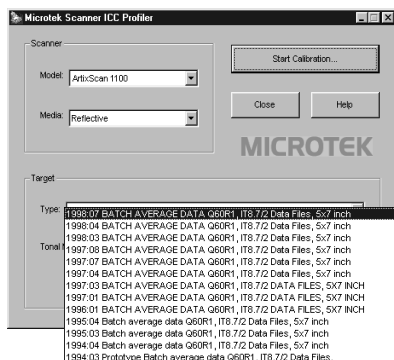
1. Turn on your scanner and let it warm up for about five minutes.
2. Place the target inside the scanner.
3. Launch the Scanner ICC Profiler calibration utility. The screen below appears.



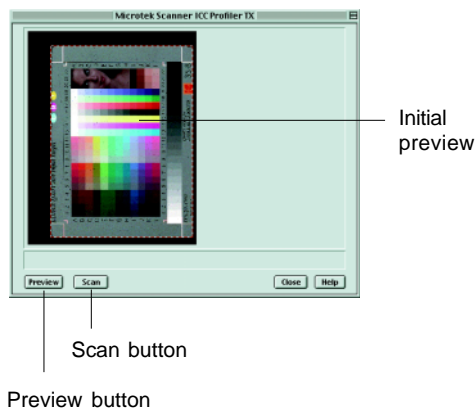
- A. Choose the media type. Select *Reflective* to calibrate in reflective mode, or select *Positive* to calibrate in transparency mode.

Reflective  
Positive Film

- B. Select the target type that matches your target type and date code. You can verify this information by looking at the bottom of the target for the date code and the target type information.

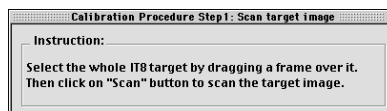


- C. Click on the **Start Calibrate** button. The calibration window will appear, and an initial preview is performed.

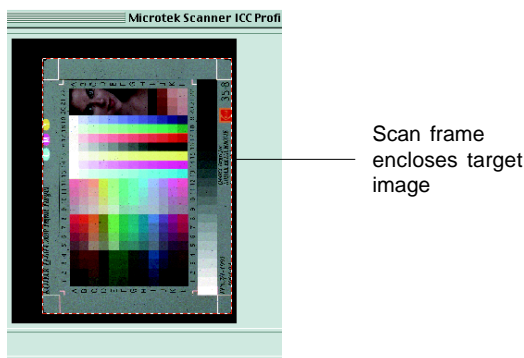


## 8. Scanning the target image

Following the Preview, a message appears informing you of the next step to be done.



To select the target image, move the pointer (now a crossbar) to the preview image, and draw a frame enclosing the entire target image. When you release the mouse, a scan frame appears, which is the dotted marquee enclosing the target image.



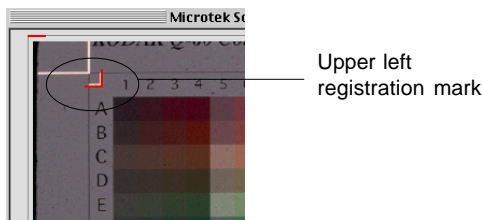
To resize the selection, move the cursor to any corner of the frame; the pointer is changed to a double-headed arrow. Hold down the mouse, drag to form a new selection, then release the mouse.

When the target image is selected, click the **Scan** button to scan the target.

## 9. Aligning the target registration marks

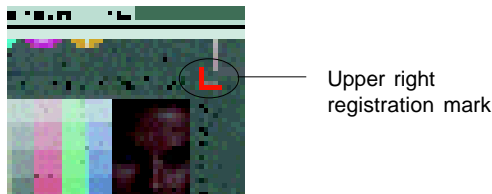
### A. Aligning the upper-left registration mark

Move the cursor into the target image area; the pointer will change to a flipped L mark (“┘”). Align the cursor with the small upper-left registration mark.



### B. Aligning the upper-right registration mark

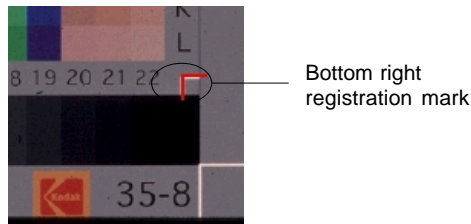
After the upper left mark is aligned, the upper right part of the target image is displayed, and an instruction dialog box prompts you to align the upper right registration mark.



Move the cursor into the target image area; the pointer will change to a normal L mark (“└”). Align the cursor with the small upper-right registration mark.

### C. Aligning the bottom-right registration mark

After the upper right mark is aligned, the lower right part of the target image is displayed, and an instruction dialog box prompts you to align the bottom right registration mark.

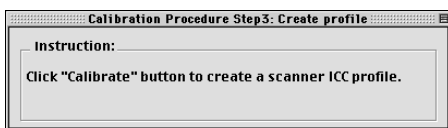


Move the cursor into the target image area; the pointer will change to a vertically flipped L mark (“┘”). Align the cursor with the small bottom-right registration mark.

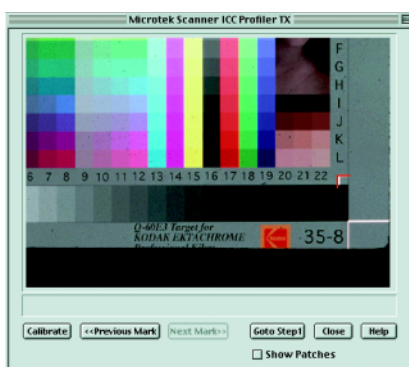


## 10. Creating a profile

Following the alignment of registration marks, an instruction dialog box appears, prompting you to click the **Calibrate** button.



Click the **Calibrate** button. This only takes a few moments. When the process is finished, a message appears, giving you the results.



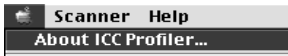
- If the process was successful, a custom scanner ICC profile is saved automatically to your system's ColorSync Profiles folder. Exit the Scanner ICC Profiler now, and use the new scanner profile with ScanWizard Pro to scan excellent color images.
- If the process fails, you will need to rescan the target image and repeat the calibration procedure described in the preceding pages. Make sure the registration marks are aligned properly, then click the Calibrate button again to create your profile.

## 11. Reference Section for Macintosh

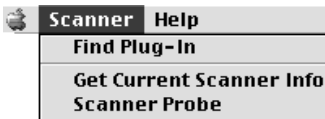
This section describes the features and commands of the Microtek Scanner ICC Profiler program. All features are covered in the Menu commands, the Main window, and the Calibration window.

### A. Menu commands

1. Apple Menu — About ICC Profiler: Choose the About ICC Profiler command from your Apple menu to display the splash screen for the Scanner ICC Profiler program. The screen includes the product logo and the software version number

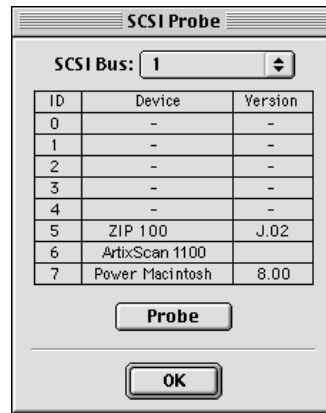


2. Scanner Menu: The Scanner Menu lets you see information on your current scanner and your SCSI chain.



- a) Find Plug-in: This command lets you choose the correct ScanWizard Pro Plug-in driver for the ICC Profiler program (in case the Plug-in driver cannot be found).
- b) Get Current Scanner Info: This command provides information on the current scanner. A dialog box appears showing the scanner model in use, the SCSI ID number of the scanner, and the firmware version of the scanner.

- c) Scanner Probe: This command displays the SCSI devices on the SCSI chain, as well as the SCSI ID numbers of the individual devices.

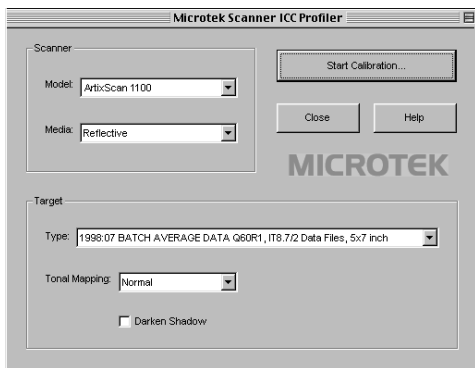


To use this command:

1. Choose the Get SCSI Chain Info command.
2. If your scanner does not show in the list, make sure it is connected and turned on, then click on the Probe button in the dialog box.
  - Choose the correct interface card in the card selection box.
  - Check the numbered box corresponding to the SCSI ID of your scanner. Click OK to close the dialog box

## B. The Main Window

The Main window provides various features and a system menu, allowing you to control the calibration process.

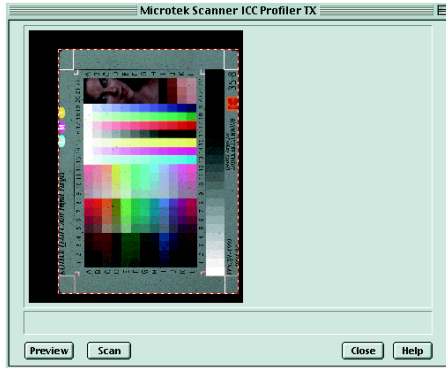


### Controls:

1. **Scanner Model:** This option lets you select the scanner to be calibrated.
2. **Media:** This option lets you select the media type for calibration. If a particular media is not supported, that media will not appear on the list.
3. **Target type:** This option lets you select the Target Description File (TDF) that matches your Q-60E3 calibration target being used for calibration.
 

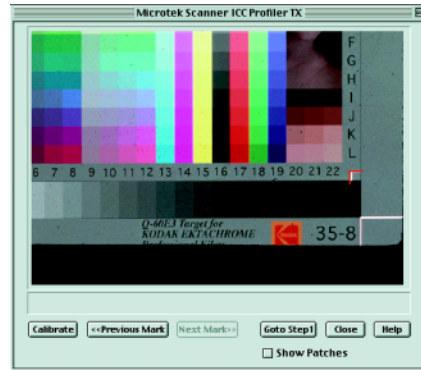
*Note: The Target Description File (TDF) contains colorimetric measurements of the target. Each target lot contains unique colorimetric data, and the Scanner ICC Profiler evaluates the scanned RGB data of the target and then matches it to the colorimetric data inside the TDF to create an ICC color profile — a characterization of how your scanner “sees” color.*
4. **Tonal Mapping:** This option lets you select the way in which the tonal reproduction curve of the profile is controlled.
  - **Normal:** Slightly brightens the highlights but also darkens the shadows.
  - **Lighten:** Brightens the highlights and also lightens the image overall.
  - **Darken:** Darkens the shadows without changing the highlights.
  - **Reduce Contrast:** Captures as much of the original as possible. Recommended for CMYK color separation.
5. **Darken Shadow:** This option lets you compensate for artifacts introduced by the scanner that indicate problems with the shadow portion of the image. You should enable this option if you wish to:
  - Minimize detail in the shadow areas of the image;
  - Make the shadow areas of an image darker; or
  - Reduce the appearance of noise in the shadow areas.
6. **Start Calibration:** This button starts the calibration process by displaying the calibration window and guides you through the process to create a customized scanner ICC profile.
7. **Close:** This button lets you close and exit the Scanner ICC Profiler.
8. **Help:** This button displays the Help window.

## C. The Calibration Window: Preview and Scan



1. Preview: The Preview button performs a preliminary scan of the target, displaying the entire target image in the calibration window.
2. Scan: The Scan button scans the target image and prepares the scanner for the important succeeding steps of aligning the registration marks and creation of the profile.

## D. The Calibration Window: Aligning targets and creating the profile



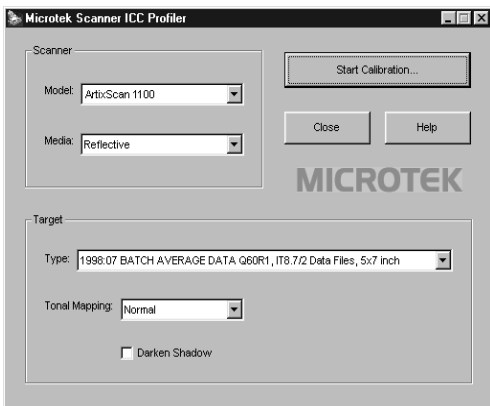
1. Calibrate: This button starts the actual calibration process in which a custom scanner ICC profile is created for the scanner. This button is grayed out until you have performed the required alignment of the three registration marks on the target.
2. Previous Mark: This button lets you go back one step to align the previous registration mark.
3. Next Mark: This button lets you go forward one step to align the next registration mark.
4. Go to Step 1: This button takes you back to the preview image screen so that you can rescan the target image and restart the calibration process.
5. Show Patches: This option lets you check the sampling area of all the color patches. When aligned properly, the sampling area appears as a green square in the center of most patches. If any areas fall outside a patch, realign the registration marks by clicking the "Previous Mark" and "Next Mark" buttons, and then reselecting the registration marks until the sampling areas are centered.
6. Close: This button lets you return to the main screen

## 12. Reference section for PC

This section describes the features and commands of the Microtek Scanner ICC Profiler program. All features are covered in the Main window and Calibration window.

### A. The Main Window

The Main window provides various features and a system menu, allowing you to control the calibration process.



Controls:

1. **Scanner Model:** This option lets you select the scanner to be calibrated.
2. **Media:** This option lets you select the media type for calibration. If a particular media is not supported, that media will not appear on the list.
3. **Target type:** This option lets you select the Target Description File (TDF) that matches your Q-60E3 calibration target being used for calibration.

*Note: The Target Description File (TDF) contains colorimetric measurements of the target. Each target lot contains unique colorimetric data, and the Scanner ICC Profiler evaluates the scanned RGB data of the target and then matches it to the colorimetric data inside the TDF to create an ICC color profile — a characterization of how your scanner “sees” color.*

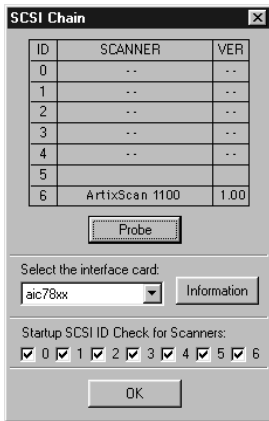
4. **Tonal Mapping:** This option lets you select the way in which the tonal reproduction curve of the profile is controlled.
  - **Normal:** Slightly brightens the highlights but also darkens the shadows.
  - **Lighten:** Brightens the highlights and also lightens the image overall.
  - **Darken:** Darkens the shadows without changing the highlights.
  - **Reduce Contrast:** Captures as much of the original as possible. Recommended for CMYK color separation.
5. **Darken Shadow:** This option lets you compensate for artifacts introduced by the scanner that indicate problems with the shadow portion of the image. You should enable this option if you wish to:
  - Minimize detail in the shadow areas of the image;
  - Make the shadow areas of an image darker; or
  - Reduce the appearance of noise in the shadow areas.
6. **Start Calibration:** This button starts the calibration process by displaying the calibration window and guides you through the process to create a customized scanner ICC profile.
7. **Close:** This button lets you close and exit the Scanner ICC Profiler.
8. **Help:** This button displays the Help window.

## System Menu:

The System Menu displays current scanner information, lets you view the SCSI chain status, and lets you view the About dialog box of the Scanner ICC Profiler program.



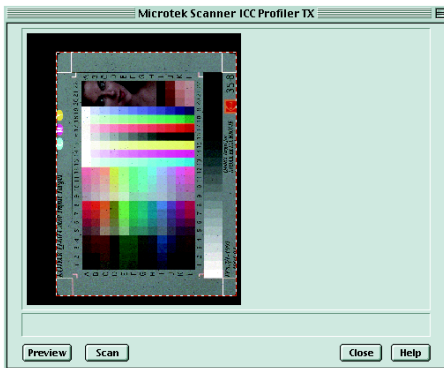
1. **Get Current Scanner Info:** This command provides information on the current scanner. A dialog box appears showing the scanner model in use, the SCSI ID number of the scanner, and the firmware version of the scanner.
2. **Scanner Probe:** This command displays the SCSI devices on the SCSI chain, as well as the SCSI ID numbers of the individual devices.



To use this command:

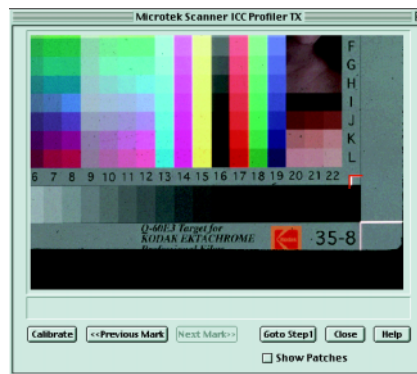
1. Choose the Get SCSI Chain Info command.
2. If your scanner does not show in the list, make sure it is connected and turned on, then click on the Probe button in the dialog box.
  - Choose the correct interface card in the card selection box.
  - Check the numbered box corresponding to the SCSI ID of your scanner. Click OK to close the dialog box.
3. **About:** This command displays the splash screen of the Scanner ICC Profiler program, including the product logo and the software version number.

## B. The Calibration Window: Preview and Scan



1. Preview: The Preview button performs a preliminary scan of the target, displaying the entire target image in the calibration window.
2. Scan: The Scan button scans the target image and prepares the scanner for the important succeeding steps of aligning the registration marks and creation of the profile.

## C. The Calibration Window: Aligning targets and creating the profile



1. Calibrate: This button starts the actual calibration process in which a custom scanner ICC profile is created for the scanner. This button is grayed out until you have performed the required alignment of the three registration marks on the target.
2. Previous Mark: This button lets you go back one step to align the previous registration mark.
3. Next Mark: This button lets you go forward one step to align the next registration mark.
4. Go to Step 1: This button takes you back to the preview image screen so that you can rescan the target image and restart the calibration process.
5. Show Patches: This option lets you check the sampling area of all the color patches. When aligned properly, the sampling area appears as a green square in the center of most patches. If any areas fall outside a patch, realign the registration marks by clicking the “Previous Mark” and “Next Mark” buttons, and then reselecting the registration marks until the sampling areas are centered.
6. Close: This button lets you return to the main screen.