Installing Your Scanner with Picture Publisher

Picture Publisher 5.0 ships with scanner drivers that are available only on the CD. You may acquire more scanner drivers by contacting your scanner manufacturer.

This document contains general information on the installation of a scanner with Picture Publisher. For information which is specific to the installation and operation of your scanner, please consult your scanner documentation or contact your scanner manufacturer.

Remember to consult Picture Publisher's on-line help (press **F1**) for answers to specific questions regarding the use of the program. For other questions regarding the use of Picture Publisher, please contact Micrografx technical support.

Related Topics
Installing the scanner drivers
Picture Publisher error messages and problems
Scanning with a TWAIN driver
Troubleshooting
Check list
 * Phone numbers for scanner manufacturers

Installing the Scanner Drivers

Within the setup program of Picture Publisher the **custom installation** option allows you to select all or no scanners.(Scanner drivers are available only on the CD.) If you do not click the scanner entry when prompted by the setup program, the driver will not be available to the program. You may install scanner drivers at a later time by running the Setup program again.

For most scanners, there are two drivers which will be installed to the **PICTPUB5\DEVICES** subdirectory. This is the default subdirectory for Picture Publisher 5.0 for installing devices. One driver, which has a .SYS extension, must be referenced in your CONFIG.SYS. Another driver, with a .DSC or .DGR, extension, will be selected from within the Micrografx program itself. You will be required to manually make the changes in the CONFIG.SYS if necessary.

Micrografx setup programs do not automatically install any CONFIG.SYS entries for your scanner.

It is possible that the scanner manufacturer has included a scanner installation diskette. In this case, you may not be required to make any manual changes to the CONFIG.SYS. If the setup program does not automatically change your CONFIG.SYS, consult your scanner documentation for the correct device syntax for your scanner. If your scanner had been previously working with Picture Publisher and now does not work, check the path name for the particular device driver and make sure it is pathed correctly.

It is not necessary to run both TWAIN **and** non-TWAIN interfaces. Using both TWAIN and Non-TWAIN devices in most cases offers no advantages. If one is operational, it is sufficient.

Related Topics
    Editing the CONFIG.SYS
   Setting up the scanner within Picture Publisher
    Troubleshooting questions

Editing the CONFIG.SYS

Most scanners require a driver referenced in your CONFIG.SYS. Without this reference, your scanner will not operate. Because Micrografx programs do not automatically add anything to the CONFIG.SYS, you will need to edit the CONFIG.SYS file.

To edit the CONFIG.SYS file:

1. From the Windows Program Manager, open the File menu and choose the Run command. The Run dialog box opens.
2. Type **WRITE** C:\CONFIG.SYS.
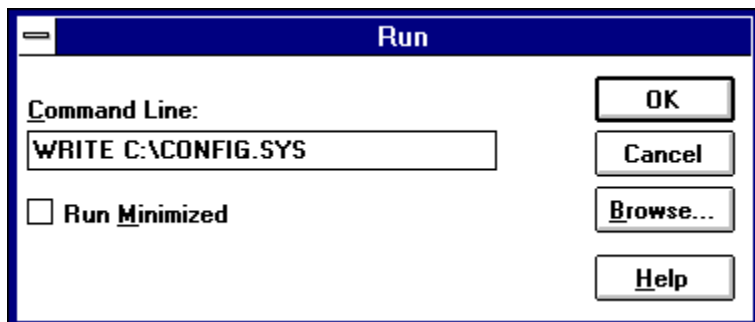
3. Press **ENTER**.
4. A Write dialog box will open asking if you would like to convert the file to Write format. **Choose No Conversion**.

The Windows Write program opens with the CONFIG.SYS file ready for editing.

Add the line specific to your scanner at the end of this text file. Before editing your CONFIG.SYS, you should determine, from your scanner documentation, the name of the .SYS file you will be using. The file will generally be found in the PICTPUB5\DEVICES subdirectory provided you selected it when you installed the program. If you cannot find the driver, run the setup program again, being careful to highlight the appropriate selections. THEN locate the .SYS file on your drive (using either a DOS utility or File Manager) to determine what path you will need to put on this line.

To enter a new line of text in your file, place the cursor after the last character in the last line and click the left mouse button. Press **ENTER** and type the new line of text such as:

DEVICE=C:\...\PICTPUB4\DEVICES\GENERIC.SYS /A200 /I5 /D1
(EXAMPLE ONLY)

The numbers at the end of the line above refer to switches, or settings, which are specific to the scanner being installed. To determine the exact switches required for your scanner, see the scanner documentation.

After making any changes to your CONFIG.SYS. don't forget to exit Windows and reboot your system so the changes can take effect.

Related Topics
    Setting up the scanner within Picture Publisher

Setting up the scanner within Picture Publisher

After changing the CONFIG.SYS and rebooting the system, watch your screen to see if the driver gets loaded without any error messages. Sometimes putting the word "pause" as the first line in the AUTOEXEC.BAT will allow you to see if the driver is loading into memory properly. Restart Windows. Start Picture Publisher. Select FILE/SETUP/SCANNER (If TWAIN See <u>Scanning with a TWAIN driver)</u>. Select the scanner name from the drop down box and set the proper Scanner Address. (<u>I/O address).</u>
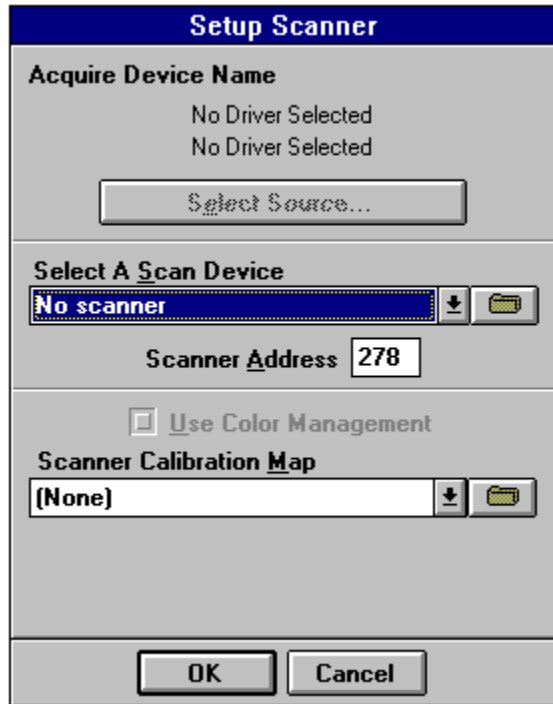
The Scanner Address (<u>I/O address</u>) is not always necessary. If the name of your scanner is not listed in the drop down box, select the folder icon to right of the scanner name. Select **ADD**. Find the correct driver file name in the PICTPUB4\DEVICES subdirectory name. Select the name. Select **ADD**. Give the driver a name. Set the proper   Scanner Address.

Provided the correct drivers are installed, with no conflicts, enter the scanner dialog box by selecting FILE/SCAN. If it does not appear within the program, but results in an error message, see:

Related Topics
 <u>Troubleshooting</u>
 <u>Picture Publisher error messages and problems</u>

Scanning with a TWAIN Driver

Today's top scanner manufacturers are supplying their customers with installation programs that make scanner installation very easy. Trouble free installation is becoming more common by providing TWAIN communication along with diagnostic software that will automatically find the correct settings so you can install your scanner within a Micrografx program within minutes.

What is TWAIN? TWAIN is a new agreed on standard by scanner and software manufacturers to provide a common interface between Windows programs and scanners. If your scanner operates with a TWAIN driver, you must install the TWAIN driver from the manufacturers' installation disks. **This driver is not provided from Micrografx.** If you did not receive such a driver with your scanner, then you would need to contact the scanner manufacturer to request the driver.

After installing the TWAIN driver diskette, within Picture Publisher instead of selecting FILE/SETUP/SCANNER, you need to select FILE/SETUP/SCANNER/TWAIN. To scan with TWAIN, select FILE/ACQUIRE. If your scanner is not among those listed you must obtain the TWAIN driver from the scanner manufacturer.

See **Phone numbers for scanner manufacturers**.

Phone Numbers for Scanner Manufacturers

Company	Support	BBS	Compuserve / AOL	FAX
AVR	800-544-6243		n/a	
Complete, PC	407-997-9683	407-997-9130	n/a	407-997-9621
Envisions	415-692-9067	415-692-9521	n/a	415-692-9064
Epson	800-922-8911	310-782-4531	**yes**	310-782-4103
HP	800-752-0900		**yes**	208-323-6190
Howtek	603-882-5200	603-598-3652	n/a	603-880-3843
Identity	800-723-8324	214-705-7213	n/a	214-699-8404
Logitech	510-795-8100	510-795-0408	**yes**	510-795-8100
Microtek	310-297-5100	310-297-5102	n/a	310-297-5101
Mustek	714-453-0110	714-453-1210	n/a	714-453-1010
Nikon	516-547-4200		**yes**	516-547-0299
Nisca	800-245-7226	214-446-0646	n/a	214-245-0942
Plustek(ScanPlus)	408-980-1234		n/a	408-980-5184
ProScan	818-337-9614	408-980-8761	n/a	818-960-1766
Sharp	201-529-8979		n/a	201-512-3470
Tamarack	408-956-0144		n/a	408-956-1552
Umax	408-982-0771	510-651-2550	n/a	408-982-0776

Troubleshooting

Before you begin actually begin troubleshooting go through and see the <u>troubleshooting questions</u> to see if you have not overlooked a critical piece of your installation.

Unfortunately, finding non-conflicting settings on your scanner interface card may be the biggest challenge to setting up your scanner. Today's computers have numerous configurations with various hardware installed within them like: fax modems, CD-ROMs, sound cards, etc. Hopefully your scanner manufacturer has provided simple diagnostic software that will automatically find the correct settings so you can install your scanner within a Micrografx program within minutes. If not, sometimes only by experimenting, will you be able to get the scanner card to communicate with the software. The following topics will help you troubleshoot some problems in getting your scanner operational.

It is not necessary to run both TWAIN **and** non-TWAIN interfaces. Using both TWAIN and Non-TWAIN devices in most cases offers no advantages. If one is operational, it is sufficient.

Related Topics
   <u>Hardware conflicts</u>
   <u>List of commonly used IRQ and DMA Channels</u>
   <u>Software conflicts and memory conflicts</u>
   <u>Troubleshooting questions</u>
   <u>Check list</u> (The "when all else fails" punchlist)

Hardware Conflicts

It is possible that your scanner may conflict with another device in your system, such as your mouse, sound card, modem, or network card. Your scanner may be trying to use the same <u>I/O address</u>, <u>IRQ</u> channel, or <u>DMA</u> channel as one of these other devices. By far, DMA and IRQ conflicts are the most common conflicts when trying to get a scanner operational**.** Many scanners allow you to change these settings. Your scanner documentation should describe the settings available for the interface card.

Here are a few suggestions to try:

1. Change the IRQs and DMA settings. Especially applicable with mouse IRQs, network cards, sound cards (for example, SoundBlaster Pro), and fax modem cards.
2. If you cannot get the scanner to run with any of the right combination of settings, you can more easily arrive at the conflict by removing any other suspected and known cards. **Be sure you know which cards are needed to operate your system before you begin removing cards.**

Related Topics
<u>List of commonly used IRQ and DMA Channels</u>

List of commonly used IRQ and DMA Channels

By far DMA and IRQ conflicts are the most common conflicts.

IRQ 1	Keyboard	DMA0	Spare
IRQ2	Redirected to available 8-15	DMA1	SDLC
IRQ3	Com2	DMA2	Floppy Disk
IRQ4	Com1	DMA3	Spare
IRQ5	Parallel Port 2	DMA4	Hardware Reserved
IRQ6	Floppy Disk	DMA5	Spare
IRQ7	Parallel Port 1	DMA6	Spare
		DMA7	Spare

The following list of cards or devices may be conflicting with IRQs and DMAs:

Sound boards	Serial mouse devices See Com1 Com2
Fax/Modem card	SCSI device controllers
Network card	Scanner interface
Inport mouse IRQ 3, 4, 5	Printer accelerator boards

Software Conflicts and Memory Problems

If you are receiving errors while attempting to scan, and you are using any 3rd-party software (for example, a screen saver, virus protection software, or an alternate Windows shell), you should temporarily disable such software before attempting to scan.

If you are using a memory manager besides HIMEM.SYS, try temporarily re-configuring your system to operate with HIMEM.SYS and attempt to scan again. If you are using an alternate shell for Windows (for example, Norton Desktop for Windows), it may be necessary you change your shell back to the Windows Program Manager and attempt to scan again. If you can successfully scan by disabling such software, contact the manufacturer of the conflicting software. Their support staff may be able to describe a configuration which will avoid such conflicts.

Picture Publisher requires at least 4 megabytes of RAM. It is also important, however, to make good use of the 640K of conventional memory. From DOS, you can use the "CHKDSK" command or "MEM /C" to determine how much of this 640K is left. If this memory is low (less than 550K), you may wish to load other device drivers high, or simply not load some drivers when you know you will be scanning. Also, if you are using Picture Publisher, from the Edit menu, choose the Preferences command and change the "Cache Path" to C:\ or the root of any non- compressed drive with an adequate amount of space.

There are still other memory problems that are more elusive. Conflicts may come from programs you have previously installed. Scanning is very memory intensive and some programs take up critical memory that may conflict with your scanner's proper operation. For instance, sometimes a problem may be occurring because of an entry that is written in the SYSTEM.INI from the installation of a program. For this reason, after you first install Windows(nothing has been loaded), it is a good idea to keep a backup of your initially installed SYSTEM.INI. Additionally, once the scanner is working it is a good ideas to also backup the AUTOEXEC.BAT and CONFIG.SYS files. Later, if you have problems scanning, you may be able to isolate the problem more easily.

Troubleshooting questions

Micrografx operates with numerous scanners and getting your scanner operational may require your knowledge of the following questions:

· Was Picture Publisher bundled with your scanner?
· Does the scanner presently scan with any other software package in Windows? DOS programs will respond differently and may not show conflicts in IRQ, DMA and memory as in Windows.
· Besides the Picture Publisher diskette, are there any other diskettes that must be installed to activate the scanner? (Search for documentation included with scanner or   contained in a file on the scanner manufacturers' diskettes.)
· Have you carefully read through the manufacturers' documentation on how to setup the scanner?
· Does the scanner use a TWAIN or non-TWAIN communication method? (Consult manufacturer)
· Have you selected FILE/SETUP/SCANNER and set the proper Scanner Address (I/O address)?
· Does the scanner dialog box open when selecting FILE/SCAN or FILE/ACQUIRE or do you get a resulting error message?
· Does the scanner prescan? Does the scanner scan in any modes? (Grayscale, lineart, color)
· Will the scanner scan at lower resolutions but not at higher resolutions?
· Have you contacted the manufacturer for the latest scanner driver for your particular scanner? Have the file dates and size ready to give their support staff.

See Phone numbers for scanner manufacturers

Picture Publisher Error Messages and Problems

Messages

Can't initialize the scanner: Scanner Init Failed
> The scanner dialog box does not open but this error message occurs. Possible causes are an incorrect driver in the CONFIG.SYS, incorrect Scanner Address (I/O address), or no .DSC or .DGR is selected in the Setup/Scanner dialog box. See Setting up. Problems can also be associated with fast CPU speeds above 33mhz. Reduce CPU speed of computer. See also Memory problems**.**

Your scanner/grabber driver can't be opened.
> Possible causes are an incorrect driver in the CONFIG.SYS. or no .DSC or .DGR is selected in the Setup/ Scanner dialog box. See Setting up.

Unable to allocate DOS memory.
> See Memory problems.

TWAIN detailed error status returns success
> The TWAIN driver is not communicating with the scanner. Recheck all settings. Call the manufacturer.

Can't get data from the scanner: Timeout while scanning
> Incorrect IRQ setting. Mismatch between the scanner dialog box and the resolution setting on scanner. See Hardware Conflicts

Unable to read archive.
> Installation issue, possibly bad diskettes, TSR conflicts or disk caching conflicts. Attempt to copy all files to a temporary subdirectory. Attempt to run the install directly from the hard disk. Attempt to make a backup of the suspected bad disk. If disk error occurs contact Micrografx. If there is a suspected bad diskette check all diskettes before calling Micrografx.

Unable to initialize scanner.
> Check scanner address (I/O address) in setup scanner dialog box and double check interface card settings. Turn off scanner power, sometimes even power down entire system. Start scanner, wait for ready light on scanner.

General protection fault.(GP fault)
> Temporary memory conflict that may be corrected by exiting and restarting Windows. It may be necessary to restart the system. See Software Conflicts.

Memory Parity Error Detected - System Halted.
> Fast CPU speed. Reduce speed to 33mhz or below. If this does not correct problem, See Hardware Conflicts or contact hardware manufacturer about interface card.

Write cache failed.
> Check driver dates. Current drivers should correct this.

Not enough memory to continue scanning.
> See Memory problems.

Problems

After selecting FILE/SCAN or FILE/ACQUIRE Picture Publisher freezes up.

Picture Publisher is attempting to communicate with the scanner and will eventually come up with an error message. See <u>Hardware Conflicts</u> address, IRQ, DMA on the interface card, possible conflicts with devices in the system.

? in resolution box or mouse freezes up.
Mismatch between the scanner dialog box and the resolution setting on scanner. Recheck settings on the scanner. Double click on the type setting again in the scanner dialog box. See <u>Hardware Conflicts</u> address, IRQ, DMA on the interface card, possible conflicts with devices in the system.

Black box after initial scanner.
Sometimes the scanner darkness setting or a bad scanner. See <u>Hardware Conflicts</u>.

Windows shuts down to DOS after scanning.
Fast CPU speed. Reduce speed to 33mhz or below.
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Horizontal scan lines after scanning
Moving scanner too fast for memory to read in. Slow the scanning motion in. Fast CPU speed. Reduce speed to 33mhz or below. See <u>Hardware Conflicts</u>.

Image looks very grainy on the Picture Publisher desktop
Picture publisher displays images in 24bit display mode. By changing the mode of the video driver to 256 colors or more the image quality will appear to be smoother. contact your video card manufacturer.

* For other pertinent information on scanner input and Picture Publisher output see the on-line help within Picture Publisher.

Critical Path List

- Verify system requirements. 386, Windows 3.1, 4mg RAM, sufficient hard disk space.
- Before changing**,** backup the system files, AUTOEXEC.BAT, CONFIG.SYS, WIN.INI, SYSTEM.INI
- Remove all TSR (terminate and stay resident) programs from the AUTOEXEC.BAT.
- Remove all but the necessary drivers out of the CONFIG.SYS.
- On bootup, make sure the device driver is loading from the CONFIG.SYS. Watch the screen on bootup.
- Put a "pause" as the first line in the AUTOEXEC.BAT to see the device driver is loading.
- Make sure the CONFIG.SYS driver dates are the most current for your scanner.
- Run "CHKDSK" to see how much memory is available in conventional memory.
- Install the program to a clean untouched version of Windows. Should correct   memory conflicts.
- Run in standard VGA mode. Identifies memory conflicts.
- Remove all unnecessary (temporarily disable all) hardware. Start with sound boards.
- Run FILE/SETUP/SCANNER. Check the scanner name including Scanner Address (I/O address).
- Slow the CPU speed down to 33mhz or below. Disable cache memory.
    - **IF the scanner dialog box opens but won't scan**
- Reconfigure the interface card by changing IRQs or DMAs.
- Change parameters of the device driver that reflect the changes on the interface card.
    - **Once the scanner is operating within Picture Publisher**
- Backup the system files, AUTOEXEC.BAT, CONFIG.SYS, WIN.INI, SYSTEM.INI

By far, DMA and IRQ conflicts are the most common conflicts.

Glossary

I/O address
DMA channel
Interrupt levels

I/O address

An I/O address is a location in memory, represented in hexadecimal form, that a piece of hardware, such as your scanner interface card can be found at. All pieces of hardware that you install into a computer are set up for certain addresses. Since only one piece of hardware can reside at a particular address, the manufacturer gives you specific alternative addresses that you can use.

Most incorrectly assigned addresses will be symptomatic of not allowing the scanner dialog box to even open after selecting FILE\SCAN. A resulting error message will generally occur like "Cannot initialize scanner ..."

Changing the scanner address (I/O address) sometimes requires changes to the interface card **and** the parameters of the device driver.

Should the device driver be a SCSI interface, the base I/O will generally be assigned to the number of the SCSI device usually ranging between 1-8. This number will then be the number to put in the base I/O of Picture Publisher's setup box

For GPIB setups Picture Publisher always polls device 4. The primary address of device 4 will need to be redirected to the scanner's address setting. (Sharp scanners default to 7). Also repeat addressing should be enabled within the GPIB software.

DMA channel

A Direct Memory Access (DMA) channel gives a piece of hardware the ability to access the memory without having to go through the CPU. This sometimes increases scanning speed capability. Other pieces of hardware installed into your machine, such as Sound Cards, Network Adapters, other scanner interface cards, etc. may be set up to use one of these DMA channels.

Interrupt Levels

Interrupt Levels (IRQs) are used by the computer to control the priority levels that hardware devices are given in the system. For instance, your keyboard uses one of the first IRQ levels because your computer can not function without it. Some IRQ levels are reserved for specific hardware that most computers do not have installed, such as a second Printer Port (LPT2:) which uses IRQ5.

By far, IRQ conflicts are the most common conflicts.