# Windows-98 Driver Installation

This document will present the steps needed to install or update the Drivers for MosChip products, or another manufacturer's product based on a MosChip product.

The Nm9835CV will be used as the test case.

This device offers two Serial Ports, and one IEEE-1284 style Parallel Port.

## 1. Download the appropriate Drivers from the Web-Site.

a. http://www.moschip.com
   i. Click the "Products" button.
   ii. Click the "PCI" button.
   iii. In the row for the product you wish to install, click "Drivers, Release Notes and Installation Guides".
   iv. Click the icon under the Operating System you are using.

b. Allow the ".zip" file to be downloaded to your local computer.

c. Unzip the Driver files to a directory on your Hard Disk, or to a Floppy Diskette.

d. Check the new folder with the Driver files for a "Readme" file that may have additional or special installation instructions. Use those instructions in addition to, or instead of, these instructions if present.

## 2. Installing Drivers for the first time.

a. Shutdown Windows.

b. Turn the Power to the computer OFF.

c. Insert the peripheral card into the computer.

d. Insure that there are no external devices connected to the Ports at this time. They can interfere with the installation of the Drivers.

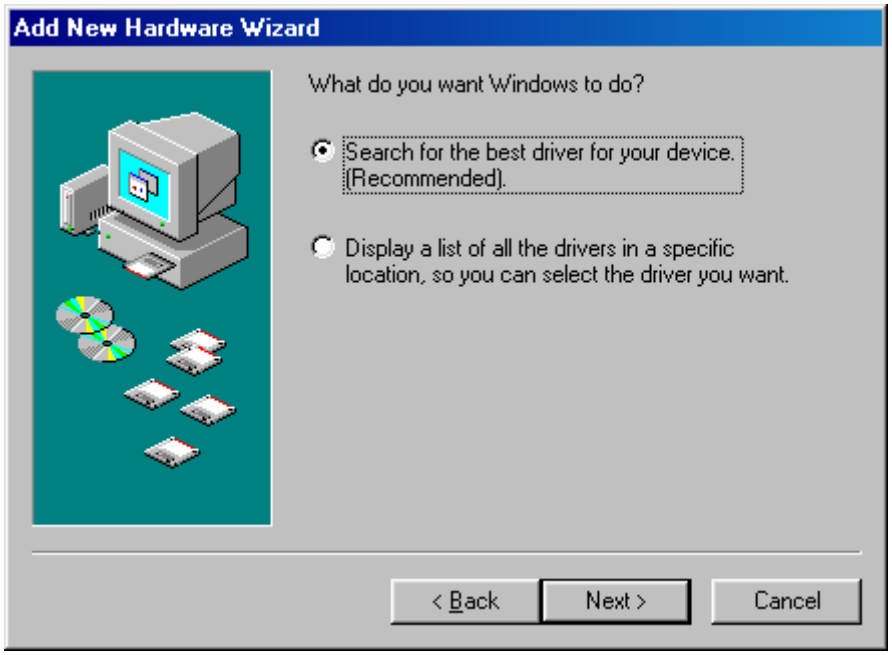
e. Turn the computer ON.

f. Windows should detect the new card, and automatically invoke the "Add New Hardware" wizard. If not, manually start the wizard.
   i. Open the Control Panel
   ii. Open "Add New Hardware"

g. At the dialog box which says “This wizard searches for new drivers for:”


i. The Nm9835CV is actually listed as “PCI Communication Device” (the name the PCI Specification uses for both Serial Ports and Parallel Ports).
ii. Click “Next” to start the process.

h. At the next dialog “What do you want Windows to do?”

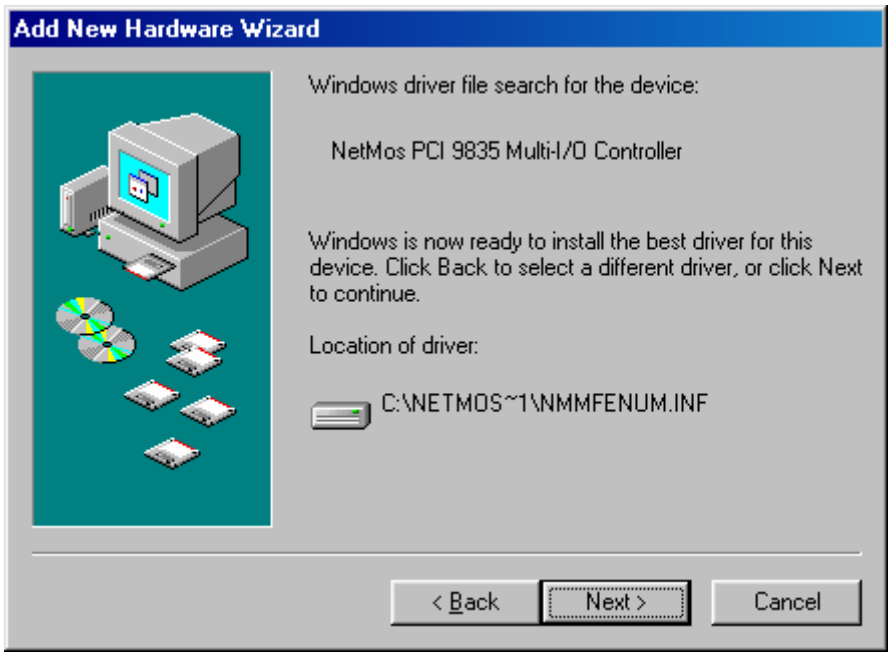



i. Select “Search for the best driver for your device. (Recommended)”
ii. Click “Next” to proceed.

i. At the next dialog, specify where Windows should look for the files.


i. Select “Floppy” if this is where you un-zipped the Driver files, otherwise select “Specify a location” and browse to the directory on the Hard Disk containing the new files.
ii. Click “Next” to continue.

j. At the next dialog,




i. Insure that the path Windows says it will get the Drivers from is the same as where you expect it to be: "A:\..." for the floppy etc. Sometimes Windows will find remnants from a previous installation and use that location instead of the new path. If this occurs, see the section about "Removing Previously Installed Drivers", and re-start this procedure from the beginning after the old drivers have been removed.

ii. Click "Next" to continue.

k. At the next dialog,


i. Click “Finish” when Windows says it has finished installing the Drivers.

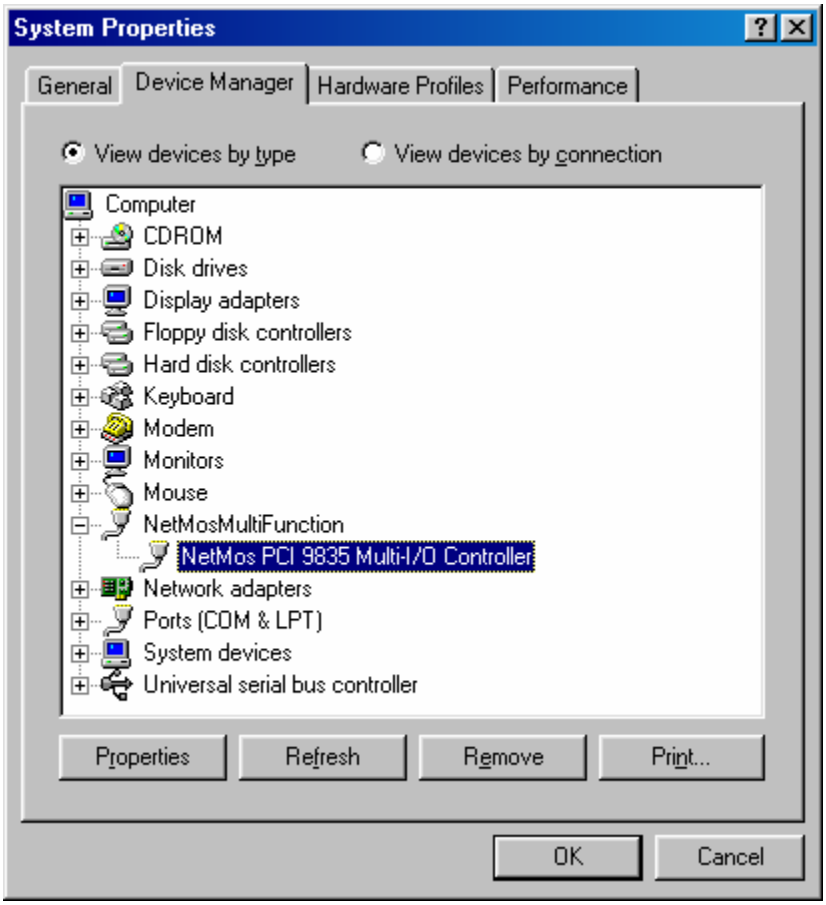
l. Windows should display additional dialog boxes saying it has found new hardware, and is installing the appropriate software to handle the new devices. These steps should proceed without any additional input from you.

m. When the Windows desktop is displayed, the Driver installation is complete.

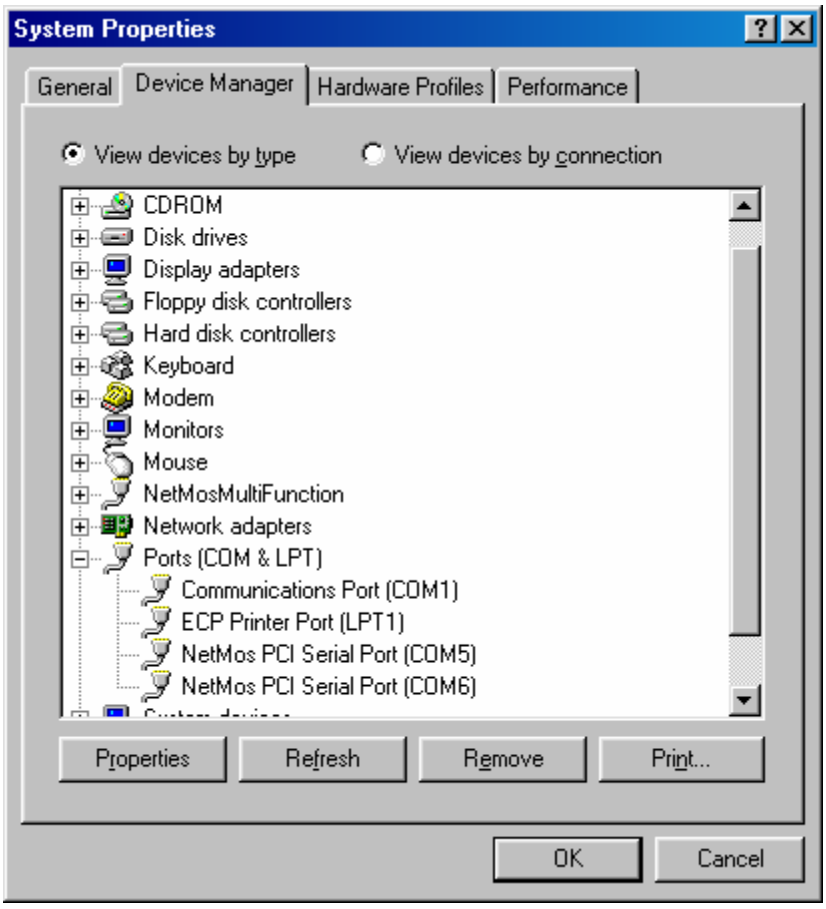
# 3. Check Driver Installation.

a. Open the Windows Device Manager
   i. Right-Click the “My Computer” icon on the Desktop.
   ii. Select “Properties” from the drop-down menu.
   iii. Click the “Device Manager” tab to show the current Hardware list.

b. Confirm that the NetMos Multi-I/O card is in the Device List



c. Confirm that all of the Ports are present.




i. In my case, two new Serial Ports were added.

ii. The Nm9835CV can also provide an additional Parallel Port, however in this case no Parallel Driver was installed. The EEPROM used to configure the chip was set up to provide Serial Ports only. Since the Parallel Port Hardware was not enabled, the Parallel Driver was not installed.

At this point, the new Ports should be ready for use.

Some versions of Windows, and some Drivers, will allow the user to change some of the settings for the new Ports, while other versions will not. Things that might be able to be changed are:

- the Port Numbers (COM5 >> COM2 for example)
- re-mapping to Legacy I/O Addresses (COM2 = 2F8 instead of FFD0 for example)
  in general : DOS, Win-95, Win-98 and Win-me will allow re-mapping
  while Win-NT, Win-2000, and Win-xp will not.
- The Parallel Port Mode (Bi-Directional, EPP, ECP)

## *Removing Previously Installed Drivers*

Sometimes it will be desirable or even necessary to remove the previously installed drivers, so that a new, clean installation can be performed. Drivers can get corrupted when being written to their installation medium (CD-ROM etc.). If this happens, the drivers may not install properly. Even if the installation proceeds without errors, the drivers may not work. Sometimes older outdated drivers are shipped with a product. Newer machines may require newer updated drivers, but the older drivers prevent them from being installed.

The easiest way to remove old drivers is to use the NMUNINST.EXE program. If this is not available, or does not solve the problem, it might be necessary to remove the old drivers manually.

### 1. Using NMUNINST.EXE to remove old Drivers

a. Turn the computer OFF.

b. Remove the peripheral card. This will insure that none of the old Driver components will be used, allowing them to be removed from the system.

c. Boot the system up normally.

d. Locate and run the NMUNINST.EXE program. This program is usually loaded into the “windows\system” or “windows\system32” directory. Using the “find” command from the “Start Menu” will help locate this file.

e. Re-boot the computer with the card still removed from the system.

f. Shut the computer OFF. Re-install the card, and turn the computer back ON.

g. When installing the Drivers this time, use the ones downloaded from the MosChip web-site. It is likely that the reason the old drivers needed to be removed was because they were attempting to use files belonging to a different version of Windows from the one currently running on the machine (parts of Windows-98 loaded instead of Windows-NT for example).

### 2. Removing the old Drivers Manually

a. Turn the computer OFF.

b. Remove the peripheral card. This will insure that none of the old Driver components will be used, allowing them to be removed from the system.

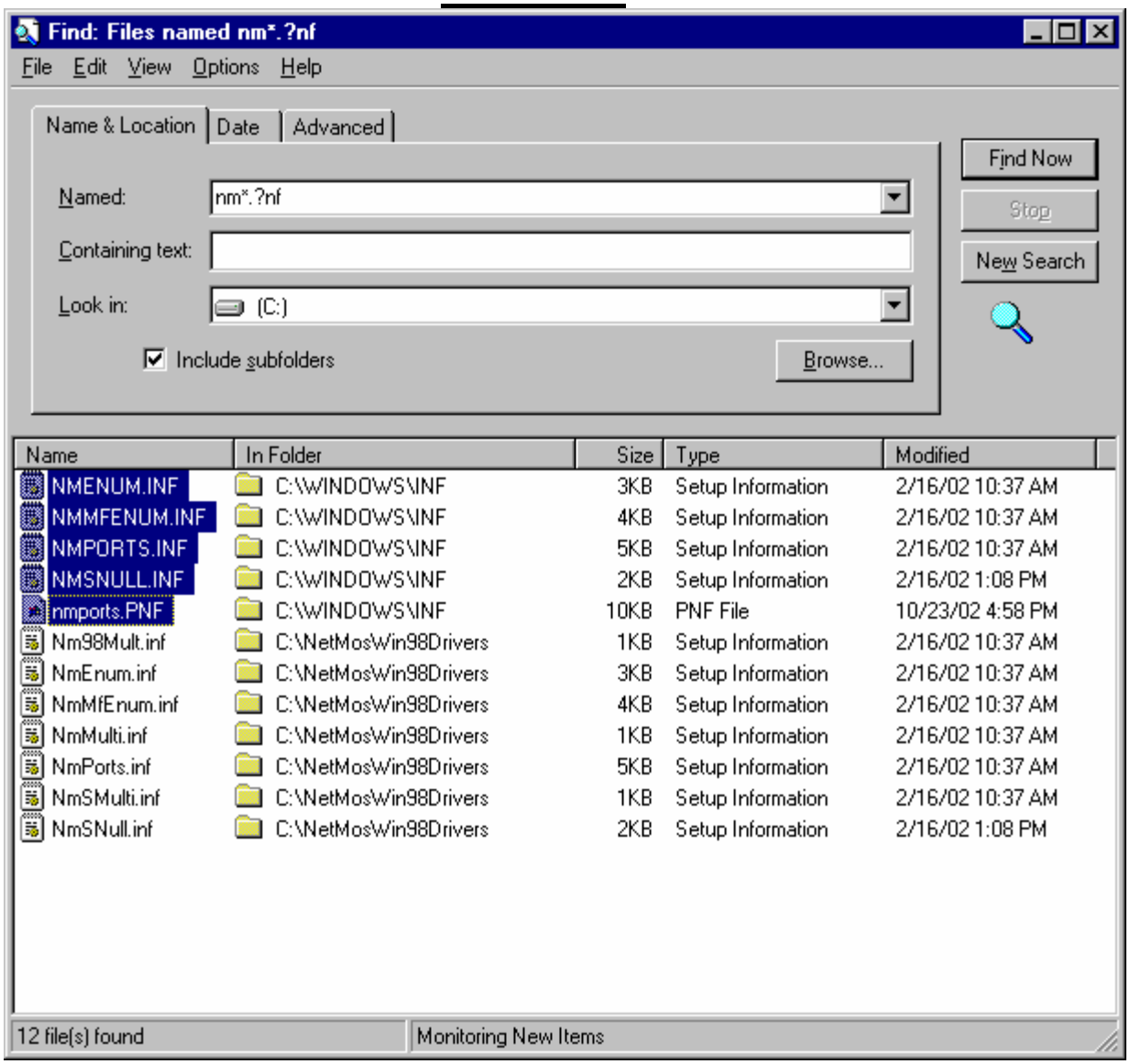
c. Boot the system up normally.

d. Create a temporary directory that will hold the old driver files until we are sure they can be deleted.

e. Search for currently installed Driver files.

i. In the “Start Menu” click “Find” and then “Files and Folders”

ii. Search for **`nm*.?nf`**



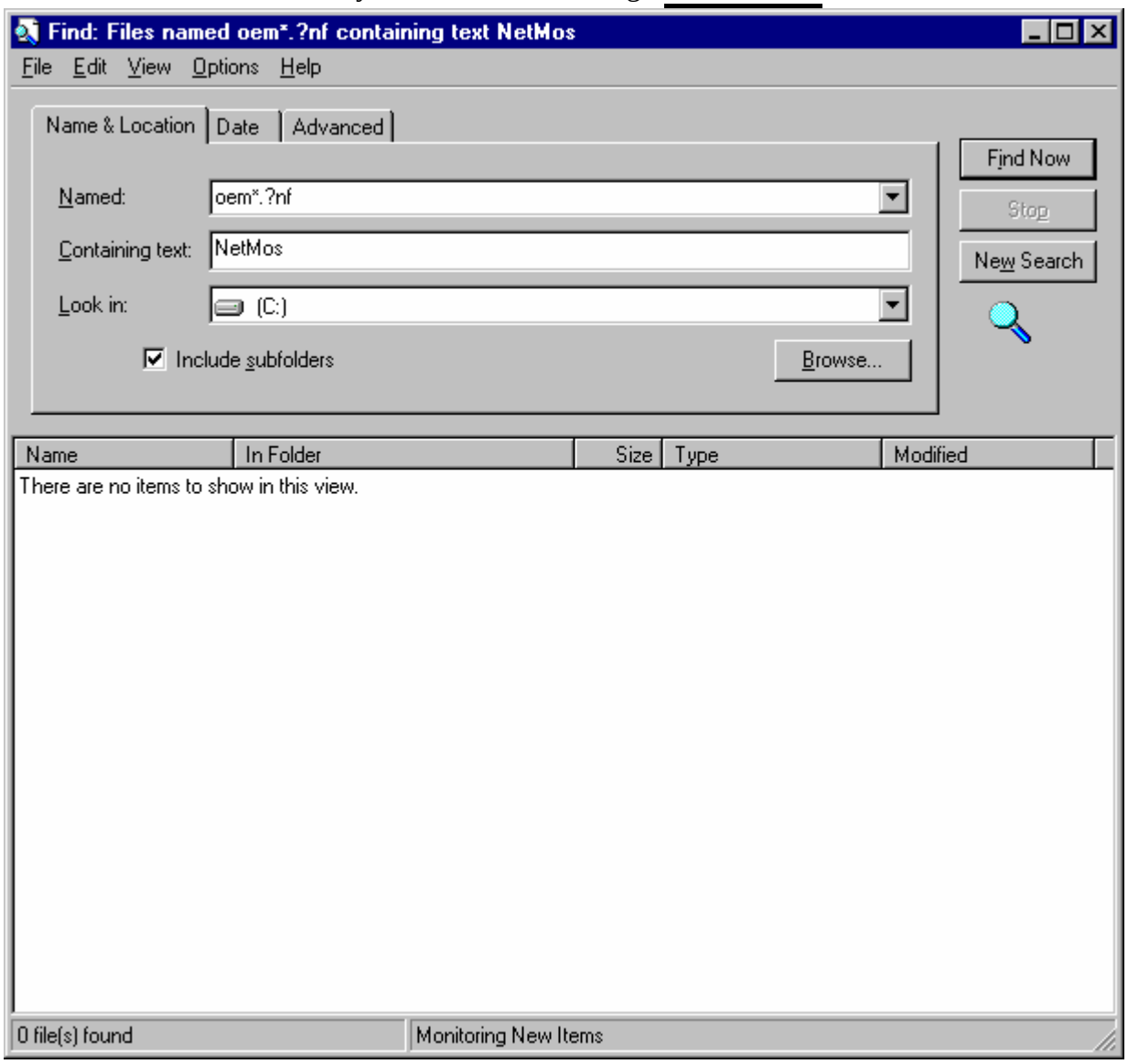

iii. Leave the files where they are for the Drivers downloaded from the web-site.

iv. Delete or move any other files found by the search. These will usually be located in the “c:\windows\inf” directory, and possibly in the “c:\windows\inf\other” directory.

f. Do another search, using a different file naming format

i. Search for : **oem*.?nf**

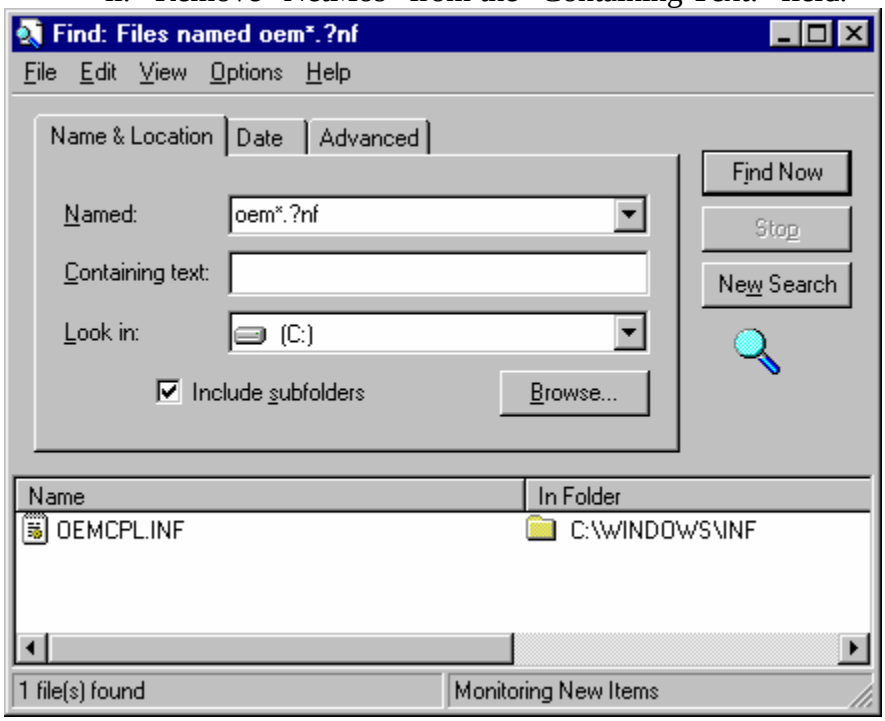
ii. Only show items containing : **NetMos**




iii. Make a note of the file names returned by the search (if any).

iv. Do NOT move or delete any files at this time.

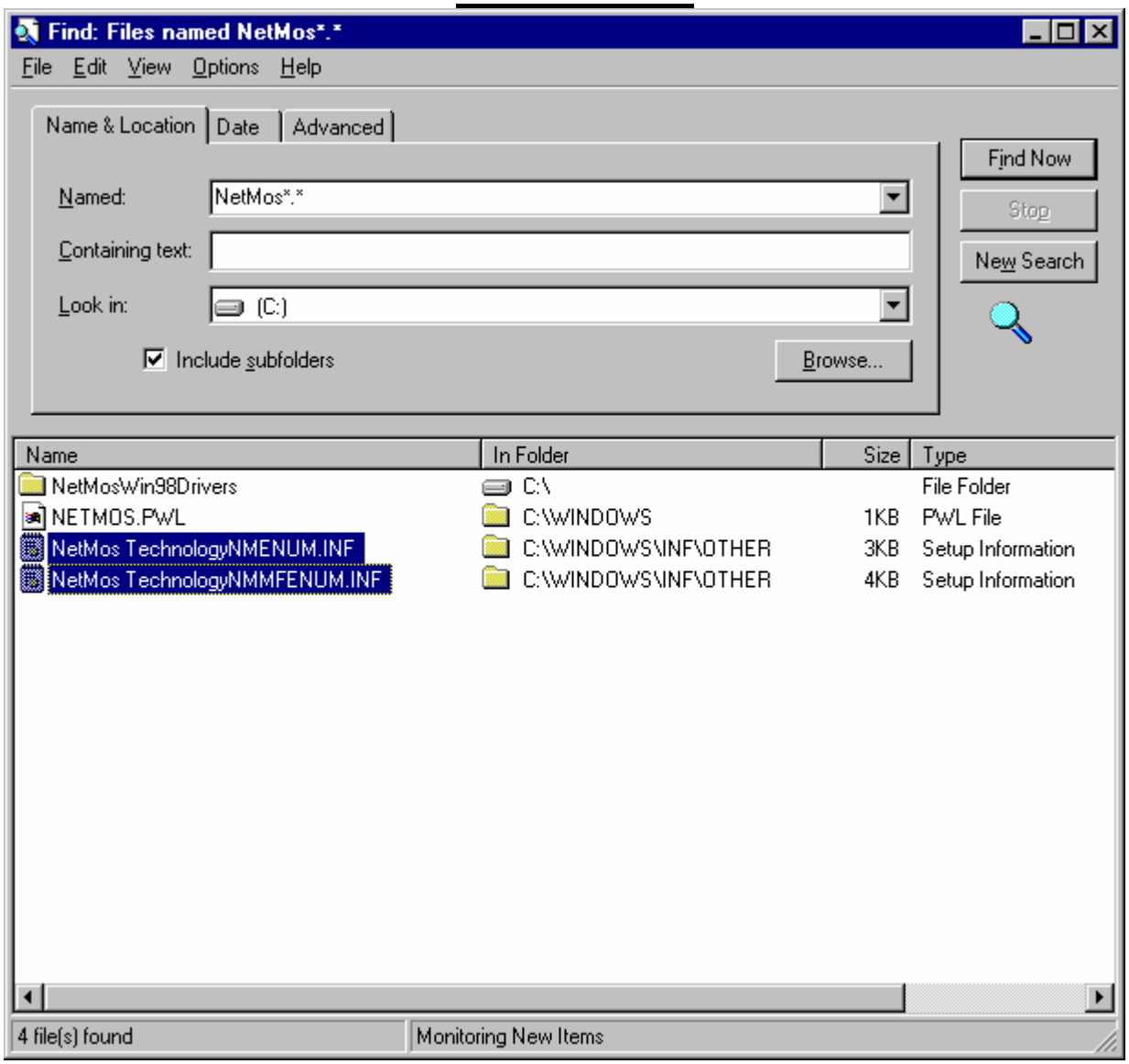
g. Now run the same search again, but without looking for the text “NetMos”
   i. Search for oem*.?nf
   ii. Remove “NetMos” from the “Containing Text:” field.




   iii. Move or delete any files with names similar to those found by the previous search. If “oem1.inf” was found previously, you should delete “oem1.inf” as well as “oem1.pnf” if it exists. Do not remove “oem3.inf” simply because it appeared in this search however.

h. Search once more with yet another file naming scheme.

i. Search for : **NetMos*.***




ii. Delete or move any suspect files found by the search.

i. Re-boot the computer with the card still removed from the system.

j. Shut the computer OFF. Re-install the card, and turn the computer back ON.

k. When installing the Drivers this time, use the ones downloaded from the MosChip web-site. It is likely that the reason the old drivers needed to be removed was because they were attempting to use files belonging to a different version of Windows from the one currently running on the machine (parts of Windows-98 loaded instead of Windows-NT for example).

l. If everything works properly, you may delete the items moved into the temporary directory. If some other device starts showing problems, you may have removed a driver file that was not related to the NetMos card. Putting that file back into "windows\inf" and re-booting should fix the problem with the other device. You may need to experiment if more than one file is involved. Under these conditions, it would probably be best to un-install the NetMos Drivers (so not to get mixed versions like before), replace files until the other device works properly, then re-install the NetMos Drivers. This is a very unlikely situation, but correcting a Driver mis-match situation can be a time consuming and involved process.