

Windows Manual Driver Removal and Cleanup

Includes these products: DeviceMaster RTS, DeviceMaster Pro, DeviceMaster Air and DeviceMaster SerialHub.

Note: This same procedure is used for all of the Windows OS's, but the directory path structure is slightly different.

Wherever you see in this document, "c:\%system%", substitute; "c:\Windows" or "C:\WINNT" as the new path for your Operating System. Depending on the version of Windows you are using, you may notice that some of the screen shots included in this document are different than what you see on your PC. There should be few enough differences that you will not experience any difficulties.

Keep in mind that whenever a system is changed, it is always a good idea to have a full backup for recovery purposes should something undesirable take place. See your Microsoft documentation for instructions on backing up your registry and/or system hard drive.

When removing your DeviceMaster with the intent of updating drivers, start by getting the following basic information from each unit. The MAC address and the IP address assigned to the DeviceMaster with the com numbers assigned with the appropriate ports settings. This information will be used to configure the new drivers to maintain the same MAC, IP and port settings to avoid having to re-arrange serial cables or change settings in your application.

In Windows Device Manager select Multi-Port Serial Adapters and expand the category to list the installed devices.

Double click on one DeviceMaster at a time to open the properties pages. Make notes of the following information.

Use the "Network Connections" tab to collect the MAC and IP addresses assigned to this DeviceMaster.

Use the "Port Settings" tab to collect the Com numbers assigned to this DeviceMaster.

Click on the com number and select the "Properties" button to collect the port configurations if different than default.

After the settings have been notated, close the properties page.

Highlight the Control product and right click to select "Uninstall" from the pop-up menu.

Repeat for each Control product.

When prompted to restart PC respond 'No'.

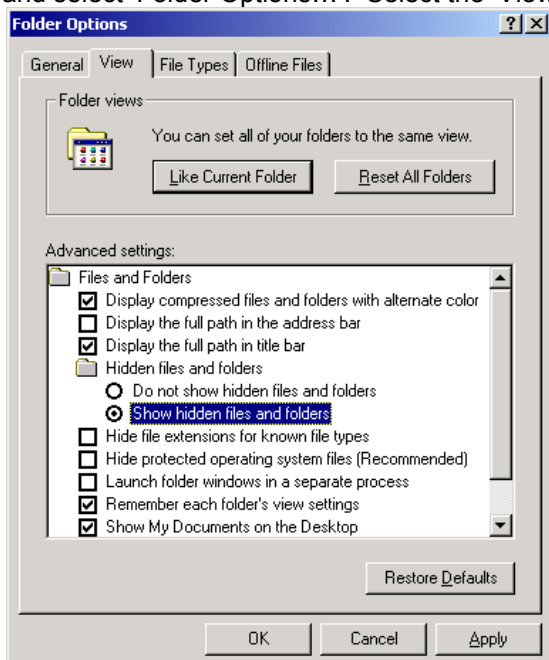
Close Device Manager.

In the following procedure, be aware that not all entries will be present. That is normal due to the driver removal procedure already completed. In the event the entry does not exist, just continue to the next step.

Open Windows Explorer by right clicking on the "Start" button and selecting "Explore" from the pop-up menu.

Manually delete the files listed in **File Deletions:** below. Use the path of \winnt\ or \windows\ as appropriate for your PC.

Note: The \inf\ directory is normally a hidden system directory. To view this directory, go to the 'Tools' drop-down menu and select 'Folder Options...'. Select the 'View' tab and set all of the options as shown here, then click 'Apply' and 'OK'.



File Deletions:

```
del c:\control\*. *
del c:\Program Files (x86)\Comtrol\DeviceMaster\
del c:\Program Files\Comtrol\DeviceMaster\
del c:\%system%\inf\ctmaport.inf
del c:\%system%\inf\ctmaport.pnf
del c:\%system%\inf\ctmproto.inf
del c:\%system%\inf\ctmproto.pnf
del c:\%system%\inf\ctmsport.inf
del c:\%system%\inf\ctmsport.pnf
del c:\%system%\inf\netctmrk.inf
del c:\%system%\inf\netctmrk.pnf
del c:\%system%\system32\ctmnsInt.cat
del c:\%system%\system32\ctmsclas.dll
del c:\%system%\system32\ctmsclasx64.dll
del c:\%system%\system32\ctmsport.inf
del c:\%system%\system32\sisetup.dll
del c:\%system%\system32\sisetup.chm
del c:\%system%\system32\sisetupx64.dll
del c:\%system%\system32\drivers\devmast.bin
del c:\%system%\system32\drivers\devmast2.bin
del c:\%system%\system32\drivers\rpshsi.bin
del c:\%system%\system32\drivers\rpshsi2p.bin
del c:\%system%\system32\drivers\rpshsi.sys
del c:\%system%\system32\drivers\rpshsix64.sys
del c:\%system%\system32\rpshsi\*. *
del c:\Windows\System32\DriverStore\FileRepository\netctmsi.inf* (see section "FileRepository" below)
del c:\Windows\System32\DriverStore\FileRepository\ctmproto.inf* (see section "FileRepository" below)
del c:\Windows\System32\DriverStore\FileRepository\ctmsport.inf* (see section "FileRepository" below)
The last three files will have long extensions and if the wildcard (*) is not used, the files will not be located.
```

This folder may not exist due to different versions
All files and all subfolders in this folder (64bit system)
All files and all subfolders in this folder (32bit system)

After deleting the above files, you must locate some additional specific .INF and .PNF files. When a DeviceMaster driver is installed, Windows creates at least three additional .INF and .PNF files under the %SYSTEM%\inf hidden folder. They will be named oemX.INF and will be accompanied by an oemX.PNF where X is some number, and is the same for both files. The .inf file is a text file that will open in Notepad when it is double clicked. Open each, and every one, of these INF files in notepad and find the ones that pertain to the Comtrol. There may be multiple instances of each of these files, so be sure to continue to check all of the oemx files.

It will show something like this at the very top of the file:

```
; -----
; netctmnsI.inf - NS Link install script(WinXP) INF file.
; Comtrol Corp., Handles the Device.
;
; Inf for Windows XP
; -----
```

Here are the lines that you will be looking for in the .INF files. This is the first line of text in the INF file, so you do not need to look past the first line of the file.

```
netctmnsI.inf - NS Link install script (WinXP) INF file.
CTMPROTO.INF -- RPSHsi Protocol Driver
CtmSPort.inf – NS Link port install script INF file
```

Remove both the INF and PNF files of the **same** number. NOTE! Delete ONLY Comtrol INF and PNF files! Other INF and PNF files are used for other products such as video cards, printers, etc. Removal of these other INF files could severely impact the operation of your PC.

You may discover an INF file that shows this text for the first line;
PVDrv.INF – PortVision Plus NDIS Protocol Driver
This file and the associated PNF may be left as is, without deletion, as these files are used by PortVision Plus.

Editing the Registry:

(Caution:

Before editing the Registry, it is highly recommended that you perform a backup of the registry. Consult your Microsoft Windows manuals for information on registry backup procedures. Any careless editing in the registry may cause irreparable damage with disastrous results, possibly requiring a reinstall of the Microsoft Windows operating system.)

Run Regedt32 and make the following modifications. Please note that you may not have some of the folders referenced here. The driver removal may have already correctly removed the folder; in which case do not be concerned if it is not present. If while attempting to delete one of the keys, a message is displayed saying it is 'unable to delete this key' permission needs to be set. While the desired key to delete is highlighted, go to the 'Edit' or 'Security' drop down menu (dependant on OS) in the command bar and select 'Permissions', then select 'Everyone' and place a checkmark in the 'Full Control' option. Now when you try the delete, it should be successful.

HKEY_LOCAL_MACHINE on Local Machine

SYSTEM

|--ControlSet001

|--Enum

| |--CtmPort

| | |--SiPort <-- Delete this folder

| | |--1&173424ed&2&Portxxxx (where xxxx is a 4 digit port number)

| | |--Additional listings of same format

| |--Root

| | |--MULTIPORTSERIAL

| | |--0000 <--Delete this folder IF Mfg= Control Corporation

|--Services

| |--rpshsi <-- Delete this folder including the subfolders

| | |--Enum

| | |--+Parameters

| | |--Security

| | |--rpshsix64 <-- Delete this folder including the subfolders

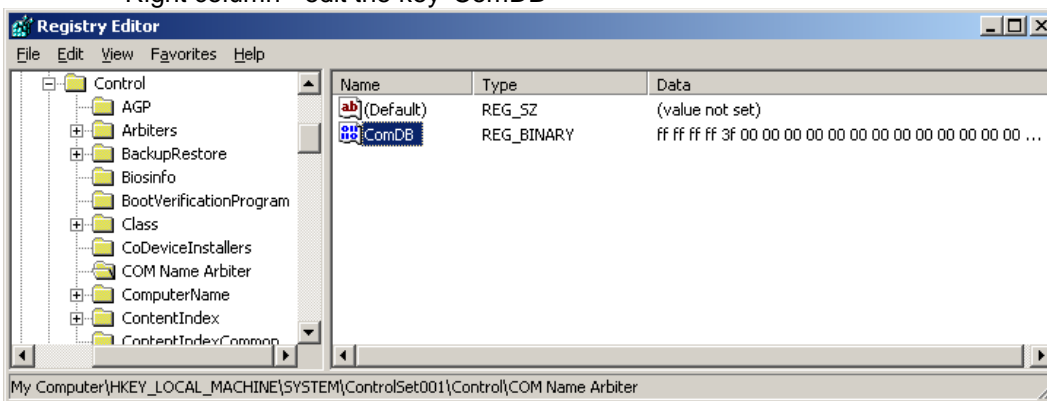
| | |--Enum

| | |--+Parameters

|--Control

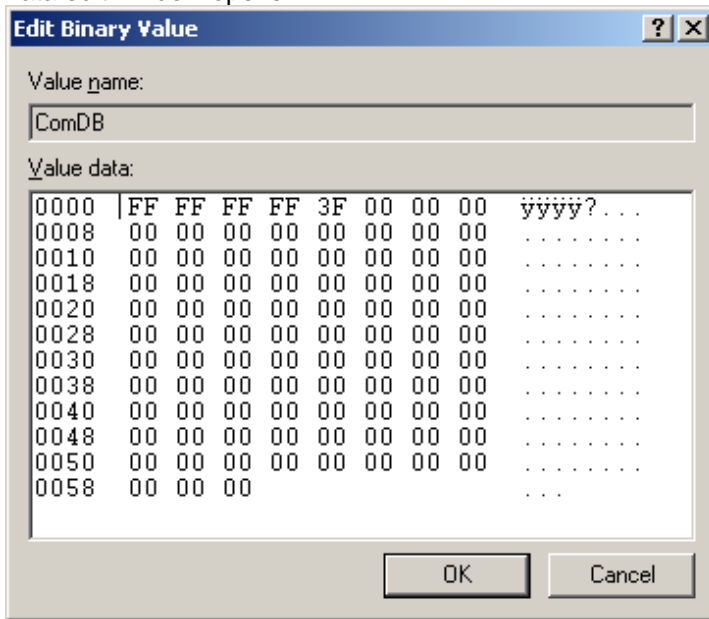
| |--COM Name Arbiter

Right column - edit the key 'ComDB'

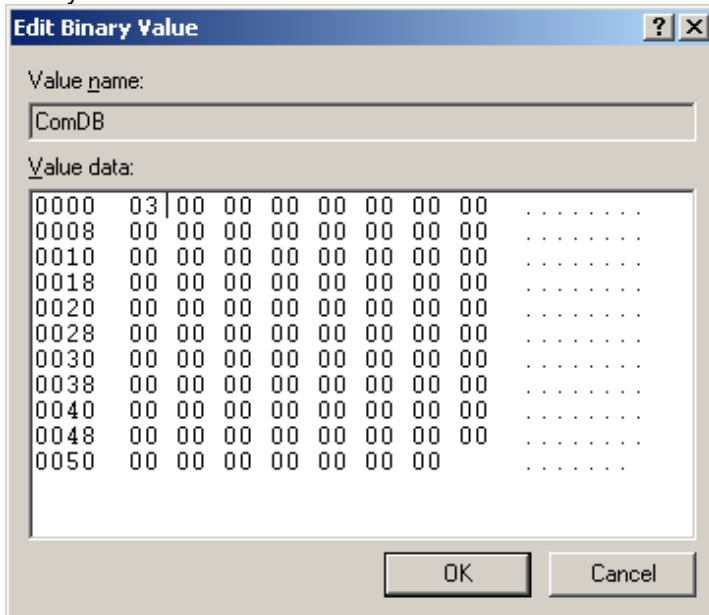


Double click ComDB

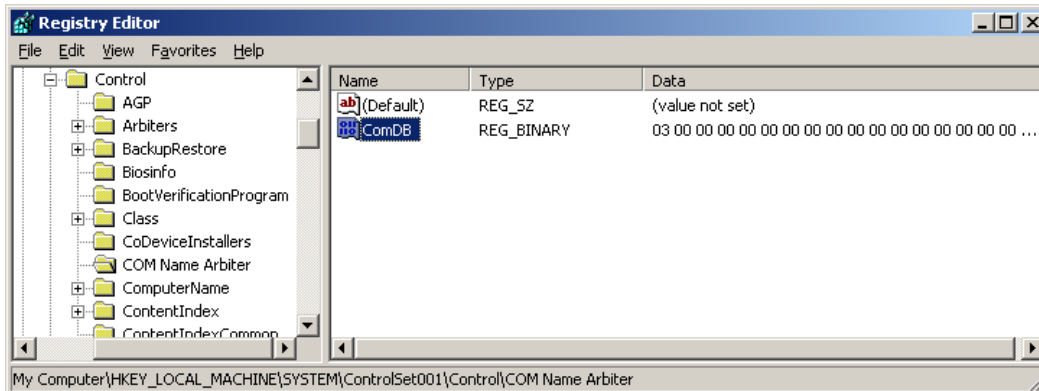
Data edit window opens



Modify the data so the data shows 03 00 00 00 00 00 ...



Click OK



Optionally, repeat this process in HKEY_LOCAL_MACHINE\SYSTEM\ControlSet002

Close regedt32.

Reboot PC and check Device Manager and Event Viewer for any errors.

Correct any and all errors reported by Event Viewer.

FileRepository

To delete the entries in the FileRepository folder requires special procedures.

For a 64 bit Operating System the folders are located here and named as:

C:\Windows\System32\DriverStore\FileRepository\netctmsi.inf_amd64_*

C:\Windows\System32\DriverStore\FileRepository\ctmproto.inf_amd64_*

C:\Windows\System32\DriverStore\FileRepository\ctmsport.inf_amd64_*

For a 32 bit Operating System the folders are located here and named as:

C:\Windows\System32\DriverStore\FileRepository\netctmsi.inf_x86_neutral_*

C:\Windows\System32\DriverStore\FileRepository\ctmproto.inf_x86_neutral_*

C:\Windows\System32\DriverStore\FileRepository\ctmsport.inf_x86_neutral_*

(The numbers following the word neutral will be different in each PC)

Download Sysinternals PSTools from Microsoft and extract to a clean folder:

<https://technet.microsoft.com/en-us/sysinternals/bb897553.aspx>

Open a command window (run as admin) in the extraction folder and enter "**psexec -s cmd**" (without quotes) and press Enter.

This should open a command window in 'System' mode (The title bar should now show \\PC_NAME:cmd and change to the c:\windows\system32 folder)

At the c:\windows\system32> command prompt enter "**cd driverstore**" (without quotes) and press Enter.

At the c:\windows\system32\driverstore> command prompt enter "**cd filerepository**" (without quotes) and press Enter.

You should now be in the C:\Windows\System32\DriverStore\FileRepository folder

At the command prompt enter "**dir ctm***" (without quotes) and press Enter.

This will show any Control folders that are to be deleted.

At the command prompt enter "**cd [the folder name discovered in the previous step]**."

(without quotes) and press Enter. Use caution as typos will prevent success.

This will change your prompt into this folder

At the command prompt enter "**dir**" (without quotes) and press Enter.

This will list the folder contents

At the command prompt enter "**del *.***" (without quotes) and press Enter.

You may be prompted to confirm.

This should delete all contents of this folder

At the command prompt enter "**cd..**"(without quotes) and press Enter.

This will take you back one folder level.

At the command prompt enter "**rd [the folder name discovered in the previous step]**" (without quotes) and press Enter.

This should remove the folder.

Repeat for all ctmsport.inf_ folders

Repeat for all ctmproto.inf_ folders

Repeat for all netctmsi.inf_ folders

Reboot the PC