

## PCMCIA I/O Base Address

The I/O base address specifies where the PCMCIA network adapter's I/O ports are located. Only the specified I/O range is scanned for an adapter. If an invalid I/O address range is selected, you will be unable to connect to the network. The card will use 32 I/O ports starting at this address.

If the adapter cannot be found at the specified I/O address, the Could not find an adapter error message is posted.

## Memory Window

During initialization of the PCMCIA controller, the driver needs a 4 kByte memory window. This parameter specifies the location of the memory window.

## Interrupt

This parameter specifies the interrupt level used by the PCMCIA adapter.

For notebooks using the TCIC-2/N PCMCIA Controller the interrupt level must not be set to any of the values 9, 11 or 15, as these levels are not supported by the TCIC-2/N PCMCIA (DB86082) controller.

### Additional Waitstates

This parameter is used for setting the hardware waitstates on I/O to the PCMCIA Card.  
The default value is 0.

Change this parameter only if the network driver reports errors.

The actual number of wait states depends on the PCMCIA controller in the computer.

## Datasize

This parameter is used for setting the I/O data path size to the PCMCIA Card.  
The default value is 16 bit.

Change this parameter only if the network driver reports errors.

## PCMCIA Setup

If you are using a PCMCIA network adapter, the network driver needs additional information for setting up the PCMCIA Controller in your PC. Usually the default PCMCIA parameters will work, but all parameters should be checked for conflicts with other devices.

The following PCMCIA parameters must be set:

PCMCIA I/O Base Address

Memory Window

Interrupt

COM Port

Some PCs require additional hardware dependent settings in order to work properly. These parameters are changed using the PCMCIA Advanced Settings

PCMCIA controllers supported are:

PCIC or compatible (e.g. Intel).

TCIC or compatible (e.g. Databook)

## PCMCIA Advanced Settings

The parameters in this section only needs to be changed if you experience driver initialization errors even if there are no resource conflicts. The following parameters are changeable:

PCMCIA Controller I/O Base

Additional Waitstates

Datasize

If you experience any problems, check if there is any known problems with your notebook.  
To disable the PCMCIA facilities, see the PCMCIA Controller I/O Base settings.

## PCMCIA Controller I/O Base

In certain notebook configurations it is required to define a special I/O base address for the PCMCIA controller.

An example is the IBM Port Replicator 1 used with an IBM Thinkpad notebook. In this case the PCMCIA Controller I/O Base must be set to 3E2h

Default PCMCIA Controller I/O Base is 3E0h for PCIC compatible controllers and 240h for TCIC compatible controllers.



## PCIC PCMCIA Controller

The PCIC (I82365SL compatible) PCMCIA controller supports interrupt levels 3, 4, 5, 7, 9, 10, 11, 12, 14 and 15.

## TCIC PCMCIA Controller

The TCIC-2/N (DB86082 compatible) PCMCIA controller supports interrupt levels 3, 4, 5, 7, 10, 12 and 14.

## Known problems with notebook computers

This note contains installation instructions for specific brands and models of notebooks. If your notebook is not listed, it is most likely that you do not need to change the Advanced PCMCIA settings.

[AST PowerExec 3/25SL](#)

[Chicony SubNote 486](#)

[Compaq Concerto](#)

[IBM Port Replicator 1](#)

[Twinhead SubNote 486SLC](#)

[IBM PS/2E 9533](#)

[IBM ThinkPad 360 CSE](#)

[IBM PS/2 ThinkPad 755 CD](#)

[Notebooks with PCMCIA controller \(TCIC-2/N\) from DataBook](#)

AST PowerExec 3/25SL

Do not configure your PCMCIA Card to use interrupt level 7.

Chicony SubNote 486

This notebook uses the TCIC-2/N PCMCIA controller.

Compaq Concerto

Do not configure your PCMCIA Card to use interrupt level 9.

## IBM Port Replicator 1

The PCMCIA Controller I/O Base parameter in the Advanced PCMCIA section must be specified to 3E2h.

## Twinhead SubNote 486SLC

This notebook uses the TCIC-2/N PCMCIA controller.

The PCMCIA Memory Window should be set to D0000h or D8000h.

2 Additional Waitstates on the PCMCIA bus are needed for this device.



IBM PS/2E 9533

2 Additional Waitstates on the PCMCIA bus are needed for this device.

IBM ThinkPad 360 CSE

2 Additional Waitstates on the PCMCIA bus are needed for this device.

IBM PS/2 ThinkPad 755 CD

2 Additional Waitstates on the PCMCIA bus are needed for this device.

## COM Port

If you are installing a GoCard Multi Function Card (Both LAN and Modem), you'll need to specify a COM port to be assigned the Modem part of the GoCard. You will be able to install the following communication ports:

- COM 1 at I/O address 0x3F8
- COM 2 at I/O address 0x2F8
- COM 3 at I/O address 0x3E8
- COM 4 at I/O address 0x2E8
- COM 5 at Lan I/O base + 0x18
- Disabled

The interrupt used for the COM port will be the same as the one used for the network.



## Bus Number

Use the Bus Number parameter only when the network adapter is installed in multi-bus PC's. If the PC only has a single bus, set this parameter to 0 (zero). This is the usual situation.

## Network address

Use the Network address field if you do not want to use the network adapter's burned in Ethernet address. The value entered must be a locally administered address, i.e. of the format X\*XXXXXXXXXX. Where X is any hexadecimal digit, and \* is either 2,6,A or E.

If the NDIS 3 driver encounters an invalid network address, the invalid network address error message is posted.

The value entered is verified by the setup program when you click "Ok" in the setup dialog box.

## Contents for Network Installation Help

The Microsoft® Windows NT™ operating system uses NDIS 3 network drivers.

This help file explain the configuration parameters for the network driver you are installing or configuring. You must be logged on as a member of the Administrators group to install and configure network adapters.

If you are installing drivers for a PCMCIA Card, you will need to specify some additional parameters.

Use this help file as a guide if you experience any problems with your network adapter. It contains a list of all NDIS 3 driver error messages and proposed actions.

This help file is also accessible via the Winhelp.exe File|Open menu.



## Network Driver Interface Specification



5000 *driver* : Has encountered a conflict in resources and could not load.

The resources needed for your network adapter conflicts with another adapter.

Action: Check the resources used by the network adapter(s) to ensure that no conflicts exists.

5001 *driver* : Could not allocate resources necessary for operation.

The NDIS 3 driver failed to load, because it tried to allocate too many resources.

Action: Decrease the number of receive and/or transmit buffers and re-try.

5002 *driver* : Has determined that the adapter is not functioning properly.

The adapter could not be found or is not working properly.

Action: Check I/O base settings and re-try.

5003 *driver* : Could not find an adapter.

The adapter could not be found by the NDIS 3 driver.

Action: Check I/O base settings and re-try.

5004 *driver* : Could not connect to the interrupt number supplied.

The interrupt is already used by another device.

Action: Change the adapter interrupt number and re-try.

5005 *driver* : Has encountered an internal error and has failed.

An internal error has been discovered.

Action: Re-start your system. If the error persists, contact your place of purchase for support.



5006 *driver* : The version number is incorrect for this driver.

The NDIS 3 driver version is incorrect.

Action: Re-start your system. If the error persists, contact your place of purchase for support.

5007 *driver* : Timed out during an operation.

A time-out error occurred.

Action: Re-start your system. If the error persists, contact your place of purchase for support.

5008 *driver* : Has encountered an invalid network address.

An invalid network address was specified.

Action: Change the locally administered network address and re-start your system. If the error persists, try clearing the network address in the setup dialog. The NDIS 3 driver will then use the burned-in address when opening.

5009 *driver* : Does not support the configuration supplied.

An invalid configuration entry was discovered.

Action: Use the network control panel to set proper adapter parameters. Do not try to manually change any parameters in the registry.

5010 *driver* : The adapter has returned an invalid value to the driver.

An internal error has occurred.

Action: Re-start your system. If the error persists, contact your place of purchase for support.

5011 *driver* : A required parameter is missing from the registry.

A parameter necessary for operation has been omitted in the registry.

Action: Use the network control panel to set proper parameters.

5012 *driver* : The IO Base Address supplied does not match the jumpers on the adapter.  
The adapter could not be found by the NDIS 3 driver.  
Action: Check I/O base settings and re-try.

5014 *driver* : The adapter is disabled. The driver cannot open the adapter.

The adapter is disabled.

Action: Make sure the start-up parameter for the NDIS 3 driver is set to "Manual". Use the "Devices" applet in the control panel to change the settings.



5015 *driver* : There is an I/O port conflict.

The ports used by the NDIS 3 driver are already in use by another device.

Action: Change the I/O Base address for the adapter.

5016 *driver* : There is an I/O port or DMA channel conflict.

The ports or DMA channel used by the NDIS 3 driver are already in use by another device.

Action: Check the I/O port and DMA usage by the adapter to ensure that there is no resource conflicts.

5018 *driver* : There is a interrupt conflict at interrupt number xx.

The adapter tried to use an interrupt currently in use.

Action: Change the interrupt selection on the adapter and re-try.

5019 *driver* : There is a resource conflict at DMA channel xx.

The adapter tried to use a DMA channel currently in use.

Action: Change the DMA channel selection on the adapter and re-try.

If you have any problems, write down the *Event ID*, *Source*, *Description* and *Data* fields in the **Event Detail** window. This information helps the support team to locate the error.

## Error descriptions

If you have any problems with the network, you should check if any error messages or warnings are posted by the NDIS 3 driver by using the Event Viewer in the Administrative Tools group.

Ensure that the adapter is located at the correct I/O base address, and the cable is properly connected to the adapter.

All error messages and/or warnings posted by the NDIS 3 driver have the Source field set to "OCE2XM". System error messages, related to the NDIS 3 driver, can occur with different source names, i.e. "Service Control Manager".

The messages are enumerated by the b Event field and are described below in Event number order. In the event viewer display the message description by highlighting the message and pressing the enter key. Error messages from 5000 are predefined error codes specific to the Windows NTä operating system. You can retrieve additional information on these messages in your documentation.

5000 : driver : Has encountered a conflict in resources and could not load

5001 : driver : Could not allocate resources necessary for the operation

5002 : driver : Has determined that the adapter is not functioning properly

5003 : driver : Could not find an adapter

5004 : driver : Could not connect to the interrupt number supplied

5005 : driver : Has encountered an internal error and has failed

5006 : driver : The version number is incorrect for this driver

5007 : driver : Timed out during an operation

5008 : driver : Has encountered an invalid network address

5009 : driver : Does not support the configuration supplied

5010 : driver : The adapter has returned an invalid value to the driver

5011 : driver : A required parameter is missing from the registry

5012 : driver : The IO Base Address supplied does not match the jumpers on the adapter

5014 : driver : The adapter is disabled. The driver cannot open the adapter

5015 : driver : There is an I/O port conflict

5016 : driver : There is an I/O port or DMA channel conflict

5018 : driver : There is a interrupt conflict at interrupt number xx

5019 : driver : There is a resource conflict at DMA channel xx

If you have any problems, write down the *Event ID*, *Source*, *Description* and *Data* fields in the **Event Detail** window. This information helps the support team to locate the error.



## I/O Base Address

The I/O base address specifies where the network adapters I/O ports are located. Only the specified I/O range is scanned for an adapter. If an invalid I/O address range is selected, you will be unable to connect to the network.

If *Auto detect* is selected then all possible I/O ranges are searched for an adapter.

NOTE: If you are installing a PCMCIA network adapter, you must specify an I/O base address.

If the adapter cannot be found at the specified I/O address, the Could not find an adapter error message is posted.



## Parameter descriptions

The following parameters are applicable for the NDIS 3 driver:

I/O Base Address

Bus Number

Network address

All parameters have a default value suitable in most situations. However, if you need to install several adapters in your system, or use locally-administered addresses, you may need to change some of them.



