16: The Memory Window could not be accessed for *driver*.

The driver needs a 4K region through which the CIS can be accessed during PCMCIA Card detection and initialization. The starting address of this 4K region is specified by the Memory Window parameter.

The driver was unable to reserve the 4K region of memory because it is already in use by another device in the system.

Action: Change the Memory Window parameter to a different value to try using another memory region.

17: The interrupt specified for the driver PCMCIA card is not supported by the PCMCIA controller found in the system

The interrupt specified in the PCMCIA settings is not supported by the PCMCIA controller in the system.

Action: Change the interrupt to a value supported by the PCMCIA controller.

18: No PCMCIA cards where found in the system by driver

The driver was unable to find a PCMCIA card in the system.

Action: Make sure the PCMCIA card is properly inserted in the PCMCIA slot and reboot the system. Make sure that no other devices conflict with the settings in the PCMCIA settings dialog box, i.e. uses the same I/O ports or has reserved the memory region specified by the Memory Window parameter.

18: There where no PCMCIA windows available to retrieve the CIS for driver

The DataBook PCMCIA controller had no free PCMCIA Memory Windows to access the CIS.

Action: Remove unneeded PCMCIA devices and reboot the system. If the error persists, contact your place of purchase.

19 The node address found on the PCMCIA card for driver is invalid.

The node address read from the PCMCIA card is invalid, i.e. it has either wrong length or it is an invalid node address.

Action: Check that the 4K memory region starting at the address specified by the Memory Window parameter is not in use by other devices. Try using a different memory region by changing the Memory Window parameter. If the error persists, run diagnostics on the PCMCIA card to verify that a correct node address is stored on the PCMCIA card.

20: An error occured while testing the PCMCIA Card found by *driver*

The driver has found a PCMCIA Card in the system, but was unable to access the card correctly.

Action: Check for I/O port conflicts with other adapters in the system. Try changing the <u>Data Size</u> parameter and adding <u>Additional Waitstates</u> for the adapter.

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 <u>I/O base</u> 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 <u>support</u>.

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 <u>support</u>.

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 <u>support</u>.

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 <u>support</u>.

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.

5017 driver: There is a memory conflict at address xxxxxxxx

The Memory Window used for accessing the PCMCIA Card's CIS is in use by another device in the system.

Action: Change the Memory Window parameter to a 4K region that is not being used by other devices in the system.

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.

AST PowerExec 3/25SL

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

3 Adapter Check on *driver*.

A serious error occurred on the adapter, causing an adapter check code to be posted.

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

13 The detected adapter for *driver* is not supported by this driver.

You have installed the wrong NDIS 3 driver for the adapter or your adapter is not supported.

Action: Get the newest NDIS 3 driver available for your network adapter.

12 *driver* has received a remove ring station Mac frame request and has deinserted from the ring.

The adapter has been removed by a LAN Manager station.

Action: Contact your network administrator.

Adapter name

The *adapter name* consists of a *driver name* and an *instance* number:

> *<driver name><instance>*

where *<driver name>* is the name of the driver, i.e. "Octk16" or "Octk32" and *<instance>* is the instance number of the network adapter installed, i.e. 01, 02 etc. This value is displayed to the left of the driver name in the Network Setting window.

Example: **Octk1601** or **Octk3203**.

<u>Notice:</u>

> There must be no space between *<driver name>* and *<instance>*.

> Microsoft Windows NT 3.1 uses instance numbers 01, 02, 03 etc., whereas Microsoft Windows NT 3.5 uses instance number 1, 2, 3 etc. The examples above should be **Octk161** or **Octk323** for version 3.5 and above.

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.

Auto Detect

Use the *Auto Detect* option, if you do not know the adapter I/O address or if you are installing a PCI adapter. Using this option will tell the driver to search at all supported I/O addresses and use the first adapter found.

You should not use this option, if you have installed multiple Token-Ring adapters in your system and you want to use only one specific adapter.

15 *driver* **has received a Trace Tool Remove frame from a Network Management station and has disabled the promiscuous packet filter.**

The NDIS 3 driver has cleared the PROMISCUOUS packet filter bit, as instructed by a LAN Manager station.

Action: Contact your network administrator.

1 Bring-up diagnostics failed for *driver*.

The adapter failed during the bring-up diagnostics.

Action: Shut down your system and re-try the operation. If the error persists, contact your place of purchase for support.

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.

If you are installing a PCI adapter and the system has a PCI-bridge, the Bus Number parameter may need to be changed to another value if the adapter is not inserted in the primary PCI bus, i.e. it is accessed across a PCI-bridge.

10 Lobe wire fault detected by *driver*. Please check cable connections.

The connection to the network has been removed.

Action: Check all cables and connections and try another lobe media cable. The adapter continues to try to re-insert on the ring.

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.

14 The configuration read for *driver* is invalid.

A configuration entry is invalid.

Action: Use the network control panel to set-up proper <u>adapter settings</u>.

Conflicts with other devices

When installing a PCMCIA Card there is a possible conflict when selecting <u>I/O ports</u>, <u>Interrupt level</u> and <u>Memory Window</u> for accessing the information stored on the PCMCIA Card. If a conflict exists, you may get an <u>error</u> when the driver is loaded.

If you are using Microsoft Windows NT 3.5, use the Windows NT Diagnostics program WINMSD.EXE to find a vacant value for the resources needed:

1. Select File|Run... from the Program Manager.

2. Enter "winmsd.exe" and press Enter.

3. Select "IRQ/Port Status..."

4. In the list of used Interrupts, find a number, that is not used by any other devices. The interrupt must be supported by the PCMCIA controller in the system

5. In the list of used Ports, find a free 0x20-byte (32 bytes) region starting at a 0x10 byte boundary, i.e. 0x210-0x230 or 0x340-0x360.

6. Select "OK".

7. Select "DMA/Memory..."

8. In the list of used Memory, find a free 4K region, that is not in use by any other devices in the system. The region must be 4K aligned, i.e. end with 3 zeroes, e.g. 0xD0000, 0xD7000 and be in the range 0xA0000-0xFF000

9. Select "OK".

10. Exit the Windows NT Diagnostics program.

The found values can now be used when configuring the network card in the PCMCIA settings dialog box.

Contents for Network Installation help

The Microsoft® Windows NT™ operating system uses <u>NDIS</u> 3 network drivers.

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

If you are installing drivers for a <u>PCMCIA Card</u> 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 <u>error messages and proposed actions</u>.

The OCTKSTAT.EXE tool for obtaining <u>driver statistics</u> is also described.

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

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.

9 Could not download code on adapter *driver*.

The download operation failed.

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

Using OCTKSTAT.EXE to view statistics

Use the **OCTKSTAT.EXE** program to display adapter status and statistics. OCTKSTAT.EXE is copied to your Windows NT "System32" directory, when you install the NDIS 3.0 driver. In order to use the OCTKSTAT.EXE utility you must have the NDIS 3 driver installed *and* loaded.

The program is called using the following parameters:

OCTKSTAT <u>adapter name</u>

Examples:

OCTKSTAT

shows the program usage.

OCTKSTAT octk161

will show the adapter configuration and statistics for instance 1 of the octk16 driver one page at the time.

5 Could not open adapter *driver*. Duplicate node address.

A duplicate address has been discovered on the ring.

Action: Change your <u>locally-administered address</u> as discussed in the <u>Adapter parameters</u> section and restart your system.

Early Token Release

Specifies whether Early Token release should be used or not.

This parameter is only applicable when running at 16 Mb/s.

Error descriptions

If you observe 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.

All error messages and/or warnings posted by the NDIS 3 driver have the Source field set to "Octk16".

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 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 NT™ operating system. You can retrieve additional information on these messages in your documentation.

0001 : Bring-up diagnostics failed for *driver*

0002 : Adapter initialize failed for *driver*

0003 : Adapter Check on *driver*

0004 : Could not open adapter *driver*. Ring beaconing. Check network speed settings

0005 : Could not open adapter *driver*. Duplicate node address

0006 : Could not open adapter *driver*. Request initialisation failed

0007 : Could not open adapter *driver*. Remove station received

0008 : Could not open adapter *driver*

0009 : Could not download code on adapter *driver*

0010 : Lobe wire fault detected by *driver*. Please check cable connections

0011 : *driver* has failed the lobe wrap test resulting from the beacon auto-removal process and has deinserted from the ring

0012 : *driver* has received a remove ring station Mac frame request and has deinserted from the ring

0013 : The detected adapter for *driver* is not supported by this driver

0014 : The configuration read for *driver* is invalid

0015 : *driver* has received a Trace Tool Remove frame from a Network Management station and has disabled the promiscuous packet filter

0016: The Memory Window could not be accessed for *driver*. Check that no other devices uses the 4K region reserved to access the PCMCIA CIS through the Memory Window parameter

0017: The interrupt specified for the *driver* PCMCIA card is not supported by the PCMCIA controller found in the system

0018: There where no PCMCIA windows available to retrieve the CIS for *driver*

0019 The node address found on the PCMCIA card for *driver* is invalid. Check that the memory window is not used by other devices in the system. Try running diagnostics on the card to check the node address stored in the CIS.

0020: An error occured while testing the PCMCIA Card found by *driver*. Check for I/O port conflicts with other adapters in the system

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

5017 : *driver* : There is a memory conflict at address xxxxxxxx

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

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

Full Transmit Status

When set to "Yes", normal transmit verification is performed, and the upper layer protocols will be notified about the status of the transmitted frame, i.e. whether the destination address has been recognised and the frame has been copied by the receiving station. When this value is "No", all transmitted frames are assumed both recognised and copied by another station on the ring. If you have a bridge/router in your network or discover abnormal network behaviour, set this value to "Yes".

IBM PS/2 ThinkPad 755 CD

2 additional hardware wait states on the PCMCIA bus are needed on this device.

IBM PS/2E 9533

2 additional hardware wait states on the PCMCIA bus are needed on this device.

IBM Port Replicator 1

The PCMCIA Controller I/O Base parameter in the Advanced PCMCIA section must be specified to 3E2.

IBM ThinkPad 360 CSE

2 additional hardware wait states on the PCMCIA bus are needed on this device.

2 Adapter initialize failed for *driver*.

The adapter failed the initialization phase.

Action: Shut down your system and re-try the operation. If the error persists, contact your place of purchase for support.

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.

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 <u>Auto Detect</u> is selected, the driver will search for an adapter at all supported I/O addresses.

If the adapter cannot be found at the specified I/O address, the <u>Cannot find adapter</u> error message is posted.

Maximum Frame Size

Specifies the maximum frame size the NDIS 3 driver can handle. This parameter is also used for allocating internal memory for handling frames in special situations.

However, system resources are limited and you may have problems loading the NDIS 3 driver if it allocates large amounts of data.

Allocating too many resources can result in a resource error.

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.

NDIS

Network Driver Interface Specification

Network address

Use the Network address field if you do not want to use the network adapter's burned in Token Ring address. The value entered must be a locally administered address, i.e. in the range from 400000000000 to 7FFFFFFFFFFF. The value can be entered as "XX-XX-XX-XX-XX-XX" for readability.

If the NDIS 3 driver encounteres an invalid network address, the <u>invalid network address</u> error message is posted.

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

8 Could not open adapter *driver*.

The adapter failed to open.

Action: Check cables and connections and re-try. If the error persists, try a different lobe media cable.

Valid *[options]* are

        -c for adapter configuration

        -a for additional adapter configuration

        -s for general adapter statistics

        -m for media-specific statistics

Options may be combined, i.e. **-c -a**._

PCIC or compatible (e.g. Intel)

The PCIC (Intel 82365SL compatible) PCMCIA controller supports interrupt levels 3, 4, 5, 7, 9, 10, 11, 12, 14, 15.

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.

If you want to disable the search for PCMCIA cards, select "**Disable PCMCIA**" in the drop-down box.

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 <u>Could not find an adapter</u> error message is posted.

PCMCIA Setup

If you are using a PCMCIA network adapter, the network driver needs addtional information for setting up the PCMCIA Controller and PCMCIA Card 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

Ring Speed

Some PCs require addtional hardware dependent settings in order to work properly. These parameters are changed using the PCMCIA Advanced Settings. If you need to disable the PCMCIA facility, this is done in the advanced settings as well.

PCMCIA controllers supported are:

PCIC or compatible (e.g. Intel).

TCIC or compatible (e.g. Databook).

Parameter descriptions

The following parameters are applicable for the NDIS 3 driver:

I/O Base Address
Receive Buffers
Transmit Buffers
Maximum Frame Size
Bus Number
Early Token Release
Full Transmit Status
Network address

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

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

Receive buffers

This parameter specifies the number of receive buffers allocated by the NDIS 3 driver. Valid range is 5-32. Allocating a large number of receive buffers prevent the adapter from congesting when receiving large amounts of data.

However, system resources are limited and you may have problems loading the NDIS 3 driver if it allocates large amounts of data.

Allocating too many resources can result in a <u>resource error</u>.

7 Could not open adapter *driver*. Remove station received.

The adapter has been removed by a LAN Manager station.

Action: Contact your network administrator.

6 Could not open adapter *driver*. Request initialization failed.

An error occurred during adapter initialisation.

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

Ring Speed

This parameter sets the Ring Speed on the PCMCIA Card. Chose 16 Mbps or 4 Mbps.

This value must match the Ring Speed on the Token Ring network you connect to. If you observe <u>ring beaconing</u>, you are using the wrong network speed.

4 Could not open adapter *driver*. Ring beaconing. Check network speed settings.

The network speed settings on your network adapter propably do not match the ring-speed   used on your token-ring network.

Action: Change your network speed settings and restart your system.

11 *driver* has failed the lobe wrap test resulting from the beacon auto-removal process and has deinserted from the ring.

The adapter has deinserted from the ring, because the ring was beaconing.

Action: Check the network speed settings and cable connections and re-try. If the error persists, contact your network administrator.

Contacting support

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.

TCIC-2/N PCMCIA controller

The Interrupt level must not be set to any of the following values: 9, 11 or 15, as these levels are not supported by the TCIC-2/N (DB86082) PCMCIA controller.

Transmit buffers

This parameter specifies the number of transmit buffers allocated by the NDIS 3 driver. Valid range is 2-32. Allocating a large number of transmit buffers will speed up data transmission.

However, system resources are limited and you may have problems loading the NDIS 3 driver if it allocates large amounts of data.

Allocating too many resources can result in a resource error.

Twinhead SubNote 486SLC

This notebook uses the TCIC-2/N PCMCIA controller

The PCMCIA memory window should be set to d0000 or d8000.
2 additional hardware waitstates on the PCMCIA bus are needed on this device.

Known problems with notebook computers

This note contains installation instructions for specific brands and models of notebooks. If your notebook is not listed, 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