



## EtherExpress PRO/10 PCI LAN Adapter Configuration Help

Click on the dialog box below for help on configuration parameters.

The **NodeAddress** parameter specifies the physical PCI adapter which the driver should use.

The **Connector** parameter specifies the connector type.

The **Advanced** button evokes the **Advanced Parameters** configuration dialog box.

See [Intel Customer Support](#) for technical assistance information.

## **FIFO parameter**

**Recommended Setting: FIFO=12**

This parameter defines the FIFO threshold for requesting bus access.

For computers with high bus latency, you can increase this setting. For computers with very low latency, you can reduce this setting.

For best performance, set as low as possible without causing DMA over/underruns.

## **ON parameter**

### **Recommended Setting: ON=272**

This parameter limits the number of clock cycles the EtherExpress PRO/10 PCI LAN adapter holds the bus for data transfers.

For best performance, set high enough to fill the Transmit FIFO or empty the Receive FIFO in a single bus access.

## **OFF parameter**

### **Recommended Setting: OFF=2**

This parameter specifies the minimum number of clock cycles the EtherExpress PRO/10 PCI LAN adapter card remains off the bus between data transfers.

For best performance, set this parameter to a minimum, allowing the adapter access as needed.

Click on the OK button to save the current parameter values.

Click on the CANCEL button to abort the configuration changes made.

Click on the help button to launch the EtherExpress PRO/10 PCI help file.

## Threshold parameter

### Recommended Setting: **Threshold=16**

This parameter specifies the number of bytes before the EtherExpress PRO/10 PCI LAN adapter empties its internal transmit FIFO onto the wire. The settling is multiplied by 8 to produce the number of bytes.

For example, if Threshold=200, the number of bytes is 1600. This is greater than the maximum packet size for Ethernet. Consequently, the adapter won't attempt early transmits. Although this is the safest setting, the best performance is achieved when the threshold parameter is as low as possible (without producing underruns).

To experiment, set the parameter to 16 and then incrementally increase it if performance drops significantly.



Do not set the transmit threshold parameter below 200 for computers with multiple busmastering cards, or computers with otherwise high latency.

## Advanced Configuration Parameters



These parameters should be altered by experienced users only. Use the default values unless you're having problems.

**Click on the options below for help on the indicated parameter.**

- [On](#)
- [Off](#)
- [Fifo](#)
- [Map Registers](#)
- [Reset Defaults](#)

## **Node Address parameter**

This parameter is the physical Ethernet node address contained in the EtherExpress PRO/10 PCI LAN adapter's on-board ROM.

The value is used to assign individual cards to drivers and protocol stacks when configuring multiple EtherExpress PRO/10 PCI LAN adapters in a PCI bus.

The setup program displays the node addresses where EtherExpress PRO/10 PCI LAN adapters were detected. From this list, select the node address of the adapter you want the driver attached to.

If you're installing multiple adapters, each adapter must be configured separately, one at a time. If multiple adapters aren't detected, this parameter is automatically set.

## MapRegisters parameter

### Recommended Setting: MapRegisters = 0



Make a repair disk using RDISK.EXE (in NT's WINDOWS\SYSTEM32 directory) before changing the MapRegisters parameter. See your NT 3.5 documentation for information on using RDISK.EXE.

Map registers are system resources used in physical to virtual address conversion with bus mastering cards. The MapRegisters parameter specifies how many registers should be allocated to the driver.



Increasing the number of MapRegisters will cause underruns and can cause erratic behavior (such as problems accessing a floppy drive) in some computers. Also, if you allocate more map registers than the OS has available, the OS will fail to load (an NT 3.5 'blue screen' will result).

Two factors affect the amount of map registers you can allocate:

1. Multiple busmastering devices (for example, SCSI cards, floppy drives, or the EtherExpress PRO/10 PCI LAN adapter) installed in your computer. The more devices you have, the greater chance of producing underruns or erratic behavior if you increase the MapRegisters parameter.
2. An NT 3.5 restriction in the Microsoft Hardware Abstraction Layer (HAL) that causes a shortage of map registers when the computer is configured with extra physical memory. If you get an updated HAL.DLL from Microsoft and put it into NT's SYSTEM32 directory, the MapRegister parameter can be increased for improved performance and support of additional network adapters.

### Improving performance

As a rule, more map registers mean better performance. However, map registers are system resources. If too many are allocated, the driver will fail to load or your computer may behave erratically. Increasing the MapRegisters parameter will also cause underruns on the network.

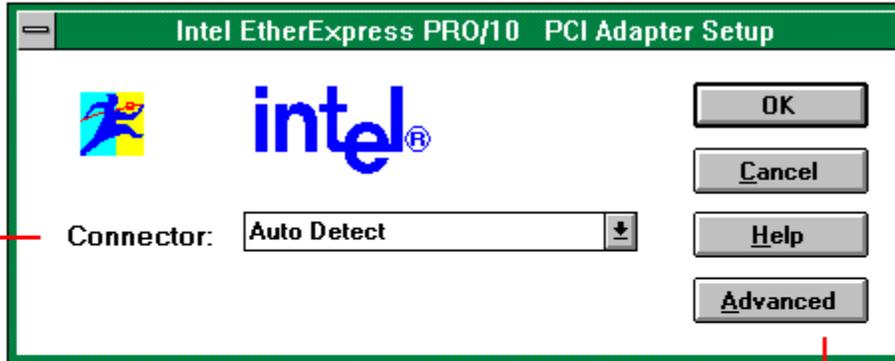
To increase the amount of map registers:

1. Increase the MapRegisters parameter to 6.
2. Reboot your computer to NT 3.5.
3. Insert a diskette into an available floppy drive and try to access the drive with File Manager.
4. If you're unsuccessful, reduce the parameter by 1 and repeat steps 2 and 3. If you are successful, increase the parameter by 1 and repeat steps 2 and 3. However, use caution when increasing this parameter. You can damage your NT 3.5 configuration and be forced to use your repair disk.



## EtherExpress PRO/10 PCI Adapter Configuration Help

Click on the dialog box below for help on the indicated parameter.



The **Connector** parameter specifies the connector type.

The **Advanced** button evokes the **Advanced Parameters** configuration dialog box.

See [Intel Customer Support](#) for technical assistance information.

## **Reset Defaults button**

Click this button to reset all adapter parameters to the factory defaults.

## Connector parameter

**Recommended Setting: Connector = Auto Detect**

If the Connector parameter is set to Auto Detect, the adapter attempts to detect which connector type is active. If it doesn't find activity on any of the connectors, it defaults to AUI.

If Connector is set to anything other than Auto Detect, it forces the adapter to use the specified connector type.



## **Intel's Customer Support Services**

If you can't find answers to your questions in Help or Troubleshooting, you can use these Intel Customer Support Services.

**The Internet**

**CompuServe**

**Intel's BBS**

**FaxBack**

**TalkBack**

**Calling Customer Support**

**Customer Support Numbers**



## Using the Internet

If you have access to the Internet, you can browse support information for Intel products on Intel's World Wide Web server or download support documents from the Intel FTP server.

### Intel World Wide Web server

Web URL: `http://www.intel.com`

Navigate to a specific product and then look for support information.

### Intel FTP server

Hostname: `ftp.intel.com`

Directory: `/pub/PCandNetworkSupport`

### ***See also***

[Using FTP](#)

## Using FTP

To use FTP to download support information, you must have access to a system or workstation that can connect to the Internet and that has the FTP software installed.

**Note:** FTP commands are similar to DOS. Here are some important differences:

- Commands and filenames are case-sensitive. Type all commands in lowercase.
- When typing a pathname, use the forward slash (/) rather than the DOS backslash.
- The dot (or period) character (.) is usually just another character, with no special properties.

## Starting FTP

Before using the FTP commands listed below, start your FTP program. For example, enter the following at the DOS prompt:

```
ftp
```

Once FTP loads, you should see the FTP command prompt, usually:

```
FTP>
```

## Connecting to the Intel FTP server

### To connect to [ftp.intel.com](http://ftp.intel.com)

- 1 Enter the following at the `FTP>` command prompt:

```
open ftp.intel.com
```

If this command returns an error, your link to the Internet may not currently be in operation. Contact your local network administrator for assistance.

If a connection is established, the FTP server prompts for a username.

- 2 At the username prompt, enter:

```
anonymous
```

- 3 Next, the FTP server prompts for a password. Anonymous access doesn't require a password. You can enter your Internet mail address as a courtesy password. (The password line must not contain any spaces.)

## Preparing for file transfers

**binary** Specifies binary (8-bit) transfers during this connection. This command has no effect on the transfer of text files but prevents the corruption of executable files over some networks.

## Navigating directories

```
cd [directory_name]
```

Move to a subdirectory using the directory name. You can traverse multiple directories using a forward slash (/).

To move to the support directory where the Intel PC and Network Enhancement Product support files are located, enter:

```
cd /pub/PCandNetworkSupport
```

## Finding out what is available

```
dir [filespec] [output_file]
```

*filespec* is a file specification for the files to be listed. You can include a path or

wildcard characters.

*output\_file* is a filename to use to write the directory listing to a file on your system. If you don't include a path, the file is written to the current directory. You must include both arguments to write the output to a file on your system.

**Wildcards** \* Match any characters in the filename.  
? Match any single character.

**Notes:** Most FTP client programs will not warn you if the file you specify will overwrite an existing file on your system.

To list files in the current directory, and all subdirectories, use `-R` in place of the search file specification in the first argument.

**Examples** `:dir` List all files.  
`dir *.*` List all files with a dot in the name.  
`dir *foo` List all files and save to local file `foo`.  
`dir ETH*` List all files starting with `ETH`.  
`dir -R foo` List files in the current directory, and all subdirectories and save in local file `foo`.

## Retrieving files

**get** [*filespec*] [*local\_file*]

Retrieve a single file. Wildcard characters are not allowed.

**mget** [*filespec*] [*local\_file*]

Retrieve multiple files based on wildcard characters in the file specification. Any errors in the command line will cause the entire retrieval to fail.

*local\_file* is an optional argument that lets you save the file on your system using a different filename.

File specifications in either form of the command may contain a path.

**Examples:** `get doodah.txt` Get file `doodah.txt`.  
`get foo bar` Get file `foo` and save as file `bar` on local system.  
`mget *` Get all files in current directory.  
`mget doodah.*` Get all files beginning with `doodah` and followed by any characters.

## Logging off

**bye** disconnect from the FTP server and exit from the FTP client program.

**close** disconnect from the FTP server and remain at the FTP command prompt, so you can connect to another FTP server.

## Troubleshooting

**No more logins allowed.** Some FTP servers impose a limit on the number of anonymous logins. If an FTP server returns a message that no more logins are being allowed at the current time, try again later.

**Remote server closes connection.** If a connection remains inactive for too long, the FTP server will terminate the connection. The usual period is about 15 minutes. You will not receive any warning that the connection has been closed, but the next command issued will result in a message similar to "remote server has closed connection." If this happens, open a new connection.

**Downloaded files corrupted.** Enter the binary command before downloading. Without this command, text files will transfer properly but binary (executable program) files will be corrupted.

***See also***

For more information about how to access the Internet, order Intel document #9051.



## Using CompuServe\*

### What is CompuServe?

CompuServe is a subscription service similar to a Bulletin Board System. There are both files (Libraries) for downloading and message sections (Forums) available online. Intel maintains a customer support forum with libraries and message sections related to Intel products. Set your communications software for 7-bit, even parity, no stop bit, and up to 14.4 Kbps.

### Services and information available online:

- Product brochures and price lists
- Product announcements
- Compatibility notes
- Installation and troubleshooting instructions
- Software updates for Intel products

### What you need:

- A CompuServe account
- A modem
- Communications software

For a free membership kit and a \$15 usage credit, contact CompuServe at (800) 524-3388 or call direct at (614) 529-1349. For help getting on the service contact CompuServe. For help using your communications software, contact your software vendor.

### How to get there:

To access the Intel forum from CompuServe, the GO word is INTEL.

\*Brand, name, or trademark owned by another company.



## Using Intel's BBS

### What is a Bulletin Board System (BBS)?

Intel's BBS is a customer support service that has the latest information about Intel products 24 hours a day, 365 days a year. To access the service, you need a modem and a communications program. Set your communications software for 8-bit, no parity, 1 stop bit and up to 14.4 Kbps.

### Information/services available online:

- Product brochures and price lists
- Product announcements
- Compatibility notes
- Installation and troubleshooting instructions
- Software updates for Intel products

### ***See also***

[Using the BBS File Downloads area](#)

[Using the BBS FAQs - Self-Help Docs area](#)

[Using the Registered User Software Upgrades area](#)

[Calling Customer Support](#)

[Customer Support Numbers](#)



## Using the BBS File Downloads area

### To download files from the Main Menu of Intel's BBS

- 1 When you see the Main Menu, select FILE DOWNLOADS.
- 2 When you see the File Downloads screen, select a product category.
- 3 Next, you will see a list of products. Select a product.
- 4 The next screen shows a list of categories. Select the category you want.
- 5 The next screen shows a list of files. Select the files you want to download.
- 6 Press D for Download.
- 7 Select a protocol for the download that matches your communications software.
- 8 The BBS will prompt you when it is ready to start downloading to your system. Press the key on your keyboard that tells your communications software to start receiving.

### **See also**

[Using the BBS FAQs - Self-Help Docs area](#)

[Using the Registered User Software Upgrades area](#)

[Things to do before contacting Customer Support](#)

[Customer Support numbers](#)



## Using the BBS FAQs - Self-Help Docs Area

The Frequently Asked Questions (FAQs) and Self-Help Documents area of the BBS lets you view or download the same product information, compatibility notes, and installation and troubleshooting tips that are available from Intel's FaxBack service. You can search for documents using keywords or scan the catalog and select documents to read or download.

### To view or download documents from the BBS Main Menu

- 1 When you see the Main Menu, select FAQs - Self-Help Docs.
- 2 When you see the FAQs - Self-Help Docs screen, select a product category and then select a product subcategory.
- 3 The next screen lets you search documents by keyword or scan document titles.
  - To search the database by keyword, press S. Then type the keywords that you want to find and press Enter.

The BBS looks for these keywords in the titles and text of all the documents about the products you selected in step 2, and displays a list of documents that contain all the words you entered.
  - To list document titles, press L.
- 4 At the command prompt, type the number for the document you want to view and press Enter.
- 5 To download the document you are viewing, press D. For more information, see [Downloading documents](#).

### See also

[Using the BBS file downloads area](#)

[Using the Registered User Software Upgrades area](#)

[Customer Support Numbers](#)



## Downloading documents

You can download the document you are viewing or specify a range of documents to download.

### To download the document you are viewing

- 1 Press D.
- 2 If prompted for a protocol, select the one that matches the setting for your communications software.
- 3 The BBS will prompt you when it is ready to start the download to your system. Press the key on your keyboard that tells your communications software to start receiving.

### To download more than one document

- 1 To select the documents, do one of the following:
  - Type the numbers of the documents you want to select from the list, typing a space between each number. Then press Enter.  
For example, `3 5 9` selects documents 3, 5, and 9.
  - Type a slash and a range of numbers with a dash between the numbers. (Do not include spaces). Then press Enter.  
For example, `/31-35` selects all the documents between 31 and 35 that appear in the list.
- 2 Press D.
- 3 If prompted for a protocol, select the one that matches the setting for your communications software.
- 4 The BBS will prompt you when it is ready to start the download to your system. Press the key on your keyboard that tells your communications software to start receiving.



## Using the Registered User Software Upgrades area

Due to licensing restrictions, some software upgrades are posted in the Registered Software Upgrades area on Intel's BBS, rather than the public file downloads areas. In order to download these files, you will need the product disks and will need to fill in an online registration.

If you have difficulty downloading files in this area, make sure you have typed all numbers correctly and are using the correct set of disk numbers.

### To download a registered upgrade

- 1 At the Main Menu on Intel's BBS, choose Registered User Software Upgrades.
- 2 The BBS shows a list of available upgrades. Select an upgrade on the BBS menu.
- 3 Fill in the online registration completely. All information is required.
- 4 The next screen contains a list of protocols. Select the protocol that matches the one you have selected in your communications software.
- 5 The BBS will prompt you when it is ready to start the download to your system. Press the key on your keyboard that tells your communications software to start receiving. (Check your software manual if you aren't sure which key to press.)
- 6 After you have downloaded the software upgrade, install it. Most of Intel's software upgrades contain a README.TXT file with installation information for the software.



## Using FaxBack\*

### What is FaxBack?

FaxBack is an automated Customer Support service that can instantly send you the latest information about Intel products 24 hours a day, 365 days a year. You can order product brochures and price lists, installation and troubleshooting instructions, compatibility notes, and more.

### What you need to use FaxBack

- A touchtone phone
- The phone number of your fax machine
- A list of document or catalog numbers you wish to order

### If you are calling the U.S. FaxBack System

When FaxBack answers the phone, you hear a greeting and introductory messages, followed by FaxBack's Main Menu.

#### Main Menu

- 1 Express Order.** Press 1 to enter an Express Order (when you know the document numbers you need).
- 2 Hot News.** Press 2 to hear more details about Hot News from Intel, including news about software upgrades for Intel products, new product introductions, price reductions, or important information about an Intel product you own.
- 3 Product Information/Catalogs.** Press 3 to get product information that could help you decide if Intel has a product solution for you.
- 4 Troubleshooting Information.** Press 4 if you already own an Intel product but are having a problem and would like troubleshooting information. You'll get entry to an in-depth collection of technical support material that can help you track down and solve your problem.
- 5 How FaxBack Works.** Press 5 to listen to a description of the FaxBack system and how it works.

### If you are calling from outside the U.S.

The U.K. system lets you choose English, French, or German. The Singapore and Australia systems support English only.

### Specifying your fax equipment

The FaxBack system will then prompt you to specify your type of fax equipment.

- If you have a fax machine or non-Intel fax board, choose the "Fax Machine" option.
- The original SatisFAXtion, SatisFAXtion 200, SatisFAXtion 350, SatisFAXtion 400 and Connection CoProcessor faxmodem boards have file transfer capabilities. If you own one of these Intel boards, you should select the "Intel faxboard" option.
- The SatisFAXtion 100, SatisFAXtion 300, and SatisFAXtion 400e faxmodems do not support file transfers. For these or any other Intel faxmodem not mentioned, you should select the "Fax Machine" option.

### Document or catalog order

Next, the FaxBack system allows you to order catalogs or documents. If you choose to order a catalog, you will still be able to order a document later in the same call. If you choose to order a document, the option to order a catalog is not available again during the same call.

### Entering fax delivery information

After you enter your document or catalog order, the FaxBack system asks you for the phone number for your fax machine. Finally, it asks for your phone number so that number will appear on the cover sheet of the fax. (This number is optional.)

### **Leave FaxBack**

You may hang up at any point during a FaxBack session, but the document order will not be delivered unless the FaxBack system has verbally confirmed that it is sending your order.

### ***See also***

[Customer Support Numbers](#)

[FaxBack catalogs](#)

\*Brand, name, or trademark owned by another company.



## **FaxBack catalogs**

Order one of the following FaxBack catalogs for a list of FaxBack documents you can order about an Intel product.

0102 Fax and Modems

0100 File transfers (including software upgrades) using an Intel SatisFAXtion Modem/200, 350, 400 or original SatisFAXtion or Connection CoProcessor

0101 InBoard and SnapIn CPU Boards

0103 Math CoProcessors, OverDrive Processors and CPUs

0104 Memory Products

0111 Mobile Products

0105 Network Adapters and Hubs

0109 Network Backup Servers

0106 Network Management and Utilities

0107 Network Print and Fax Servers

0108 Other Intel Products

0112 Personal Conferencing Products

0110 Video Products

9000 Intel PC and LAN Enhancement Price List (North America)



## Using TalkBack

### What is TalkBack?

TalkBack is an automated service that makes it easy for you to find troubleshooting, compatibility and product information 24 hours a day, 365 days a year. TalkBack lets you hear questions and answers on a number of our popular products and, if you choose, it can also fax you more detailed information on the topics you just heard. The faxed information is the same as that used every day by our phone technicians and is updated frequently.

### How do I use TalkBack?

When you call TalkBack, you first select one of the product lines mentioned in the TalkBack Main Menu by pushing a button on your touchtone phone. As soon as you hear the option you want, you can enter your request. Then you'll hear one or two more menu levels to narrow down the topic to a specific question and answer area.

### Touchtone Selections

Press one of these keys any time while a message is playing:

- H** (4)      HELP (List of key options)
- \***            Skip to next question
- P** (7)      Replay the answer
- #**            Return to prior menu
- F** (3)      Fax a document to you
- B** (2)      Back up one message
- 1**            Replay all messages

### ***See also***

[Customer Support numbers](#)



## Calling Customer Support

### Before you call...

You need to be at your computer with your software running and the product documentation at hand.

The technician is likely to ask you the following questions, and you should have the answers ready:

- Your name and address
- Your voice telephone number
- Your faxmodem or modem number (if you are calling about a faxmodem or modem)
- The name and model number of the Intel product you are calling about
- The names and version numbers of the software you are using to operate the Intel product
- The name and version number of the operating system you are using
- The system type (include model # and operating speed)
- Other expansion boards or PC cards in your computer
- The amount of memory you are using
  - Conventional: \_\_\_\_\_ KB
  - Expanded: \_\_\_\_\_ KB
  - Extended: \_\_\_\_\_ KB
- The contents of your CONFIG.SYS file
- The contents of your AUTOEXEC.BAT file
- The contents of your network configuration files (if your computer is on a network)

### **See also**

[Customer Support Numbers](#)



## Customer Support numbers

Use the services and phone numbers below to contact Intel Customer Support.

### Worldwide

Internet <http://www.intel.com>  
[ftp.intel.com](ftp://ftp.intel.com) (Directory: /pub/PCandNetworkSupport)  
CompuServe GO INTEL (settings: 7-E-1, up to 14.4 Kbps)

### North American Service Center: Oregon, USA

FaxBack 800-525-3019 or 503-264-6835  
TalkBack 800-368-3160 or 503-264-7777  
BBS 503-264-7999 (modem settings: 8-N-1, up to 14.4 Kbps)

Call during available hours:

Sales 800-538-3373 or 503-264-7354  
Technicians 800-321-4044 (CPU and Math Processors)  
503-264-7000 (FAX, Modems, PCMCIA, Memory, Video,  
Personal Conferencing, Network Products)

### European Service Centre: Swindon, UK

FaxBack +44-1793-432509  
BBS +44-1793-432955 (8-N-1, up to 14.4 Kbps)

Call during available hours:

Sales +44-1793-431155  
Technicians  
English +44-1793-431144  
French +44-1793-421777  
German +44-1793-421333

### Asia-Pacific Service Centers

#### Sydney, Australia

FaxBack +61-2-975-3922  
BBS +61-2-975-3066 (8-N-1, up to 14.4 Kbps)  
Sales +61-2-975-3300  
Technicians +1-800-649-931 Hours 08:00-18:00

#### Japan

Sales and  
Technicians +81-298-47-1841 or  
0120-868686 (toll-free in Japan)  
Hours 09:00 - 12:00, 13:00 - 17:00, Mon. - Fri.

#### Singapore

FaxBack +65-256-5350  
BBS +65-256-4776 (8-N-1, up to 14.4 Kbps)  
Sales +65-735-3811  
Technician +65-831-1311 Hours 08:00-18:00

#### Hong Kong

FaxBack +852-2-844-4448  
BBS +852-2-530-4116 (8-N-1, up to 14.4 Kbps)

Technician +852-2-844-4456 Hours 08:00-18:00

**Taiwan**

FaxBack +886-2-514-0815

BBS +886-2-718-6422 (8-N-1, up to 14.4 Kbps)

Technicians +886-2-718-9915, Hours 08:00-18:00

**Korea**

FaxBack +822-767-2594

BBS +822-784-3430 (8-N-1, up to 14.4 Kbps)

Technicians +822-767-2595, Hours 08:00-18:00

**North American Service Center Phone Hours**

**Monday, Tuesday, Wednesday, Friday:**

7:00 a.m.-5:00 p.m.

**Thursday:**

7:00 a.m.- 3:00 p.m (US Pacific Time)

**European Service Center Phone Hours (British Time)**

**Monday, Wednesday, Thursday, Friday:**

English 08:00-midnight

French 08:00-17:30

German 08:00-17:30

**Tuesday:**

English 08:00-15:45

French 08:00-15:45

German 08:00-15:45

