

Dostek Support Guide

New! Dostek is now part of Memex

Dostek products and expert technical support are now available exclusively from Memex and Memex dealers.

Memex has been recognized as a global leader of the manufacturing M2M (machine-to-machine) field. Its flagship product, MERLIN, is the premier industrial Internet platform solution for manufacturing. MERLIN is an industrial Internet communications platform that includes a hardware and software machine monitoring solution, a Manufacturing Execution System (MES) for Overall Equipment Effectiveness (OEE), and a Direct/Distributed Numerical Control System (DNC).

About This Guide

This guide explains support options and procedures for users of Dostek DNC software and Dostek Behind-the-Tape Reader interfaces.

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1 Support Options

Support options for Dostek DNC software and Dostek Behind-the-Tape Readers include:

- Self support (including emergency or after-hours support)
- On-site support
- Web-based remote support
- E-mail and telephone support

Self Support and Emergency After-Hours Support

If you encounter a problem, and it's after hours or you would like to fix the problem yourself, don't worry. See the instructions in Section 2, "Self Support."

On-site Support

To arrange a site visit by a skilled technician, call Memex at 905-635-3042.

Web-based Remote Support

Web-based remote support is a fast and affordable way to obtain training or expert help installing and configuring software and troubleshooting problems.

Using remote support is easy. All you need is a high-speed Internet connection. To get started, see Section 3, "Contacting Memex."

E-mail and Telephone Support

For e-mail and telephone support, see Section 3, "Contacting Memex."

2 Self Support and Emergency After-hours Support

The following topics help you quickly resolve problems on your own, in an emergency, or outside of normal business hours:

- Handling an After-hours Emergency
- Using Sample CNC Configurations
- Using Help
- Using Communication Testing and Troubleshooting Help
 - RS-232C signals, ports and cables
 - Test procedures
 - Frequently-asked questions
- Fixing a CNC Communication Problem
- Installing and Configuring Dostek DNC
- Fixing a Software Operation Problem
-

Note:

- To get the latest help files, test procedures and diagnostic software, download the Dostek DNC Support Update at <http://www.memex.ca/dostek>.

2.1 Handling an After-Hours Emergency

To solve a problem such as a computer failure or a communication error when support is not available:

- If your computer and software work, but you are having trouble communicating with a machine, see Section 2.5, "Fixing a CNC Communication Problem."
- If your computer or Dostek DNC software stop working, install your Dostek DNC software on another computer. If you can't find your Dostek DNC software disk, download the free trial from the Memex Web site. It works for 10 days without a license.
- If you encounter a problem with your network, COM port or cable, install your Dostek DNC software on a laptop computer and connect it directly to the machine.

To ensure you can quickly recover from a problem, plan ahead. For example:

- Prepare a back-up computer with a COM port, and prepare any back-up cables you need. Configure and test your Dostek DNC software on your backup computer.
- You can connect your back-up computer directly to the machine to bypass your network cables and devices.
- Test your back-up computer periodically to ensure it works when you need it.

2.2 Using Sample CNC Configurations

To save time, use Dostek DNC's sample CNC configuration files. Samples are provided for more than 100 CNC models, and they include the information you need to configure your CNC (in the "Notes" tab).

To use a sample configuration, open the Dostek DNC Configuration window, and then click **Import sample configuration** in the **File** menu.

2.3 Using Help

To view Dostek DNC's detailed help topics, you can:

- Click **Help** in the menu in any Dostek DNC window.
- Open Dostek DNC Navigator to the "Help" tab for access to all help documents. Click **Master Help** to view all help documents at once. To start Navigator, click **Navigator** in the **Help** menu in Dostek DNC, or in the Dostek DNC folder in the Windows Start Menu.
- Click the "Search" tab to quickly find topics.

2.4 Using Communication Testing and Troubleshooting Help

The Dostek DNC Communication Testing and Troubleshooting help module (Comtest) includes detailed information including:

- Fixing CNC communication problems
- Testing ports and cables
- Recommended cable diagrams
- Frequently-asked questions

2.5 Fixing a CNC Communication Problem

If you encounter a problem when you upload, download or drip feed:

- ❑ Write down, print or save a screen image of every error message displayed on the computer or CNC (see Section 4.1, "Sending Screen Images").
- ❑ If the CNC displays an alarm, find the alarm description in the CNC manual and write it down or make a copy of the manual page.
- ❑ Use the sample device configuration provided for your CNC, and carefully read the notes provided in the "Notes" tab. To use a sample configuration:
 - a) Open Dostek DNC Configuration (DConfig).
 - b) Click **Import sample configuration** in DConfig's **File** menu. The file open dialog opens.
 - c) Select a sample configuration, and then click **Open**. The sample configuration is imported.
 - d) Click DConfig's **Notes** tab, and then read the comments and instructions.
- ❑ Keep notes. Before you change anything (on the computer or the CNC), write down the current setting, the new setting, and the reason for the change.
- ❑ View the *Communication Testing and Troubleshooting* help file for detailed recommendations for typical communication problems. Go to the **Problem Topics** section and find the topic heading that most closely describes your problem. For a link to the help file, see Dostek DNC Navigator's Help tab.

2.6 Installing and Configuring Dostek DNC

To ensure success when installing and configuring Dostek DNC software:

- Carefully follow the on-screen instructions during installation, and complete each step of the Dostek DNC First-Time Setup Wizard.
- Read the Dostek DNC Getting Started Guide help. It provides a complete overview of the Dostek DNC software in just a few minutes.
- Use the supplied sample CNC configurations (topic above).

2.7 Fixing a Software Installation Problem

If you encounter a problem while installing the Dostek DNC software:

- ❑ Write down, print or save a screen image of every error message (see Section 4.1, "Sending Screen Images.")
- ❑ To install the software, log on to your computer using an account with administrator privileges.
- ❑ Ensure that all other Windows applications are closed before starting the installation.
- ❑ Carefully read and follow all messages and instructions displayed on your computer screen during installation.
- ❑ Fully complete the Dostek DNC First-Time Setup Wizard. It opens automatically when the software installation is completed.
- ❑ Try installing Dostek DNC on a different computer. There may be a problem with your computer. Windows computers can become unstable over time due to viruses, spyware, registry corruption, installation of non-compliant applications, and so on.

2.8 Fixing a Software Operation Problem

If you encounter a problem when you open the Dostek DNC software or perform a specific task:

- ❑ Write down, print or save a screen image of every error message (see Section 4.1, "Sending Screen Images.")
- ❑ Write down exactly what you were attempting to do when the problem occurred, including the commands or key sequences you pressed.
- ❑ Restart the computer and try again. Windows computers can become unstable or low on resources.
- ❑ Ensure the computer's disk drive is not full.
- ❑ If you are attempting to access files on a network resource, ensure the network is working properly and you have sufficient network privileges.

2.9 Fixing File Access Problems

If Dostek DNC reports a file access problem (access denied or unable to create or write to a file), your Windows user account may not have permission to access a file or folder. This can happen if you install Dostek DNC using an administrator account and then use Dostek DNC with a normal user account, or when you change file or folder permissions after installing Dostek DNC.

If you encounter a problem accessing a Dostek DNC configuration file:

- Open Dostek DNC Configuration, change a setting, and then click **Save** in the **File** menu. If an error message is displayed, your user account may not have permission to write to Dostek DNC's Settings folder.

If you encounter a problem editing, creating or deleting a part program file:

- Open the file in Windows Notepad, make a change, and then click **Save** in the **File** menu. If an error message is displayed, your user account may not have permission to write to the selected file and folder.

To correct a file access problem, either:

- Search the Web for "windows change file permissions," and follow the instructions.
- Contact your IT help desk or consultant.

3 Contacting Memex

To obtain fast and accurate technical support from Memex, review the following tips:

- Write down your observations, including all alarm codes and error messages, and a brief description of exactly what you were doing when the problem occurred.
- Provide an accurate description of the problem. Be specific and avoid slang and ambiguous words. For example, instead of saying "It quits when I download," say "When I'm sending a file from the computer to the CNC, the CNC indicates alarm 86 and the Dostek DNC software stops after sending 14 percent of the file and displays the message 'XOff char received'."
- Provide detailed information about your application:
 - The manufacturer and model number of the machine's numerical control.
 - Your Dostek DNC software version number and serial number. To find this information, open Dostek DNC Navigator, and then select the **About** tab.
 - Your computer's operating system. For example: "Windows 7 64-bit edition."
 - Your communication hardware. For example: "Computer's built-in COM port," or "Moxa 5110 Ethernet/serial adapter."
- Provide your full contact information:
 - Full name
 - Company name
 - Telephone number
 - E-mail address
- If practical, send the following data files to Memex by e-mail:
 - Dostek DNC configuration files (see Section 4.2, "Sending Files").
 - One or more of the CNC part program files you used when the problem occurred.
 - A screen image of Dostek DNC error messages (see Section 4.1, "Sending Screen Images").
 - If you are using a Dostek Model 440A BTR, send your BTR's configuration information (see Section 4.5, "Sending BTR Configuration").

E-mail	support@memex.ca
Telephone	905-635-3042 8am - 5pm EST (UTC-4) Monday to Friday
Internet	http://support.memex.ca http://www.memex.ca/resources/support/
Support Policy	To view the Memex support policy: visit memex.ca, point to Resources in the menu and then click Technical Support Policy .

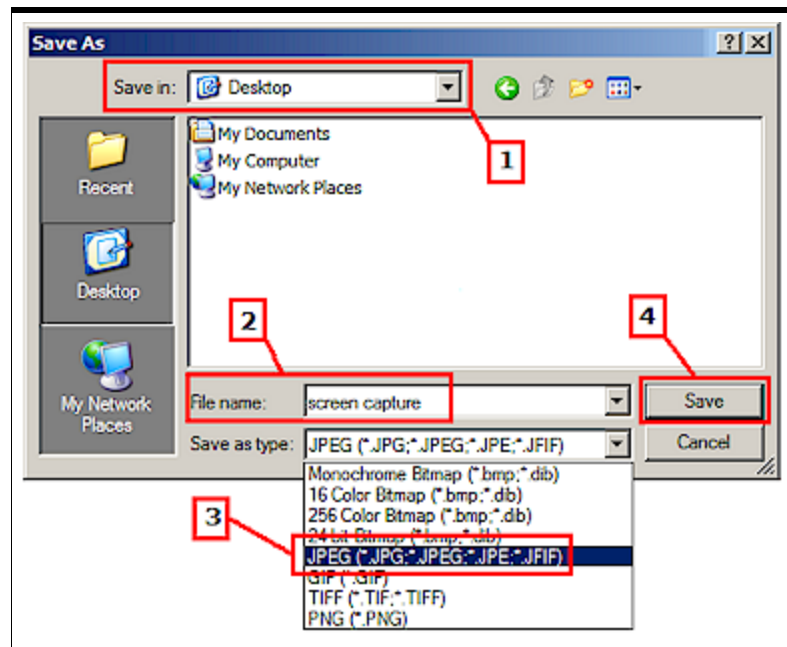
4 Sending Information

This section helps you send information such as screen images, files, captured CNC output data and BTR configuration data to Memex by email.

4.1 Sending Screen Images

To capture a screen image (such as an error message) and send it to Memex:

1. Press the computer's **PrtScrn** key. A snapshot of the current screen image is saved to the Windows Clipboard. (Note: To save a snapshot of only the current window rather than the entire screen, press **Alt+PrtScrn**.)
2. Click **Run** in the Windows **Start** menu. The Run dialog opens.
3. Type **MSPAINT** and then press **Enter**. Windows Paint (graphic editor) opens.
4. Press **Ctrl+V**. The captured screen snapshot is pasted into Windows Paint.
5. Click **Save as** in Paint's **File** menu. The Save As dialog appears:



6. On the "Save As" dialog:
 - a) Select a file location using **Save in**. [1]
 - b) Type a file name in the **File name** box. [2]
 - c) Select "PNG" in **Save as type**. [3] Selecting "PNG" reduces the size of the file so it is easier to send by e-mail.
 - d) Click **Save**. The file is saved. [4]
7. Click **Send** in Paint's **File** menu. A new email message opens with the saved image attached. Type **support@memex.ca** in the **To** box, and then click **Send**. (Note: If an e-mail client is not installed on your computer, see Section 4.2, "Sending Files.")

4.2 Sending Files

This section explains how to send files to Memex support, including:

- Dostek DNC configuration files
- Dostek DNC log files
- Data files
- Dostek MultiPort DNC messages
- Dostek MultiPort DNC received file
- Dostek MultiPort DNC feedback message file

To send files to Memex, attach the files to an e-mail message addressed to "support@memex.ca".

If your computer does not have an e-mail client installed, copy the files to another computer using a USB memory device, a removable disk, or a shared network folder.

Sending Dostek DNC Configuration Files

To send Dostek DNC configuration files:

1. Open Dostek DNC Configuration (DConfig).
2. Point to **Explore** in DConfig's **File** menu, and then click **Dostek DNC\Settings**. The Dostek DNC "Settings" folder opens in a new Explorer window.
3. Select one or more files, or press **Ctrl+A** to select all files.
4. Point to **Send** in Explorer's **File** menu, and then click **Mail Recipient**. A new e-mail message is opened, with the selected files attached.

Note:

- > If the computer does not have an e-mail client installed, click **Copy to folder** in Explorer's **Edit** menu, save the files to a network folder or removable media, and then attach the files to an email message using another computer..

Sending Dostek DNC Log Files

To send Dostek DNC log files, follow the procedure above, except click **Dostek DNC\Log** in step #2.

Sending Data Files

To send data files:

1. Right-click the Windows **Start** button, and then click **Explore** in the context menu. A new Windows Explorer window opens.
2. Browse to the folder containing the data files you wish to send.
3. Select one or more data files.
4. Point to **Send to** in Explorer's **File** menu, and then click **Mail Recipient**. A new e-mail message is opened, with the selected files attached.

Notes:

- > If the computer does not have an e-mail client installed, click **Copy to folder** in Explorer's **Edit** menu, and save the files to a network folder or removable media.
- > If you are sending a large number of files, or files that are very large, use WinZip (or similar) file compression software to condense and combine the files into a single file.

Sending Dostek DNC Remote Server Messages

To send Dostek DNC Remote Server (DRemote) message and log files:

1. Click **Copy messages to clipboard** in DRemote's **Help** menu. All recent messages are copied to the Windows Clipboard.
2. Open a new e-mail message, and then paste the messages from the Windows Clipboard into the message.

Notes:

- > If the computer does not have an e-mail client installed, open a new Notepad or Word document and then paste the messages into the new document. Save the document to a file, and copy the file to another computer using a removable disk or shared network folder.
- > To send recent messages for one specific CNC only:
 - a) Select the CNC in DRemote's CNC list.
 - b) On the menu, click **Channel**, point to **View** and then click **Messages**.

Sending Dostek DNC Remote Server Received File

To send the content of the most recently received file for a specific CNC:

1. Select the CNC in DRemote's CNC list.
2. Point to **View** in DRemote's **Channel** menu, and then click **Last received file**. The most recently received file is displayed in the view window.
3. Open a new e-mail message, and then paste the messages from the Windows Clipboard into the message.

Note:

- › If the computer does not have an e-mail client installed, open a new Notepad or Word document and then paste the messages into the new document. Save the document to a file, and copy the file to another computer using a removable disk or shared network folder.

Sending Dostek DNC Remote Server Feedback Message File

To send the most recent feedback message issued by Dostek DNC Remote Server (DRemote) for a specific CNC:

1. Point to **Explore** in DRemote's **Tools** menu, and then click **Dostek DNC\Log**. The Dostek DNC Log folder opens in a new Explorer window.
2. Select the .fbk file (file with extension ".fbk") matching the name of the CNC.
3. Point to **Send** in Explorer's **File** menu, and then click **Mail Recipient**. A new e-mail message opens, with the selected file attached.

Note:

- › If the computer does not have an e-mail client installed, you can save the results to a network folder or removable media, and then send the files using another computer. To save the files, click **Copy to folder** in Explorer's **File** menu.

4.3 Sending Captured CNC Output

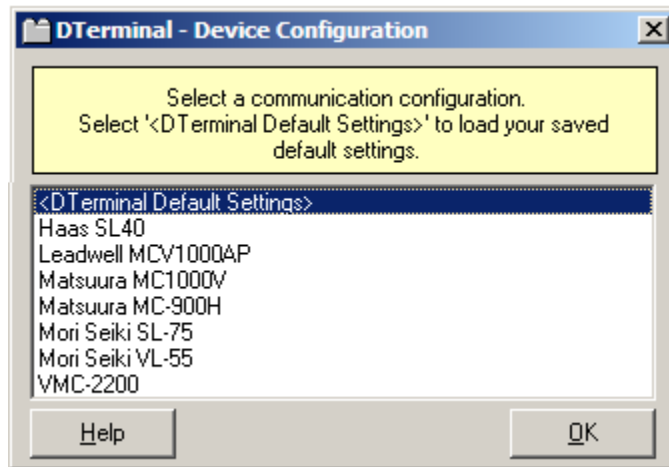
This section explains how to:

- Use Dostek DNC Terminal (DTerminal) to capture data sent from the CNC to the computer.
- Send the captured data to Dostek.

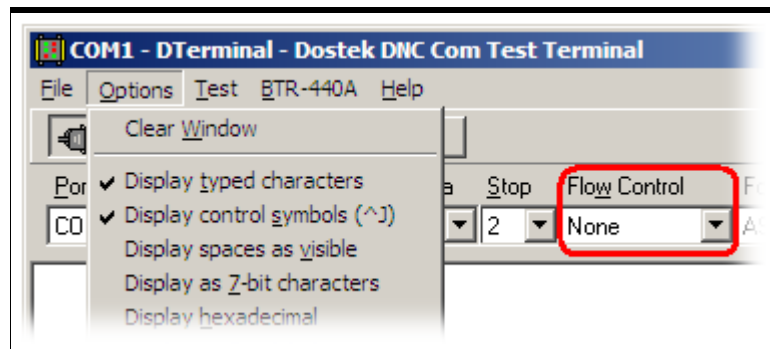
To capture and send received data:

1. Open Dostek DNC Com Test Terminal (DTerminal):
 - a) If you are using the Dostek DNC File Manager (DFileMgr), click **Com Test Terminal** in DFileMgr's **Supervisor** menu.
 - b) If you are using Dostek DNC Remote Server (DRemote), click **Com Test Terminal** in DRemote's **Tools** menu. Note: To use DTerminal with a COM port, you must "disconnect" the channel. See Appendix A, "Disconnecting a MultiPort DNC Channel."

DTerminal's Device Configuration window opens.



2. Select the CNC whose data you wish to capture, and then click **OK**.
3. An information message may appear. Click **OK**. DTerminal indicates "Connected" on a green background. If DTerminal is unable to open the COM port, the port may already be in use by another window, or the port may not be configured properly.
4. Configure the DTerminal **Options** menu as shown. Ensure Flow Control is "None," and only "Display typed characters" and "Display control symbols" are checked.



5. Set **Flow Control** to **None**.
6. Click **Capture to log file** in DTerminal's **File** menu. The "Open communication log file" window opens.
7. Select an existing log file, or type the name of a new log file, and then click **OK**.
Note: Use the extension .log or .txt for the log file. This makes it easier to open the file in a text editor or attach it to an e-mail message.
8. Go to the CNC and send the data you wish to capture. Captured data scrolls in the DTerminal window, and usually appears something like the example below:

```

COM1 9600 Even 7 1
^@^@^@^@^@^@^@^@^@^@
^@^@^@^@^@^@^@^@^@^@
01234^J
G00 Z0.5^J
G00 X0 Y0^J
G01 Z-0.5 F8^J
G01 X1 Y0 F8^J
G01 X1 Y1 F8^J
G01 X0 Y1 F8^J
M02^J
^@^@^@^@^@^@^@^@^@^@
^@^@^@^@^@^@^@^@^@^@

```

Note:

- > The "^@" and "^J" symbols represent the "Null" and "Line feed" control character that are normally not visible. This is normal. You may see other "^" symbols.

9. Click **Capture to log file** in DTerminal's **File** menu again. DTerminal stops capturing data. The "End capture" prompt appears.
10. You can save or edit the captured data or copy the data to the Windows clipboard. To send the captured data to Memex by e-mail:
 - a) Click **Clipboard**. The captured data is copied to the Windows clipboard.
 - b) Open a new e-mail message, and then paste the captured data into the e-mail message.

Note:

- > If the computer does not have an e-mail client installed, paste the captured data into a Notepad or Word document, save the document to a network folder or removable drive, and then send the document by email using another computer.

4.4 Sending Component Version Information

Dostek DNC includes an application that reports the current version of all the software components it uses.

To send a software component version information to Memex:

1. Open Dostek DNC Navigator.
2. Select the Navigator's **Test** tab, and then click **Version Information**. The Component Version Info window opens. It displays a list of all software components and the current version of each.
3. In the Component Version Info window, click **Copy to Clipboard**. The version information is copied to the Windows Clipboard.
4. Open a new e-mail message, and then paste the captured data into the e-mail message.

Note:

- > If **Version Information** is not visible in the Test tab, open Dostek DNC's component version information window manually:
 - a) Open Windows Explorer.
 - b) Browse to the "Dostek DNC" folder (usually "C:\Dostek DNC," "C:\Program files\Dostek DNC" or "C:\Program files (x86)\Dostek DNC."
 - c) Locate and double-click **DComponentVersionInfo**.
- > If the computer does not have an e-mail client installed, save the copy the captured file to another computer by a removable drive or a shared network folder.

4.5 Sending BTR Configuration

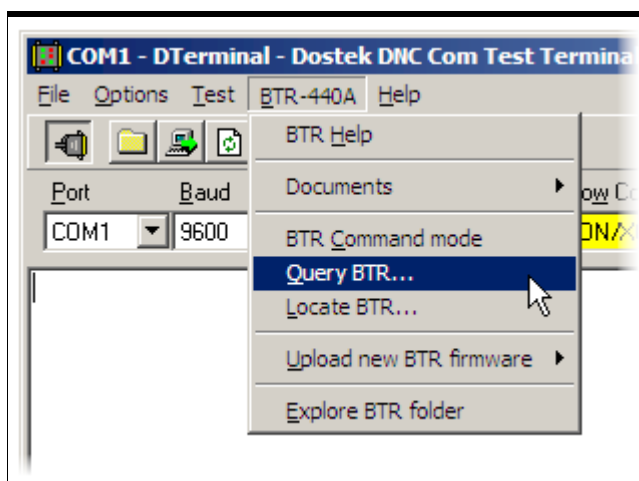
The Dostek DNC Com Test Terminal application includes a feature to capture configuration information from a Dostek Model 440A Behind-the-Tape Reader (BTR).

To send 440A BTR configuration information to Memex:

1. Ensure the 440A BTR is not already in use. The BTR's 7-segment indicator displays one of the following three symbols:



2. Click **Query** in DTerminal's **BTR440A** menu. (Requires DTerminal version 2006.22A or later).



DTerminal sends a series of commands to the 440A BTR to capture the configuration information. The BTR indicates "C" (command mode) for a few seconds during this process. The Results window opens with a list of the BTR configuration information.

3. Click **Copy results to Windows Clipboard**. The results are copied to the Windows Clipboard.
4. Open a new e-mail message, and then paste the captured data into the e-mail message.

Notes:

- > To download the latest version of the DTerminal application, visit www.memex.ca/dostek, click **Dostek Support**, and then download the **Support Update**.
- > If the computer does not have an e-mail client installed, save the copy the captured file to another computer by a removable drive or a shared network folder.

Appendix A - Disconnecting a Remote DNC Channel

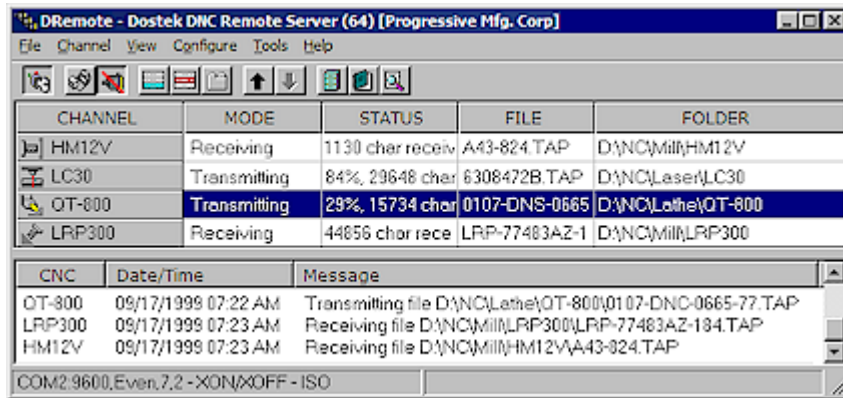
This appendix explains how to disconnect a CNC channel in the Dostek DNC Remote Server application so you can capture received data from the CNC using the Com Test Terminal (DTerminal) application.

Capturing data received from the CNC is explained in Section 4.3, "Sending Captured CNC Output."

When you are using the Dostek DNC Remote Server application (DRemote), you must "disconnect" the CNC channel before you can capture data using DTerminal.

To disconnect the CNC channel:

1. Select the CNC whose data you wish to capture in the MultiPort DNC channel list:



The selected channel is highlighted.

2. On the DRemote menu, click **Channel**, and then **Disconnect**. The channel's COM port is released (closed) so the port can be opened by the DTerminal application.

