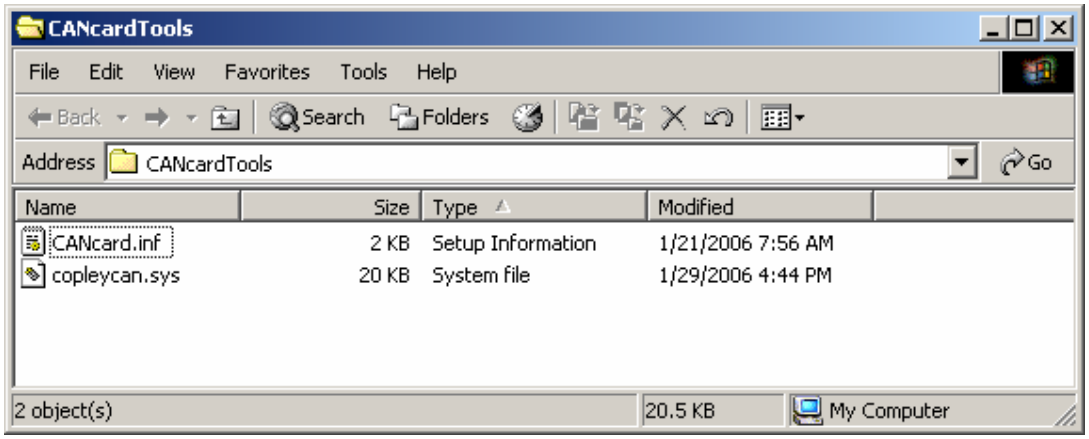
# CAN card Tools

URL http://www.copleycontrols.com/motion/cantools/cancard/ contains the link to the card drivers, firmware, and CANview software.

## *Installing PCI CAN card*

### Step 1 Load CAN Card Drivers

The files CANcard.inf and copleycan.sys can be placed in a temporary file such as the desktop for locating with the Windows New Hardware Found Wizard.



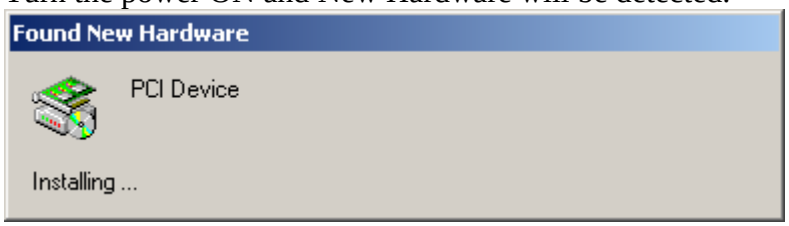

### Step 2 Install the CAN Card

Shutdown windows and turn the power off and Install the CAN Card.

Image of PCI CAN card installed in PC slot. Card default has jumper installed for 121 Ohms termination.

Image of CAN1 (channel 0) connected with CAN Kit DB-9 to RJ45 adapter. Note: Last node on CAN network must also have 121 Ohms termination installed.

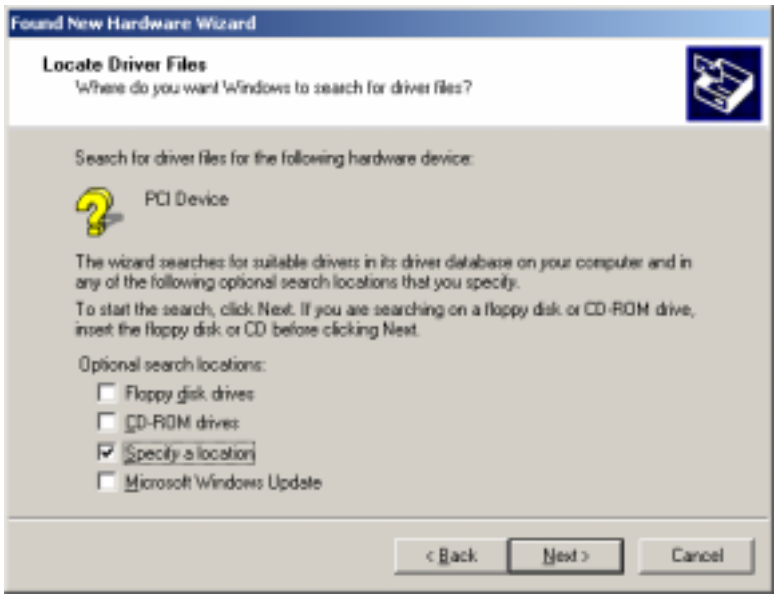
Turn the power ON and New Hardware will be detected.



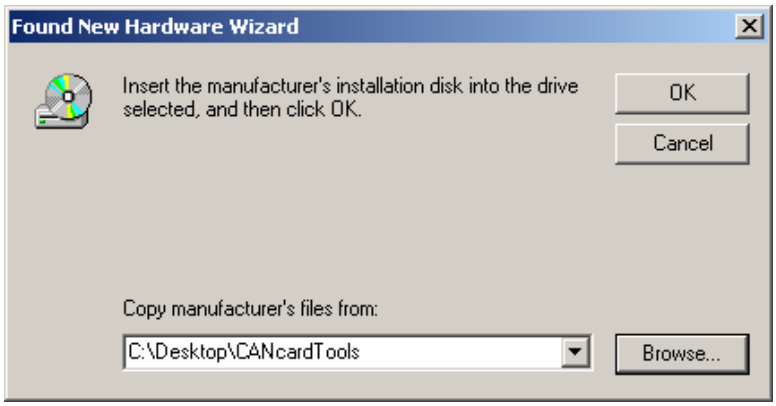

Windows will run Found New Hardware Wizard.


Hit Next.

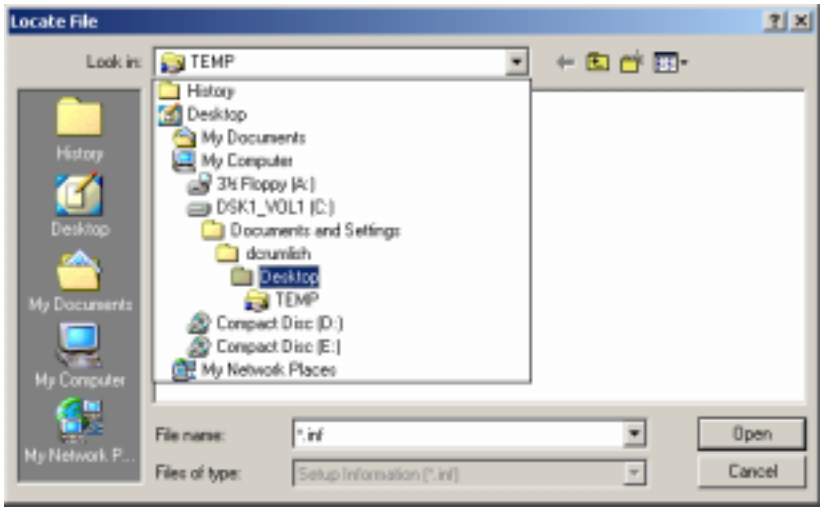

Select Search.



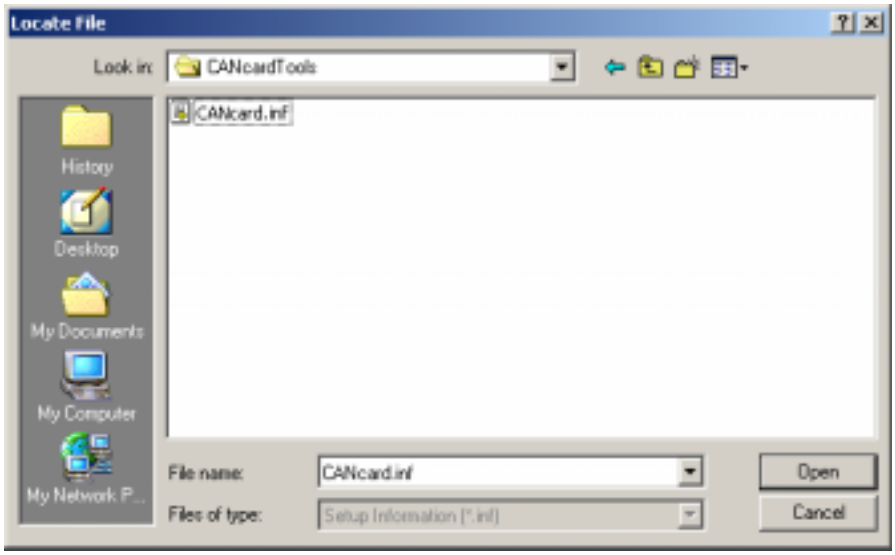

Select Specify a location.



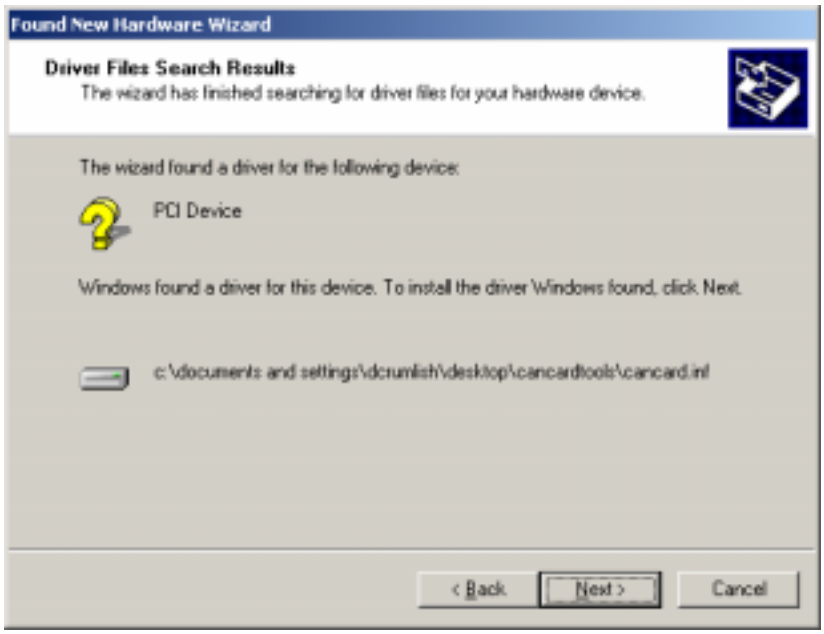

Browse for the Drivers that you have placed on your PC.




If you put them on the desktop then look in the desktop folder.



Select CANcard.inf

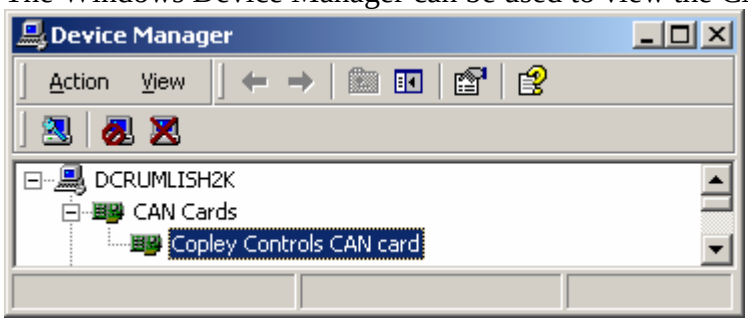


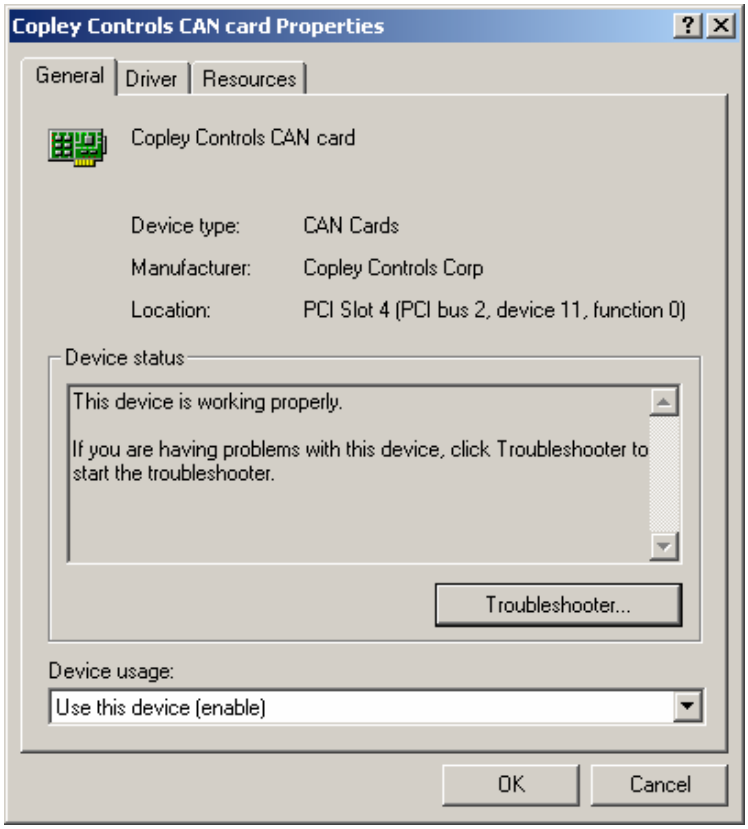
Hit Next.

Hit Finish.

# Windows Device Manager

The Windows Device Manager can be used to view the CANcard on your PC.



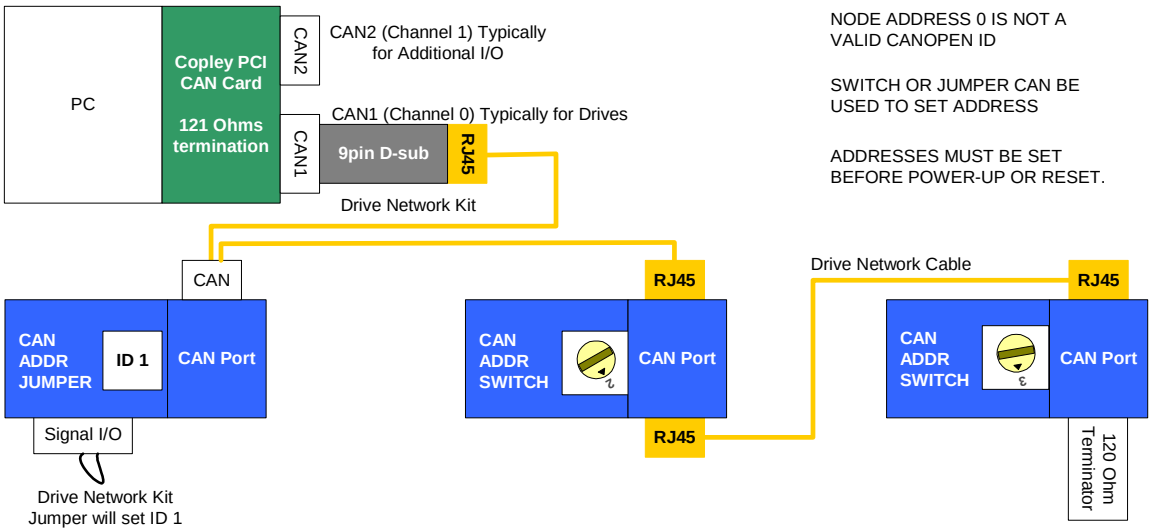



# CME2 over Copley CAN Card

CME2 V4.2 or greater, available on the web, can recognize the Copley CAN card if the CAN card drivers are installed.

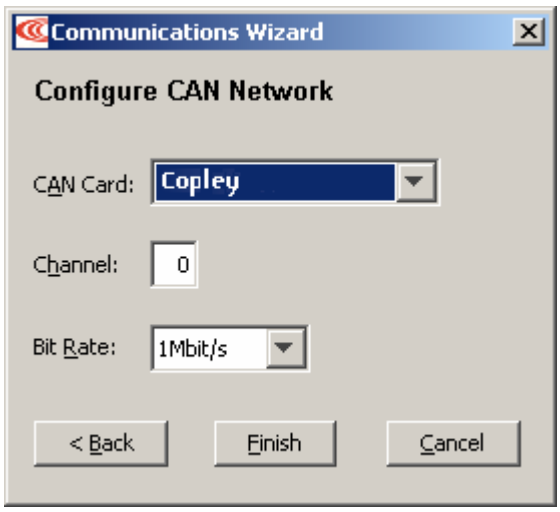
## Step 1 Connecting Drives

Connect the CAN cable from the CAN Card to the first drive and then to any additional drives on the CAN network. Make sure the CAN card and last drive have termination installed. Set the drive node ID with switch (Xenus, AccelNet Panel, StepNet Panel, and Micro Development Kit.) or with jumpers on the signal connector. (AccelNet Micro Panel ACJ J5 +5V to IN6 bit 0 to IN9 bit 4, Xenus Micro Panel XSJ tbd)



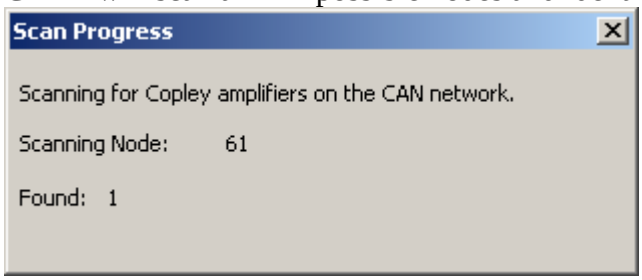

## Step 2 Connect CME2

Use CME2 tools\Communication Wizard to select CAN communication.




Select Copley, Channel 0 (if cable connected to bottom CAN 1 port), and 1Mbit/s default.

CME2 will scan all 127 possible nodes and identify any found nodes.




CME2 will upload drive parameters and display CAN tree, CAN Network node address, and CANopen State. The CAN Configuration screen can then be used to change settings if required. See CME2 Software manual for more details.

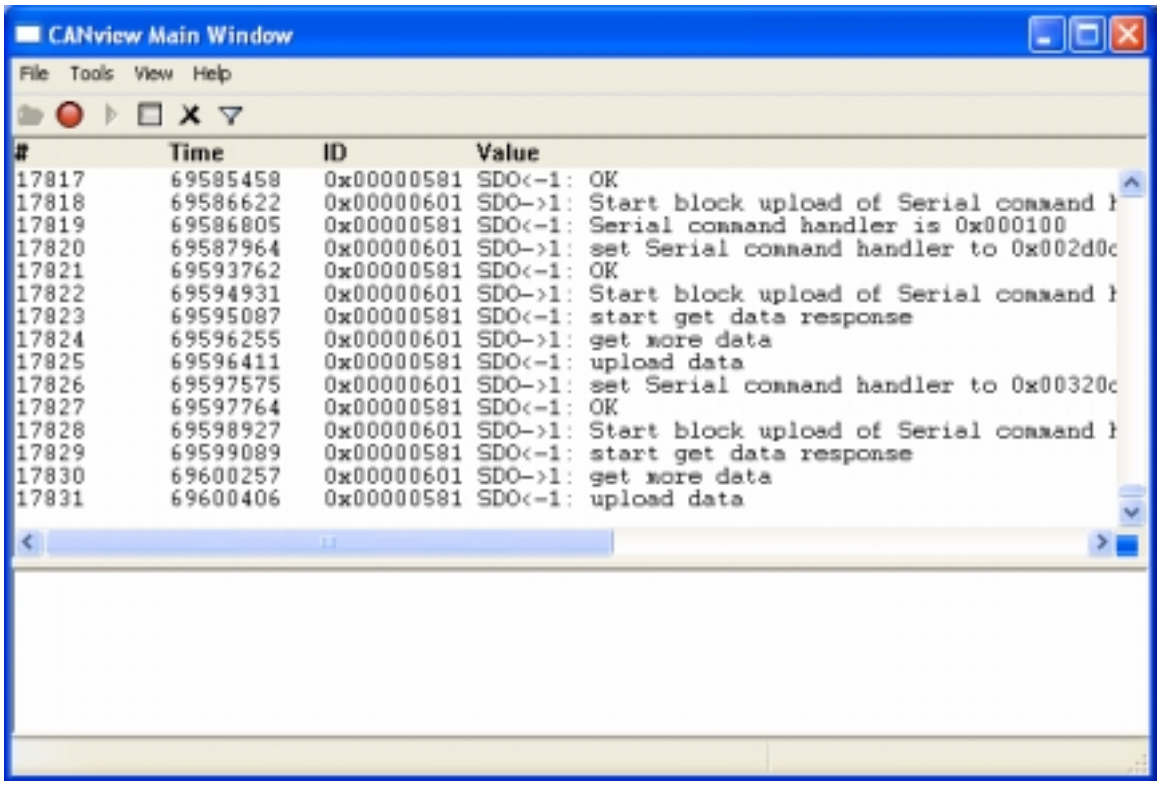
## CML and CMO with Copley CAN Card

CML 1.07.20 or greater and CMO 2.1 or greater, available on the web, can recognize the Copley CAN card if the CAN card drivers are installed. See CMO Programmers manual and CANopen Programmers manual for more details.

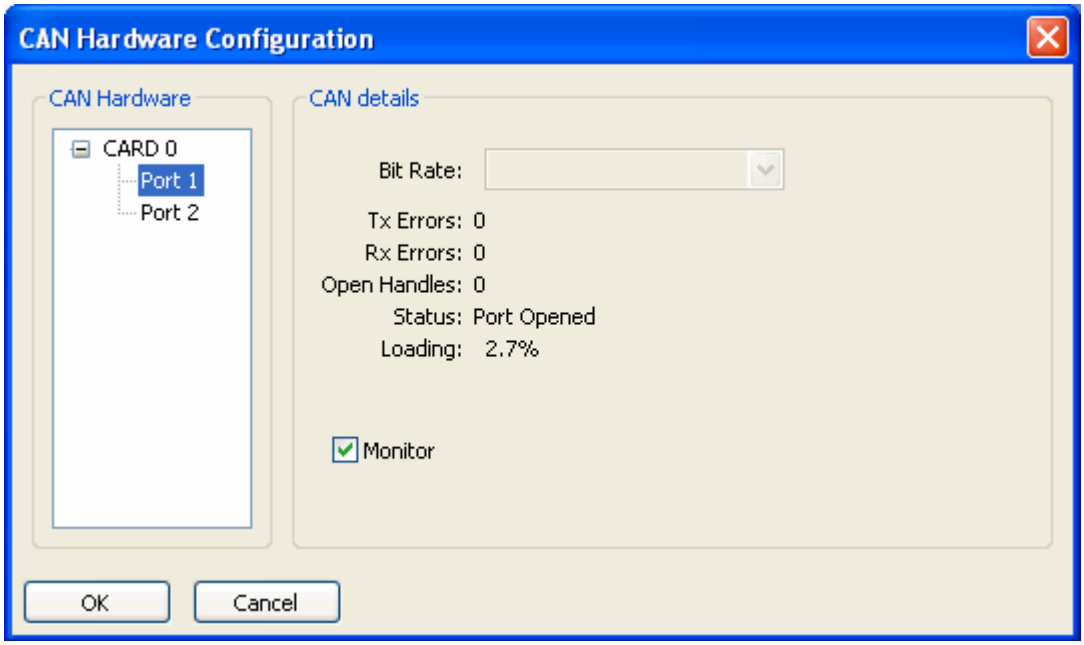
## CAN View

The CANview is now used to download firmware to the CAN Card. The Copley CAN monitor is able to view CAN messages and perform diagnostics on the CANopen network.

### View Messages

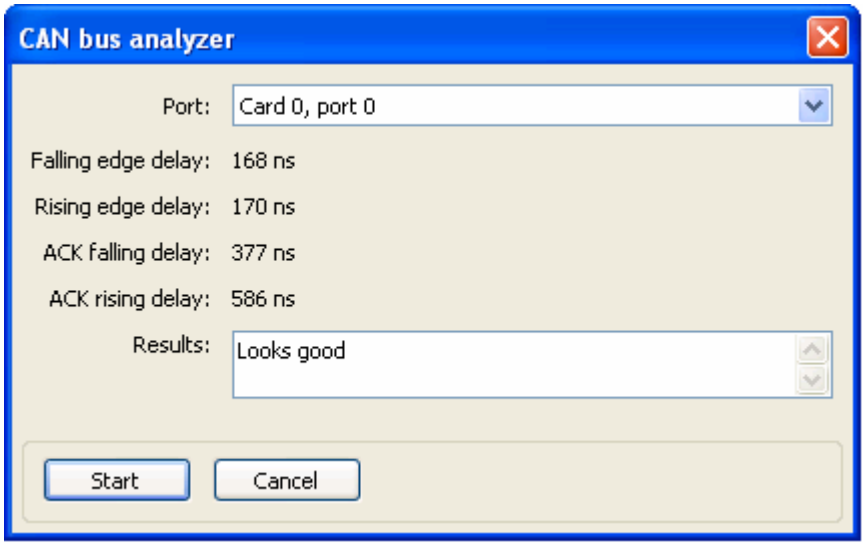


## Monitor bus




The CANview will show us the bus loading. The CAN bus can run well above 90% with no lost messages. If cables are greater than 20 meters at 1 mega bit or if stub lengths are greater than several inches, or if terminating resistors are not properly installed, we may see frame errors. (Tx, Rx, or open handles)

## Network Analysis

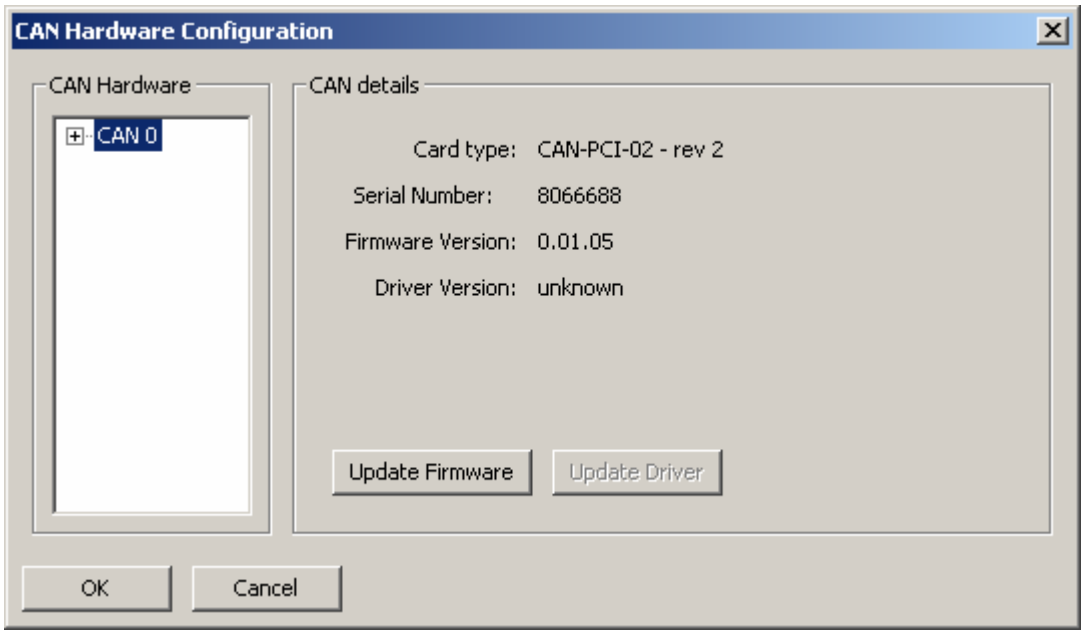



The CANview will show us the approximate time for sending message to the furthest node and back. The results will be analyzed for good margin, low margin, or possible problem.

# CAN Card Firmware

New firmware can be downloaded to the CAN card using the CANview program available on the web in the CANcardTools.zip file. New firmware will be required to take advantage of any new features.

To download firmware, select Tools\CANHardware to view the CAN Hardawre Configuration screen.




Press Update Firmware and select desired firmware.