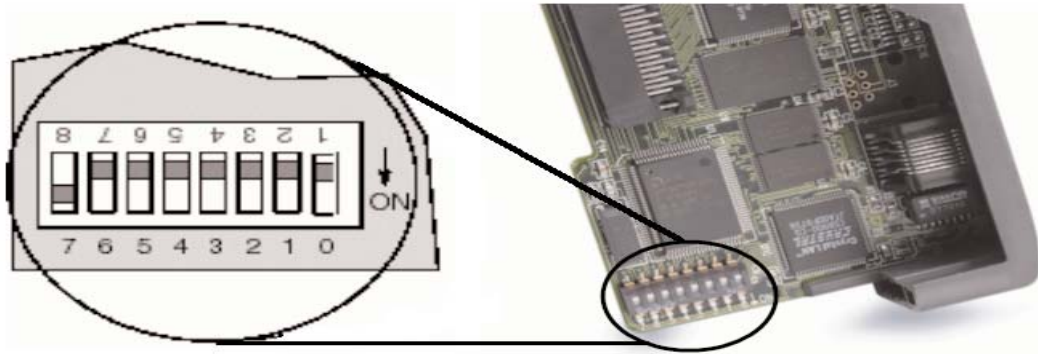


4.0 Hardware

To enable the ECOM module to work with DataWorx software, the 8th DIP switch needs to be placed in the ON position, as pictured below.



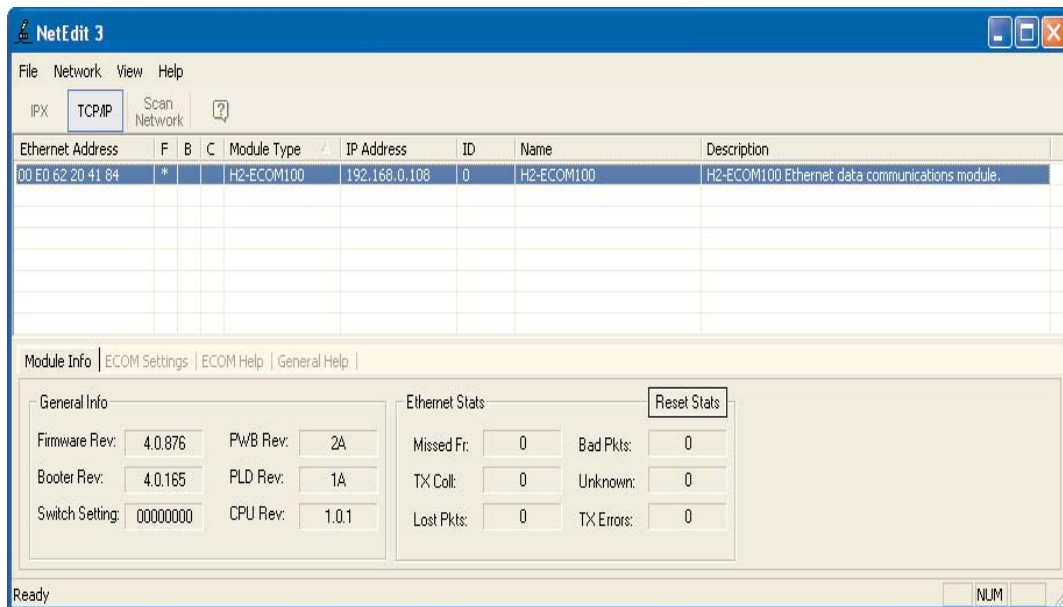
Configuring ECOM Using NetEdit Software

- NetEdit is a software utility that may be used to set the alias, or ‘Name,’ and IP Address of the ECOM module.



Note: NetEdit installs automatically with DS32 V4.0, or it can be downloaded from www.automationdirect.com.

- For additional information about NetEdit, see Chapter 3 in the Hx-ECOM-M manual.



DataWorx PLC

To use DataWorx, a connection must be established between the PC and the DirectLogic PLC. This connection will use the Ethernet network card in the PC to connect to an ECOM module in your PLC.

Using NetEdit to set the ECOM's IP Address

NetEdit is used for the configuration and setup of the ECOM for use with DataWorx.

1. Use NetEdit to select the IP protocol and set the IP address on the ECOM.

- **Name** accepts 32 alphanumeric characters and is used by DataWorx as the PLC's alias.
- **Description** accepts 32 alphanumeric characters of free-form descriptive information.

The screenshot shows the 'General Settings' dialog box. The 'Module ID' is set to 0. The 'Name' is 'H2-ECOM100' and the 'Description' is 'H2-ECOM100 Ethernet data communications module.'. The 'Use the following IP settings' radio button is selected, with the IP Address set to 192.168.0.108, Subnet mask set to 0.0.0.0, and Gateway set to 0.0.0.0. The 'Obtain an IP address automatically' option is unselected.

- To set an **IP Address**, highlight the number in each of the four numerical clusters, and overwrite the number. Use the number assigned to the ECOM module by the network administrator.



Note: DHCP should not be used in PC or PLC.

2. Select the advanced timing settings for sending messages across a LAN.

- The **Advanced Settings** button in the Configuration box of NetEdit (Hx-ECOM-M manual, chapter 3, page 9) opens the ECOM Advanced Settings window.

- The **RX/WX Settings** (Read from Network/Write to Network) section provides a place to make changes that affect PLC-to-DataWorx communications.

Section	Parameter	Value	Unit
RX/WX Settings	ACK Timeout	10	ms
	Resp. Timeout	250	ms
	Retries	1	
KSequence Settings	Retries	2	
Modbus Settings	Master Timeout	1000	ms
	Slave Timeout	20	sec

NOTE: SlaveTimeout requires F/W 4.0.1185 or later

- **ACK Timeout** sets the time limit for receiving the acknowledge (ACK) response to an RX or WX instruction. The ECOM sends a message across the LAN. The acknowledge response comes back directly from the ECOM module receiving the transmission. **ACK Timeout** sets the maximum elapsed time in milliseconds for transmission and acknowledgement from ECOM to DataWorx across the LAN. It is not dependent on the PLC scan time.

- **Resp. Timeout** sets the maximum elapsed time in milliseconds for the receiving PLC CPU to respond to the ECOM that initiated the communication. The instruction has traveled from the initiating PLC CPU to the initiating ECOM, across the Ethernet LAN to the receiving ECOM, then to the receiving PLC CPU, and back again to the initiating ECOM. Multiple PLC scans may be required to execute an RX/WX instruction so the **Resp. Timeout** setting should allow for multiple scans. Also, communication errors may result in retries which require more time.



Note: The Resp. Timeout setting must accommodate retries.

- **Retries** sets the number of times the backplane transmission between ECOM and CPU is to be retried.
- The **IP Broadcast Address** field is used to allow for non-standard broadcast address configurations. Some older Unix based systems did not use 255.255.255.255 for their broadcast address. This would prevent ECOMs from responding to network broadcast queries. Only change this value when using something other than 255.255.255.255 for broadcasts.
- The **Update Module** button loads the communication settings in the ECOM Advanced Settings window into the ECOM module's flash memory.
- The **Exit** button closes the ECOM Advanced Settings window and returns the user to the main NetEdit window.