# USING NETEDIT

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CHAPTER

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### **Using NetEdit**

### The NetEdit Window

NetEdit is a software utility which can be used to set network identifiers (Module ID, or IP Address) for the network master and slave modules. NetEdit is accessed from the ERM Workbench "Select Slaves" window or the View>NetEdit Window. NetEdit can also be used for diagnostic and troubleshooting tasks. This section steps through the individual segments of the NetEdit utility and the function of each.

thernet Address	Netwo	Drk B			IP Address	ID	Name	Description
0 E0 62 00 19 11 0 E0 62 21 63 B7	*	*		H2-EBC H2-ERM100	255.255.255.255 (172.30.58.78)	25 0	205EBC H2-ERM100	205 Ethernet Base Controlle Ethernet Remote Master.
General Info	C Setting	IS   E	BC H	leip   General Help	Ethernet St	ats	Reset	Stats
Firmware Rev:	2.1.3	388	1	PWB Rev: N	A Missed Fr	44	47 Bad Pkts: 0	)
Booter Rev:	3.0.	92	1	PLD Rev: N	/A TX Coll:	25	57 Unknown: 0	)
Switch Setting:	00011	001		CPU Rev: N	A Lost Pkts:	368	BO2 TX Errors: 0	)

### **Ethernet Communication Protocol**

In the upper left corner of the NetEdit window, under the toolbar, you will find there are two protocol choices: IPX and TCP/IP. The ERM and its slave modules understand IPX and TCP/IP protocols. Both protocols are permanently resident in the firmware of the modules.



When you click on one of these buttons, you are selecting the protocol you want your PC to use to allow NetEdit to communicate with the master or slave modules. You are not telling the module which protocol to use. IPX is a Novell standard in widespread use, and TCP/IP is a popular protocol supported by the configured protocols in your PC.



NOTE: The protocol choice in NetEdit tells your PC which protocol to use to link NetEdit to the master or slave modules. You are not selecting which protocol the remote I/O network will use.

## Adding IPX Network Protocol Support on PCs with Windows XP (32 bit only) or Earlier Operating Systems

You may have already set up your PC with selected networking protocols for Ethernet communications. If not, you will need to select the protocols now for communication with the ERM module. We strongly recommend that you include the IPX protocol. The description below applies to Windows 2000 (Windows 98/NT/XP have slightly different steps). If you are not familiar with this procedure, you may need to have your Network Administrator perform this task.

For Windows 2000, go from My Computer on your Windows desktop to Control Panel. Double click on Network and Dial–up Connections, then double click on the desired Network Device to see the installed Protocols. If IPX is not listed among the protocols already loaded, add it now by clicking on the Install button. For Windows XP, go from Start>Settings>Control Panel. The steps are the same as Windows 2000 from this point.

Add the TCP/IP protocol if it is necessary for your application. The TCP/IP selection will give you support for the UDP/IP protocol. Also, add the IPX protocol if it is not already active.

twork Properties
General Sharing
Connect using:
Realtek RTL8139(A)-based PCI Fast Ethernet Adapter
Configure
Components checked are used by this connection:
File and Printer Sharing for Microsoft Networks
WLink NetBIOS WLink IPX/SPX/NetBIOS Compatible Transport Proto
Finternet Protocol (TCP/IP)
Install Uninstall Properties
Description



NOTE: We strongly recommend you load IPX protocol on your PC and use it for your module links. Use TCP/IP in your application, if required, but also add IPX to your list of active protocols. Having IPX loaded on your PC gives you a backup for troubleshooting communication problems.

### **Ethernet Address**

NetEdit lists the Ethernet Addresses along with Module Type, IP Address, Module ID, Module Name and Module Description of any modules currently on the remote I/O network.

If modules are added or removed from the network, click on the Scan Network button to update the list. Notice that the Ethernet Address is the factory-assigned address that is on the permanent label on the module.

Select a specific module here by clicking on the Ethernet Address or by using the arrow keys. The selected module is highlighted.

ІРХ ТСРИ		Scan etwo	rk	C	?)					
Ethernet Addre	SS	F	В	С	Module Type	$\Delta$	IP Address	ID	Name	Description
00 E0 62 00 19	11	*	*		H2-EBC		255.255.255.255	25	205EBC	205 Ethernet Base Controller.
00 E0 62 21 63	37				H2-ERM100		(172.30.58.78)	0	H2-ERM100	Ethernet Remote Master.

### Module ID / IP Address / Name / Description

To assign a Module ID, IP Address, Name and Description to the module, double-click on the specific module to get the General Settings window. In this window you can configure the available options.

💪 NetEdit 3						_ 🗆 ×
File Network View Utils H	lelp					
IPX TCP/IP Scan Network	2					
Ethernet Address F	B C M	lodule Type 👘	IP Address	ID	Name	Description
00 E0 62 00 19 11 * 00 E0 62 21 63 B7	* H H	2-EBC 2-ERM 100	255.255.255.255	25	205EBC	205 Ethernet Bas
002002210000	i di di	General Settin	(In 2150150170)	×		Eulerneerteiniou
			9-	-		
		Module ID:	25			
		Name:	205EBC	1		
		Description:	205 Ethernet Base Cor	ntroller.		
•		IP Address:	255 . 255 . 255	. 255		
Module Info EBC Settings   EB	C Help   General I	OK	Cancel	1		
General Info				_	Reset Stats	
Firmware Rev: 2.1.388	PWB Rev:	N/A	Missed Fr: 0	Ba	ad Pkts: 0	
Booter Rev: 3.0.92	PLD Rev:	N/A	TX Coll: 0	U	nknown: 0	
Switch Setting: 00011001	CPU Rev:	N/A	Lost Pkts: 0	T	K Errors: 0	
Ready						NUM /

Module IDs must be unique for each module, but they do not have to be in sequence. The DIP switches must all be set to zero to enable any software to change the Module ID. If not set to zero then the Module ID will be read only.

The Name field and Description field are optional. The ERM cannot address a slave by Name or Description.

To set an IP Address, highlight the number in each of the four boxes, and overwrite the number. Use the twelve-digit number assigned to the module by your network administrator. If you change the IP Address, do not use the number "255" in any field. Doing so will cause communication problems.

Clicking the OK button sends all entries to the module's flash memory.

#### Module Information

The Module Information box provides the module Version, Booter and Dip switch settings, as well as, Ethernet Stats and Errors.

Module Info EBC Setti	ings   EBC Help   General H	lelp					
General Info		Ethernet S	tats		Reset Stats		
Firmware Rev: 2.	1.388 PWB Rev:	N/A Missed F	: 447	Bad Pkts:	0		
Booter Rev: 3.	0.92 PLD Rev:	N/A TX Coll:	257	Unknown:	0		
Switch Setting: 000	111001 CPU Rev:	N/A Lost Pkts	36802	TX Errors:	0		
Ready						NUM	

The Version and Booter refers to the module's firmware version. The Dip switch setting reflects the Module ID.



NOTE: The module information and settings on this page apply to the selected (highlighted) module. To select a module, click on its Ethernet Address in the Module list.

The Ethernet Stats are statistics related to communication errors. These statistics are explored in Chapter 6, Maintenance and Troubleshooting.

Click on the Reset Stats button to reset all categories to 0 (zero).

### Using NetEdit to Configure the EBC Base



*NOTE:* The following configuration information applies only to the H4–EBC(–F) and the DL405 I/O. The H2–EBC(–F) and associated DL205 I/O are self-configuring and do not require this additional step.

### **EBC Settings Tab**

When an EBC is selected from the module list, an EBC Settings tab becomes available, as seen below.

🔏 Net	Edit 3								<u>- 🗆 ×</u>
<u>File</u> <u>N</u>	etwork <u>V</u> iew	Utils	Help						
IPX	ТСРИР 5	Scan stwork	2	)					
Etherne	et Address	FB	C	Module Type	IP Address	ID	Name	Description	
00 E0 63	2 40 01 DD			H4-EBC	10.1.49.43	16	405EBC	405 Ethernet Base Controller.	
00 E0 6	2 60 46 DD			H4-ERM100	10.1.49.40	0	H4-ERM100	Ethernet Remote Master.	
L									
				/					
			1						
			/						
			-						
<u> </u>		K							
Module	Info EBC Set	tinge   F	BC H	alo   Ceneral Helo	1				
- Con	figuration	tungo   t		op poenerarnop			Firmusro		
CON	ngaration				Ouis		T IIIIwale		
	General		St	art Web based Con	ig Show Ba	se Contents	. Update Firmware		
	Serial Port						Update Booter		
								-	
	I/O Base						Restore Factory Setting:	8	
Ready								NU	м/,

The following options are available through this tab:

- · General Settings: Set Module ID, Name, Description and IP Address
- Serial Port: Configure Serial port communication parameters (Note: the serial port is not compatible with an Hx-ERM as the master)
- · I/O Base: Specify installed analog cards
- Show Base Contents: Generate, print and save a report of installed modules
- Update Firmware: Load new firmware from file
- Update Booter: Load a new booter from file
- Restore Factory Defaults: Return configurable options to factory defaults

General	Settings
---------	----------

General Settir	igs				×
Module ID:	16	- 	1		
Name:	405EBC				
Description:	405 Ethe	rnet Ba	ise Con	troller.	
IP Address:	10 .	1.	49.	43	
				-	
01			Cancel		

Assign a module ID: The module ID is only required when the master's address mode is set to Module ID.

Assign a meaningful name and description: These will appear when browsing for convenient identification.

Assign an IP address: An IP Address is only required when the master's address mode is set to IP Address.

### Serial Port

Set the desired parameters for the serial port.

NOTE: The serial port is not supported when used with an Hx-ERM or Hx-ERM100 master.

### I/O Base

When you click on the I/O Base button, the H4–EBC Base Configuration screen pops up, as shown below. The H2–EBC and the T1H–EBC are self-configuring and do not require this step.

The DL the H4- distingu and An	.405 architectum EBC with enoug iish between Dis alog I/O module	e does not provide gh information to screte 1/0 modules s.	To allow f analog mo below to o of any an	or proper operal odules, please u describe the typ alog modules to	ion of your se the matrix e and placement the H4-EBC.	Left-click the button(s) corresponding to the location of your analog module(s) to cycle through the options, OR right-click on each button to select from a menu of options.		
	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7
Base O	F4-08AD F4-08THM-n	Empty			Empty	Empty	Empty	Empty
Base 1	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Base 2	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Base 3	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty

The default symbol "-----" appears on the configuration screen where digital or analog modules are present. For digital modules, you do not need to make any changes. The H4–EBC recognizes the digital modules and is self-configuring for the digital modules.

If you are using analog modules, you must let the H4–EBC know that by doing the following. Click on the slot location where the analog module is located. Continue clicking on the same slot location until the part number of your analog module appears. You can also right-click on the slot location to pick the desired module from a list.

The DL405 architecture does not provide To the H4-EBC with enough information to distinguish between Discrete I/0 modules bel and Analog I/0 modules.				w for proper operal modules, please u to describe the type analog modules to	tion of your ise the matrix e and placement the H4-EBC.	Left-click the the location of cycle through on each butt options.	eft-click the button(s) corresponding to re location of your analog module(s) to ycle through the options, OR right-click in each button to select from a menu of ptions.		
	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	
Base O	F4-08AD F4-08THM-n	Empty			Empty	Empty	Empty	Empty	
Base 1	Empty	Empty	Empty -	Reset	'tandard Notation	mpty	Empty	Empty	
Base 2	Empty	Empty	Empty	F4-04AD 3 F4-04AD 1	12-bit 16-bit	impty	Empty	Empty	
Base 3	Empty	Empty	Empty	F4-04ADS F4-08AD or F F4-08RTD or F	F4-04ADS F4-08AD or F4-08THM-n E4-08PTD or F4-08THM		Empty	Empty	
				F4-08THM U F4-16AD-n	Inipolar				
				D4-02DA F4-04DA F4-04DA-1 or F	-4-04DA-2				
				F4-16DA-1 F4-04DAS-n					

Once the correct part numbers are chosen for each of your analog modules, click the OK button to save the configuration into flash memory onboard the module. Leave the symbol "--------" wherever you have a digital module.

If you are using a D4–HSC High Speed Counter module, the word "Intelligent" will appear in gray. The High Speed Counter module is configured automatically and no other action is required other than clicking on the OK button.

### Show Base Contents

Opens a report of the installed modules which can then be printed or saved.

Show Base Contents	×
Base 0 : Slot 0 - Module Type 8A - 8 Channel Temperature Input 8 - Word inputs	A
Base 0 : Slot 2 - Module Type 82 - 16 Point Discrete Input 16 - Bit inputs	
Base 0 : Slot 3 - Module Type C0 - 32 Point Discrete Output 32 - Bit outputs	
A	×
Save Print Font	Close

### Update Firmware

Use this dialog to update the module's firmware. Pick the firmware file from disk. Firmware files may be downloaded from www.HostEng.com.

### **Update Booter**

Use this dialog to update the module's booter. Pick the booter file from disk. Booter files may be downloaded from www.HostEng.com.

#### **Restore Factory Defaults**

Use this button to reset all user configurable settings to the factory defaults. A warning dialog will appear to verify this action. Select OK to restore to the defaults.