Chapter 5

SupportView Setup

SupportView Setup

Site Evaluation Checklist

Customer Name:_____ **Date:**_____

Done?	TASK
☐	Obtain the following tools: • Laptop computer with MS Word • Power Manager Site Evaluation Data Sheet (data sheet) .(paper or electronic form) • EnergyNode Site Inspection Sheets (paper or electronic form) • ControlNode Site Inspection Sheets (paper or electronic form • Current transformers (CT) of various sizes to verify physical space in breaker boxes • Analog telephone with in-line coupler to verify tone. • Flashlight • 25 ft or longer tape measure • Blank pad and pencils/pens • Road map for site location
☐	Obtain and enter site and contact information data on data sheet.
☐	Obtain rate structure information sheet (from utility provider) for each meter to be monitored
☐	Obtain copy of recent bill for each rate structure
☐	Obtain and enter utility meter(s) data on data sheet.
☐	Complete EnergyNode Data Sheet(s) for all EnergyNodes (if applicable)
☐	Complete ControlNode Data Sheet (if applicable)
☐	Determine ICU communication and mounting configuration, and enter on data sheet
☐	Obtain information concerning EnergyView-hosting computer and enter on data sheet
☐	Enter EnergyView computer communications data on data sheet
☐	Enter any relevant site evaluation comments on data sheet
☐	Determine responsibilities and set completion dates for: • Electrician • Telephone and/or computer wiring technician • TeCom technician • Site contact

Site Evaluation Data Sheet

SITE INFORMATION			
Company Name:	Company Address:		Type of Business (List all that apply)
# Buildings on site:			
Total Building Area: (Sq. Ft.)	City, State ZIP:		Hours of Operation:
Site Architectural Dwgs Available?	Latitude (Deg., Min., Sec)	Longitude (Deg., Min., Sec)	Hours of Occupation:
Directions to Site:			

CONTACT PERSON		
Contact Name:	Mailing Address:	Company:
Telephone #:		
Fax #:	City, State ZIP	E-Mail address:

UTILITY METER DATA (Meter # 1)		
Meter Description (power, gas, etc.):	Meter Physical Location	Utility Provider
Meter #:		Account Representative:
Meter Account #	Cable Installation Requirements (plenum rated/exposed/size & conduit type	Telephone #:
Utility Rate Code:		

UTILITY METER DATA (Meter # 2)		
Meter Description (power, gas, etc.):	Meter Physical Location	Utility Provider
Meter #:		Account Representative:
Meter Account #	Cable Installation Requirements (plenum rated/exposed/size & conduit type	Telephone #:
Utility Rate Code:		

UTILITY METER DATA (Meter # 3)			
Meter Description (power, gas, etc.):	Meter Physical Location		Utility Provider
Meter #:			Account Representative:
Meter Account #	Cable Installation Requirements (plenum rated/exposed/size & conduit type		Telephone #:
Utility Rate Code:			
ICU COMMUNICATION			
Preferred Installer:	Communications Service Location:		ICU Modem Telephone #:
ICU Communications Type:			Telephone Service Provider:
Ethernet Address:	Cable Installation Req. (Plenum rated/exposed/size & type of conduit		Telephone Account #:
Line Type (Dedicated/shared/Fax):	Modem Manufactirer. And Model:	Modem Speed, Int/Ext:	Account Rep and Telephone #:
ICU MOUNTING			
Preferred Installer:	ICU Physical Location:		Inside/Outside:
			Accessible/Locked:
Mounting Surface (conc., wood, etc.):	Building Management System Physical Location		Special Environment: (expl., temp, etc)
ICU Mounting Notes:			
ENERGYVIEW COMPUTER			
User Name(s):	Preferred Computer Location:		Processor Type and Speed:
Standalone or Server access:			RAM Memory (MB):
Windows Version			Hard Disk Space Avail. (MB):

ENERGYVIEW COMPUTER COMMUNICATION			
Preferred Installer:	Computer Telephone Service Location:		Modem Telephone #:
Computer Communications Type:			Telephone Service Provider:
Ethernet Address:	Cable Installation Req. (Plenum rated/exposed/size & type of conduit		Telephone Account #:
Line Type (Dedicated/shared/Fax):	Modem Manufactirer. And Model:	Modem Speed, Int/Ext:	Account Rep and Telephone #:

SITE EVALUATION COMMENTS

EnergyNode Site Inspection Sheet

Site Identification: _____ **Date** _____

	ENERGYNODE #:_____	**ENERGYNODE #:_____**
Description of load to monitor (Ex. Chiller #2 or Lighting)		
Load panel location (Ex. Bldg 3, Room 102)		
Panel ID & circuit number of load (Ex. Panel L, circuit 1,3,5)		
Size of load circuit breaker or fuse (Ex. 100 A)		
Wire size, # sets and insul. type (Ex. 2 sets of 3 - 500 MCM w/ #4/0 Gnd, THHN/WN insul.)		
Neutral conductor installed to load? (Y/N)		
Voltage config of load panel (Ex. 277/480 VAC, 3 Ph, 4W)		
EnergyNode voltage connection (Ex. 20 A, 3 pole breaker, SQ D type QOD, in position 37, 39, 41)		
EnergyNode box size and location (Ex. 8" X 16", Building 3, room 102, next to panel L)		
Pulse output cable requirements (plenum rated/exposed/size & conduit type)		

	ENERGYNODE #:_____	ENERGYNODE #:_____
Description of load to monitor (Ex. Chiller #2 or Lighting)		
Load panel location (Ex. Bldg 3, Room 102)		
Panel ID & circuit number of load (Ex. Panel L, circuit 1,2,5)		
Size of load circuit breaker or fuse (Ex. 100 A)		
Wire size, # sets and insul. type (Ex. 2 sets of 3 - 500 MCM w/ #4/0 Gnd, THHN/WN insul.)		
Neutral conductor installed to load? (Y/N)		
Voltage config of load panel (Ex. 277/480 VAC, 3 Ph, 4W)		
EnergyNode voltage connection (Ex. 20 A, 3 pole breaker, SQ D type QOD, in position 37, 39, 41)		
EnergyNode box size and location (Ex. 8" X 16", Building 3, room 102, next to panel L)		
Pulse output cable requirements (plenum rated/exposed/size & conduit type)		

SupportView Setup Sheet

Site Identification: _____ **Date:** _____

SITE INFORMATION			
Customer ID:	Description:		ICU serial #:
Daylight saving time here?:		ICU Ethernet Address:	ICU modem phone #
ICU billing rate:	Latitude (Deg., Min., Sec)	Longitude (Deg., Min., Sec)	

PULSE INPUT (CMI) CHANNEL CONFIGURATION									
Chan'l Type	**CMI Board**	**Physical Chan'l**	**Channel Description**	**Unit of Measure**	**Interval Period**	**Conversion Factor**	**Counter Conv. Factor**	**Rollover**	**# of Wires**
Pulse	1	Ch 1							
Pulse	1	Ch 2							
Pulse	1	Ch 3							
Pulse	1	Ch 4							
Pulse	1	Ch 5							
Pulse	1	Ch 6							
Pulse	1	Ch 7							
Pulse	1	Ch 8							
Pulse	1	Ch 9							
Pulse	2	Ch 1	Reserved for future growth						
Pulse	2	Ch 2	Reserved for future growth						
Pulse	2	Ch 3	Reserved for future growth						
Pulse	2	Ch 4	Reserved for future growth						
Pulse	2	Ch 5	Reserved for future growth						
Pulse	2	Ch 6	Reserved for future growth						
Pulse	2	Ch 7	Reserved for future growth						
Pulse	2	Ch 8	Reserved for future growth						
Pulse	2	Ch 9	Reserved for future growth						

ENERGYNODE AND CT SUMMARY						
CMI Board #	**Physical Channel**	**EnergyNode Model #:**	**EnergyNode Serial Number**	**CT Amp Rating**	**KWh/Pulse Multiplier**	**Clamp-on Amp Reading**

CONTROL NODE INPUT CHANNEL CONFIGURATION							
Channel Type	**ICN Board #**	**Physical Channel #**	**Channel ID**	**Unit of Measure**	**Interval Period**	**Control Node Model Number**	**Control Node Serial Number**
Analog	1	IN 1					
Analog	1	IN 2					
Analog	1	IN 3					
Analog	1	IN 4					
Analog	1	IN 5					
Analog	1	IN 6					
Analog	1	IN 7					
Analog	1	IN 8					
Analog	2	IN 1	Reserved for future growth				
Analog	2	IN 2	Reserved for future growth				
Analog	2	IN 3	Reserved for future growth				
Analog	2	IN 4	Reserved for future growth				
Analog	2	IN 5	Reserved for future growth				
Analog	2	IN 6	Reserved for future growth				
Analog	2	IN 7	Reserved for future growth				
Analog	2	IN 8	Reserved for future growth				

CONTROL NODE OUTPUT CHANNEL CONFIGURATION				
Channel Type	**ICN Board #**	**Physical Channel #**	**Channel ID**	**Control Detail**
Relay	1	RLY1		
Relay	1	RLY2		
Relay	1	RLY3		
Relay	1	RLY4		
Relay	1	RLY5		
Relay	1	RLY6		
Relay	1	RLY7		
Relay	1	RLY8		

Helpful Hints

Record data on these forms for later entry into the Channel Configuration Setup screen in SupportView. For additional information, refer to the SupportView User's Manual.

All Channel Types:

Channel Type:

The Channel Type is defined by the type of IO Board that is installed in the system (Pulse, Analog or Relay). This field is already filled in. Do not enter any data in this field.

IO Board:
Physical Channel:

Utility Meter pulse (CMI) inputs, sensor analog inputs and relay outputs interface the ICU through wires screwed into terminals (the physical channel) on the ICU and optional Control Node module. Up to one pulse input (CMI) board and one Control Node module can be installed in a PowerManager system. The CMI board includes 9 pulse input channels, (physical channel from Ch 1 to Ch 9). The Control Node module has 8 analog input channels (physical channels from IN 1 to IN 8) and 8 relay output channels (R 1 to R 8). The additional (shaded) space in the forms is reserved for future enhancements to the IPM system. Do not enter any data in this section of the table

Channel Description:

Enter a short description of each input channel. The text should specify what meter or sensor is connected to the system, or the relay output controls. The name can be up to 20 alphanumeric characters in length. You can enter more than 20 characters, but the system will remember only the first 20.

Unit of Measure:

This field defines the quantity to be measured. There is a list of valid units of measure in the SupportView Manual, Appendix A. The Channel Configuration screen in Supportview includes a selection list of valid entries. Enter "None" in the indicated field if nothing is connected to the channel or if the system should ignore that channel.

Interval Period

The Interval Period is the amount of time between measurement samples. For instance, for a pulse input and a 15 minute interval period, the IPM counts the number of pulses that occur for each 15 minutes, then stores those numbers for later calculations. The interval period is usually determined by the utility demand rate structure. Specify an interval period of 1, 5, 10, 15, 30 or 60 minutes. The interval period also determines the length of usage history the IPM keeps. The corresponding history periods are 4, 20, 41, 62, 124, and 248 days.

CMI Inputs

Conversion Factor:

The conversion factor is used to convert from the number of pulses to the quantity measured. For instance the channel may be measuring KWh and the conversion factor may be 10 KWH per pulse. If 12 pulses were accumulated during some time period, then 10 X 12 KWH were used. Enter the conversion factor in this field. It should be found on or near the meter, or may be available from the utility company.

Counter Conversion Factor:

The counter conversion factor is used to convert from the number of pulses to the value indicated on the utility meter. This is used to calculate the meter reading on the simulated utility bill in EnergyView. Enter the counter conversion factor for the channel where indicated. It should be found on or near the meter, or may be available from the utility company.

Rollover:

The rollover is the highest value indicated on the utility meter before it rolls over to zero. The number should be something like “9999.9”. Count the number of active (moving) digits on the meter to determine the number of nines to indicate. For example, if a meter has 5 indicator dials or wheels, the rollover value is “99999.9”.

# of Wires:

Pulse output meters use either two or three wires to deliver pulses to a pulse counter. Three-wire outputs can monitor for tampering. Enter the number of wires connected to the ICU for each used pulse input channel.

EnergyNode and CT Summary

IO Board and Physical Channel:

Enter the IO board and physical channel to which the EnergyNode is attached.

EnergyNode Model #:
EnergyNode Serial Number
CT Amp Rating:

Enter the data describing EnergyNode model number and Current Transformer (CT) used for the channel

KWh/Pulse Multiplier:

Enter the conversion factor used to convert from pulses to KWh per pulse.

Clamp On Amp Reading:

Enter a current measurement from the circuit under consideration using a clamp on ammeter. This value is used to check the KWh/pulse multiplier value.

Control Node Output Configuration

Control Detail:

Enter a description of the control function the relay output shall perform. (For example, "Turn on HVAC Unit #3 circulating fan 30 seconds after compressor.")

Installation Acceptance Sheet

Customer Name:_____ **Date:** _____

Site Address: _____ **Phone:** _____

_____

_____

Done?	TASK
☐	Power Manager configuration completed.
☐	Rate and Peak files installed.
☐	Utility meter pulse input conversion factors verified.
☐	Analog inputs verified.
☐	Control outputs verified against site evaluation requirements.
☐	Communications verified: • Modem • Ethernet • Direct connect
☐	Modem phone #s and Ethernet addresses conveyed to customer.
☐	Software installed and tested on all user's PC's.
☐	Installation workmanship inspected.
☐	Serial Numbers recorded ICU: _____ Control Node: _____ Ethernet PC Card: _____ Energy Nodes: _____ _____ _____ _____ _____ _____ _____ _____ _____

APPROVALS:

_____ _____ _____ _____

Installer Representative Date Customer Representative Date

Defining Channel Sets

A channel set is one or more devices monitoring a single metering point. The metering point can be for electric, water, gas or other energy for which the customer wants to monitor and calculate usage. EnergyView and InterLane Power Manager applications use channel sets to calculate derived energy measurements.

The following rules apply to channel set configurations:

1. All channels must have the same intervals per hour for any given ICU.

2. There must be one and only one main measure per set.

   Main measures, such as KWH, Gallons, and CCF, are not derived from other measures. Channels with derived measures require a main measure channel in the same set. See Appendix A, "Units of Measure" for a complete list of main and derived measures.

This is OK:		
Channel	**Units**	**Set**
1	KWH	1
2	CCF	2
3	Gallons	3

This is NOT OK:		
Channel	**Units**	**Set**
1	KWH	1
2	CCF	2
3	Gallons	2

3. A KWH channel must precede a KQH channel on the same channel set.

This is OK:		
Channel	**Units**	**Set**
1	KWH	1
2	KQH	1

This is NOT OK:		
Channel	**Units**	**Set**
1	KQH	1
2	KWH	1

4. All channels on the same metering set must be grouped together.

This is OK:		
Channel	**Units**	**Set**
1	KWH	1
2	KQH	1
3	KWH	2

This is NOT OK:		
Channel	**Units**	**Set**
1	KWH	1
2	KWH	2
3	KQH	1

Note: Re-wiring is not needed because the logical channel number determines the order. To deactivate a channel that is currently enabled, change the **Unit of Measure** to "99-Unused Channel."

Pulse Multiplier Calculations

Identifying Standard Meter Types

Determine meter type from the meter faceplate as follows:

Form 2, 15, or 16 are Self Contained (SC). 15 and 16 will have a bypass switch.

Form 3, 6 and 9 are Transformer Rated (TR).

You can also tell by the Class (CL). Class 100, 200, (or above) is SC. Class 10 and 20 are TR.

Electric Meter Pulse Multiplier Calculation

Meter Description ----------

The meter multipliers for each electric meter shall be calculated from the meter nameplate and system installation data as follows:

Revolutions/pulse (Mp or R/I value) _____

Watthours/Revolution (Kh) _____

CT ratio _____ PT ratio _____

Display Multiplier (PT ratio x CT ratio) _____

Pulse Multiplier = (Mp x Kh x CT ratio x PT ratio)/1000 = _____ kWH/pulse

EnergyNode Pulse Multiplier Calculation

Label on bottom of EnergyNode lists the WattHours per Pulse per CT Rated Amp (WHpPpA) value corresponding to the model of EnergyNode.

The CT ampere rating is listed on the front of each CT.

KWh/Pulse multiplier = [(WHpPpA) X (CT Amp rating)] / [2000] _____kWH/pulse.

EnergyNode Pulse Multiplier Calculation Form

		2.667Hz or 4.0Hz EnergyNode Model Number				
		WNA-1P-240-P 0.025000	**WNA-3Y-208-P** 0.025000	**WNA-3Y-480-P** 0.057710	**WNA-3D-240-P** 0.050000	**WNA-3D-480-P** 0.100000
	5	0.000062500	0.000062500	0.000144275	0.000125000	0.000250000
	15	0.000187500	0.000187500	0.000432825	0.000375000	0.000750000
	20	0.000250000	0.000250000	0.000577100	0.000500000	0.001000000
	30	0.000375000	0.000375000	0.000865650	0.000750000	0.001500000
	50	0.000625000	0.000625000	0.001442750	0.001250000	0.002500000
CT	**60**	0.000750000	0.000750000	0.001731300	0.001500000	0.003000000
	70	0.000875000	0.000875000	0.002019850	0.001750000	0.003500000
	100	0.001250000	0.001250000	0.002885500	0.002500000	0.005000000
	125	0.001562500	0.001562500	0.003606875	0.003125000	0.006250000
	150	0.001875000	0.001875000	0.004328250	0.003750000	0.007500000
	200	0.002500000	0.002500000	0.005771000	0.005000000	0.010000000
Ampere	**250**	0.003125000	0.003125000	0.007213750	0.006250000	0.012500000
	300	0.003750000	0.003750000	0.008656500	0.007500000	0.015000000
	400	0.005000000	0.005000000	0.011542000	0.010000000	0.020000000
	500	0.006250000	0.006250000	0.014427500	0.012500000	0.025000000
	600	0.007500000	0.007500000	0.017313000	0.015000000	0.030000000
Rating	**800**	0.010000000	0.010000000	0.023084000	0.020000000	0.040000000
	1000	0.012500000	0.012500000	0.028855000	0.025000000	0.050000000
	1200	0.015000000	0.015000000	0.034626000	0.030000000	0.060000000
	1500	0.018750000	0.018750000	0.043282500	0.037500000	0.075000000
	1600	0.020000000	0.020000000	0.046168000	0.040000000	0.080000000
	2000	0.025000000	0.025000000	0.057710000	0.050000000	0.100000000
	2400	0.030000000	0.030000000	0.069252000	0.060000000	0.120000000
	3000	0.037500000	0.037500000	0.086565000	0.075000000	0.150000000

Gas Meter Pulse Multiplier Calculation

To avoid discrepancies between the gas meter dial readings and the SupportView dial total complete the steps listed below:

1. Set the dial rollover to '99999' to avoid shifting of the decimal point causing a bad reading.
2. If the gas meter index is a white (uncompensated) index, the factor is derived simply by dividing the number of CCF per revolution of the test hand (location of the pulser) by the number of pulses per revolution times two (CMI counts each transition as a pulse):
   CCF/rev / 2xpulses/rev = factor
3. If the gas meter index is red (compensated), the index dials will be compensated for a different line pressure while the monitored test dial or drive shaft will not be compensated. This will require to multiply the normal factor with a compensation factor. The compensation factor should ONLY be received from the local gas company to ensure accuracy.

Gas Meter Example

For the meters at Peoples Gas (main and A/C only) the indexes are compensated for 2lbs line pressure and the formula is as follows:

compensation factor = (2 lbs + 14.73) / 14.98 = 1.116822

the resulting total factor is therefore:

factor = 0.005 x 1.11622 = 0.00558411

ICU Pulse Connections

Step 1 Two wire pulse connections must be connected to the (K) and (Y) terminals on the ICU channel terminal block.

Step 2 The ICU channel shall be configured with a 3 Wire pulse factor at all times. A 3-Wire factor shall be entered for 3-Wire and for 2-Wire connections. A 2-Wire pulse factor shall be divided by two when configuring the ICU channel.

Step 3 The EnergyNode pulse output connector must be connected to the ICU channel terminal block as follows:

- ENode plus (+) terminal connected the ICU (Y) terminal.
- Enode minus (-) terminal connected to the ICU (K) terminal.

Communications

SupportView can communicate with an ICU by three methods. ICU Setup allows you to specify the connection type and define communication parameters for each method you intend to use.

- For a modem connection, you must set up a Dial-Up Networking connection with parameters for the modem and TCP/IP.

  See "Setting Up a Modem Connection" on page 5–21.

- For a direct connection, you must install the direct connection driver which SupportView provides.

  See "Setting Up a Direct Connection" on page 5–30.

- For a LAN connection, you must have an Ethernet card configured.

  See "Setting Up a LAN Connection" on page 5–38.

TCP/IP Networking

Each connection method you may select in SupportView makes use of the TCP/IP network protocol. TCP/IP stands for **T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol and is quite simply a standard set of protocols that ensure data is transmitted correctly between two computers. If any errors occur, they are detected and the data is transmitted again.

Computers running SupportView and EnergyView use TCP/IP protocol to connect and communicate with an ICU. In fact, the ICU can handle many connections at a time through the modem, a direct connection, and the LAN.

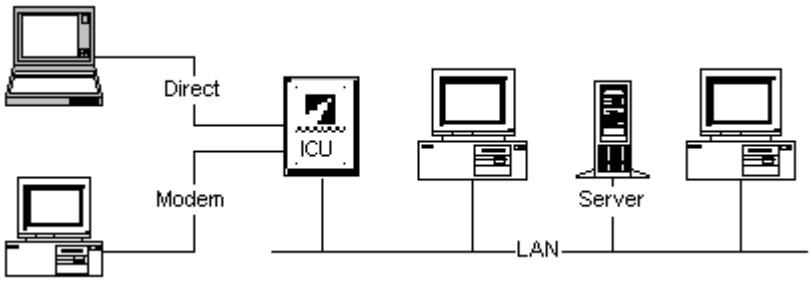


Figure 5.1 TCP/IP networking

The IP part of TCP/IP controls how transmitted data packets are moved from one point to another. Each device connecting to an ICU requires a different IP Address. For example, the ICU setup files contain an IP Address for the modem, which is different from the IP Address for the Ethernet card, which is different from the IP Address for the direct connection port. The ICU acts as a gateway (or router) on its own little network, receiving and forwarding packets from one device to another.

Important! There are instances where the routing of packets between devices connected to an ICU may be a network security concern. In those instances, it is suggested that either the ICU not be installed with both modem and Ethernet connectivity, or additional security measures (such as a firewall) should be taken to isolate the ICU from the LAN.

IP Addresses

The ICU can communicate utilizing TCP/IP using up to three different devices; direct connection, dial-up modem, and Ethernet. Each device requires a different IP address with a different network ID.

By default, the ICU ships with a modem and a direct connect port. The IP addresses for these devices are assigned **192.168.123.3** and **192.168.124.3**. These are two class C addresses set aside by InterNIC for test purposes. These addresses were chosen to avoid conflict with any addresses that may have already been assigned. Note that these two addresses have different network IDs. When assigning IP addresses to the ICU, each device (direct connection, modem, and Ethernet) should be assigned an IP address with a unique network ID.

At system reset, the ICU receives the IP address, subnet mask, and gateway IP address for the Ethernet device from:

- A BOOTP server, or
- The tcp.ini file.

Routing

The ICU is a multi-homed machine. When each device (direct connection, modem, and Ethernet) is established, it becomes a separate network. The ICU acts as a gateway or router between networks (or devices), forwarding packets from one network to the other.

If the ICU receives an IP packet over one device, and it can be sent by forwarding it to another interface, the ICU will forward that packet. For example, if the ICU is configured with a modem and an Ethernet card, and a packet is received on the modem connection with a destination on the Ethernet connection, the packet will be sent on the Ethernet. Packets that are not destined for any of the configured networks (or devices) will be sent to the gateway.

For those instances where the routing of packets would cause a network security concern, it is suggested that additional security precautions be taken that correlate with overall security of the network and the required use of the ICU. Suggested options include, but aren't limited to, the following:

- Do not install an ICU with both a modem and an Ethernet adapter. It should be noted that this will prevent both dial-in and dial-out.
- Do not specify TCP/IP for the modem. This will prevent the ICU from establishing a TCP/IP connection utilizing the modem, but would allow the ICU to dial-out for notification.
- Isolate the ICU from the network by installing a firewall between the network and the ICU.
- If connected to a PBX, configure the PBX to prevent outside callers from dialing the ICU.

Since Power Manager applications do not send TCP/IP packets that have a destination IP address other than the IP address of the ICU, the ICU will not route any of those packets.

Setting Up a Modem Connection

One of the ways SupportView establishes communications with an ICU is through a modem connection. The modem connected to the PC initiates a call to the ICU. Once the ICU modem "answers," communications can take place. Modem communications follow this path:

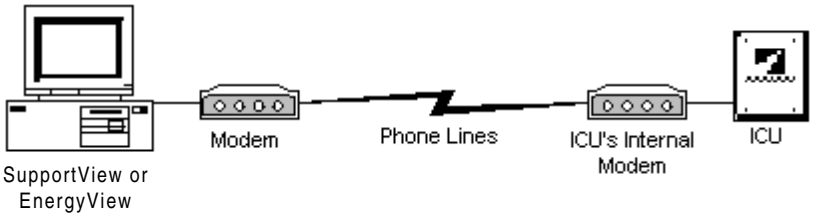


Figure 5.2 Modem connection

Note: If you are using a DID line in a PBX environment, ensure your switch is configured for a 2/4 cadence ring to the IPM line.

The following components must be in place for SupportView to properly send and receive transmissions through the modem:

- A modem installed and configured in Control Panel, Modems.
- TCP/IP Network Protocol installed in Control Panel, Network.

  See "To install TCP/IP Network Protocol in Windows 95" on page 5–22, or "To install TCP/IP Network Protocol in Windows NT" on page 5–25.
- Dial-Up Networking installed in My Computer.

  See "To install Dial-Up Networking in Windows 95" on page 5–22, or "To install Dial-Up Networking in Windows NT" on page 5–27.
- An ICU connection configured in Dial-Up Networking.

  See "To add the ICU modem dialer in Windows 95" on page 5–22, or "To add the ICU modem dialer in Windows NT" on page 5–27.

  See "To configure the ICU modem dialer in Windows 95" on page 5–23, or "To configure the ICU modem dialer in Windows NT" on page 5–28.

Windows 95 Setup

To install TCP/IP Network Protocol in Windows 95

Step 1 From Control Panel, double-click **Network**.

Step 2 Under the **Configuration** tab, look through the list of installed components.

If there is a *TCP/IP → Dial Up Adapter* listed, TCP/IP is already installed. Skip to the procedure "To install Dial-Up Networking in Windows 95" on page 5–22.

If there is no *TCP/IP → Dial Up Adapter* listed, continue with these steps.

Step 3 Click **Add**.

Step 4 Click **Protocol**, and then click **Add**.

Step 5 Follow the instructions on the screen to install the component, and then continue with the procedure "To install Dial-Up Networking in Windows 95" on page 5–22.

To install Dial-Up Networking in Windows 95

Step 1 Double-click **My Computer**.

If there is a Dial-Up Networking icon in My Computer, Dial-Up Networking is already installed. Skip to the procedure "To add the ICU modem dialer in Windows 95" on page 5–22.

If there is no Dial-Up Networking icon, continue with these steps.

Step 2 In Control Panel, double-click the **Add/Remove Programs** icon.

Note: You will need your Windows installation media to continue with these steps.

Step 3 On the **Windows Setup** tab, click Communications in the Components box, and then click **Details**.

Step 4 Click the **Dial-Up Networking** check box to select it, and then click **OK** to close the Details window.

Step 5 Click **OK** and follow the prompts to install the component.

To add the ICU modem dialer in Windows 95

Step 1 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

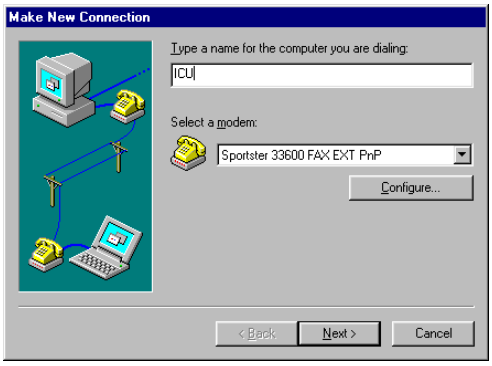
If there is an *ICU* icon in Dial-Up Networking, the connection is already set up. Skip to Step 4 to verify the configuration.

If there is no *ICU* connection icon, continue with these steps.

Note: You must already have a modem installed and configured in Control Panel to continue with these steps.

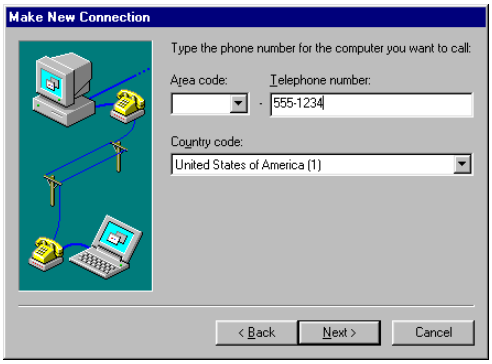
Step 2 In Dial-Up Networking, double-click the **Make New Connection i**con.

The Make New Connection window opens.



Step 3 Type *ICU* for the name of the connection. (Use uppercase letters, the name is case sensitive.)

Step 4 Select the modem you want to use for the connection, and then click **Next**.



Step 5 Type or select these settings:

⇒ **Area Code** must be blank

⇒ **Telephone number** (any number will do)

⇒ **Country Code** (any will do)

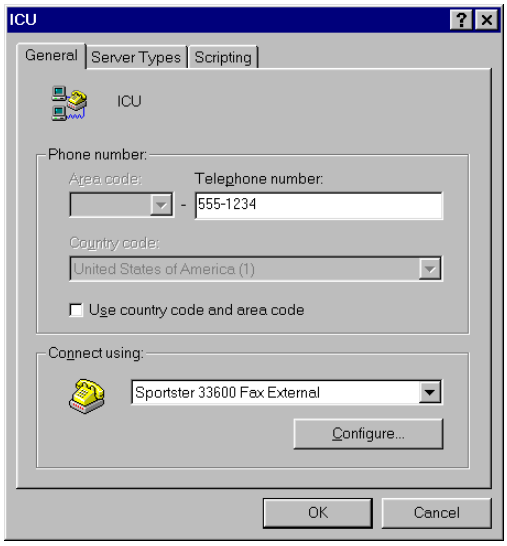
Step 6 Click **Next**, and click **Finish**, and then continue with the procedure "To configure the ICU modem dialer in Windows 95" on page 5–23.

To configure the ICU modem dialer in Windows 95

Step 1 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

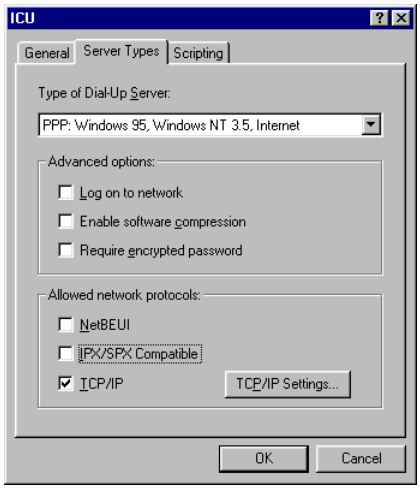
If there is no *ICU* connection icon in Dial-Up Networking, skip to the procedure, "To add the ICU modem dialer" on page 5–22.

Step 2 Right-click the *ICU* connection icon, and then click **Properties**.



Step 3 From the **General** tab, click to clear the **Use country code and area code** checkbox.

Step 4 From the **Server Types** tab, select the following options:



⇒ **Server Type** must be **PPP, Windows 95, Windows NT 3.5, Internet**.

⇒ **Log on to Network** checkbox must be **OFF**.

⇒ **Enable software compression** checkbox must be **OFF**.

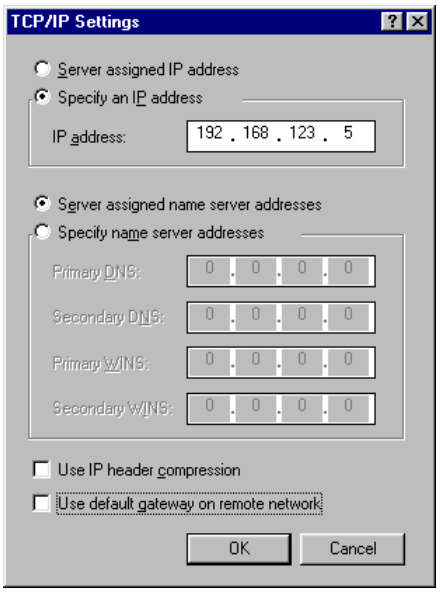
⇒ **Require encrypted password** checkbox must be **OFF**.

⇒ **NetBUEI** checkbox must be **OFF**.

⇒ **IPX/SPX Compatible** checkbox must be **OFF**.

⇒ **TCP/IP** must be **ON**.

Step 5 Click **TCP/IP Settings**, and select the following options:



⇒ **Specify an IP address** must be **192.168.123.5** or an address of your choice. See "Changing IP Addresses" in Chapter 4 for detailed instructions.

⇒ **Server assigned name server addresses** must be **ON**.

⇒ **Use IP header compression** must be **OFF**

⇒ **Use default gateway on remote network** must be **OFF**

Step 6 Click **OK**, and then click **OK** again.

Windows NT Setup

To install TCP/IP Network Protocol in Windows NT

Step 1 Log in with Administrator privileges.

Step 2 From Control Panel, double-click **Network**.

Step 3 Under the **Protocols** tab, look through the list of installed components.

If there is a *TCP/IP Protocol* listed, TCP/IP is already installed. Skip to the procedure "To install Dial-Up Networking in Windows NT" on page 5–27.

If there is no *TCP/IP Protocol* listed, continue with these steps.

Step 4 Click **Add**.

Step 5 Click **Protocol**, and then click **Add**.

Step 6 Follow the instructions on the screen to install the component, and then continue with the procedure "To install Dial-Up Networking in Windows NT" on page 5–27.

To install Dial-Up Networking in Windows NT

Step 1 Log in with Administrator privileges.

Step 2 Double-click **My Computer**, and then double-click the **Dial-Up Networking** icon.

If the Dial-Up Networking dialog opens, Dial-Up Networking is already installed. Skip to the procedure "To add the ICU modem dialer in Windows NT" on page 5–27.

If there is no Dial-Up Networking, continue with step 3.

Note: You will need your Windows NT installation media to continue with these steps.

Step 3 Click **Install** and follow the prompts to install the component.

To add the ICU modem dialer in Windows NT

Step 1 Login with Administrator privileges.

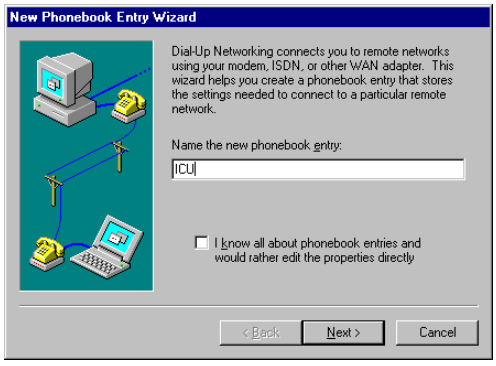
Note: You must already have a modem installed and configured in Control Panel to continue with these steps.

Step 2 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

If there is an *ICU* phonebook entry under *Phonebook entry to dial*, the connection is already set up. Skip to Step 4 to verify the configuration.

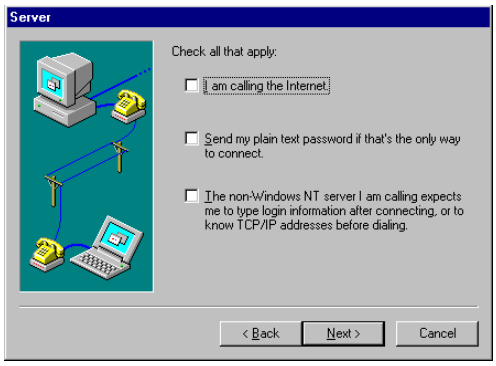
If there is no *ICU* phonebook entry, continue with these steps.

Step 3 In Dial-Up Networking, click **New**. The New Phonebook Entry Wizard takes over.



Step 4 Type *ICU* for the name of the phonebook entry, and click **Next**. (Use uppercase letters, the name is case sensitive.)

The Server window opens.



Step 5 Leave all three boxes unchecked and click **Next**.

Step 6 Type a phone number to act as a placeholder only (any number will do), and then click **Next**.

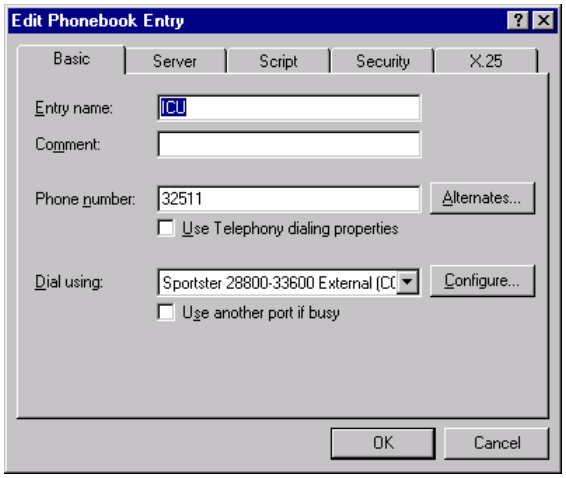
Step 7 Click **Finish**, and then continue with the procedure "To configure the ICU modem dialer in Windows NT" on page 5–28.

To configure the ICU modem dialer in Windows NT

Step 1 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

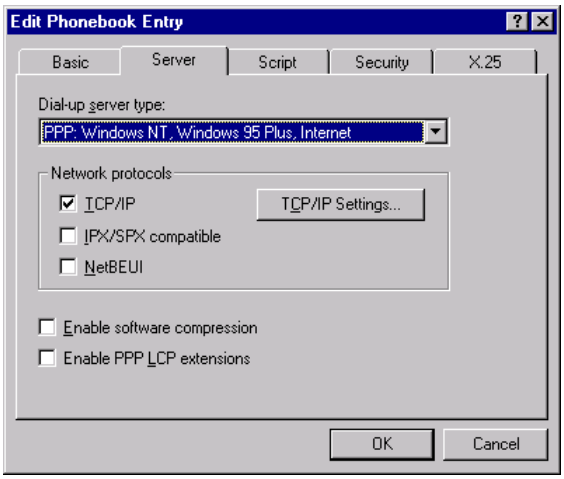
If there is no *ICU* phonebook entry, skip to the procedure, “To add the ICU modem dialer” on page 5-22.

Step 2 Select the *ICU* phonebook entry, and then click **More, Edit entries and modem properties**.



Step 3 From the **Basic** tab, click to clear the **Use Telephony dialing properties** checkbox.

Step 4 From the **Server** tab, select the following options:



⇒ **Server Type** must be **PPP: Windows NT, Windows 95 Plus, Internet**.

⇒ **TCP/IP** must be **ON**.

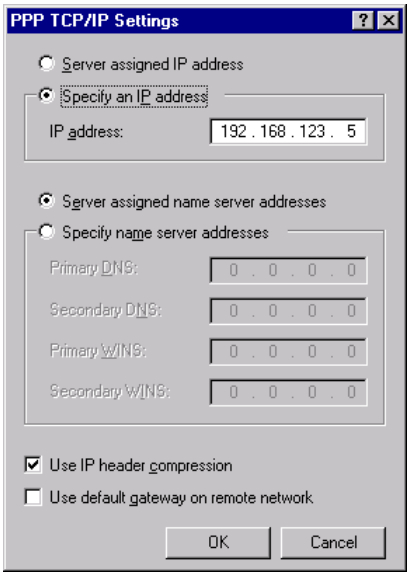
⇒ **IPX/SPX Compatible** checkbox must be **OFF**.

⇒ **NetBUEI** checkbox must be **OFF**.

⇒ **Enable software compression** checkbox must be **OFF**.

⇒ **Enable PPP LCP extensions** checkbox must be **OFF**.

Step 5 Click **TCP/IP Settings**, and select the following options:



⇒ **Specify an IP address** must be **192.168.123.5** or an address of your choice. See "Changing IP Addresses" in Chapter 4 for detailed instructions.

⇒ **Server assigned name server addresses** must be **ON**.

⇒ **Use IP header compression** may be **ON**

⇒ **Use default gateway on remote network** must be **OFF**

Step 6 Click **OK**, click **OK** again, and then click **Close**.

Setting Up a Direct Connection

Another means of communication is through a direct connection. A direct connection refers to attaching a laptop PC (with SupportView installed) to an ICU with a null modem cable. This type of connection is generally used for system setup and troubleshooting at the ICU site. Direct communications follow this path:

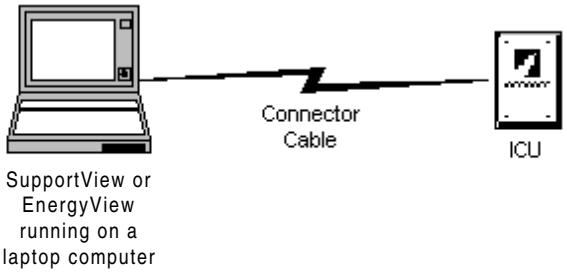


Figure 5.3 Direct connection

The direct connection uses a null modem cable and a 9 pin D Sub-miniature connector. The connector is marked **J19** and is located in the upper right-hand corner of the IPM enclosure near the outside edge of the ICU motherboard.

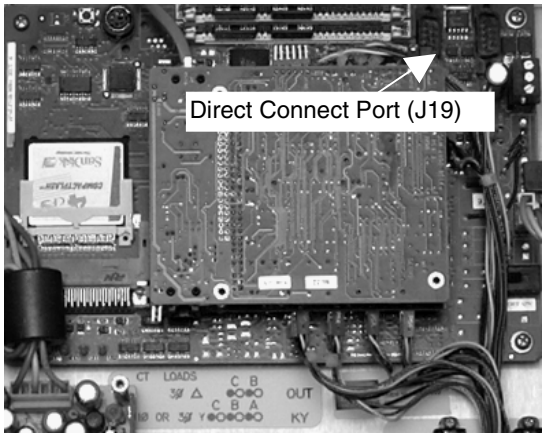


Figure 5.4 Location of direct connect port

Setting up a direct connection requires that you install the direct connection driver provided with your SupportView installation. The direct connection driver is designed specifically for use with the InterLane Power Manager system. Use of the driver for any other purpose is not recommended.

Important! Connect the null modem cable to the ICU before a direct connection is started, and disconnect it when the connection is complete. Windows 95 users may have to wait one minute between sessions for the COM port to reset.

The following components must be in place for SupportView to properly send and receive transmissions through a null modem cable:

- TCP/IP Network Protocol installed in Control Panel, Network.

  See "To install TCP/IP Network Protocol in Windows 95" on page 5–22, or "To install TCP/IP Network Protocol in Windows NT" on page 5–25.

- Dial-Up Networking installed in My Computer.

  See "To install Dial-Up Networking in Windows 95" on page 5–22, or "To install Dial-Up Networking in Windows NT" on page 5–27.

- The InterLane Direct Serial Connection driver installed.

  See "To add the direct connection driver" on page 5-31.

- An "ICUDirect" connection configured in Dial-Up Networking.

  See "To add the ICU direct connection" on page 5-33, and "To configure the ICU direct connection" on page 5-34.

- A successful connection and login sequence between the PC and the ICU.

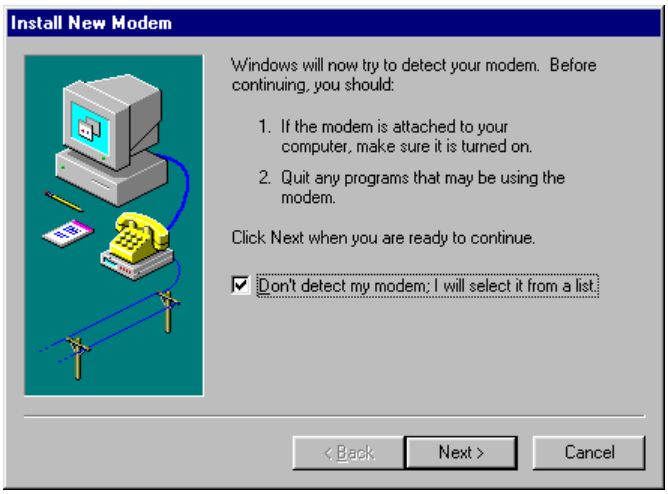
  See "To start a direct connection" on page 5–37.

To add the direct connection driver

Step 1 On Control Panel, double-click the **Modems** icon to open Modems Properties.

Step 2 Click **Add** to open Install New Modem.

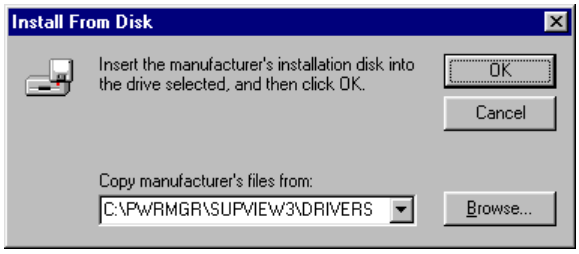
The Install New Modem window opens.



Step 3 Click the **Don't detect my modem; I will select it from a list** check box, and then click **Next**.

Step 4 Click **Have Disk.**

The Install From Disk window opens.

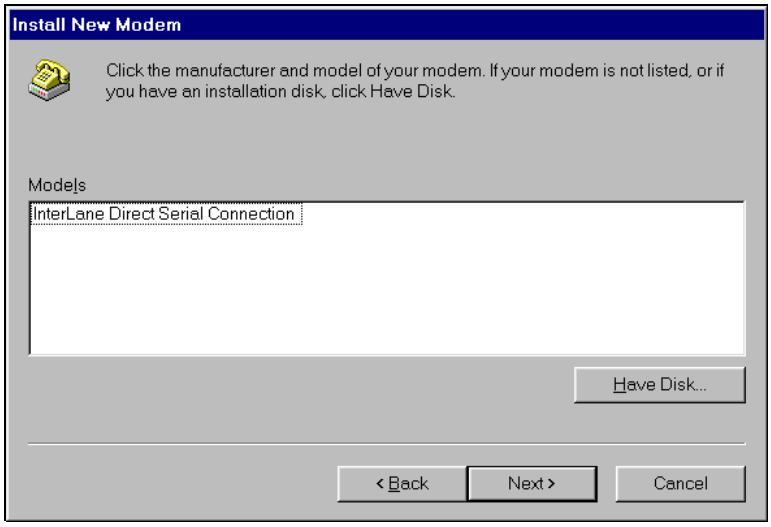


Step 5 Type or browse to the Drivers folder in your SupportView program directory.

The default location is C:\PWRMGR\SUPVIEW3\DRIVERS.

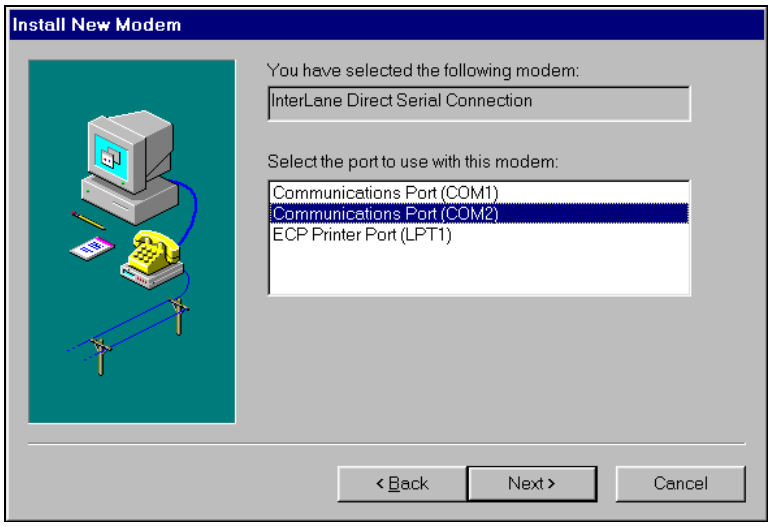
Step 6 Click **OK**.

The Install New Modem window opens with InterLane Direct Serial Connection listed under Models.



Step 7 Click to select **InterLane Direct Serial Connection**, and then click **Next**.

Install New Modem opens with a list of ports.



Step 8 Click the COM port (on the PC) to be used to make the direct serial cable connection.

Step 9 Click **Finish**, and then continue with the procedure "To add the ICU direct connection" on page 5–33.

To add the ICU direct connection

Step 1 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

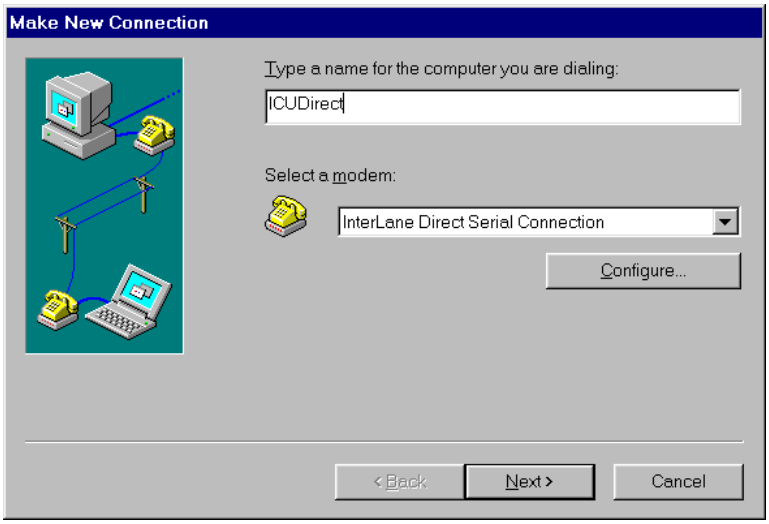
If there is an ICUDirect icon in Dial-Up Networking, the connection is already set up. Skip to Step 4 to verify the configuration. If there is no ICUDirect connection icon, continue with these steps.

Step 2 In Dial-Up Networking, double-click the **Make New Connection** icon.

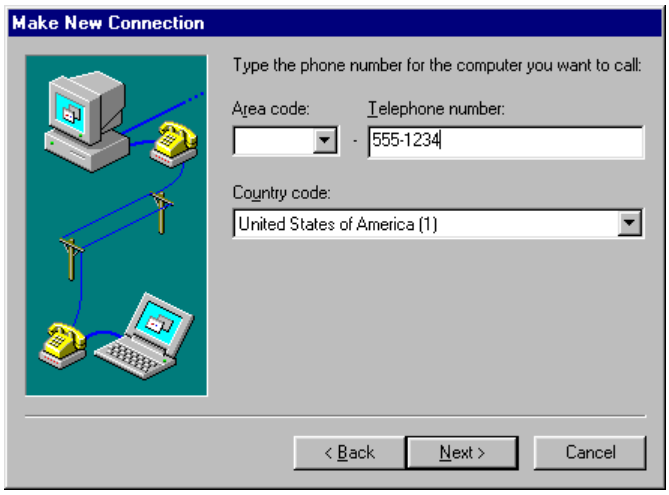
Note: You must already have the InterLane Direct Serial Connection driver installed to continue with these steps. For details, see "To add the direct connection driver" on page 5–31.

Step 3 Type *ICUDirect* for the name of the connection.

Use uppercase letters exactly as shown, the name is case sensitive.



Step 4 Under Select a Modem, click **InterLane Direct Serial Connection**, and then click **Next**.



Step 5 Type or select these settings:

⇒ **Area Code** must be blank

⇒ **Telephone number** (any number will do)

⇒ **Country Code** (any will do)

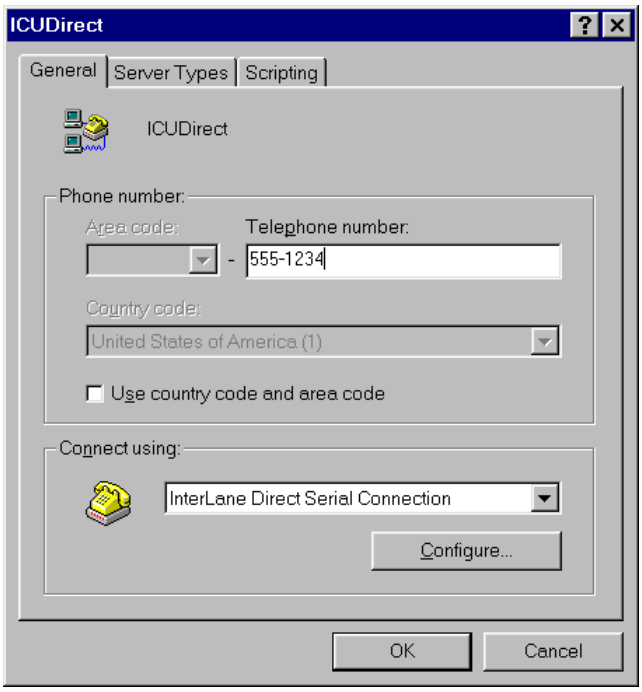
Step 6 Click **Next**, then click **Finish**, and then continue with the procedure "To configure the ICU direct connection" on page 5–34.

To configure the ICU direct connection

Step 1 Double-click **My Computer**, and then double-click **Dial-Up Networking**.

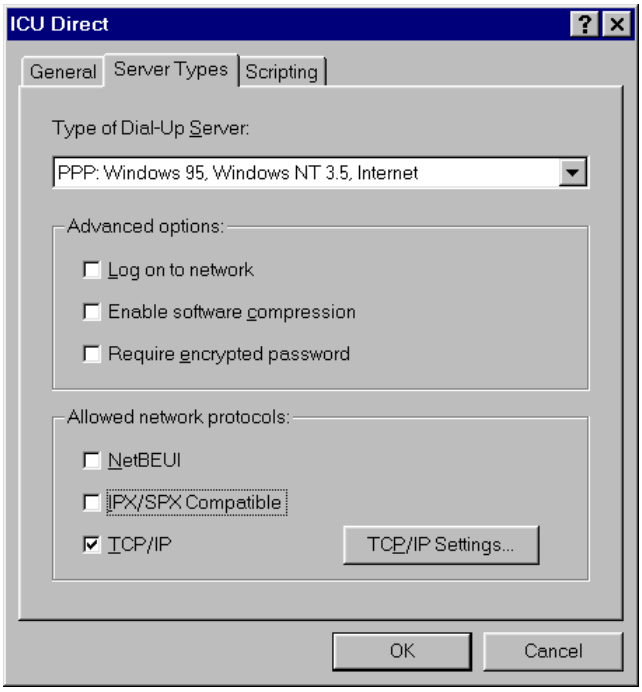
If there is no *ICUDirect* connection icon in Dial-Up Networking, skip to the procedure, "To add the ICU direct connection" on page 5–33, before continuing with these steps.

Step 2 Right-click the **ICUDirect** icon, and then click **Properties**.



Step 3 From the **General** tab, click to clear the **Use country code and area code** checkbox.

Step 4 From the **Server Types** tab, select the following options:



⇒ **Server Type** must be **PPP, Windows 95, Windows NT 3.5, Internet**.

⇒ **Log on to Network** checkbox must be **OFF**.

⇒ **Enable software compression** checkbox must be **OFF**.

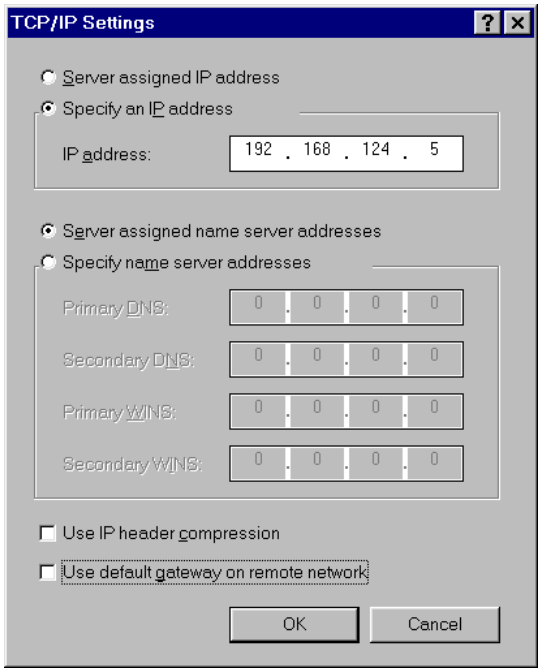
⇒ **Require encrypted password** checkbox must be **OFF**.

⇒ **NetBUEI** checkbox must be **OFF**.

⇒ **IPX/SPX Compatible** checkbox must be **OFF**.

⇒ **TCP/IP** must be **ON**.

Step 5 Click **TCP/IP Settings**, and select the following options:



⇒ **Specify an IP address** must be **192.168.124.5** or an address of your choice. See "Changing IP Addresses" in Chapter 4 for detailed instructions.

⇒ **Server assigned name server addresses** must be **ON**.

⇒ **Use IP header compression** must be **OFF**

⇒ **Use default gateway on remote network** must be **OFF**

Step 6 Click **OK**, then click **OK** again, and then continue with the procedure "To start a direct connection" on page 5–37.

To start a direct connection

Step 1 Connect the cable to the PC using the COM port specified in the procedure "To add the direct connection driver" on page 31.

Step 2 From the SupportView main window, click **Connect** to open the Connect window.

Step 3 Select or enter an **ID** for the ICU.

The ID and connection data (IP address, phone number) are stored in SupportView following a successful connection.

Step 4 Select *Direct TCP/IP* for the type of connection in **Connection Method**.

Step 5 Enter the **IP Address** of the ICU.

This is either **192.168.124.3** or an address of your choice. If you must change the address, see "Changing IP Addresses" in Chapter 4 for detailed instructions.

Step 6 Connect the null modem cable to COM2 on the ICU.

Step 7 Click **Connect**.

If the connection is successful, the word *Connected* appears at the bottom of the screen to indicate the session has started.

If the connection is not successful, click **Disconnect**, close the Connect window, and then restart the connection sequence from step 2 of this procedure.

> ***Important!*** To restart the direct connection sequence, Windows 95 users must disconnect the cable from the ICU and wait one minute for the COM port to reset.

Step 8 Select your user level in **Connection ID** and type the **Authenticator** which corresponds to the user level.

A match of the **Connection ID** and **Authenticator** is required before you are granted access. See "User Rights and Levels" in Chapter 1 for more information.

Step 9 Click **Login**.

The message *Logged In as {Connection ID}* displays in the main title bar and the InterLane icon becomes animated to indicate you are successfully logged into SupportView.

Setting Up a LAN Connection

SupportView provides capabilities for connecting to an existing LAN using a network adapter card in the ICU. After the ICU has been set up for LAN connection, you obtain the IP address for an ICU, type it into the Connect window, and then connect and login as usual.

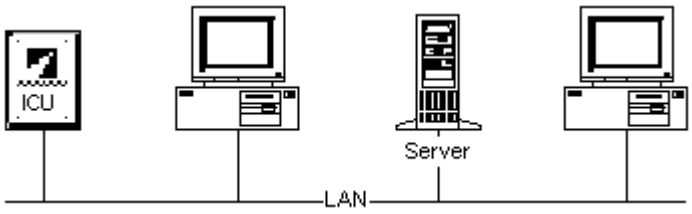


Figure 5.5 LAN connection

The following steps are required to set up an ICU for LAN connection:

1. Obtain an IP address, Gateway IP address, and subnet mask for the ICU.
2. Configure the ICU hardware initialization file.
3. Configure the TCP/IP protocol initialization file.
4. Install the Ethernet assembly.

1. Obtain the ICU address information

- To ensure there are no conflicts, the network system administrator should provide the IP address, Gateway IP address, and subnet mask for the ICU.
- The network system administrator may want to use a BOOTP server to assign the IP address. To configure for BOOTP:

  ⇒ The network system administrator obtains the MAC address for the ethernet card. The address is provided in the installation kit.

  ⇒ The network system administrator defines values for IP address, Gateway IP address, and subnet in the BOOTP server.

  ⇒ Values for IP address, Gateway IP address, and subnet mask are set to BOOTP in the tcp.ini file.

2. Configure the hw.ini file

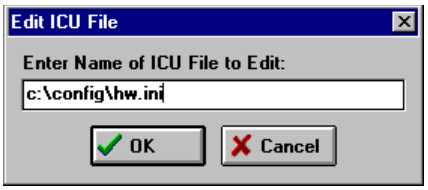
Step 1 Using the **Connect** function in SupportView, establish communications with the ICU.

Step 2 From the SupportView main menu, click **Files**.

The Local Files and Remote Files windows open.

Step 3 In the Remote Files window, click **Tasks** or right-click the mouse, and then click **Edit Remote File**.

The Edit ICU File confirmation window opens.



Step 4 Type C:\CONFIG\HW.INI and then Click **OK**.

The SupportView edit window opens.

Step 5 If the file contains a section labeled [PCMCIA], verify the settings. If there is no [PCMCIA] section, type the section label and the following parameters:

⇒ CardType = ETHERNET

⇒ IRQNumber = 10

⇒ IOAddress = 320

⇒ IOLength = 20

Step 6 Type the section label [DEVICEx] where x is a number between 1 and 4 which is not already used by another [DEVICEx] section, and then type the following parameters:

⇒ Type = ETHERNET

⇒ IRQNumber = 10

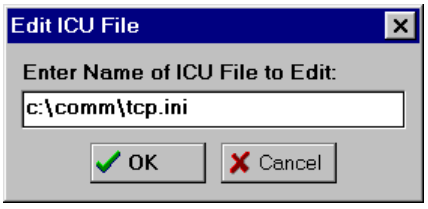
⇒ IOAddress =320

Step 7 Click **File**, **Save and Download**.

3. Configure the tcp.ini file

Step 1 In the Remote Files window, click **Tasks** or right-click the mouse, and then click **Edit Remote File**.

The Edit ICU File confirmation window opens.



Step 2 Type C:\COMM\TCP.INI and then Click **OK**.

The SupportView edit window opens.

Step 3 If the file contains a section labeled [ETHER0], verify the settings. If there is no [ETHER0] section, type the section label and the following parameters:

⇒ IPAddress = the IP address for the Ethernet adapter in dotted notation or BOOTP.

⇒ SubnetMask = The subnet mask or BOOTP.

⇒ GatewayIPAddress = The Gateway IP Address, if any, in dotted notation or BOOTP.

⇒ Adapter = DEVICEx where x is the DEVICE number defined in HW.INI.

Step 4 Click **File**, **Save and Download**.

4. Install the Ethernet assembly

Step 1 Power off the ICU.

Step 2 Install the Ethernet card into the PCMCIA interface on the ICU.

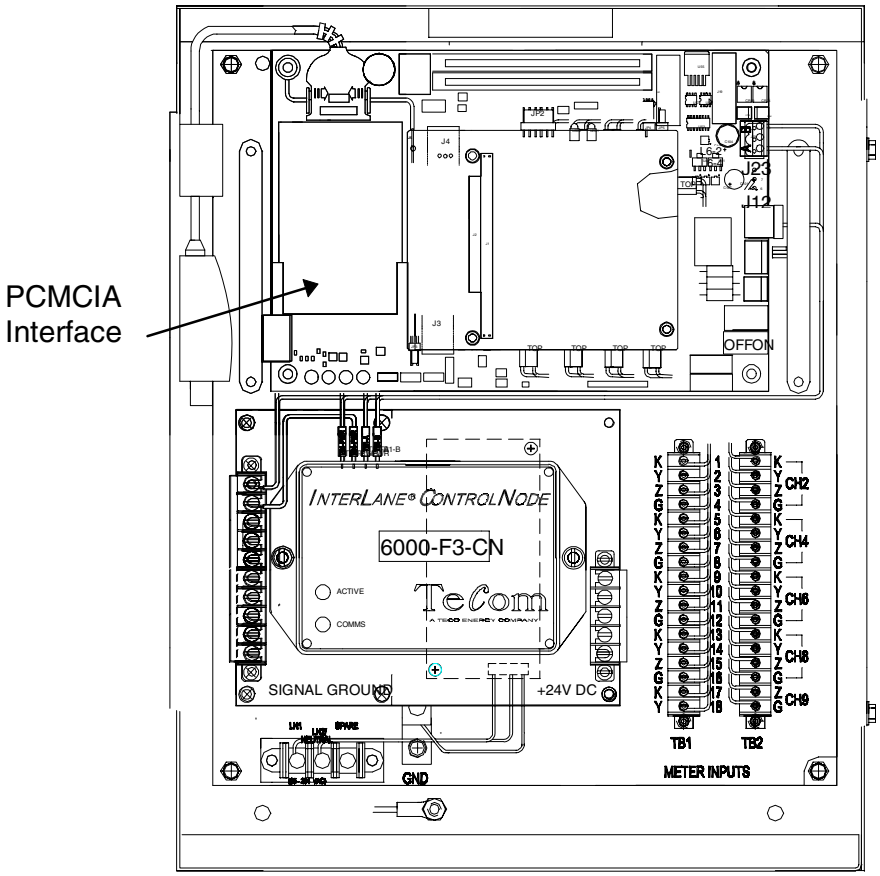


Figure 5.6 PCMCIA Ethernet card mounting detail

Step 3 Secure the media adapter (supplied with installation kit) to the Ethernet card.

Step 4 Using the supplied foam adhesive, attach the media adapter to the inside of the IPM enclosure near the top-left knockout.

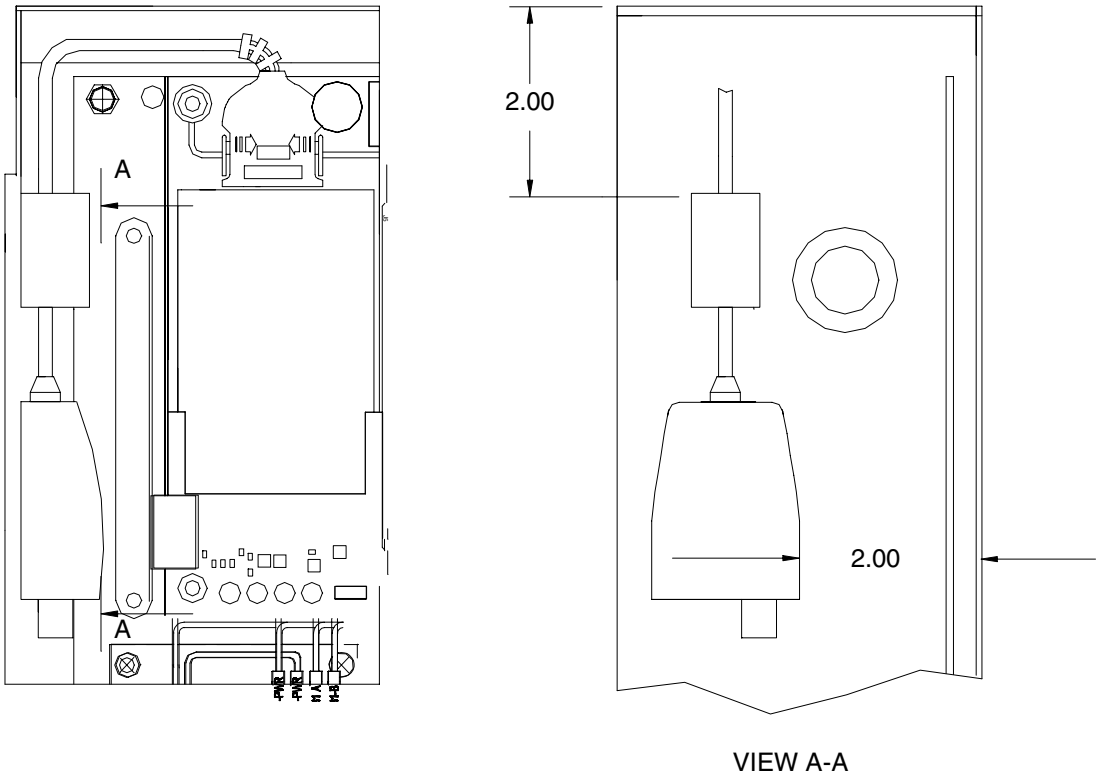


Figure 5.7 Media adapter mounting detail

Step 5 Remove the knockout, install the protective bushing, and then route the LAN node cable into the enclosure.

Step 6 Secure the LAN node cable to the media adapter using either the RJ45 or BNC receptacle.

Step 7 Attach the feature label to the inside of the IPM cover next to the existing product label.

Step 8 Power on the ICU.

Step 9 **Adjust IPM voltage.** Refer to Appendix C, "Voltage Adjustment Procedure" for detailed instructions.

Important! Failure to adjust the IPM voltage could result in battery backup circuitry malfunction.

Changing IP Addresses

The following IP addresses are assigned by default on the ICU and in SupportView:

Modem 192.168.123.3

Direct 192.168.124.3

These default settings can be changed to prevent a conflict with IP addresses already in use. The following rules apply when changing the default IP addresses:

- The first three parts of the IP address must match between ICU and PC.
- The last part of the IP address must not match between ICU and PC.

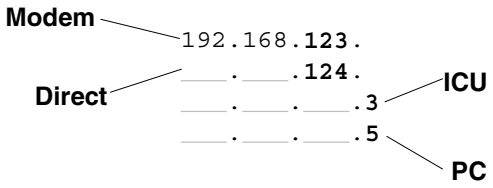


Figure 5.8 Default IP Addresses

The settings are stored on the PC in the Dial Up Adapter under TCP/IP Settings. See "Setting Up a Modem Connection" and "Setting Up a Direct Connection" in Chapter 2 of this manual for details.

The settings are stored on the ICU in the C:\COMM\TCP.INI file. The diagram below shows entries for the default IP addresses.

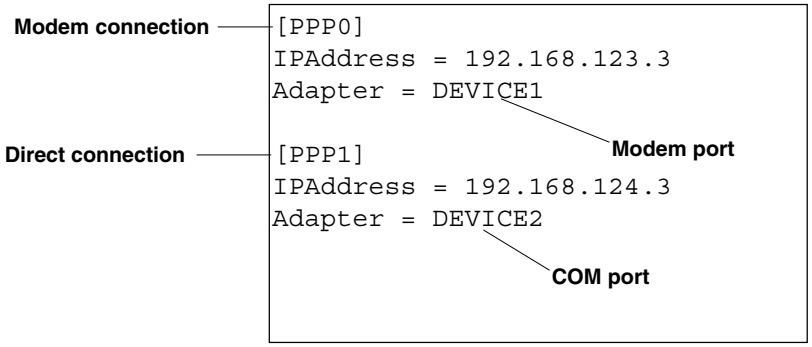


Figure 5.9 Default entries in TCP.INI

SupportView provides easy access to the ICU setup files through the **Files** function. In the Remote Files window, clicking **Tasks**, **Edit Remote File** opens a convenient editor to help you make changes and save them to the ICU. The changes take effect after the ICU is reset.

To change IP addresses on the ICU

Note: You must be able to login as Customer Support or Super User in order to make changes to files located on the ICU.

Step 1 Establish communications with the desired ICU through the **Connect** function.

Step 2 From the SupportView main menu, click **Files**.

The Local Files and Remote Files windows open.

Step 3 In the Remote Files window, click **Tasks** or right-click the mouse, and then click **Edit Remote File**.

The Edit ICU File confirmation window opens.

Step 4 Type the path and filename *c:\comm\tcp.ini* and then Click **OK**.

The SupportView edit window opens.

Step 5 Make the necessary changes to settings and parameters, and then click **File**, **Save and Download**.

Changes take effect the next time the ICU is restarted using **Reset/Reboot ICU** on the Connect window.

Working with Substitute Dial Strings

Substitute Dial Strings may be used to simplify the complex dial strings needed when calls are routed through pager services, office extensions (PBX), and other telephony devices. When the dialing strings become lengthy, a Substitute Dial String can be used to shorten the entry.

You can use **Connect**, **Substitute Dial Strings** to display substitute dial string identifiers and the dial strings they replace.

Figure 5.10 Substitute Dial String Identifiers window

Example: PBX prompts

The number (555-1212,,,,123) consists of a phone number, a pause for PBX prompts, plus an extension . You could identify the ",,,,123" portion as {ABC}.

The dialing string would then display as 555-1212 {ABC} but the modem would actually dial 555-1212 ,,,,123.

Example: Long distance call

A nine digit code (123456789) is required when you make a long distance telephone call. You could identify {LDC} to represent the code.

The dialing string would then display as 555-1212 {LDC} but the modem would actually dial 555-1212 123456789.

To add/change a Substitute Dial String

Step 1 On the Connect menu, click **Setup**, and then click **Substitute Dial Strings**.

The Substitute Dial String Identifiers window opens.

To	Do this
Add	To add a substitute dial string: a) Click **Add**. b) Type the string identifier you are adding between the selected brackets, {}. The identifier must be five characters in length, including the brackets. c) In the *substitute this* box, type the exact numbers/characters of the dial string which your modem must dial to reach a particular ICU. d) Click **Save**, and then click **OK**.
Edit	To edit a substitute dial string: a) From the list of existing string identifiers, click the identifier you want to edit. b) Click **Edit**. c) Make the desired changes. d) Click **Save**, and then click **OK**.
Delete	To delete a substitute dial string: a) From the list of existing string identifiers, click the identifier you want to delete. b) Click **Delete**. c) Click **Save**, and then click **OK**.

Setting Up a New ICU

1. Start SupportView

Step 1 Start Windows.

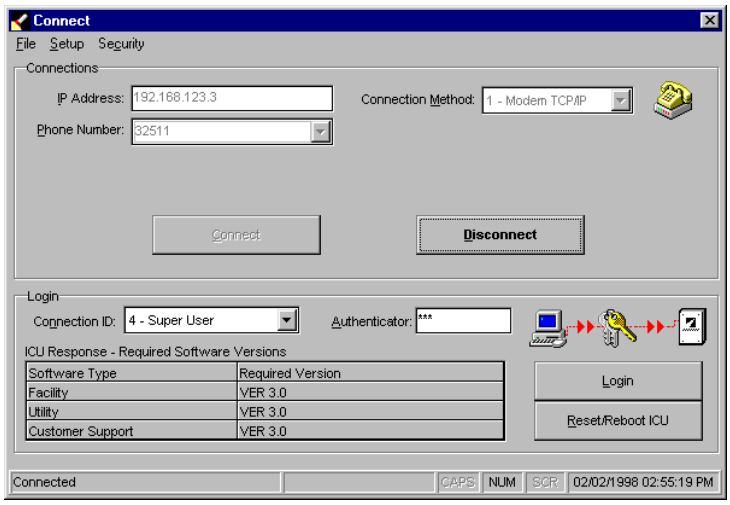
Step 2 Click the **Start** button, point to **Programs** and then **SupportView**.

Step 3 Click the **SupportView** icon to start the program.

2. Connect to the ICU

Step 1 From the SupportView main window, click **Connect.**

The Connect window opens.



Step 2 Select the type of connection in **Connection Method**:

⇒ 1 - Modem TCP/IP

⇒ 2 - Direct TCP/IP

⇒ 3 - LAN TCP/IP

Step 3 The default IP address is **192.168.123.3.** If using a LAN connection, enter the **IP Address** of the ICU.

Step 4 Select "Super User" in **Connection ID**.

Step 5 Type the **Authenticator** which corresponds to the "Super User" level.

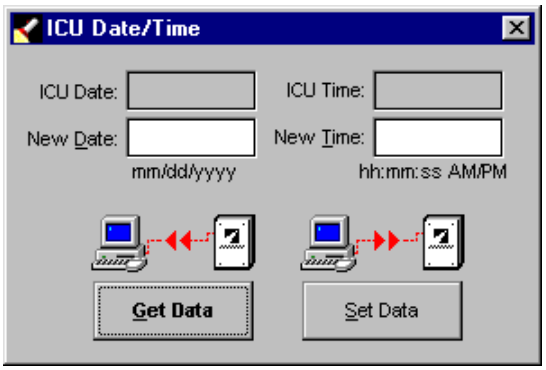
Step 6 Click **Login**.

3. Set Date/Time

Note: When installing and configuring an ICU (Release 1.1), setting the Date/Time must be the first step after logging in with SupportView. If the date/Time is not set via SupportView, the ICU files will not be accessible.

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set the ICU clock date/time**.

The ICU Date/Time window opens.



Step 2 Click **Get Data**.

Step 3 Type the **New Date** and **New Time**, using the pattern shown below the fields. To match the PC time, leave the fields empty.

Important! Do not attempt to set the ICU clock during the last two seconds of the day, 11:59:58 PM or 11:59:59 PM.

Step 4 Click **Set Data**.

4. Set Site Information

See "Setting ICU General Site Information" in Chapter 3 of the *SupportView User's Manual*.

Step 1 On the SupportView main menu, click **Site Info**.

Step 2 Select Get/Set ICU General Site Information.

The General Site Information window opens.

Step 3 Enter the appropriate information into each field, and then click **Set Data**.

5. Set Scheduled Events

See "Setting a Schedule of Events" in Chapter 3 of the *SupportView User's Manual*.

Step 1 On the SupportView main menu, click **ICU Setup**, and then **Get/Set schedule of events to occur at specific times**.

The Event Schedule window opens.

Step 2 Click **Get Data** to see existing event schedules.

Step 3 Enter the date and time for the next four time changes.

For example:

```
04:05:1998   02:00:00   +00060
10:25:1998   02:00:00   -00060
04:04:1999   02:00:00   +00060
10:31:1999   02:00:00   -00060
```

Step 4 Click **Set Data**.

6. Set Board Configuration

The following list describes the key information for setting a board configuration. For additional information, see "Setting Board Configurations" in Chapter 3 of the *SupportView User's Manual*.

- **Physical Board**
  Each CMI board in the ICU is defined by the board number. Future versions of SupportView will allow up to four CMI boards in a single ICU. Each board can have as many as 9 physical channels.
- **I/O Address**
  Each board must have a unique value for the base I/O Address to which the board is strapped.
  - ⇒ The valid values for CMI board is hex 300.
  - ⇒ The valid value for the Analog board is 001.
- **IRQ Value**
  The hardware IRQ number to use for the board. The value must match the IRQ to which the board is strapped. Currently, the only value allowed is 12. Future versions of SupportView will allow values zero through 15 and boards may share an IRQ.

Step 1 On the SupportView main window, click **ICU Setup**, and then click **Get/Set board configuration**.

The Board Configuration window opens.

Step 2 Select **Physical Board** number 1, and then click **Get Data** to obtain current information.

Step 3 Set the board type:

- CMI for pulse input.
- Adicon 1 for ControlNode.

Step 4 Select the **I/O Address** and **IRQ Value**, and then click **Set Data**.

7. Set Channel Configuration

See "Setting Channel Configurations" in Chapter 3 of the *SupportView User's Manual* for more information.

Important! Retrieve all history data prior to reconfiguring an active channel. The channel is deactivated before being reactivated with the new configuration. Deactivation results in the loss of all history data associated with the channel.

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set Meter Configuration**.

The Meter Channel Configuration window opens.

Step 2 For each channel do the following:

- Select the **Logical Channel** you want from the list, and then click **Get Data**.
- Enter the name of the channel under the **Meter ID** column.
- Select a **Unit of Measure** from the list to specify what that channel will measure.

  Refer to Appendix A, "Units of Measure" in this manual.
- Calculate the multiplier and enter it into **Conversion Factor**.

  Refer to "Pulse Multiplier Calculations" on page 5-16.
- Identify what channels will be included in each set and enter the **Meter Set** number.

  Refer to "Defining Channel Sets" in this Chapter.
- Identify the sampling interval for each channel.

  Refer to Data Specifics" in Chapter 1 of this manual and *Table 1.2 Meter interval and days of storage*.

Step 3 Click **Set Data**.

8. Set Channel Counters (Meter Dials)

See "Setting Channel Counter Values" in Chapter 3 of the *SupportView User's Manual* for more information.

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set Meter Dial Values**.

The Meter Dials window opens.

Step 2 Click **Get Data** to obtain current dial values of the selected channels.

Step 3 Read the values from the meter and type the new setting in **Dial Value**.

Step 4 Click **Set Data**.

9. Install the Rates file set

9a. Send the file set

Step 1 Insert the distribution diskette into the floppy drive.

Step 2 Start SupportView and log in.

Step 3 Dial the ICU and log in.

Step 4 On the SupportView main menu, click **ICU Setup**, and then click **Get/Send File Sets**.

The Upload/Download File Sets window opens.

Step 5 Type the source drive and path in **Local PC Directory Path**.

For example, "a:\PTTE1097\" could be the source drive and path. An ending backslash is not required for the path entry.

Step 6 Type the destination name in **Remote ICU directory**.

The destination name is the same as the rate file name.

For example, “PTTE1097” could be the destination name. The name must be eight characters or less.

Step 7 Click **Download Data**, and then wait for the file transfer to finish.

9b. Record the Meter Set ID

Step 1 On the SupportView main menu, click **Meters**, and then click **Get Meter Configuration Summary**.

The Meter Configuration Summary window opens.

Step 2 Click **Get Summary**, and then record the meter **Set** number for the one meter channel used for billing calculations.

9c. Set the rate effectivity

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set Rate File Effectivity**.

The Billing Rate Data window opens.

Step 2 Type IN UPPER CASE LETTERS the **File Set ID**, **Rate Code**, **Effective Date**, **Effective Time**, and meter **Set ID** into the **New Billing Rate Effectivity Record** at the bottom of the window.

With the exception of meter **Set ID**, this information is supplied with the distribution diskette.

Step 3 Click **Set Entry**.

Step 4 Click **Get Data** and verify the last entry in **Billing Rate Effectivity Information** matches the record you entered.

Step 5 Disconnect from the ICU and close SupportView.

10. Install the Peaks file set

10a. Send the file set

Step 1 Insert the distribution diskette into the floppy drive.

Step 2 Start SupportView and log in.

Step 3 Dial the ICU and log in.

Step 4 On the SupportView main menu, click **ICU Setup**, and then click **Get/Send File Sets**.

The Upload/Download File Sets window opens.

Step 5 Type the source drive and path in **Local PC Directory Path**.

For example, "a:\PKTE1097\" could be the source drive and path. An ending backslash is not required for the path entry.

Step 6 Type the destination name in **Remote ICU directory**.

The destination name is the same as the peak file name.

For example, “PKTE1097” could be the destination name. The name must be eight characters or less.

Step 7 Click **Download Data**, and then wait for the file transfer to finish.

10b. Record the Meter Set ID

Step 1 On the SupportView main menu, click **Meters**, and then click **Get Meter Configuration Summary**.

The Meter Configuration Summary window opens.

Step 2 Click **Get Summary**, and then record the meter **Set** number for the one meter channel used for billing calculations.

10c. Set the peak effectivity

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set Peak File Effectivity**.

The Peak Period Data window opens.

Step 2 Type IN UPPER CASE LETTERS the **File Set ID**, meter **Set ID**, **Effective Date**, and **Effective Time** into the **New Peak Period Data Record** at the bottom of the window.

With the exception of meter **Set ID**, this information is supplied with the distribution diskette.

Step 3 Click **Set Entry**.

Step 4 Click **Get Data** and verify the last entry in **Peak Period Information** matches the record you entered.

Step 5 Disconnect from the ICU and close SupportView.

11. Validate the Rates and Peaks in EnergyView

Step 1 If SupportView is running, close it, and then start EnergyView.

Step 2 Select the ICU ID from the ID Selection window

Step 3 Click the **Upload History** speed button at the top of the screen.

While the history is uploaded, a blue progress bar indicates EnergyView is uploading the rates and peaks files.

Step 4 Click the **Estimated Bill** button at the top of the screen.

Step 5 Click **Show Estimated Bill** button to view the dollar calculations.

12. Set Phone Numbers

See "Setting Phone Numbers in the ICU" in Chapter 3 of the *SupportView User's Manual*.

Step 1 Establish communications with the desired ICU through the **Connect** function.

Step 2 On the SupportView main menu, click **ICU Setup**.

The ICU Setup window opens.

Step 3 Click **Get/Set phone numbers**.

The Phone Numbers window opens.

Step 4 Click **Get Data** to obtain the phone numbers in the ICU.

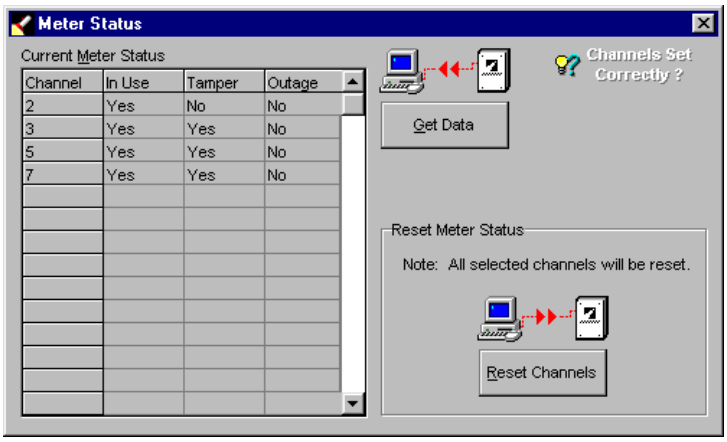
Step 5 Type the phone number(s) into the appropriate field(s). If you are adding or changing a number in one of the last five fields, type the correct protocol into the box beside the number.

Step 6 Click **Set Data**.

13. Set Meter Status

Step 1 On the SupportView main menu, click **ICU Setup**, and then click **Get/Set Meter Channel Status**.

The Meter Status window opens.



Step 2 Click **Get Data** to obtain current status of the selected channels.

Step 3 Click **Reset Channels**.

14. Clear Logs

Step 1 From the SupportView main window, click **Logs**

Step 2 Click the log you want to view.

A window opens displaying the log file contents.

Step 3 Click **Get Data** to view the selected log.

Step 4 Click **Clear Data**.

Step 5 Repeat this procedure for each type of log.

15. Begin Monitoring

See "About the Monitoring Function" in Chapter 5 of the *SupportView User's Manual* for more information.

Step 1 From the SupportView main window, click **Monitor**.

The Monitor window opens.

Step 2 Click **Start Monitoring**. You can minimize the window to perform other functions while the system continues to monitor the meter channels.

For each channel that is being used, a value other than zero should be displayed while monitoring. For channels that are using little energy (e.g., leading and lagging KVAR), a positive value may not display for several interval readings.

Step 3 To discontinue, click **Stop Monitoring**.

16. Disconnect from the ICU

Step 1 From the SupportView main window, click **Connect.**

The Connect window opens.

Step 2 Click **Disconnect**.

Step 3 Shut down SupportView.