# ENETCPM Ethernet Control Pressure Module Instruction and Service Manual

Software Version 1.04



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# **Command List**

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JPLOAD <s c="" or=""><filepath\filename></filepath\filename></s>	17
/ER	17

# **Configuration Variables**

•
e>
ID> <delay></delay>
e>

# Specifications

Inputs: ZOC22, ZOC23, and ZOC33 DSA and other ZOC modules ≤500 psi FS >500 psi FS	Clean dry air 65 psi 90 psi 120 psi
Outputs: Pressure Voltage	Three discrete lines for control pressures to DSA and ZOC modules Five digital outputs to control valves or other switching devices.
Operating Temperature:	-30°C to 55°C
Communication:	Ethernet 10Base-T (standard) RS-232 (Configuration Only)
Communication Protocol:	TCP/IP or UDP
Mating Connector Type: Ethernet Power Trigger/Configuration Digital Output	Bendix PT06A-8-4S-SR, 4 pin female Bendix PT06A-8-3S-SR, 3 pin female Bendix JT06RE8-6S-SR, 6 pin female Bendix PT06A-12-10P-SR 10 pin female
Power:	24Vdc nominal (22 -26 Vdc) @ 12 VA with no external relays powered @ 30 VA with all external relays powered
Weight:	6.25 pounds(2.841 kg)
CE Mark Standards:	IEC 1000-4.2, 1000-4.3, 1000-4.5

# **General Description**

The Ethernet Control Pressure Module (ENETCPM) is designed to distribute pressures to DSA Ethernet Pressure Scanners, ZOC Pressure Scanners as control pressures to calibration valves. It may also be used to switch external solenoid valves or relays to control ancillary equipment for special applications.

#### **ENETCPM Network/Firmware**

ENETCPM modules accept software commands via Ethernet only. The ENETCPM modules may be controlled with an external or software trigger.

Each ENETCPM module has a unique factory set 48 bit MAC address. When running TCP/IP protocol, the ENETCPM modules support ARP (Address Resolution Protocol) to enable the client/host to determine the relationship between the IP address and the Ethernet address. The IP address is user assignable.

All setup variables are configured through software by the user.



Figure 1 - Typical Pressure/Temperature Scanning System

# **ENETCPM** Dimensions and Configuration



Figure 2 - ENETCPM Dimensions

# **Power Requirements**

The ENETCPM requires  $24 \pm 2.5$  Vdc at approximately . Power connections are made through a three pin connector located on the side of the module. The pinouts of the connector may be found in figure 3. The mating connector is a PT06A-8-3S-SR.



Figure 3 - Digital Sensor Array Power Wiring

### **Trigger Requirements**

#### Hardware Trigger

The ENETCPM scan functions may be synchronized with other data acquisition devices by using the external trigger. The external trigger input is opto-isolated to prevent grounding problems. It is a TTL level, edge sensing device. It requires a minimum signal of 9Vdc @ 6.5 mA. It may accept voltages as high as 15 Vdc.

The external trigger will only be active if the ENETCPM XSCANTRIG variable is set to 1. When a SCAN command is issued by the Client/host, the module will enter the SCAN mode and wait for a trigger. An averaged frame of data will be output as soon as the minimum trigger edge level is achieved. Data will be output with each successive trigger pulse to the FPS variable (Frames per Scan) value or until a STOP command is issued.

ENETCPM Modules use a 6 pin connector for a combination Trigger and Serial Communications Interface. The wiring is shown in figure 4. The mating connector is a JT06RE8-6S-SR (Scanco Pn CO-737).



Figure 4 - Trigger wiring

#### Software Trigger

The ENETCPM may also be triggered with a software trigger. The software trigger will only be active if the XSCANTRIG variable is set to 1. When a SCAN command is issued by the Client/host, the module will enter the SCAN mode and wait for a trigger. An averaged frame of data will be output as soon as the TRIG command or a <TAB> character (9 HEX or Control I) is received. Data will be output with each successive trigger command to the FPS variable (Frames per Scan) value or until a STOP command is issued.

### **RS 232 Communications**

Every ENETCPM Module has a RS 232 output. It is available at the Serial Communications/Trigger Connector. It is required to configure the module IP address, or upload operating system upgrades. The wiring of the RS 232 output is shown in figure 5.

The RS232 inputs and outputs are not opto-isolated. Therefore, the RS232 connection could cause ground loops if it is connected during data acquisitions. Because the RS232 connection is only used for initial configuration, there is no need to maintain the connection after that setup is completed unless the external trigger function will be used.

If the RS232 connection is part of a combination Serial/Trigger cable, the RS232 connection at the host computer should be disconnected during data operations to prevent problems.

A combination RS232 and External Trigger test cable(Scanco PN 155829) is available as an option. The cable is shown below along with a wiring diagram.





Figure 5 - RS232/ External Trigger Test Cable

# **Ethernet Connections**

The ENETCPM has provisions for 10Base-T Ethernet connections only. Ethernet 10Base-2 connections may be made with media converters.

#### 10Base-T

The 10Base-T connection uses a Bendix connector at the module, which must be interfaced to the standard RJ-45 connector. A 10Base-T connection may be straight through(pin to pin) or crossover. A straight through cable must be used if the module is connected to a hub. Crossover connections are used if the module is connected directly to the host computer. It is recommended that Category Five cables be used. The maximum length for 10Base-T cables is 100 meters, but signal strength can be attenuated at this distance. A repeater is required for 10Base-T cable runs greater than 100 meters. Cables may be ordered from Scanivalve Corp. The pin to pin cable part number is 155820-01. The cable part number is ordered.



Figure 6 - ENETCPM 10Base-T cables

# **Digital Outputs**

Each ENETCPM has a Digital Output connector. A maximum of Five(5) Digital Outputs may be configured. Configuration information may be found in the Software Section of this manual

The Digital Outputs are powered by the DC Power voltage. It is recommended that the user supply be capable of providing +24 Vdc at 4 Amps. Each Digital Output is limited to 24 Vdc @ 500 mA maximum.

Figure 7 shows the wiring of the Digital Outputs.

+ 24 Vdc	
OUTPUT 1 RTN	
+ 24 Vdc	
OUTPUT 2 RTN	
+ 24 Vdc	
OUTPUT 3 RTN	
+ 24 Vdc	
OUTPUT 4 RTN	
+ 24 Vdc	
OUTPUT 5 RTN	
	PT02A-12-10S

Figure 7 - Digital Output Wiring

# **ENETCPM** Control and Configuration

The operation of each ENETCPM is controlled by sending ASCII commands over the TelNet port(port 23) to units selected by network addressing. The ENETCPM returns any data or information over the network to the requesting client/host in ASCII format.

# ENETCPM Commands

The ENETCPM software runs as embedded software on the ENETCPM hardware. It performs the following general tasks:

- 1. Receive and execute commands from the Ethernet Link.
- 2. Allow the configuration to be saved through power down.
- 3. Output status, setup and configuration data over the Ethernet Link.
- 4. Set the ENETCPM Physical Ethernet Address(MAC Address).
- 5. Protocol to be TCP/IP.
- 6. Support the user in troubleshooting the ENETCPM hardware and system.

When operating in the ASCII mode or UDP, the ENETCPM is the client. In Binary or TCP mode, the ENETCPM is the Host.

When a ENETCPM module is in a "NOT READY" mode, all commands are disabled except STATUS and STOP.

TCP/IP does not guarantee that packet boundaries will be maintained between a Host and a ENETCPM module. Therefore, **ALL** commands from a Host **MUST** be terminated properly with one of four options. The ENETCPM will detect and adjust to the termination option being used by a Host.

The four options are:

CR (ASCII 13) LF (ASCII 10) LF-CR (ASCII 10 - ASCII 13) CR-LF (ASCII 13 - ASCII 10)

The current ENETCPM RS232 interface is designed for initial boot configuration only.

# **COMMAND LIST**

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	AUTOSTATUS AUTOSTATUS <enable> Enable - 0 or 1 If autostatus enable is set to 1, the ENETCPM will automatically output the status of the ENETCPM whenever the status changes. When set to 0, status can only be determined by issuing a STATUS command. The condition at power up and after a reboot is AUTOSTATUS disabled</enable>
RETURNS	<nl> <nl> <nl> indication of line.</nl></nl></nl>
EXAMPLES	To enable automatic output of the ENETCPM status, the following command would be issued: AUTOSTATUS 1 To disable automatic output of the ENETCPM status, the following command would be issued: AUTOSTATUS 0
NOTE	AUTOTATUS was not set up as a configuration variable that could be saved to prevent conditions where the ENETCPM would be talking on a network when it was not expected to be talking.

COMMAND SYNTAX	CLEAR CLEAR <cr></cr>
ARGUMENTS	None
DESCRIPTION	Commands the DSM to clear any errors that have occurred. The errors are sent to the client in response to a ERROR command.
RETURNS	<nl></nl>
EXAMPLE	To clear any errors listed in the ERROR Buffer, the following command would be issued:
	CLEAR <cr></cr>
	The ERROR Dutter will be cleared

COMMAND SYNTAX	DOUT DOUT <discrete channel=""><status><cr></cr></status></discrete>
ARGUMENTS	<discrete channel=""> - a Digital Output channel 1 through 8. <status> - 1 = On 0 = Off</status></discrete>
DESCRIPTION	Commands the Discrete Output channel on or off.
RETURNS	< <i>nl&gt;</i> < <i>nl&gt;</i> - end of line.
EXAMPLE	In this example, digital output channel 1 will be energized:
	DOUT 1 1 <cr></cr>
	In this example, digital output channel 5 will be de-energized
	DOUT 5 0 <cr></cr>

COMMAND	ERROR
SYNTAX	ERROR <cr></cr>
ARGUMENTS	None
DESCRIPTION	Lists the errors that have occurred since the last CLEAR. Only the first 30 errors will be listed. If more than 30 errors have occurred, the message: ERROR: Greater than 30 errors occurred" will appear at the end of the list.
RETURNS	ERROR: <error message=""><nl></nl></error>
	ERROR: <error message=""><nl></nl></error>
	ERROR: <error message=""><nl></nl></error>
	<pre><error message=""> - an error message shown in the error list.</error></pre>
EXAMPLE	To read the contents of the Error Buffer: Type: ERROR
	The DSM will return the last 30 errors in the format::
	ERROR: Module or Port not found
	ERROR: List MI no group number
	ERROR: Group not between 1 and 8
	If no errors have been logged, the DSM will return: ERROR: No errors

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	LIST ALL LIST A None Lists all of the configuration variables in the order: LIST I, LIST SE, LIST
EXAMPLE	T, LIST ST To verify all of the module configuration variables: Type: LIST A <cr></cr>
	The ENETCPM may return:
	SET ECHO 0 SET TITLE1 Scanivalve CPM SET TITLE2 CPM Scanivalve (c) 2001 - 2007 Ver 1.03 SET PORT 23 SET SEQ 1 PowerUp SET SEQ 1 test1 SET SEQ 3 test2 SET SEQ 4 Seq4 SET SEQ 5 Seq5 SET SEQ 6 Seq6 SET SEQ 6 Seq6 SET SEQ 7 Seq7 SET SEQ 10 Seq10 SET SEQ 10 Seq10 SET SEQ 10 Seq11 SET SEQ 11 Seq11 SET SEQ 11 Seq11 SET SEQ 13 Seq13 SET SEQ 14 Seq14 SET SEQ 14 Seq14 SET SEQ 16 Seq16 SET STATE 1 power1 0101010 SET STATE 2 power2 1010101 SET STATE 2 power2 1010100 SET STATE 3 test1 1101101 SET STATE 4 test2 00100100 SET STATE 6 State6 0000000 SET STATE 6 State7 0000000 SET STATE 8 State8 0000000 SET STATE 10 State10 0000000 SET STATE 11 State11 0000000 SET STATE 12 State12 0000000 SET STATE 13 State13 0000000 SET STATE 15 State15 0000000 SET STATE 15 State15 0000000 SET STATE 16 State10 0000000 SET STATE 15 State15 0000000 SET STATE 15 State15 0000000 SET STATE 16 State10 0000000 SET STATE 16 State10 0000000 SET STATE 16 State10 0000000 SET STATE 10 State11 0000000 SET STATE 11 State11 0000000 SET STATE 11 State11 0000000 SET STATE 11 State12 0000000 SET STATE 15 State15 00000000 SET STATE 10 State10 0000000 SET STATE 10 State11 0000000 SET STATE 10 State11 0000000 SET STATE 10 State10 0 SEC STATE 10 State10 Stat
	SET LAST Seq5 1

SET LAST Seq6 1 SET LAST Seq7 1 SET LAST Seq8 1 SET LAST Seq9 1 SET LAST Seq10 1 SET LAST Seq11 1 SET LAST Seq12 1 SET LAST Seq13 1 SET LAST Seq14 1 SET LAST Seq15 1 SET LAST Seq16 1

The actual data returned may vary depending on the user and installation.

NOTE:

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION EXAMPLE

#### LIST IDENTIFICATION

LIST I None Lists the IDENTIFICATION configuration variables. To verify the general module identification settings: Type: LIST I<CR>

The ENETCPM may return:

SET ECHO 0 SET TITLE1 Scanivalve CPM SET TITLE2 CPM Scanivalve (c) 2001 - 2007 Ver 1.03 SET PORT 23

The information returned in the Identification data may vary depending on

NOTE:

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION EXAMPLE

#### LIST NAME SETTINGS

the user.

LIST SE None Lists the Name Settings This command is used to verify the sequence names Type: LIST SE<CR> The ENETCPM may return:

> SET SEQ 1 PowerUp SET SEQ 2 test1 SET SEQ 3 test2 SET SEQ 4 Seq4 SET SEQ 5 Seq5 SET SEQ 6 Seq6 SET SEQ 7 Seq7 SET SEQ 8 Seq8 SET SEQ 9 Seq9 SET SEQ 10 Seq10 SET SEQ 11 Seq11 SET SEQ 12 Seq12 SET SEQ 13 Seq13 SET SEQ 14 Seq14 SET SEQ 15 Seq15 SET SEQ 16 Seq16

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION

EXAMPLE

# LIST SEQUENCE STEPS

LIST ST <sequence ID> ID 0 to 16

Lists the Delay and Sequence switch settings for a sequence. A Zero will list all 16 sequences.

This command is used to List the Delay and Switch settings for any or all or the sequences.

Type: LIST ST 1 <CR>

The ENETCPM will return the settings for sequence . They could appear as follows:

SET STEP PowerUp 1 0 test1 SET LAST PowerUp 2

Type: LIST ST 0 <CR> The ENETCPM will return the settings for all sequences:

> SET STEP PowerUp 1 0 test1 SET LAST PowerUp 2 SET STEP test1 1 0 test1 SET LAST test1 2 SET STEP test2 1 0 test2 SET LAST test2 2 SET LAST Seq4 1 SET LAST Seq5 1 SET LAST Seq6 1 SET LAST Seq7 1 SET LAST Seq8 1 SET LAST Seq9 1 SET LAST Seq10 1 SET LAST Seq11 1 SET LAST Seq12 1 SET LAST Seq13 1 SET LAST Seq14 1 SET LAST Seq15 1 SET LAST Seq16 1

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	LIST SWITCH STATES LIST T <channel> None Lists all of the switch state settings. If channel 0 is specified, all channels will be listed.</channel>
EXAMPLE	To view all of the switch state settings: Type: LIST T 0 <cr> The ENETCPM will return the settings of all switch states. They could appear as follows: SET STATE 1 power1 01010101 SET STATE 2 power2 10101010 SET STATE 3 test1 11011011 SET STATE 3 test1 11011011 SET STATE 4 test2 00100100 SET STATE 5 State5 00000000 SET STATE 6 State6 00000000 SET STATE 6 State6 00000000 SET STATE 8 State8 00000000 SET STATE 9 State9 00000000 SET STATE 10 State10 00000000 SET STATE 11 State11 00000000 SET STATE 12 State12 00000000 SET STATE 13 State13 00000000 SET STATE 14 State14 00000000 SET STATE 15 State15 00000000 SET STATE 16 State16 00000000</cr>
COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	SAVE SAVE None Commands the ENETCPM to save the RAM image of Non Volatile Memory(NVM). Any change to a configuration variable must be followed by a SAVE command if the change is to be permanent.
EXAMPLE	<nl> <nl> <nl> <nl> <nl> <nl> <nl> <nl></nl></nl></nl></nl></nl></nl></nl></nl>

SET
SET <name> <value></value></name>
<name> - the Configuration Variable to be set or modified.</name>
<value> - the value of that Configuration Variable</value>
Commands the ENETCPM to set one of the many Configuration Variables.
Configuration Variables are described in a subsequent section.
Listing the Configuration Variables with the LIST command outputs the
data in the format required by the SET command. This enables the user to
upload data from a file that has been created by a LIST download.

COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	START START <sequence id=""> None Commands the ENETCPM to execute the indicated sequence</sequence>
COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	STATUS STATUS None Commands the ENETCPM to send a Status Packet to the client. The Status Packet is described in a subsequent section. The STATUS command may be entered at any time. This is one of the commands that will not generate an error if entered while the ENETCPM is not READY. The DSM could return one of the following status descriptions
	READY The ENETCPM is operating and ready to accept a command. RUNNING <sequence id=""> <step #=""> <step details=""></step></step></sequence>
EXAMPLES	If the STATUS command is entered while the ENETCPM is on, but inactive, the DSM will return: Status: READY If the STATUS command is entered while the DSM is executing a Sequence, the DSM will return: Status: RUNNING <sequence id=""> <step #=""> <step details=""></step></step></sequence>
COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION	STOP STOP None Commands the ENETCPM to stop executing a sequence and return to the READY mode.

COMMAND COMMAND SYNTAX ARGUMENTS	UPLOAD UPLOAD <s c="" or=""><filepath\filename> S System file to be uploaded C Configuration file to be uploaded</filepath\filename></s>
DESCRIPTION	Uploads the specified file to the ENETCPM. The ENETCPM interprets the type of file based on the file type argument.
RETURNS	<pre>clime based on the hie type argument. <nl> <nl> - end of line.</nl></nl></pre>
EXAMPLE 1	To upload the configuration variable file cv.cfg, located in the DSA_HS subdirectory on drive c: of the host computer: Type: UPLOAD C c:\DSA_HS\cv.cfg
EXAMPLE 2	To upload the system file: vxworks.st located in the DSA_HS subdirectory on drive c: of the host computer: Type: UPLOAD C c:\DSA_HS\vxworks.st
	The named files will be downloaded from the machine defined by the configuration port settings. The term "host" might be more accurately described as an "FTP Server". This could be the same computer as the host or a different computer somewhere on a network. The relevant settings are: Host Name Host INET User FTP Password
NOTE	S or C must be uppercase Refer to the ENETCPM Boot Parameter Modification and ENETCPM Operating System Upload Procedures for more information.
COMMAND COMMAND SYNTAX ARGUMENTS DESCRIPTION RETURNS	VERSION VER None Outputs the current software version number. CPM Scanivalve © 2000 Ver x.xx y where: x.xx is the software y is the hardware version number.
EXAMPLE	To read the current software version: Type: VER <cr> The DTS returns: Version: CPM Scanivalve © 2001 - 2011 Ver 1.04.0</cr>

# **CONFIGURATION VARIABLES**

Configuration Variables control the way the ENETCPM functions. Each variable is assigned a "data type" description.

VARIABLE	LAST <sequence id=""> <step number=""></step></sequence>
VALID VALUES	Sequence ID - 1 to 16 Or, the sequence name. The sequence name may not start with a number. The name is case sensitive.
DEFAULT VALUE	Step number - 1 to 32 Sequence ID - 1 Step number - 1
DATA TYPE	Sequence ID - Integer Step number - Integer
DESCRIPTION	Identifies the last step in a sequence.
VARIABLE VALID VALUES DEFAULT VALUE DATA TYPE DESCRIPTION	<b>PORT xxxx</b> Any integer other than 0 23 integer Sets the Ethernet port. The default value is 23 which is the TelNet port. A change to this variable does not take effect until the module has been rebooted.
VARIABLE VALID VALUES	SEQ <sequence number=""> <sequence name=""> Sequence number - 1 to 16 Sequence name - any valid ASCII string up to 64 characters. The name may not start with a number. The name is</sequence></sequence>
DEFAULT VALUE	Case sensitive Sequence number - 0 Sequence name Sequences 1 to 16 for sequences 1 to 16
DATA TYPE	Sequence number - Integer
DESCRIPTION	Assigns a name to a sequence number.
NOTE	At power up, the ENETCPM software will test for a sequence named "PowerUp". If this sequence exists, the sequence will be executed without a network connection. If this sequence name does not exist, no sequences will be run at power up. The sequence name is case sensitive.

VARIABLE	STATE <state r<="" th=""><th>numbe</th><th>er&gt; <nar< th=""><th>ne&gt; <switch state=""></switch></th></nar<></th></state>	numbe	er> <nar< th=""><th>ne&gt; <switch state=""></switch></th></nar<>	ne> <switch state=""></switch>
VALID VALUES	State number	-	1 to 64	
	Name	-	any va name r	lid ASCII string up to 64 characters. The nay not start with a number. The name is
	Switch state		-	1 or 0 in the string xxxxxxx, where each x represents channels 1 through 8, respectively
DEFAULT VALUE	State number	-	0	
	Name Switch state	-	Statex	Where x is 1 to 64 for states 1 to 64
DATA TYPE	State number	-	Integer	
	Name	-	ASCII	String
	Switch state		-	string
DESCRIPTION	Controls the state	e of the	e 8 chan	nel outputs for each switch state.
	STED Soquer		Ston	numbers astate IDs aDelays
	Sociones ID	ce ID>	1 to 16	Or the sequence name. The sequence
VALID VALUES	Sequence ID	-	1 10 10	name may not start with a number. The name is case sensitive.
	Step number	-	1 to 32	
	State ID		-	1 or 0 in the string xxxxxxx, where each x represents channels 1 through 8, respectively. Or, the state name. The state name may not start with a number. The name is case sensitive.
	Delay	-	0 to 60	seconds
DEFAULT VALUE	Sequence ID	-	1	
	Step number	-	1	
	State ID		-	0000000
	Delay	-	0	
DATA TYPE	Sequence ID	-	Integer	
	Step number	-	Integer	
	State ID		-	string
DECODIDITION	Delay	-	Integer	
DESCRIPTION	the switch state is	ate for s set.	a step a	ind the delay in seconds at that step before
VARIABLE	TITLE1 <title></title>			
VALID VALUES	any valid ASCII s	string u	up to 64	characters
DEFAULT VALUE	Scanivalve ENE	ГСРЙ	•	
DATA TYPE	ASCII String			
DESCRIPTION	Sets the value of	Title r	number '	1.
VARIABLE	TITLE2 <title></title>			
VALID VALUES	any valid ASCII s	string u	p to 64	characters
DEFAULT VALUE	The current softw	are ve	ersion.	
DATA TYPE	ASCII String			
DESCRIPTION	Sets the value of	Title r	number 2	2.

# **ENETCPM** Packet Definitions

The ENETCPM sends an ASCII packet to the client in response to a command.

# **ENETCPM** to HOST

### **ASCII Packet**

This packet will be transmitted when the host issues a command:

FUNCTION DESCRIPTION	BYTES	DATA TYPE	VALUE
ASCII Data (Refer to the Command Section of this manual for the proper Command return formats).	Varies	String	Unique to Packet. Each line is terminated with a CR-LF

## Network Protocols Supported

Physical Layer :	10Base-T IEEE 802.3
Link Layer:	INTERNET Protocol (IP)
Transport Layer:	Transmission Control Protocol (TCP)
	User Datagram Protocol (UDP)

### **ENETCPM Recommended Operation**

- 1. Energize the unit and allow 15 minutes for warm-up.
- 2. While the unit is warming up, connect the Control Supply Pressure.
- 3. Verify that the Control Pressure Outputs are connected correctly. Refer to the appropriate ZOC or DSA Module Hardware manual for more information.
- 4. Connect the Digital Outputs
- 5. Connect to the Network.

#### **ENETCPM Web Server**

All ENETCPM software versions have a built in web server program. This software will operate with Netscape Navigator or Microsoft Internet Explorer.

The purpose of the Web Server is to provide a means of communication between ENETCPM Modules and a PC. It is designed to give a user the tools necessary to be able to interface to a ENETCPM Module. It is not intended to be an application software. It operates in Microsoft Windows 9x/NT/2000/XP. It provides the following:

- 1. Easy setup of ENETCPM Modules.
  - ENETCPM Web Server is menu driven. That is, it permits a user to simply select the function(s) to be modified from a pull down menu. Setup of a ENETCPM Module usually requires only a few mouse clicks.
- Command and configuration information may be sent to ENETCPM Modules from a disk file. This permits a very fast setup of a ENETCPM Module. This is especially helpful when a module is to be modified during a test.
- 3. Display temperature values as numbers and in bar graph format. This permits easy setup of a module or group of modules. All data are displayed.
- Display "scrolled" data from ENETCPM Modules. When this window is opened, all communications from the ENETCPM Modules are displayed.
- 5. Write data from ENETCPM Modules to a disk file. Permits storage of data in a format specified during setup.

The Web Server is designed to be connected to, and communicate with, one module. If it is necessary to connect to more than one module at a time, then multiple copies of the browser can be opened. The number of modules that can be supported at one time is dependent upon the processor speed and available memory of the Host PC.

The sample screens in this section were collected on a host computer using Microsoft Internet Explorer, Version 6.0. The ENETCPM web browser will function in most versions of Microsoft Internet Explorer and Netscape Navigator.

## Web Server Operation

Connect the ENETCPM to a PC or onto a network. The IP address of the ENETCPM must be in the same class as the PC or Network. The Ethernet cable must be a cross cable if connecting directly to a PC, or a straight connection if connecting to a hub.

This section has examples of the screens in the web browser. For these examples, the module IP address is 191.30.65.50. The address of a user's ENETCPM will most likely be different from this one. The user should substitute the IP address of the module being used wherever the IP address is mentioned

Launch Internet Explorer. When the browser is open, enter the following URL: Http://191.30.65.xxx/index.htm Where: xxx is the serial

Where: xxx is the serial number of the unit. If the IP address has been changed, use that address.

The ENETCPM Home page will open. It will be similar to the one below.

cite i cita in con ag	e Ver 1.00 - Microsoft II	nternet Explorer				6
e Edit View Favo	intes <u>I</u> ools <u>H</u> elp	A 9 0		R. /4		
Back Forward	Stop Refresh	Home Search Favor	tes Media History	Mail Print	Edit Discus	Messenger SideStep
dress ⓐ http://191.30	.65.100/index.htm	Alter				▼ ∂Go Lini
		CPM:				STA
'M Status: Unknown		Module Information	n			Scanivalve Gorp
Home C	Config   Ope	erate / Test	∫ Status ∫ S	upport		
<u>me</u> —			Connect Dis	connect		
<u> </u>	Brows	er Type: Microsoft Internet	Explorer			
e —	Browser '	Version: 4.0 (compatible: N	ASIE 6.0: Windows 98)			
	Detected Comp	atability In Question				
	Da	seemord				
	10	x00#010.]				

#### Home

The Home page offers the options to tab to one of five other pages and connect to the ENETCPM. The other pages contain listings of the configuration variables that may be changed by a user.

The other available pages are:

- Config This page allows a user to define and name the states, which can then be arranged in sequences.
- Operate This page allows a user to select, start, and stop a sequence. It has a window to permit a user to track the sequence function.
- Test This page allows a user to switch any of the eight Digital Outputs On or Off. Each Digital Output has a light to show when it has been switched on.
- Status This page contains the Error list.
- Support This page permits a user to send commands to an ENETCPM and monitor the response.

Connect to the ENETCPM by clicking Connect.

The Title information will be loaded and, if the ENETCPM is functioning correctly, the ENETCPM Status will indicate Ready.

NOTE: Do not enter commands until the ENETCPM Status indicates: READY

When connected, page will be similar to the figure below.

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	Dep	ected Compa	statuty: [in	Question									
		Pa	ssword:										

The Home page has four(4) windows.

Browser Type	This identifies the Web Browser that is communicating with the ENETCPM.
Browser Version	The version number of the host Web Browser and the operating system.
Detected Compatibility	Identifies the compatibility of the browser with the ENETCPM.
Password	This must be entered for access to the CONFIG, TEST, and SUPPORT pages. If the password has not been entered correctly and one of these pages is selected, the user will be prompted to enter the correct password:
-	
M	crosoft Internet Explorer
	This areas is a constrained and a set of the second and a second and a second and a second and a second a secon



The Password is:

This may not be changed by a user.

The options for the Home page are listed on the left side of the page

gnomes

- Links Links will permit a user to connect to the Scanivalve Web Site, <u>www.scanivalve.com</u>, if the user is connected to the Internet.
- Help This page has a link to the embedded Help file. This file contains information on commands, configuration variables, and packet configurations. When this file is opened, scroll to, and click on, the command or variable in question. The browser will jump to the description of the term.

# Config

The Config page contains the Title information and the setup pages for State and Sequence. For more information on the State and Sequence configuration variables, please refer to the software section of this manual.



#### General

This page shows the Title1 and Title2 entries

To change a value: Click in the window to display the cursor Enter the new value and click Submit. If the window has an arrow to indicate that a pull down menu is available: Click on the down arrow Click on the desired value to highlight it Click Submit If the variable has a check box: Click on the box to check or un-check the variable Click Submit

#### State

This page will permit the user to

- 1. Set the Digital Output configuration for each State.
- 2. Enter a unique Name for each State.

ENETCPM Web Page	: Ver 0.50i - I	dicrosoft In	ternet Explo	prer									_ 6
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State 3 -	D1 🗖	JAA	ГГГ	D8	2	State Nan	ne s3						
State 4 -	D1 🗖	4 4	ГГГ	D8	5	State Nan	ne s4						
State 5 -	D1 🗖	りっつ		D8	2	State Nan	ne s5						
State 6 -	D1 🗖	~ ~ ~	しょり	D8	2	State Nan	ne s6						
State 7 -	D1 🗖	র র র	বব	F D8	ŝ	State Nan	ne s7						
State 8 -	D1 🖻	র র র	বব	P D8	5	State Nan	ne s8						
State 9 -	D1 🗖	বব	বব	ED8	5	State Nam	ne s9						
State 10	- D1 🔽	বিব	רס	D8	2	State Nan	ne: \$10						
State 11	- D1 🗖	বিব	<b>PLL</b>	ED8	2	State Nam	ne: \$11						
State 12	- D1 🗖	র র র	ггг	D8	2	State Nan	ne s12						
State 13	- D1 🗖	רקס	ггг	D8	5	State Nam	ne:[s13			-			
State 14	- D1 🗖	פרר	ггг	D8	5	State Nam	ne s14						
State 15	- D1 🗖	ггг		D8	4	State Nam	e s15						
State 16	- D1	ггг	ГГГ	E D8		State Nor	ne s16						
	211			20	ì		1 -	. 1					

To change a value:

Click in the window to display the cursor Enter the new value and click Submit.

If the window has an arrow to indicate that a pull down menu is available: Click on the down arrow Click on the desired value to highlight it Click Submit

If the variable has a check box: Click on the box to check or un-check the variable Click Submit

#### Sequence

This page will permit the user to:

- 1. Select a sequence to view or modify
- 2. Select the state, or states, to be included in the sequence
- 3. Set the delay, in seconds, at each step in the sequence
- 4. Identify the state for each step in the sequence
- 5. Identify the "Last Step" in the sequence
- 6. Modify the Sequence name



To change a value:

Click in the window to display the cursor Enter the new value and click Submit.

If the window has an arrow to indicate that a pull down menu is available: Click on the down arrow Click on the desired value to highlight it Click Submit

If the variable has a check box: Click on the box to check or un-check the variable Click Submit

# Operate

- This page will permit a user to:2. Select a Sequence to be run.3. Start or Stop the Sequence

  - 4. Monitor the operation of the sequence in the Action Log.

	View Eavorite	Tools	Help							PERI METANUM			-	
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ack ess 🙋 H	Forward ttp://191.30.80.1	Stop 01/index.hl	Refresh	Home	Search	Favorites	History	Mail	Print	Edit	Discuss	Messenger	SideStep +	r∂ Go
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When the selected Sequence is operating, the Action Log could appear as follows:

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http://191.30.80.101/index.ht	💌 (260
-tu: DE 4D/(10000000	Scanivalve ECPM
alus, NEAD I 10000000	CPM Scanivalve (c) 2001 Ver 0.50a. Scanivalve Corp
ome Config	Operate Test Status Support
	Start Stop Clear Log
	Ginger 🛋
Select Sequence:	Seg3
	Seq4 💌
	STATUS: RUNNING Ginger 7 s6 1
	STATUS: RUNNING Ginger 7 57 0
	STATUS: RUNNING Ginger 8 #8 0
	STATUS: RUNNING Ginger 9 s8 1
	STATUS: RUNNING Ginger 9 #9 0
	STATUS: RUNNING Ginger 10 s9 1
	STATUS: RUNNING GINGER 10 510 0
A stire T and	STATUS: RUNNING Ginger 11 s11 0
Action Log	STATUS: RUNNING Ginger 12 s11 1
	STATUS: RUNNING Ginger 12 s12 0
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	STATUS: RUNNING Ginger 14 S13 1
	STATUS: RUNNING Ginger 14 s14 0
	STATUS: RUNNING Ginger 15 s14 1
	STATUS: RUNNING Ginger 15 s15 0
	STATUS: READY 1000000

# Test

- This page will permit a user to:1. Switch one or all of the Digital Outputs On or Off2. Verify the state of the Digital Outputs by monitoring the status lights.

ENETCPN	l Web Page Ver	0.50i -	Microsoft Ir	ternet Expl	prer	an Xiry							_ 8 ×
<u>File</u> <u>E</u> dit	View Favorites	Icols	Help										419) (1)
√⊐ . Back	• ⇒ •	Stop	2 Refresh	Home	Search F	avorites History	Mai -	Print	Edit	- Discuss	Messenger SideStep		
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Hom	e Cor	nfig	/ Ope	rate	Test	Stat	us Si	upport					
					-					_			<u>.</u>
	Digital Out 1		On	Off									
	Digital Out 2	2:	On	Off									
	Digital Out 3	3:	On	Off									
	Digital Out 4	4:	On	Off									
i i	Digital Out f	5:	On	Off									
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	Digital Out 8	3:	Ôn	Off	-								
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# Status

The Status page can be used to display the Error Status of the module. The list may be updated by Clicking: Update Errors The Error buffer may be cleared by Clicking: Clear Errors

ENETCPM Web Page Ver 0.50i - Microsoft Internet Explorer		_ 6
The Fox New Libroures Toos Heb	= = 6	3)
Back Forward Stop Retrecth Home Search Favorites History Mail Print Edit Di	souss Messenger Side	Step
Address 😰 http://191.30.80.101/index.htm		▼ 🖓 Go Links
Scanivalve ECPM		St.
CPM Scanivalve (c) 2001 Ver 0.50a	Scaniva	tive Corp
Hanna I Contig I Onerate I Test Status Superst		
Home Coming Operate Test Status Support		
Update Errors Clear Errors	2	
Error List	101	
ERROR: Duplicate name Seq3 found at sequence number 3	-	
ERROR: Duplicate name Seq4 found at sequence number 4		
ERROR: Duplicate name Seq5 found at sequence number 5 ERROR: Duplicate name Seq5 found at sequence number 6		
ERROR: Duplicate name Seq7 found at sequence number 7		
ERROR: Duplicate name Seq9 found at sequence number 6 ERROR: Duplicate name Seq9 found at sequence number 9		
ERROR: Duplicate name Seq10 found at sequence number 10		
ERROR: Duplicate name Seq11 found at sequence number 11 FPROR: Duplicate name Seq12 found at sequence number 12		
ERROR: Duplicate name Seq13 found at sequence number 13		
ERROR: Duplicate name Seq14 found at sequence number 14		
ERROR: Duplicate name Seq15 found at sequence number 15 ERROR: Duplicate name Seq16 found at sequence number 16		
ERROR: Sequence ID not found		
	2	
n		internet

# Support

This page will permit a user to:

- 1. Send a command to the ENETCPM
- 2. Monitor the response of the ENETCPM

🗿 ЕНЕТСРМ 1	Web Page Ver	0.50i - N	dicrosoft Ir	iternet Exp	lorer										_ 6 ×
<u>File E</u> dit	⊻iew F <u>a</u> vorites	Tools	Help												-
√⊒ - Back	⇒ . Forward	Stop	() Refresh	Home	Q Search	Favorites	() History	Mail	Print	Edit	- E	s Messenger	😿 SideStep		
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		4			0	CPM Resp	onse:	Clear R	esponse /	Area	11				
													<u> </u>		
													<u>-</u>		
2] Done														Internet	

### **Closing the Web Browser**

It is recommended that the Web Browser be closed by first disconnecting the ENETCPM from the Browser by clicking the Disconnect button on the Home page. This will disconnect the module cleanly. Then close the Browser by clicking the X tab of by Selecting **File**, **Close**.

The disconnect may also be made by simply closing the Web Browser. This will create an error in the Error log of the ENETCPM.

#### Host Web Browser Setup

#### Internet Explorer

The Security levels in Internet Explorer are easily set. Since the DTS will normally be used on an internal network and not on the Internet, the changes required will not affect the security levels for Internet access. These instructions are valid for versions 5 and 5.5.

Start Internet Explorer Select Tools Select Internet Options Click on the Security Tab Click on the Local



Click on the Sites button, a smaller window will open. All three boxes must be checked.



Click Advanced when all boxes are checked. The Local Internet Sites window will open.

ocal intranet	? ×
You can add and remove Web sites from this : in this zone will use the zone's security settings	zone. All Web sites s.
Add this Web site to the zone:	-
1	Acc
Web sites:	
http://191.30.50.50	Bemove
Require server verification (https:) for all sites in this	zone
OK	Cancel

Enter the IP Address(s) of the module(s) to be viewed on this Local Internet by entering the address(s) in the upper box and clicking Add. The IP Addresses will be listed in the Web Sites box as they are added. When all of the IP Addresses have been entered, Click on the OK. Buttons in each displayed box until only the Internet Options Window is displayed.



Click on the Custom Level Button. The Security Settings Window will open.

Local intranet	? ×
View Permissions Edit Permissions	
Permissions Given To Unsigned Content     Full Permission     Permission The Signed Content Are Allowed     Permission     Network I/D     User Interface Access     System Properties     User Interface Access     User Interface Access     Permission     Permission     Permission     Permission     Permission     Permission     Specified	
	Cancel

Scroll down to Java Permissions, Click the Custom Radio Button and then, Click on the Java Custom Settings Button

When the Local Internet Permissions Window opens, Click on the Edit Permissions Tab.

	•	Enable				
	ŏ	Prompt				
E.	Java					
[	👌 Jav	a permission	s			
	0	Custom				
	0	Disable Jav	a			
	0	High safety				
	0	Low safety				
100	0	Medium safe	ety			
<b>e</b> ]	Miscella	aneous				
4	Acc	cess data so	urces acr	oss doma	ains	
-	0	Disable				
	0	Enable				
4	~	Dromot				Þ
Be	set cus	tom settings				
110	nes euro	toni oottango	·			
Res	et to:	Medium-low	v		-	R <u>e</u> set

Find the Run Unsigned Content Listing and Click on the Enable Radio button. Click on the View Permissions Tab

view Permissio	ns Edit Permissions	
🔗 Unsigne	d Content	-
🖉 🔗 Run	Unsigned Content	
0	Run in sandbox	
0	Disable	
0	inable	
8	Additional Unsigned Permissions	
	Access to all Files	
	O Disable	
	<ul> <li>Enable</li> </ul>	
	Access to all Network Addresses	
	O Disable	
	Enable	
	B Execute	
	O Disable	
	O Enable	
J	P Dialogs	-
	50	
Heset Java	Permissions	
Reset to:	Saved permissions	- Reset
	-	
	I DK	Cancel

Verify that the Permissions Given to Unsigned content has a red indicator on the Full Permissions Line

Close all of the windows and return to the Web Browser by Clicking on the OK Button in each window.

#### Netscape Navigator

These instructions are valid for V4.74. Other versions of Netscape Navigator may require additional or different steps.

The security levels for this version of Netscape Navigator are contained in a file named prefs.js. There may be multiple copies of this file on the local hard disk.

In the Windows Taskbar Select: Start Select: Find Select: Files or Folders Enter: press.js in the Named box and click Find Now The search may show several copies of this file in different directories.

Using a Text Editor, such as Notepad, enter the following line in each of the files and save the revised file:

user\_pref("signed.applets.codebase\_principal\_support", true);

The placement of this line is not critical. Netscape Navigator will sort the file.

#### **ENETCPM Boot Parameter Modification**

The ENETCPM Series modules use an operating system licensed from VxWorks. The boot parameters are set at the factory, but these parameters may be modified to suit the needs of a specific installation. This section documents the modification of the boot parameters.

- 3. De-energize the ENETCPM. Connect the ENETCPM trigger/serial test cable (Scanco part #155829) from the ENETCPM to a host PC.
- 4. Start HyperTerminal, or an equivalent communication program. Connect the ENETCPM to a COM port on the PC Host. Set the serial parameters to 9600 BAUD, no parity, 8 data bits and 1 stop bit.
- 5. Energize the ENETCPM. The following sign-on information should be displayed.

VxWorks System Boot Copyright 1984-1997 Wind River Systems, Inc.

CPU: HITACHI hs7709 Version: 5.3.1 BSP version: 1.1/0 Creation date: Feb 9 2000, 12:41:05

Scanivalve (c)2000, Boot loader version 1.01 Press any key to stop auto-boot...

6. Press any key within 3 seconds to stop the auto-boot process. If a key is not pressed within the 3 seconds time, the system will proceed to auto-boot with the existing operating system using the current setup.

NOTE: The boot-loader will continue to reboot until stopped by pressing a key under the following conditions:

- A. If boot-from-flash is selected, and no operating system is present in flash.
- B. if boot-from-net is selected and the FTP server is not correctly set up.
- 7. When the auto-boot process is stopped, the boot-loader will prompt with:

[VxWorks Boot]: To get a list of the existing boot parameters:

Type: p <Enter>

The following list is the default setup:

string not to the deridate	cotap.
boot device	: CS
processor number	: 0
host name	: host
file name	: c:/DSA_hs/vxWorks.st
inet on ethernet (e)	: 191.30.80.100
host inet (h)	: 191.30.101.109
user (u)	: DSA_HS
ftp password (pw)	: scanivalve
flags (f)	: 0x0
other (o)	: flash,000.096.093.218.000.002,10base]

8. Modify the parameters as required by typing the change command at the [VxWorks Boot] prompt

Type: c<Enter> The boot-loader prompts you for each parameter.

If a particular field has the correct value and does not need to be changed, Press: <Enter>

**NOTE**: If any other key is pressed, that will replace the existing information.

To clear a field, Type: . <Enter>

To quit before viewing all of the parameters, Type: CTRL+D.

- 9. After all changes have been made, verify the settings:
  - Type: p<Enter> The settings are saved in flash at this point.
- 10. Restart the operating system, with the new settings,

Type: @<Enter> This is the "Load and Go" command.

- 11. If the ENETCPM boots correctly, de-energize the ENETCPM and disconnect the serial test cable.
- 12. Re-apply power to the ENETCPM.

# Boot parameters and their functions:

boot device	Must not be changed from cs	
processor number	Must not be changed from 0	
host name	Must not be changed from host	
file name	The full pathname of the opera when booting from the network.	ting system file name to be booted from, The default path and file in this line is the
inet on ethernet(e)	The IP address of this ENET( when entering this parameter b mask in hex notation. I.e.	CPM. The subnet mask may be specified y entering a colon followed by the subnet 191.30.85.100:FFFFFF00
inet on backplane (b)	Must be left blank	
host inet (h)	The IP address of the host to be	oot from.
gateway inet (g)	The IP address of a gateway ne as the ENETCPM.	ode if the host is not on the same network
user (u)	The user name that the ENET name that must be set up in the must be set up to provide that read from the host directory and	CPM uses to access the host. This is the e FTP server on the host. The FTP server user name with the proper permission to d the password must be set correctly.
ftp password (pw)	The user password. This must l	be supplied to boot from host.
flags (f)	Must be 0x0	
target name (tn)	Must be blank	
startup script (s)	Must be blank	
other (o)	This specifies the place to boot media. The line must not con separated by a comma. The sy	from, the MAC address, and the network tain any spaces and each parameter is ntax is:
		Idress> <media type=""></media>
	Valid values are case s	ensitive and are as follows:
	<bootloc> net -</bootloc>	Boot from network
		flash - Boot from flash.
	<mac address=""> <media type=""></media></mac>	ddd.ddd.ddd.ddd.ddd 10base2 - 10Base2 type 10baset - 10BaseT type

# **ENETCPM Operating System Upload**

This section describes the method for upgrading and uploading a new operating system to the ENETCPM. Two programs are used in the ENETCPM, the boot-loader and the operating system/ENETCPM application, referred to as the operating system.

The purpose of the boot-loader is to start the operating system from local flash or from a location on the network, such as a disk file on a host PC and to allow setting of certain key operating system parameters. The boot-loader can only be installed with special flash programming equipment. However, the boot-loader, under most normal upgrade conditions, would not need to be changed.

When upgrading a new ENETCPM operating system, the following procedure should be followed:

- 1. Install an FTP server, on your host PC. Scanivalve Corp recommends the War Daemon FTP Server. The installation is described in the FTP Server Installation/Configuration Procedure.
- 2. Use the boot parameter modification procedure to modify the boot parameters:
  - A Change the file name parameter to the location of the vxWorks.st file.
    - B. Insure that the user parameter is set to DSA\_HS. It must match the user in the FTP server. This name may be modified by a user
    - C. Set the password to scanivalve. It must match the password in the FTP server. The password may be modified by a user.
- 3. Connect to the ENETCPM using TelNet
- 4. Issue the "UPLOAD S <full file path>" command from TelNet. Only back slashes can be used in the path name and the S must be upper case.
- 5. Monitor the operation with the STATUS command. When it returns READY, the upload is complete. The upload will require about 2.5 minutes to complete. If READY is returned immediately, something has been entered incorrectly.
- 6. When the ENETCPM returns READY, The new operating system is installed in flash memory, but not in RAM.
- 7. The new operating system will be effective when power is recycled.

# Appendix A - WarFTP Server

#### Installation

Copy the file:Warftp.exe into a temporary directory.Double click:Warftp.exe to unzip the installation files.Double click:Setup.exeA window will open prompting for an installation directory. Click Next.

ar Install for W	/indows95 and NT	
is program will	Linstall War FTP Deemon on your PC	
program mil		
-		
	Transmission of the second second	
tination Path	C:\Program Files\War-ftpd	

A window will open prompting for an installation type. Select: Typical, and click Next.

		ie typical modu	les for this prog	ra,
C Minimum - 1	This will only in	istall the files n	eccesary to run	this program
C Custom - TI	nis allows you	to select the m	odules to Instal	
	C Minimum - 1	<ul> <li>Minimum - This will only in</li> <li>Custom - This allows you</li> </ul>	<ul> <li>Minimum - This will only install the files no</li> <li>Custom - This allows you to select the m</li> </ul>	<ul> <li>Minimum - This will only install the files neccesary to run</li> <li>Custom - This allows you to select the modules to Instal</li> </ul>

A Window will open prompting for a program folder. Use the default folder, and click Next.

oncer a riai	ne tot the Static Mental entry (of Flogram Folder in Windows NT 3.51).
Folder	War FTP Daemon
	HP LaserJet
	Software Development
	Viewers War FTP Daemon

A window will open prompting to finish the installation. Click: Finish to complete the installation.

Finish the installa	tion
	War Install is ready to finish the installation
	Kancel Help

If the installation is successful, a window will open with this message. Click OK



Create a folder for the DTS files. Create the directory: C:\DTS\_HS. Copy the file: VxWorks into this directory.

# **Configuration and Setup**

Start the application by double clicking the war-ftpd.exe icon in the C:\Program Files\War-ftp directory.

		Troib						37	H
Back Forwar	t Up	X Cut	Сору Сору	Paste	ど) Undo	Delete	Properties	Views	*
Address 🧀 C:\Progra	am Files\War-ftpd								
samples  .Install.Log  .lock	E CurrentIPNu FtpDaemon.	mber.txt 🙎 dat 🜌 dat.bak 🜌	) LogFile.log   login.wav   msg.wav	]	<ul> <li>Release</li> <li>uninstall.</li> <li>unzip.exe</li> </ul>	Notes.txt exe	War-ftpd. War-ftpd.	exe .hlp	
UnInst.inf AccessReport.txt	FtpDaemon. Iog.wav	ini 📕	ProcessZi ReadMe.t	p.exe xt	UserPath	isReport.txt ont			

The War FTP Daemon information window will open

Enable the "Do not show this banner again" check box and click OK.

P	War F	fip Doe	NOR	
	WAR-FTPD 1.65 ( The PREMIER FTI	Copyright (c) 199 P Server for Win	6, 1997 by igaa Jows95 and NT	
You	Released as copyrig don't need to regist	ghted FREEWAF er or pay in order	E by Jarle Aase to use this program	n.
	Get the latest ve Get free supp	ersion at http://w ort in news://alt.	ww.jgaa.com comp.jgaa	
				_

The main display window will open. It will look similar to the window below. Select: Properties Select: Options

# Login Name	-	State	System Attributes	
(]			Dery all logins (except for admi     No anonymous logins     Max Lisers 50 Anon.     Prunber and port     localhost 21     Messages from the users	nistrator 10
<u>K</u> T <u>S</u> py	Edit	Message		
1999 02 02 10:36] Unable to 1999 02 02 10:36] WAR-FTF	open user database. A D 1.65 Copyright (c) 19	utocreating new file. 96, 1997 by jgaa. WIN3	2 (w/N95)	

From the General Tab, Enable the "Go online when started and minimize" check boxes. Select the Server Name Tab.

server Name	Priority	Sounds	Upload	Verification	Log
General	File System	Virtual File	System	SITE	FTP
Startup Option	s when started a console with ro come dialog ions acknowledge if ant it? ease hide advan . Please enable	<ul> <li>and minimize ot account pas</li> <li>users are online</li> <li>ced options.</li> <li>all options.</li> </ul>	sword		

Enter a name for the FTP server. In this example the server will be named : host. Click OK.

Server Name Prioritu	Sounds 1	Unload	Verification	
I nony	1 0000000 1	opicad	, ronnounon,	1 209
Name of your server			-	
Inost	1011-2010		nd.	
Email address of system admin	nistrator		_	
- <b>1</b> /				
Limit access to this local IP ac	ldress		-	
Limit access to this local IP ac	Idress		-	
Limit access to this local IP ac	ddress			
, Limit access to this local IP ac	ldress		1	
, Limit access to this local IP ar	ldress		1	
, Limit access to this local IP ar	ldress			
, Limit access to this local IP ar	idress		]	

The main window will re-open Open the User Maintenance window: Click on the large smiling face icon

‡ Login	Name		State	System Attributes     Go offline when ready     Deny all logins (except for administrate     No anonymous logins
				Max Uses 50 Anon 10 IP number and port 21 Nocalhost 21
Ru	Spy	Edit	<u>M</u> essage	

When the User Maintenance Window opens, Click the Add button

ser maintenance - and User	Nymous Security File Acc	222	
Disable (deny login)	-	OK Appl Canc	y el
		Password Disable Password	
		User Email Address           Validate Email Address	ess
Add Co Fierame Del	yte	Root/Ho Acces	ome s

A window will open prompting a User name for the DTS Enter a user name for the DTS.

For this example, the User Name will be: DTS\_HS Click OK.

me of new user	
New name	ОК
DSA_HS	Cancel

Another window will open prompting for a password

Enter a password for the DTS. For this example, the password will be: Click OK.

scanivalve.

lew Password	×
New Password	ОК
<b>1</b> *********	Cancel
Verify Password	
******	

The User Maintenance window will re-open.

Highlight DTS\_HS Select the File Access Tab Click on the Add Button.

Jser	Security File Access	
<ul> <li>Disable (deny login)</li> <li>anonymous</li> <li>DSA HS</li> </ul>	Path [default permissions]	Files OK
		Directories List (dr) Create Remove
		Special DENY Dir Access
Add Cop	Add	Delete Home Root/Home
Bename Dele	Alies	Access

A Select Directory Window will open Highlight the DTS\_HS directory. Click OK.

D/V		
ACT_INC	0I	<
Att Boards Coregen CSTOOLS	Can	cel
D4time41 Design DEV	<< B	ack
Download DSA HS fadta	Upd	ate
MCVHDL MSDOWNLD.TMP		Ŧ

Enable the Read and Write checkboxes in the Files frame.

Click : Apply Click: OK

ser		Security File Access	
Disable (den nonymous SA_HS	y login)	Path [default permissions] CNDSA_HS	Files OK
			Directories Directories List (dir) Create Remove
			Special Reports DENY Dir Access Home Boot/Home
A d d	Conv	Add Dele	te Manning

The Main Window will re-open

Put the server online:

Click on the lightning bolt..

Ide - WAR-FTPD 1.65       Broperties       Yew       Help       Image: State Stat		▲ tate	System Attributes Gogfiline when ready and egit Derry all logins (except for administrator) Max Users 50 Anon. 10 IP number and port 200.30.109.105 21 Messages from the users	
Ka St	iy <u>E</u> dt	Message		
[S 1999 02 02 12:30] Microsol [S 1999 02 02 11:15] User DS [S 1999 02 02 11:15] Unable [S 1999 02 02 10:36] WAR-FT [S 1999 02 02 10:36] WAR-FT	t wsock32.dll, ver2.2, 32bit of Apr A_HS created. to open user database. Autocreati IPD 1.65 Copyright (c) 1996, 1997	28 1998, at 19:33:24. ng new file. by igaa. WIN32 (WIN95)	A V X	
ONLINE	1 of 32767 sockets	0 of 50 (16381) Users	0 file xfers	

The WarFTP server is now ready

The server can be started manually as needed, or it could be configured to start automatically by placing a shortcut to War-Ftpd.exe in the Windows/Start Menu directory.

#### **Appendix B - Accessories**

#### Power Supply - PDM 1500

A single output 24 Vdc power supply is available as an accessory to the ENETCPM. This power supply will drive one ENETCPM. The Scanivalve part number is 145078-1. The unit will operate from 100 to 240 Vac at 47 to 63 Hz. The output is 24 Vdc at 2.5 A. A 10 foot (3 meter) interconnecting cable, Scanivalve part number 155819-1, is included. Longer cables are available. For more information on the power supply and cables, contact Scanivalve Corp, Customer Service Department.

NOTE: The PDM1500 is a direct replacement for the previous PDM1000.



#### Power Supply - PDM 3200

For users with multiple ENETCPM units, A 24 Vdc power supply capable of powering multiple units is available. This power supply will drive up to four ENETCPMs. The Scanivalve part number is 21080-1. The unit will operate from 88 to 264 Vac at 47 to 63 Hz. Each output is 24 Vdc at 2.5 A. Interconnecting cables are not included, but mating connectors are provided. Scanivalve Corp will manufacture interconnecting cables, if requested. A standard 10 foot (3 meter) interconnecting cable, Scanivalve part number 155819-1, is available. Longer cables are available on request. . For more information on the power supply and cables, contact Scanivalve Corp, Customer Service Department.



# Appendix C - Change Log

- Version 1.00 Released October 2001 First Release
- Version 1.01 Released January 2002 Created Help file for Web Browser
- Version 1.02 Released April 2002 Modified bootloader program to support old and new flash chips Added Variable PORT to permit Ethernet ports other than 23

Version 1.03 - Released June 2007

Added a test for a sequence named: PowerUp. If this sequence exists, it will be executed even if a network connection has not been established.

Version 1.04 - Released October 2011

Added PORT as a valid configuration option to prevent errors at power up.