Craft

Using the Craft Interface

This part of the Management Section describes how to use the Craft interface to manage AS2000 and AS3000 nodes. With the Craft interface, you can access AS2000 and AS3000 controller modules from a PC or terminal using a direct or Telnet connection.

This document describes:

- Setting up
- The Main Menu
- Sample submenus

Setting up	
	The connection between an ASCII terminal and AS2000 modules may be direct or through Telnet. If you plan to use Telnet, you still must first use a direct connection to set up network parameters.
Direct Connection	The Craft interface can be accessed through a direct connection to the node controller (SCM, NCM, SCC, NCC) or shelf controller. From an ASCII terminal or PC with terminal emulator program, proceed as follows:
	1. Connect the ASCII terminal to the port labeled CRAFT or LOCAL on the front panel of the module. Use the Craft cable (P/N 458-501788-008) described in the "System Cables" appendix of the <i>AS2000: The Basics</i> user manual.
	2. Go to the terminal settings screen of your terminal or terminal emulator. If you are using Windows 95 Hyper Terminal, use the File>New Connection pull-down menu to access the parameters. If you are using the Window 3.1's Terminal program, choose the Communications option from the Settings pull-down menu to access the parameters.
	3. Set your terminal parameters to the following values:
	• 19.2 kbit/s baud rate
	• 8 data bits
	• no parity
	• one stop-bit
	no flow-control
	• X-ON, X-OFF disabled

Using Telnet		Telnet access is available for the SCM, NCM and SCC controller modules. Prior to accessing the Craft interface using Telnet you must configure the Ethernet IP address and related network parameters for the SCM, NCM or SCC you wish to connect to. Therefore, the Craft interface must be accessed directly (through the front panel) at least once to before Telnet can be used (see previous section). You cannot use Telnet to access an NCC.							
		In a shell, terminal, browser, or Telnet application window, use a command similar to the following (substitute the IP address of the desired controller):							
		C:\> telnet 192.94.46.54							
		A message indicates you have connected to the controller:							
Figure 1	Telnet Session	Connecting to the NCM Node							
-	Trying 192.	94. 46. 54							
	Connected to	0 192. 94. 46. 54.							
	Escape chara	icter is '^]'.							
	pSOSystem (92. 94. 46. 54)							
	Copyright (c) Integrated Systems, Inc., 1992.							
	Welcome to	oSOSystem							
	pSH+>								
E>	kiting From Telnet	Exit from the P-shell and close the Telnet connection by typing "exit" or pressing CTRL-D at the pSH+> prompt.							
Logging On		Once the module has booted up, you will see some initialization notices.							
		If there is a prompt pSH+>, type in "craft".							
		The password prompt is: Your Password? If you are accessing the node for the first time, press ENTER at the password prompt.							

Until you change it, the ENTER key *is* the default password.

NOTE: Some newer products use "verilink" as the default password. See the user manual for the module you are using.

If you have changed the password, type the correct password (up to eight characters, including spaces). The screen will display placeholders (*****) as you type the password. Press ENTER.

The Craft interface **Main Menu** displays.

Timeout

The Craft interface will time out after 15 minutes of inactivity and automatically return to the pSH+> prompt.

The Main Menu

Figure 2 The Main	igure 2 The Main Menu															
	Firmware Version and Date of Release															
								Nod	e Addr	ess				Acce	ess Leve	I (1-4)
Manu Lloading Area	VERI	LINK	SCM	CONT	ROLL	ER	: FW	Rev	1. 18	3, A	ug 24	199	8 20): 04:	56	
Menu Heading Area	Si te	e name	e: S	СМ Т	Tutor	ri al					Ac	cess	lev	el :	2	Ļ
	- Mana	ıgi ng	at N	EAR	end	nod	le [0.	0. 0.	2]			N	lode	i d:	122	
							<- SL	.0T ·	->							
	SHELF	1	2	3	4	5	6	7	8	9	10	11	12	13		
	0 n	Ø	8	-	-	-	-	-	-	-	-	-	-	-		
Shelf/Slot Map	. 1 MĂ	[*Š]	D	Q	Q	Ι	М	Н	-	-	-	-	-	-		
	2	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	-	-	-	-	-	-	-	-	-	-		
	KEY: D=	QUAD	D, I	= 1 ML	JX, N	/= M1	3, Q=	QUAI	D T1,	S=	SCM					
Module Key		6/1					0			-						
	S) Shei	T/SIC					נט נים	adr		stra	tion					
	D) porf	i yui a Tormar		tati	10		رت (۱	uia ale	agnos arm	SUC	5					
Command List	B) circ	viit n	ice/ 3		13			mar	ar ini nufac	tur	ina i	nfo				
	X) Logo	off	anay					mai	arac		i ng i					
										_						
	A [0.0.	0.2	[1, 1] SC	CM >				<u> </u>							
								_			_					
	Node Address (Not IP Address) Data (Command) Entry Area															
Active S	CM Master I	Designa	ator													
	Indicator for the type of shelf: M= Multi-line, D = Dual-line															
	2 Asterisk	c indica	tes tha	t the	SCM is	s the	Shelf C	ontrol	ler							
	- B Bracket:	s aroun	d mod	ule let	tter ([P])ir	ndicate	currei	nt mod	lule s	elected					

Figure 2 defines the parts of the **Main Menu**.

Interpreting the Main Menu

The **Main Menu** shown in <HotSpot>Figure 2, provides:

- a shelf/slot display showing card and shelf types and card locations in each shelf
- a key to the letters representing modules in the slots
- a command list
- node information
- firmware revision number

	The currently selected card is shown in the command line prompt which returns after each command. The four-part number shown on this line is <i>not</i> an Ethernet IP address. It is a Verilink-specific node address used to identify this SCM or NCM.
Firmware Version	The firmware version revision number appears on the top line. The controller modules have a revision number series different from that of individual application modules.
	NOTE: The revision numbers shown in screen samples are placeholders only and do not reflect the revision numbers as they may appear in your system. Firmware revision numbers vary according to several factors, including special firmware generated for specific customers, as well as current release versions.
Shelf Symbols	Directly to the right of the Shelf column:
	The M next to Shelf 2 indicates it is a multi-line shelf.
	The D next to the Shelf 1 indicates it is a dual-line shelf.
Element Symbols	Modules are represented in the node map by alphabetic characters. The key to these symbols is included in the Main Menu , beneath the Shelf/Slot node map.
	The shelf master is indicated by an asterisk (*). If a node controller is present in the shelf, it is also the shelf master. (An exception is an MLS 2200 shelf configured with independently-controlled islands.) Some ACP-based modules are able to function as a shelf master.
Selection Brackets	Brackets around a module symbol in the shelf ([N]) indicate that the module is currently selected. For example, the brackets around the letter N in Figure 2 indicate that the NCM is currently selected.
	A question mark (?) in place of a module symbol indicates that the firmware or module is not recognized. Most likely the controller module firmware is out of date with the new module.
	A hyphen (-) in place of a module symbol indicates that the module has been pulled out of its slot since the last polling or that the shelf/slot location you have selected is empty.

Command Line Prompt	The initial prompt defaults to the module directly connected to the Craft interface cable. The command line prompt is defined below: [0.0.0.1] [0,11] NCM 2000 >				
	Where:				
	[0.0.0.1] is the node address of the node to which you are connected. This number is used by modules and the Verilink Node Manager application to identify a node. Each AS2000 node has a unique address. This value is completely unrelated to an Ethernet IP address.				
	<i>NOTE:</i> The first three digits of the node address must NOT be greater than 127.				
	[0,11] is the shelf number and slot number of the currently selected module. NCM 2000 is a sample of the command line prompt, showing the model name of the currently selected module.				
	This field reads UNKNOWN > when the shelf/slot location is empty, the element has been removed, or if the module is not recognized by a controller module.				
Entering	Commands can be entered in upper or lower case.				
Commands	To clear a command entry mistake, exit from the command before entering a complete parameter value by pressing ENTER.				
	To clear typed entries and start again, press CONTROL-U. The backspace key can also be used to make corrections.				
	If you enter an invalid value, you will be prompted with a message that the value is invalid and be returned to the current menu.				
Conventions Used	The Craft interface uses the following conventions:				
	• In application modules with multiple network or data ports, an <i>n</i> is used to represent the port number. For example, to put Port 2 in service, type "I2" instead of "In". In some older modules "p" represents the port number.				
	• Ranges of permitted values are depicted with ellipses. For example, you can choose any number in the range 1 to 127 seconds to indicate the Alarm Declare Time. This is shown as 1127. However, when you provide input indicating ranges, do so with a dash: 1-24. This example indicates all numbers between 1 and 24, including the numbers 1 and 24. You can also intermix single numbers with range definitions if they are separated by commas, such as: 24, 38-45, 60.				
	• Fields <i>without</i> a closed parenthesis,), are status/informational fields.				

• A letter followed by a parenthesis, A), indicates a user-settable option.

Selecting an
ElementTo select an element in the node to manage, select the command
option for choosing the shelf and slot:

S) shelf/slot

as shown in the following example command line:

[0.0.0.1] [1,1] NCM 2000 > s

The next prompt shows you the format for your input.

For SCM and NCM :

Enter 'shelf, slot' pair or 'slot' in current shelf (e.g. 3,4 or 5): >

For SCC and NCC:

Enter 'shelf, slot' pair (e.g. 3,4 or 5): >

This prompt varies from product to product. Select the shelf and slot location of the module to manage. In the example in Figure 3, suppose you wish to configure a port on the DIDCSU located in shelf 2, slot 3. This element is represented by an A, which the Key below the shelf/slot display identifies as a DIDCSU. You would type in response to the prompt: "2,3".

To indicate a successful selection, the **Main Menu** is redisplayed with bracket-indicator [] moved to enclose the **A**.

Figure 3 Main Menu) with DIDCSU module selected

VERI	LINK	NCM	CONT	ROLL	ER :	FW	Rev	4.17	7, De	ec 30	199	97 16	: 55:	20 -			
Site Mana	Nam gi ng	e: ⁻ at l	Test1 NEAR	end	node	e [O.	0. 0.	1]		Ac	cess: N	s Lev Iode	el: ID:	2 3141			
					<	- SL	.0T -	->									
SHELF	1	2	3	4	5	6	7	8	9	10	11	12	13				
0	-	-	-	-	-	-	-	-	-	-	-	-	-				
1 M	Ν	*N	-	-	Q	Μ	Q	Q	М	-	-	-	-				
2 M	А	А	[A]	А	А	А	А	А	А	А	А	-	-				
3	-	-	-	-	-	-	-	-	-	-	-	-	-				
4	-	-	-	-	-	-	-	-	-	-	-	-	-				
KEY: A=	DI DC	SU, I	B=DI L	J/DBL	J, C=	=CSU,	D=[DIU,	E=S[DIU,	F=DI	U/DD	S, G	=DHDM,			
H=	ATM/	I MUX		DCSL	J, J₌	⊧PEP,	K=[DAC,	L=HL	_M, N	I=I MU	JX, N	I=NCM	, P=DF	PRI,		
Q=	QUAD	, R=:	SUBRA	ιe,	S=HS	SM, I	=HDN	/I, U=	=DCSL	J, V=	VCU,	X=C	PRI				
S) chal	f/cl/	o+				0)	odr		strat	ti on							
() conf	i aur	oi ati o	2			(ט וח	dia		stica								
D) norf	ormai		ı statı	IC		(۵	ala	arm	51103	5							
B) circ	a) circuit manager () manufacturing info																
X) exit	thi	s sci	reen			.,	mai	lui at	Jun	ng i	mo						
A [0.0.	0.1]	[2,3	3] DI	DCSL	J >												

The command-line prompt reflects your selection in the shelf and slot field (shelf 2, slot 3 in this case) and the card type (DIDCSU).

Exiting From the
Craft InterfaceYou can exit every menu by using the X command. Each time you
type "x", you return to the next higher (previous) menu.At the Main Menu, typing X exits you from the Craft interface and
logs you off. If you started with the pSH+> prompt, you will be
returned to the pSH+> prompt.

Sample Submenus

From the **Main Menu**, other functions such as configuration are accessed through the submenus. The **Configuration Menu** provides access to the menus used to configure ports, timing options and other parameters. To access this menu from the **Main Menu**, type "C" to display the **Configuration Menu**.

Figure 4 Configuration Menu

DIDCSU 2912 CONFIGURATION	MENU
P) T1 port	D) data port
T) timing options	X) exit this screen
[1,1] DIDCSU 2912 >	

In the above example, to access the **T1 Port Configuration Menu**, type "P" from the **Configuration Menu**.

To change a port configuration (<HotSpot>Figure 5), enter the parameter letter followed by the port number you want to change. For example, to disable port 2 from service, type "I2".

Figure	5	Т1	Port	Configuration	Menu
riguic	J		i Ui t	configuration	wichtu

D	DIDCSU 2912 T1 PORT CONFIGURATION MENU							
		PORT 1	PORT 2					
In)	In Service	YES	NO					
Fn)	Frame Format	SF	SF					
Ln)	Line Coding	AMI	AMI					
Bn)	Line Build Out	0db	0db					
NDn)	Network Density	NONE	NONE					
NLn)	Network Initiated Loop	NO	NO					
An)	Alarm Declare Time(sec)	0	0					
DLn)	FDL Enable	NO	NO					
	PRM Enable	NO	NO					
Rn)	Enable Inband	NO	NO					
Sn)	Inband Timeslot	1	1					
F)	FDL configuration	X) exit	this screen					
[1,1] DIDCSU 2912 >i2							

For application-specific menu options, see the application module menus.