

Setting up a Comms Path

Overview:

The comms paths available are managed in multiple applications and all need to be setup correctly to enable communications.

First the physical connection needs to be defined; this can either be a direct connection or a remote connection via the AnywhereUSB module. This gives flexibility in that the com ports are not physically connected to the server and can then be housed remotely.

AnyWhereUSB

Two AnywhereUSB Hubs are currently located in the telemetry room and are connected to the network under IP 172.29.53.214 and 172.29.53.215 respectively. A third Hub is setup in the Taumaranui office with IP 172.29.64.211 These hubs have 5 ports each available for USB devices such as RS232 serial. Connect the serial device and load any device drivers as required

AnywhereUSB Remote Hub Configuration Utility File Edit Command View Help		
Configure Disconnect Reboot		
· · · · · ·	Host PC Connection Status:	
□ Subnet 172.29.52.0 □ ● PNT-USBHUB [172.29.53.214] □ ● PNT-HYDROUSBHUB2 [172.29.53.215] □ ● ● ● ■ ● PNT-HYDROUSBHUB2 [172.29.53.215] □ ● ● ■ ■ ● ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ <th< th=""><th>Connected to this Host PC Driver Status: Connection Successful to Remote Hub at 172.29.53.214</th><th></th></th<>	Connected to this Host PC Driver Status: Connection Successful to Remote Hub at 172.29.53.214	
	Remote Hub Information: Name: PNT-USBHUB Serial Number: SE03505544	
	MAC Address: 00409D:44D0B7 IP Address: 172.29.53.214 Subnet Mask: 255.255.252.0 Gateway: 172.29.55.254 DHCP: Disabled	
	Boot Code:v1.9.0986Firmware:v1.51.1219Hardware:Rev A - G2Product Type:5 PortDevice ID:DigiHardware ID:0x0002Uptime:40 days : 4 hrs : 50 mins : 13 secs	
Total Discovered: 3 Connected To Me: 3	Available For Connection: 0 In Use By Others: 0 Unconfigured: 0	



Remote USB Hub Viewer File Options Help 8	X
B	
 Standard Universal PCI to USB Host Controller Standard Enhanced PCI to USB Host Controller ReaPortUSB Host Controller 172.29.64.211 - 0 RootHub (Port1] DeviceConnected : Prolific USB-to-Serial Comm Port (Port2] NoDeviceConnected (Port3] NoDeviceConnected (Port5] NoDeviceConnected (Port6) Port2 PoviceConnected (Port6) PoviceConnected : Prolific USB-to-Serial Comm Port (Port1) DeviceConnected : Prolific USB-to-Serial Comm Port (Port1) DeviceConnected : Prolific USB-to-Serial Comm Port (Port1) DeviceConnected : Prolific USB-to-Serial Comm Port (Port6) NoDeviceConnected : Prolific USB-to-Serial Comm Port (Port6) NoDeviceConnected 	My Computer
Devices Connected: 11 Hubs Connected: 1	

The serial Port can now be defined as normal in control panel Use numbers from 11-15, 21-25 and 41-45 in preference see below for a list of currently assigned ports

Once the Com Port has been defined it can now be mapped into the telemetry applications. Use the TelemClient to setup the modem associated with the com Port

Modems	×
Name LoggerNet NRR Add New	Close
Modern Type Direct Serial	Save
Comms Port COM22 Speed 9600	Save As
IP Address Port Number of simultaneous calls on GPRS	Delete
Queue After	Rename
Initialisation	Help

Add a modem to telemetry with the prefix LoggerNet

Select the type and actual comport. This can be physical or via the USB anywhere Ensure the baud rate is correct

Now the linkage between LoggerNet and the dual comms application, LNcomms, needs to be mapped. LNcomms uses the Advanced virtual COM Port service to link local ports

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Set up Virtual Com Port for the number of links required, Format 1xx - 2xx with 1xx on the LoggerNet side. Must be sequential for LNcomms

Edit Help	nt ports Local ports					- & +	lelp
Add	Rer	nove vith	al ports" tab allows you to view, a virtual NULL-modem cable.	, create and delete loca	l virtual COM po	rt pairs conne	cted
Сом100-сом101	Сом102-СОм103	COM111-COM211	COM112-COM212	Port state: COMxxx COMxxx	Please, select		
Сом113-сом213	COM114-COM214	COM115-COM215	COM116-COM216	Bytes received:	COMxxx	Bytes sent: 0	
Сом117-сом217	COM118-COM218	COM119-COM219	COM120-COM220	Port signal lines	COMxxx) Ri
Сом121-сом221	COM122-COM222	COM123-COM223		Port signal lines		CTS DCD) Ri

LNcomms is the dual comms and data serving service. It links to both the SQL table and data export whilst listening for data on the assigned virtual com ports.

The virtual comports start at the first allocation (COM211) and increase sequentially by the amount specified (12) The data export server is not used

LoggerNet Comms Configuration				
Number of comms ports 12 First Comms Port on B Side COM211	Close			
Data file C:\Hilltop\LNcomms.hts				
Data Export Server pnt-cd2.horizons.govt.nz	Save			

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Loggernet can now be set up with the com Port 1xx and this will then map though to LNComms which can then direct the site out the appropriate com port as defined in the telemetry sites table.

Current list of comm ports

	Physical port	Purpose	Virtual Com Port	LoggerNet
172.29.53.214	Com 11	Phone1 Modem	113 >> 213	113
	Com 12	Kauangaroa Repeater	115 >> 215	115
	Com 13	Tapuae Repeater	114 >> 214	114
	Com 14	Turoa Repeater	112 >> 212	112
	Com 15			
172.29.53.215	Com 21	Ruahine Repeater	118>> 218	118
	Com 22	NRR Repeater	117 >> 217	117
	Com 23	Te Paki Repeater	116 >> 216	116
	Com 24	Taukira Repeater	120 >> 220	120
	Com25			
172.29.64.211	Com41	Makahika Repeater	123>> 223	123
other		UDPTerm (testing)	100 >> 101	100
		LN UDP	111 >> 211	111
		LN UDP_2	119 >> 219	119
		LN_UDP_3	121>> 221	121
		LN_UDP_4	124>>224	124
		Takino repeater	125>>225	125
		Spare	126>>226	126