ATEN *Tech Note*

TCP Client mode for ATEN Secure Device Server

This tech note applies to the following ATEN Secure Device Server models:

Model	Product Name
SN3001	1-Port RS-232 Secure Device Server
SN3001P	1-Port RS-232 Secure Device Server with PoE
SN3002	2-Port RS-232 Secure Device Server
SN3002P	2-Port RS-232 Secure Device Server with PoE
SN3401	1-Port RS-232/422/485 Secure Device Server
SN3401P	1-Port RS-232/422/485 Secure Device Server with PoE
SN3402	2-Port RS-232/422/485 Secure Device Server
SN3402P	2-Port RS-232/422/485 Secure Device Server with PoE

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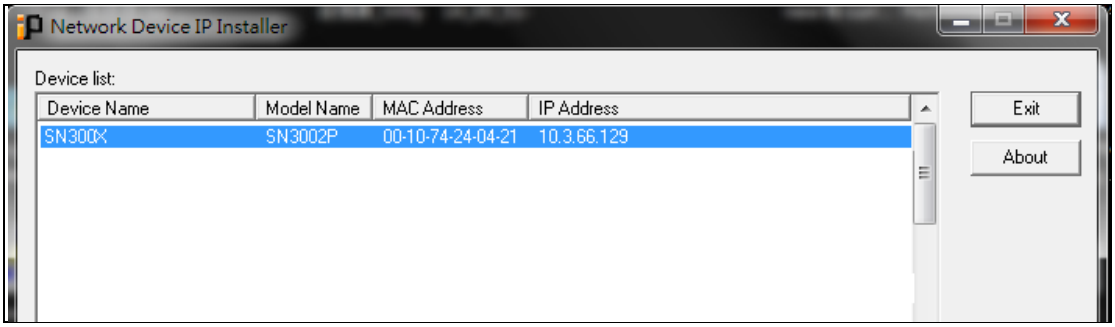
A. What is TCP Client mode?

SN (Secure Device Server) configured as TCP Clients can initiate communicate with a host PC running TCP Server program and transmit data securely over a network. TCP Client mode allows up to 16 host PCs to collect data from the same serial device at the same time.

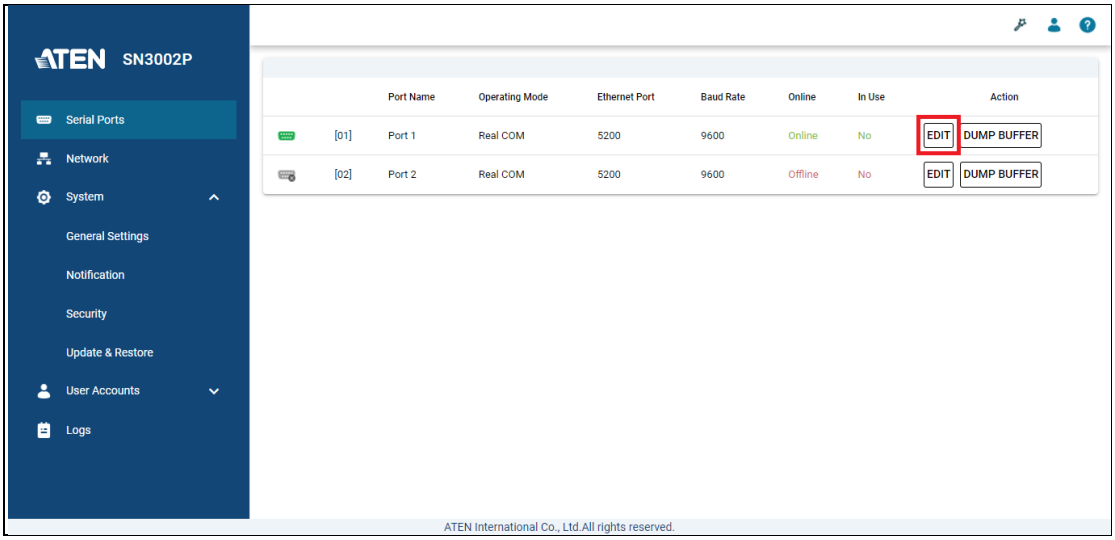
B. How to configure TCP Client mode?

The following procedures use SN3002P as an example:

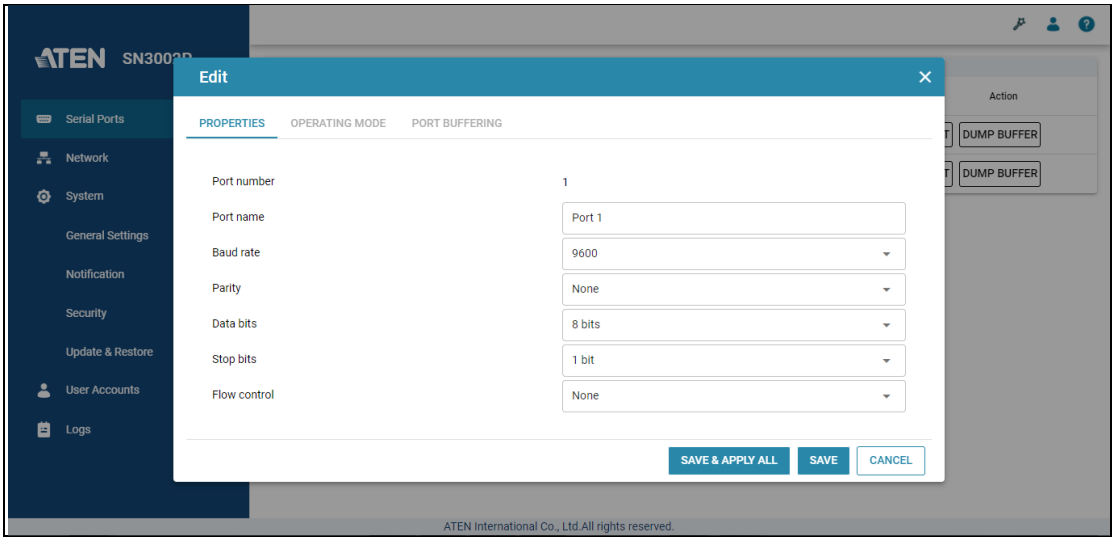
1. Using a null modem cable, connect the SN's serial port 1 to a serial device (e.g. PC's COM port, CNC machine, etc.).
2. Using an Ethernet cable, connect the SN's LAN port to your local network.
3. On a host PC, use IP Installer utility (can be downloaded from SN's product page) to discover the IP address of the SN3002P.



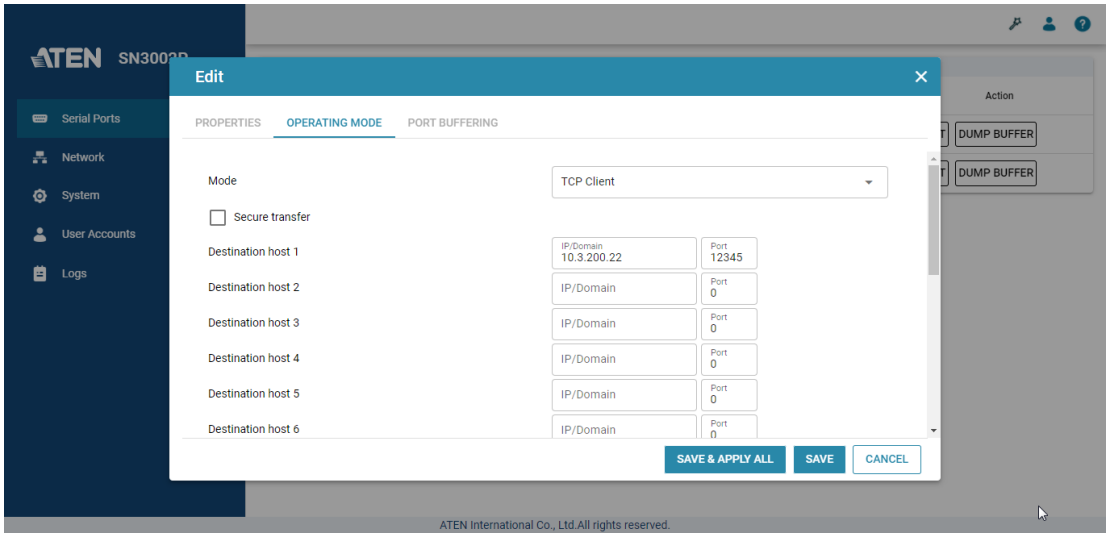
4. Using a web browser, enter the SN3002P's IP address, and log in.
5. Under *Serial Ports*, click the **EDIT** button of *Port 1*.



6. Under *PROPERTIES*, configure the necessary serial communication settings (e.g. baud rate, parity, etc.) to match with the connected serial device.

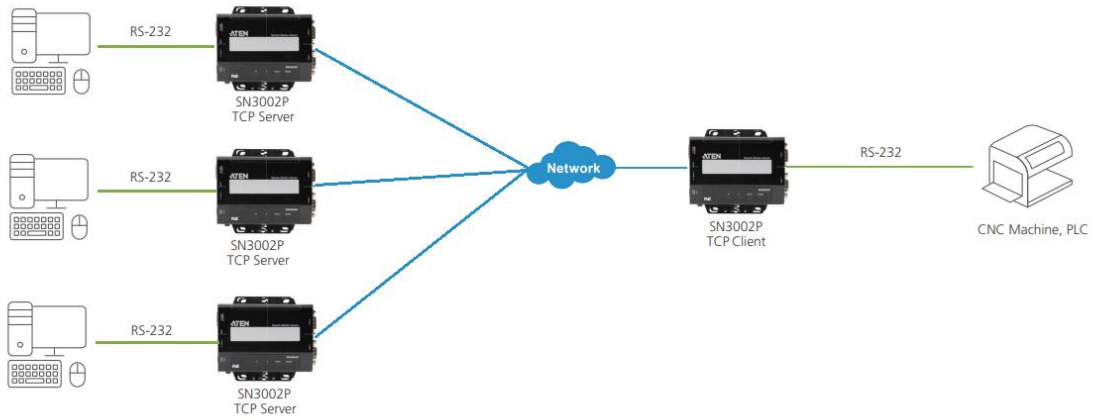


7. Under *OPERATING MODE*, select **TCP Client** from the drop-down list and enter the IP address(es) of the host PCs running TCP Server programs and their ports.



8. Optionally enable the **Secure transfer** option if you want the data to be encrypted and transmitted securely over a network.

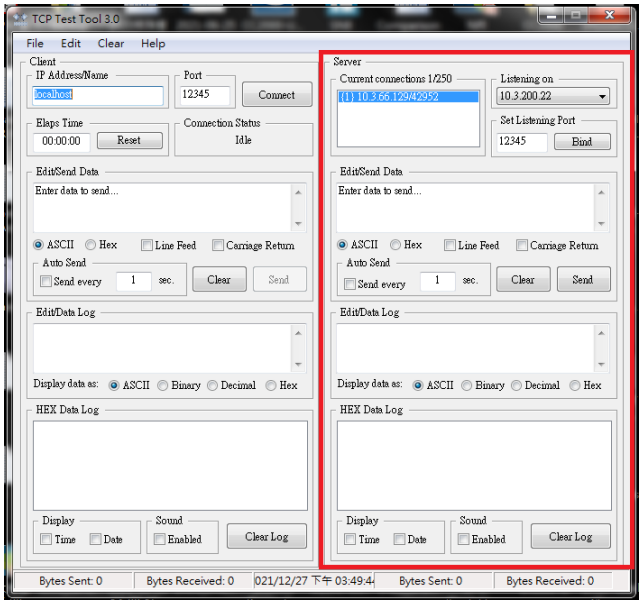
Note: When *Secure transfer* is enabled for secure connection, every connecting serial device must be connected via another SN device, in *TCP Server* and with *Secure transfer* enabled.



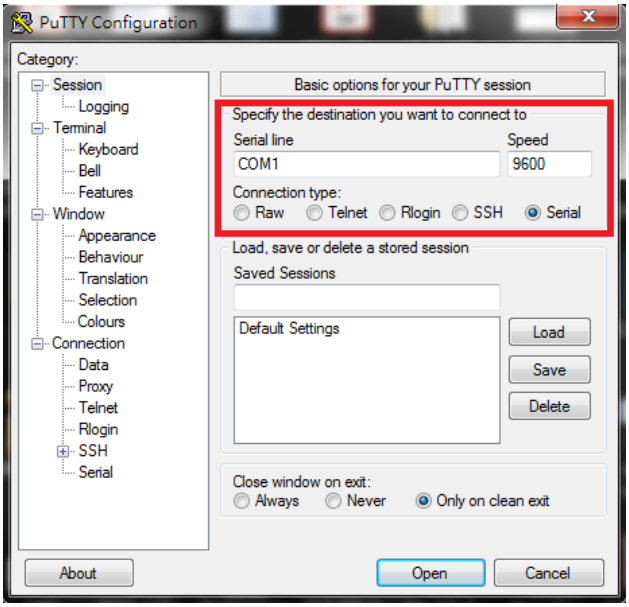
C. How to test TCP Client mode?

Using PC1 as the TCP server and PC2's COM port as a serial device, presume the settings of the SN3002P have been properly configured, as mentioned in the previous section.

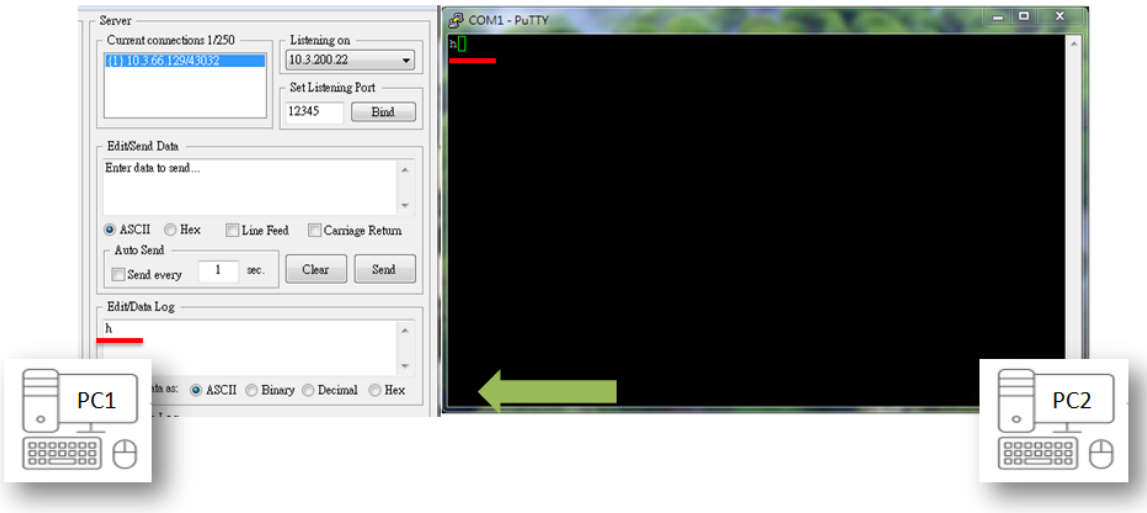
1. On PC1, use TCP Test Tool, a third-party utility, to send or receive data to or from PC2, as illustrated below.



2. On PC2, use Putty, a third-party utility, to configure its serial communication settings, as illustrated below.



3. On the Putty of PC2 (serial device), you can enter any text to test if it can be received by the TCP Test Tool of PC1 (host), as exemplified below.



Note: Conversely, you can also enter any text on the TCP Test Tool of PC1 to test if it can be received by the Putty of PC2.

D. Appendix

ATEN Secure Device Server Pin Assignment

Pin	Configuration		
	RS-232	**RS-422/RS-485 (4-wire)**	**RS-485 (2-wire)**
1	DCD	RxD- (A)	
2	RxD	RxD+ (B)	
3	TxD	TxD+ (B)	Data+ (B)
4	DTR	TxD- (A)	Data- (A)
5	GND	GND	GND
6	DSR	-	
7	RTS	-	
8	CTS	-	
9	-	-	-