ATEN Command Line Interface User Guide

Contents

ATEN Command Line Interface

Specifications

- Product: ATEN Control System
- Functionality: Remotely manage ATEN controllers and expansion boxes via SSH/Telnet

Product Usage Instructions

Establishing an SSH/Telnet Session

1. Download an SSH/Telnet client like PuTTY on a computer with access to the ATEN controller or Expansion Box.
2. Run the downloaded client.
3. For SSH session:
    - Host Name / IP address: Enter the target controller or expansion box's IP address or host name.
    - Connection Type: SSH
    - Port: 22
4. For telnet session:
    - Host Name / IP address: Enter the target controller or expansion box's IP address or host name.
    - Connection Type: Other > Telnet
    - Port: 23
5. Click Open and follow on-screen instructions to log in.

SSH/Telnet Commands

Help Command

- **Usage:** Display instructions for enabling the CLI mode of the controller.
- **Syntax:** help
- **Acknowledge:** Command OK – Function executed; Command incorrect – Not executed

- **Example:** help : display instruction of CLI mode

Enabling/Disabling Echo Reply

- **Usage:** Enable or disable automatic response to received messages.
- **Syntax:** echo[control]
- **Parameter:** control: on – enable; off – disable (default is off)
- **Acknowledge:** Command OK – Function executed; Command incorrect – Not executed
- **Example:** who on: set the controller to automatically respond to received messages.

Configuring Telnet Timeout Interval or Login

- **Usage:** Configure Telnet CLI mode settings.
- **Syntax:** telnet[timeout interval][login control]
- **Parameter:** timeout: Telnet session timeout interval setting; login: Telnet login function setting
- **Acknowledge:** Command OK – Function executed; Command incorrect – Not executed
- **Example:** telnet timeout 0 : configure the timeout interval to never timeout

Configuring Serial Port Settings

- **Usage:** Control and configure serial port settings.

Frequently Asked Questions (FAQ)

Q: What should I do if the SSH/Telnet session cannot be established?
A: If the session cannot be established, log in to the device management console to check if the access key needs to be changed.

About This Guide
This guide provides information on the available SSH and Telnet commands to remotely manage ATEN controllers and expansion boxes.

IMPORTANT: Configuration made via command-line interface will be overwritten if a project file is uploaded through ATEN Configurator (GUI) afterwards.

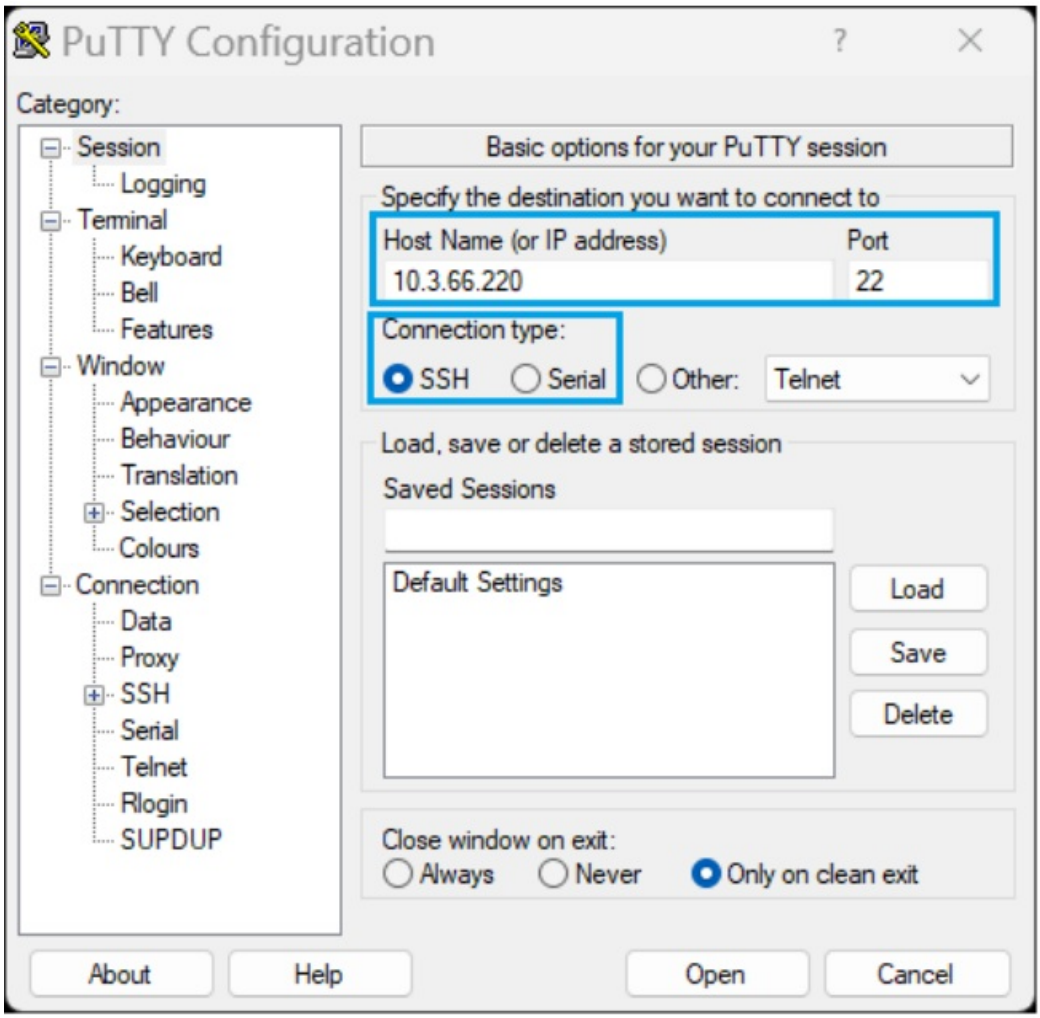
Establishing an SSH/Telnet Session

1. On a computer that has access to the target ATEN controller or Expansion Box, download an SSH/Telnet client, e.g. PuTTY.
   Note: To obtain the installer, search “download putty” in a web browser.
2. Run the downloaded client.
3. To establish an SSH session, use the following settings.

Field	Setting
Host Name / IP address	IP address or host name of the target controller or expansion box
Connection Type	SSH
Port	22

For example:

4.

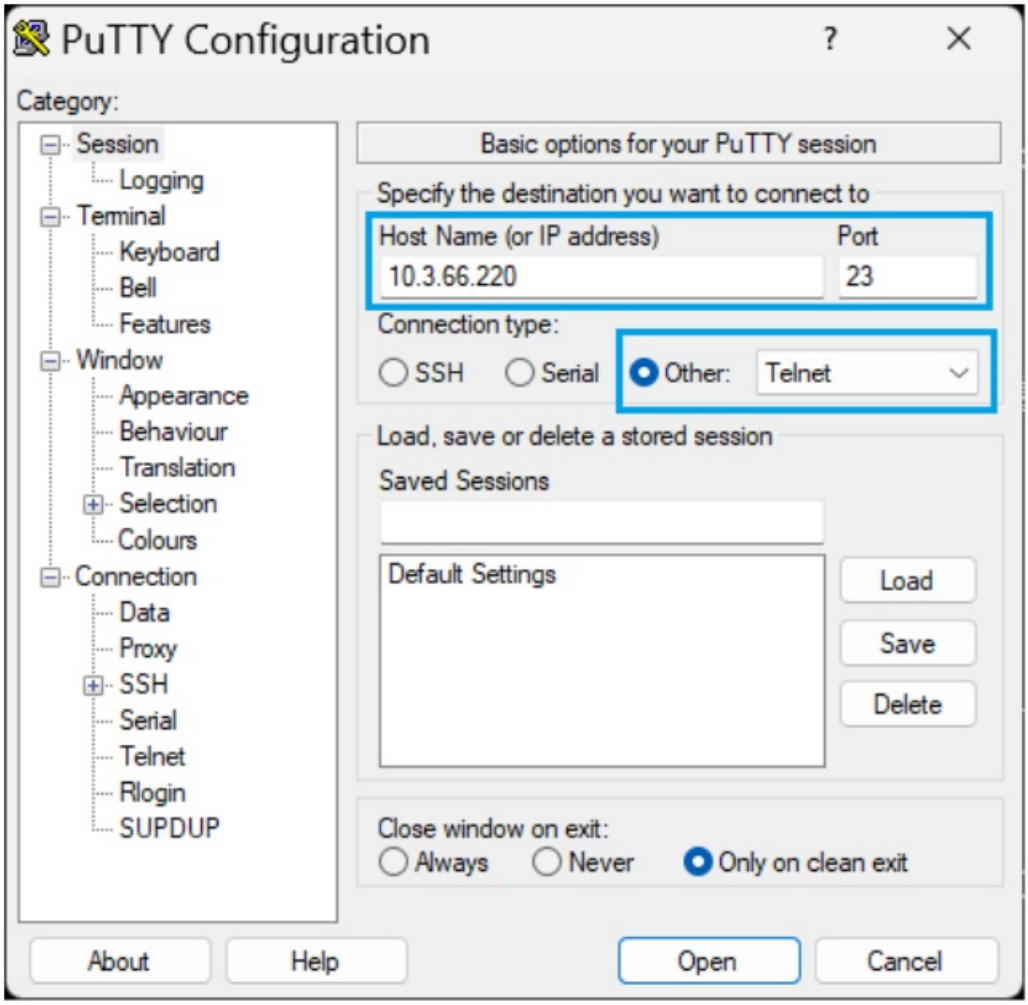


To establish a telnet session, use the following settings.

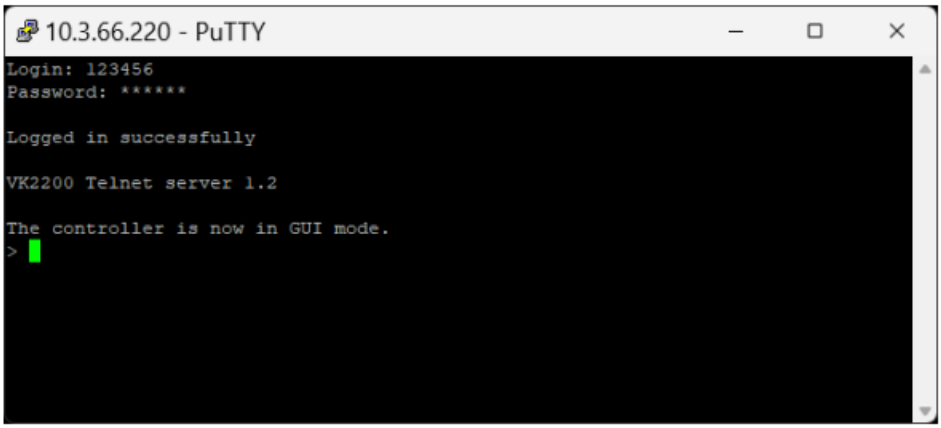
Field	Setting
Host Name / IP address	*IP address or host name of the target controller or expansion box*
Connection Type	Other > Telnet
Port	23

For example:

5.



Click Open and follow the on-screen instructions to enter the login credentials. A session is established. For example:



Note: If the session cannot be established, log in the device management console to check if the access key needs to be changed.

SSH/Telnet Commands

Help

- **Usage:**

  Display the instruction for enabling the CLI mode of the controller.
- **Syntax:**

help↙

- **Acknowledge:**
  Command OK↙ : Command is correct and the function is executed.
  Command incorrect↙ : Command and/or parameters are incorrect and not executed.
- **Example:**
  help↙ : display instruction of CLI mode

Enabling/Disabling Echo Reply

- **Usage:**
  Enable or disable the controller to automatically response to received messages.
- **Syntax:**
  echo[control]↙
- **Parameter:**
  control : on – enable this function
  off – disable this function (default is off)
- **Acknowledge:**
  Command OK↙ : Command is correct and the function is executed.
  Command incorrect↙ : Command and/or parameters are incorrect and not executed.
- **Example:**
  eho on↙ : set the controller to automatically respond to received messages.

Configuring Telnet Timeout Interval or Login

- **Usage:**
  Configure Telnet CLI mode settings.
- **Syntax:**
  telnet[timeout interval][login control]↙
- **Keyword**
  timeout : Telnet session timeout interval setting
  login : Telnet login function setting
- **Parameter:**
  interval : session timeout in minute. (0 means never timeout)(default is 5)
  control : on – enable login function (default is on)
  off – disable login function
- **Acknowledge:**
  Command OK↙ : Command is correct and the function is executed.
  Command incorrect↙ : Command and/or parameters are incorrect and not executed.
- **Example:**
  telnet timeout 0↙ : configure the timeout interval to never timeout
  telnet timeout 5↙ : configure the timeout interval to 5 minutes
  telnet login off↙ : disable the login function

Configuring Serial Port Settings

Usage:
Control and configure serial port settings.

Syntax:
serial [p sequence] [type stype] [baud baudrate] [dbit databit] [parity sparity] [sbit stopbit] [fctrl flowctrl] [dtype datatype] [endchar chars] [checksumtype checksumtype] [acktimeout duration] [control “data”] [help]↙d

Keyword:

- p : port
- type: serial type
- baud : baud rate
- dbit : data bit
- parity : serial parity
- sbit : stop bit
- fctrl : flow control
- dtype : data type
- acktimeout : timeout duration (ms) is used for waiting for the feedback from sendack control.
- endchar : specific end character is used to identify a complete message.
- checksumtype : if need fw to auto-calculate command checksum, assign a checksum type
- help: show instructions

Parameter:

- sequence : port, separated by comma for multiple ports * (all ports)
- stype: 232, 422, 485 (default 232)
- baudrate : 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200(default 9600)
- databit : 7, 8 (default 8)
- sparity : none, even, odd (default none)
- stopbit : 1, 2 (default 1)
- flowctrl : none, hw (default none)
- datatype : ascii, hex (default ascii)
- checksumtype: none, modbus (default none)
- duration : specific timeout (ms)(default 300)
- chars : end characters following a complete message.
- control : read – display received message of the specific serial port
- write – send data from the serial port. Use “ symbol covers data. Use \x symbol to send Hex code
- sendack – send data from the serial port and display received message

Acknowledge:
Command OK↙ : Command is correct and the function is executed.
Command incorrect↙ : Command and/or parameters are incorrect and not executed.

Example:

- Serial help ↙ : show instructions

- serial p01 ↙ : display the setting information of serial port1.
- serial p* ↙ : display the setting information of all serial ports.
- serial p01 type 232 baud 115200 dbit 8 parity none sbit 1 fctrl none ↙ : configure port1.
- serial p01,04,07 baud 19200 ↙ : configure port1, 4, 7 to baud rate 19200.
- serial p02 baud 19200 ↙ : configure port2 to baud 19200 and use default settings for other parameters.
- serial p02 dtype hex read ↙ : display the received message of port2 in HEX format.
- serial p03 write “sw i01 o02\r\n” ↙ : send the ASCII text ‘sw i01 o02’ from port3.
- serial p03 sendack “sw i01 o02\x0D\x0A” ↙ : send the ASCII text ‘sw i01 o02’ from port3 and display the feedback.

Configuring Relay Port Settings

Usage:
Control and configure relay ports.

Syntax:
relay [p sequence] [tpulse duration] [control] [help] ↙

Keyword:

- p : port
- tpulse : closed period for pulse
- help: show instructions

Parameter:

- sequence : port, separated by comma for multiple ports
- * (all ports)
- duration : time period in millisecond.
- control : open – turn off
- close – turn on
- pulse – close the relay channel then open
- toggle – relay toggle
- read – display status

Acknowledge:
Command OK↙ : Command is correct and the function is executed.
Command incorrect↙ : Command and/or parameters are incorrect and not executed.

Example:

- relay help ↙ : show instructions
- relay p01 close ↙ : close port1 channel.
- relay p01 open ↙ : open port1 channel.
- relay p01,04,07 close ↙ : close port 1, 4, 7 relay channels.
- relay p02 tpulse 500 pulse ↙ : close port2 500ms then open.

- relay p02 read ↙ : display port2 status.

Configuring I/O Port Settings

Usage:
Control and configure I/O ports.

Syntax:
io [p sequence] [type iotype] [lthresh threshold] [hthresh threshold] [tpulse duration] [control] [help]↙

Keyword:

- p : port
- lthresh : low-bound threshold
- hthresh : high-bound threshold
- tpulse : period which I/O remains in high level in pulse mode
- help: show instructions
- NOTE: If a parameter is not specified, a previously entered value will be applied.
- Parameter:
- sequence : port, separated by comma for multiple ports
- * (all ports)
- iotype : dry, vdc, dout
- threshold : trigger threshold in voltage
- duration : time period in millisecond.
- control : open
- close
- pulse
- toggle
- read

Acknowledge:
Command OK↙ : Command is correct and the function is executed.
Command incorrect↙ : Command and/or parameters are incorrect and not executed.

Example:

- io help ↙ : show instructions
- io p01↙ : display the setting information of I/O port1.
- io p*↙ : display the setting information of all I/O ports.
- io p01 type dry ↙ : configure port 1 to dry contact mode.
- io p01 type dout ↙ : configure port 1 to digital output mode.
- io p01 type vdc lthresh 1 hthresh 3 ↙ : configure port 1 to vdc mode with threshold settings.
- io p01 open ↙ : open port1 channel.
- io p01 close ↙ : close port1 channel.
- io p01,04,07 close ↙ : close port1,4,7 channels.
- io p02 tpulse 500 pulse ↙ : close port2 channel 500ms then open.

- io p02 read ↙ : display port2 status.

Configuring IR Settings

Usage:
Control and configure IR ports.

Syntax:
ir [p sequence] [type irtype] | [baud baudrate] [dbit databit] [parity sparity] [sbit stopbit] [dtype datatype] [checksumtype checksumtype] [control “data”] [help]↙

Keyword:

- p : port
- type : output type for specific output port
- baud** : baud rate
- dbit** : data bit
- parity** : serial parity
- sbit** : stop bit
- dtype** : data type
- checksumtype** : Controller/extension box automatically calculates the specified checksum type
- help: show instructions

NOTE:
* : This keyword is for IR type
** : These keywords are for 232 type

If a parameter is not specified, a previously entered value will be applied.

Parameter:

- sequence : port, separated by comma for multiple ports * (all ports)
- irtype: ir, 232(default ir)
- baudrate : 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200(default 9600)
- databit : 7, 8(default 8)
- sparity : none, even, odd(default none)
- stopbit : 1, 2(default 1)
- datatype : ascii, hex(default ascii)
- checksumtype: none, modbus(default none)
- control : write – send IR code or RS232 data

Acknowledge:
Command OK↙ : Command is correct and the function is executed.
Command incorrect↙ : Command and/or parameters are incorrect and not executed.

Example:

- ir help ↙ : show instructions
- ir p01 ↙ : display the setting information of IR port1.
- ir p* ↙ : display the setting information of all IR ports.
- ir p01,04,07 type 232 ↙ : configure port1,4,7 to RS232 type
- ir p01 type 232 baud 115200 dbit 8 parity none sbit 1 checksum type modbus↙ : configure port1 to RS232 type and the settings
- ir p02 write dtype hex “0a0b0c” ↙ : send hex format data 0a0b0c from port2
- ir p02 baud 19200 ↙ : configure port2 to baud 19200 and use the default settings for other parameters.
- ir p02 write “sw i01 o02\r\n” ↙ : send the ASCII text ‘sw i01 o02’ from port2.
- ir p02 write “sw i01 o02\x0D\x0A”↙ : send the ASCII text ‘sw i01 o02’ from port2.

Reboot

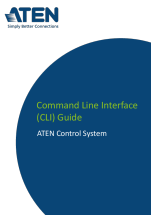
Usage:
Reboot the controller.

Syntax:
reboot↙

Acknowledge:
Command OK↙ : Command is correct and the function is executed.
Command incorrect↙ : Command and/or parameters are incorrect and not executed.

Example:
reboot↙ : reboot device

Documents / Resources

	ATEN Command Line Interface [pdf] User Guide Command Line Interface, Line Interface, Interface

References

- User Manual