Simply Better Connections

Command Line Interface (CLI) Guide

ATEN Control System

Contents

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.

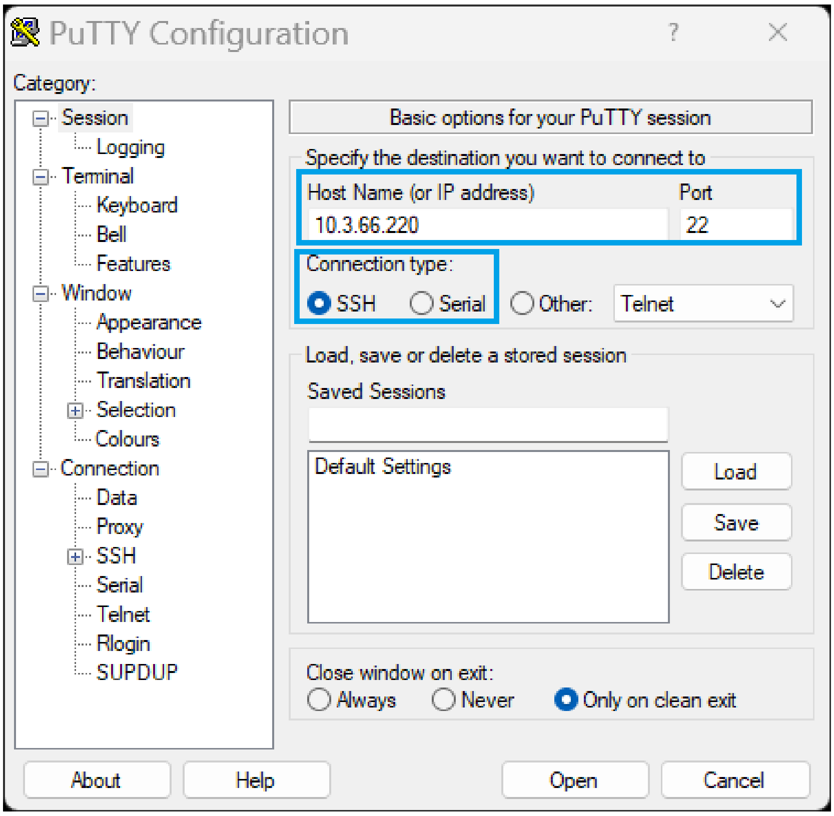
   Note: To obtain the installer, search “download putty” in a web browser.

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:



PuTTY Configuration

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address): 10.3.66.220

Port: 22

Connection type: ● SSH ○ Serial ○ Other: Telnet

Load, save or delete a stored session

Saved Sessions

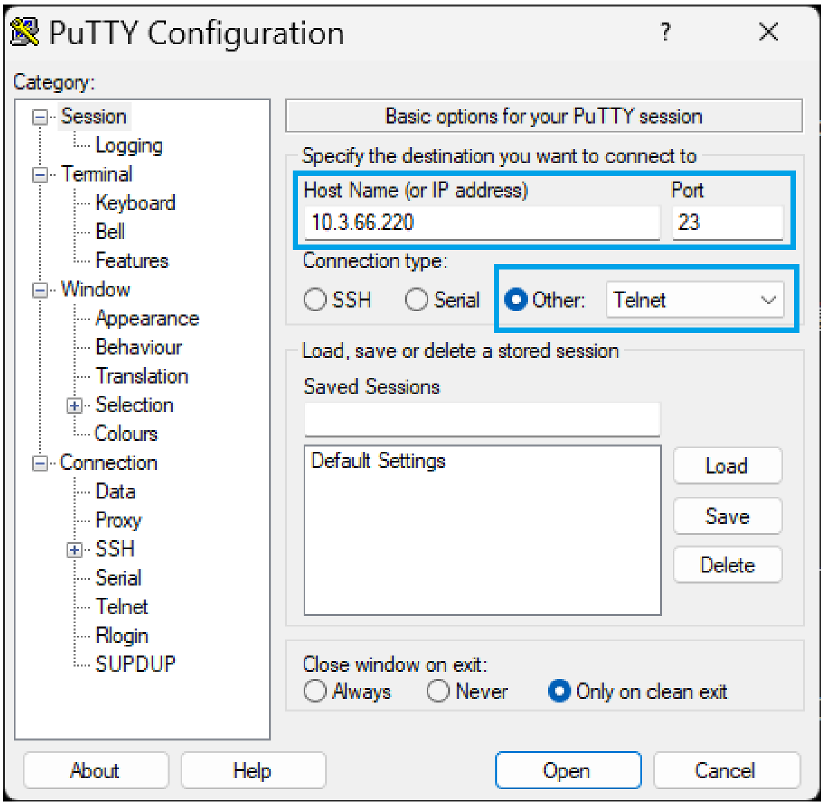
Default Settings

Close window on exit: ○ Always ○ Never ● Only on clean exit

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:



PuTTY Configuration

Basic options for your PuTTY session

Specify the destination you want to connect to

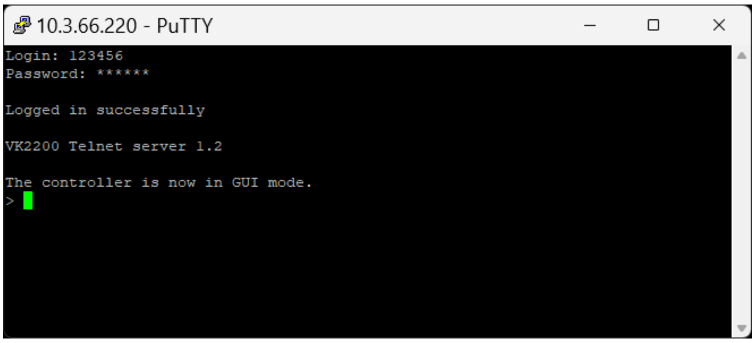
Host Name (or IP address): 10.3.66.220

Port: 23

Connection type: ○ SSH ○ Serial ● Other: Telnet

Close window on exit: ○ Always ○ Never ● Only on clean exit

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



10.3.66.220 - PuTTY

```
Login: 123456
Password: ******

Logged in successfully

VK2200 Telnet server 1.2

The controller is now in GUI mode.
>
```

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]↙
```

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