ZTerminal

USB TERMINAL
software

USER MANUAL
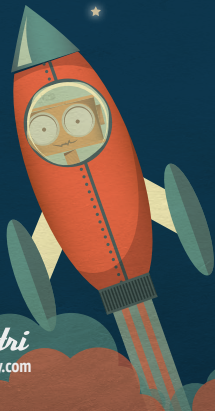
01

INTRODUCTION

ZTerminal Software is used to control industrial devices by sending and receiving commands over serial connection line. Z Terminal allows users to control their industrial devices with any Android mobile device easily without any need of additional computer. ZTerminal software also offers ease of use for user specific applications with different usage modes.

MODEM

RS232 PORT

RS232-TO-USB CONVERTER CABLE   USB-TO-MICROUSB CABLE
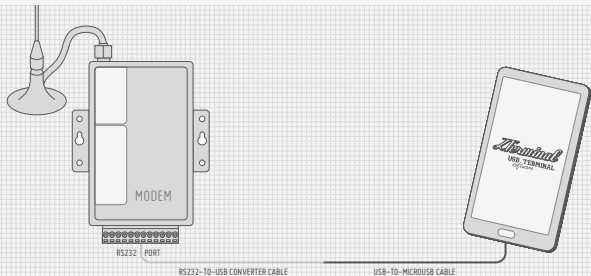
02

ESTABLISHING
SERIAL
CONNECTION

First of all, please arrange the physical connection with your device which you will send serial commands, using serial-to-USB converter. Then select the ZTerminal Application icon and run the application which you have already installed.

ZTerminal

Available Ports:

No device connected!   Loaded Script
                              File:script.txt

CR   LF   STX   SOH   ETX   ACK   SUB

Select adapter type

Prolific

FTDI

Send

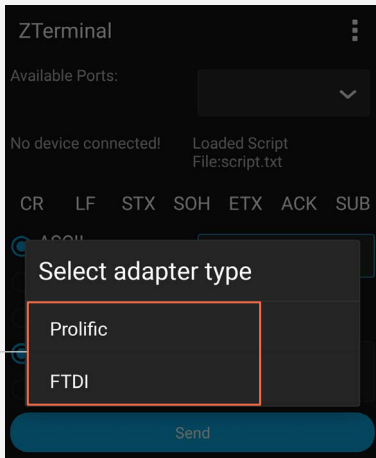If the system cannot automatically detect the connected USB-serial converter chip type, please select it manually

FIGURE 1

ZTelemetri
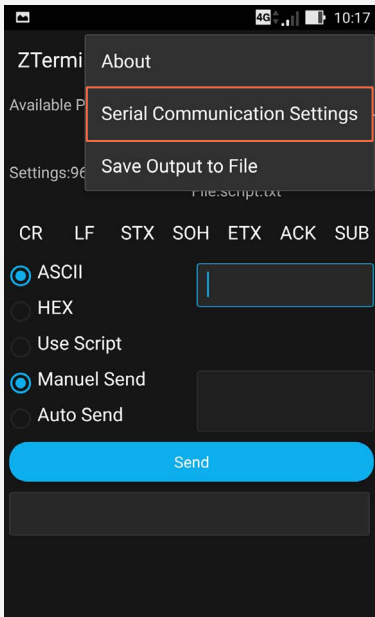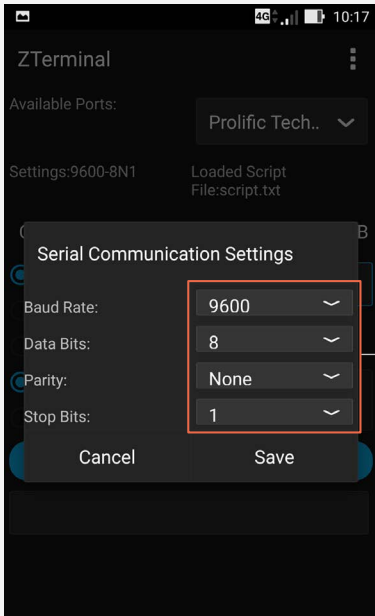
In order to change the serial communication settings, select «Serial Communication Settings» option

FIGURE 2

• Z Telemetri

ZTerminal

Available Ports:

Prolific Tech.. ⌄

Settings:9600-8N1   Loaded Script
                     File:script.txt

Serial Communication Settings

Baud Rate: 9600   ⌄
Data Bits: 8   ⌄
Parity: None   ⌄
Stop Bits: 1   ⌄

Cancel   Save

Enter and save the appropriate
serial settings that matches with
your device which you will make
serial connection

FIGURE 3

ZTelemetri

03

SENDING DATA –
MANUALLY

Commands entered in hexadecimal or ASCII formats can easily be transmitted to serial devices via ZTerminal Software. Shortcut buttons are available for hexadecimal characters.

Select to access settings
and other options

Specify the character
type you want to send via
ZTerminal. ASCII format is
selected at the figure

Select whether to send
characters manually
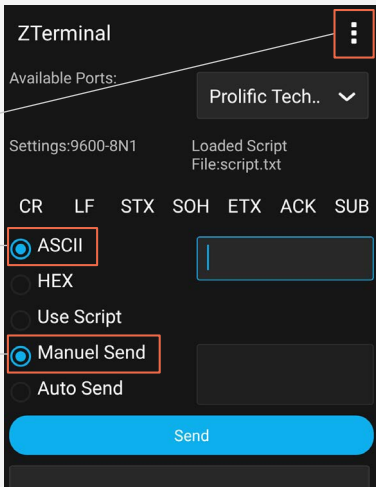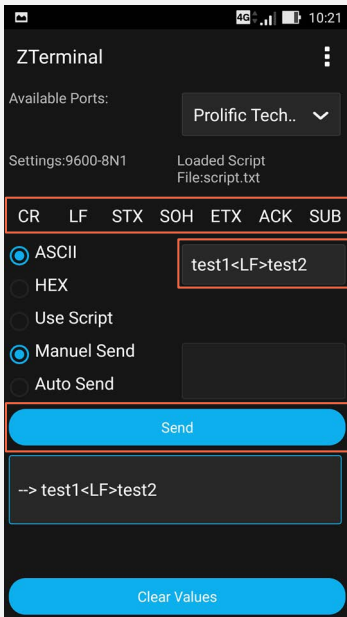or automatically via
ZTerminal. Manual mode is
selected at the figure

FIGURE 4

ZTerminal

Available Ports:

Prolific Tech.. ⌄

Settings:9600-8N1

Loaded Script
File:script.txt

CR   LF   STX   SOH   ETX   ACK   SUB

◉ ASCII

○ HEX

○ Use Script

◉ Manuel Send

○ Auto Send

Send

From the shortcut buttons, select the HEXADECIMAL control characters you want to include in the character string you want to send. Each character you chose will be added to the command line automatically:
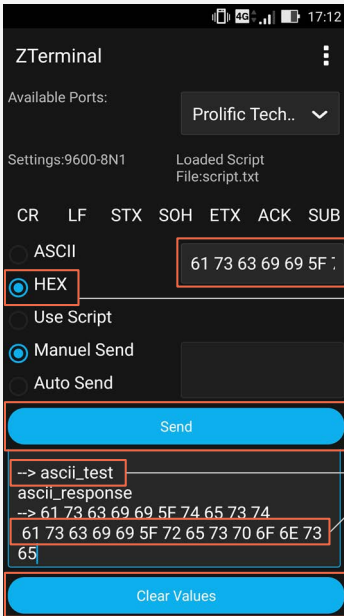
CR: 0x0D ETX: 00x03
LF: 0x0A ACK: 0x06
STX: 0x02 SUB: 0x1A
SOH: 0x01

are the shortcut buttons.

Write the ASCII character string you want to send, to the command line

Press the "Send" button and send the character sequence you specified

FIGURE 5

ZTerminal

Available Ports:

Prolific Tech.. ▼

Settings:9600-8N1

Loaded Script File:script.txt

CR LF STX SOH ETX ACK SUB

○ ASCII

● HEX

61 73 63 69 69 5F

○ Use Script

● Manuel Send

○ Auto Send

Send

```
--> ascii_test
ascii_response
--> 61 73 63 69 69 5F 74 65 73 74
61 73 63 69 69 5F 72 65 73 70 6F 6E 73
65
```

Clear Values

To send the command in hexadecimal format, select the relevant option and type the desired hexadecimal character sequence at the command line

Select the character type that you want to send via ZTerminal. Hexadecimal format is selected at the figure

Press the "Send" button and send the character sequence you specified

In this part, you can see the communication log that includes character strings sent in ASCII or hexadecimal format also the response from device

You can clear received and sent character sequences by pressing the "Clear Values" button

FIGURE 6

● ZTelemetri

04

SENDING DATA – AUTOMATICALLY

ZTerminal Software can automatically send the ASCII or hexadecimal commands periodically at the specified time intervals.

To send commands automatically, select the relevant option. After selecting this option, you will see warning at the bottom of the screen that states you must enter the time interval between each command sending procedure
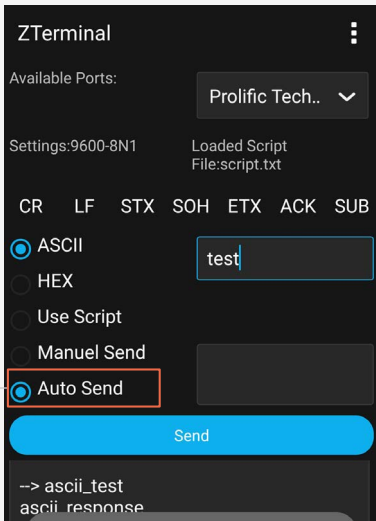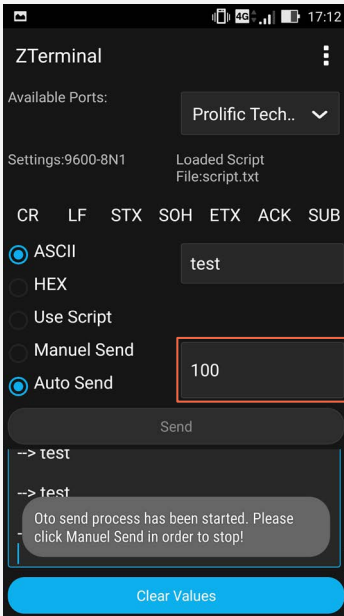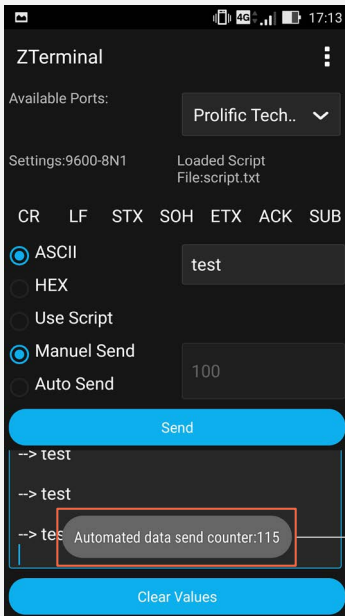
FIGURE 7

ZTerminal

Available Ports:

Prolific Tech.. ⌄

Settings:9600-8N1

Loaded Script File:script.txt

CR   LF   STX   SOH   ETX   ACK   SUB

◉ ASCII   test

○ HEX

○ Use Script

○ Manuel Send

◉ Auto Send

Send

--> ascii_test
ascii_response

Enter the time interval in milliseconds which will be used as period of automatic command sending process. This time interval can be minimum 50ms.

In order to stop the automatic sending process, you should choose the "Manuel Send" option again

FIGURE 8

• ZTelemetri

The software automatically reports the number of command that are sent automatically from the beginning to the end of the periodic sending process

FIGURE 9

• ZTelemetri

05

DATA SENDING – WITH SCRIPT

A previously prepared configuration command line file is very important in terms of avoiding time loss during applications as well as practicality in the field. ZTerminal Software offers this feature by script file option which is prepared in a specific format. ZTerminal Software can automatically send commands which are already prepared in the script file. These script type commands are similar to Python 3 scripting language.

This function allows user to specify the Baudrate value of serial communication. In this example Baudrate is set to 9600
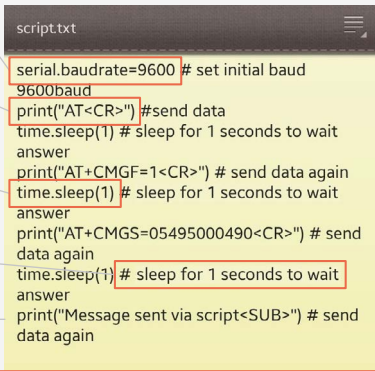
Using the Print(«») function you can send commands to the device. Write the command which you want to send, between brackets and quotation marks

The time.sleep() function is available for standby mode. For example, the expression time.sleep(1) represents to wait 1 second untill next command

You can write comments after the # mark. These parts will not be taken into account by the software

In the following example, you can see the commands to send SMS via GPRS modem
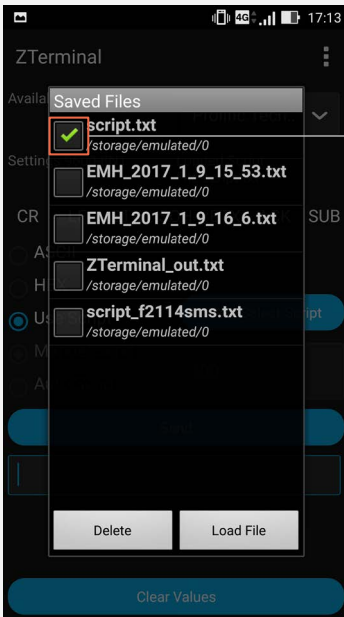
FIGURE 10

```
script.txt

serial.baudrate=9600 # set initial baud
9600baud
print("AT<CR>") #send data
time.sleep(1) # sleep for 1 seconds to wait
answer
print("AT+CMGF=1<CR>") # send data again
time.sleep(1) # sleep for 1 seconds to wait
answer
print("AT+CMGS=05495000490<CR>") # send
data again
time.sleep(1) # sleep for 1 seconds to wait
answer
print("Message sent via script<SUB>") # send
data again
```
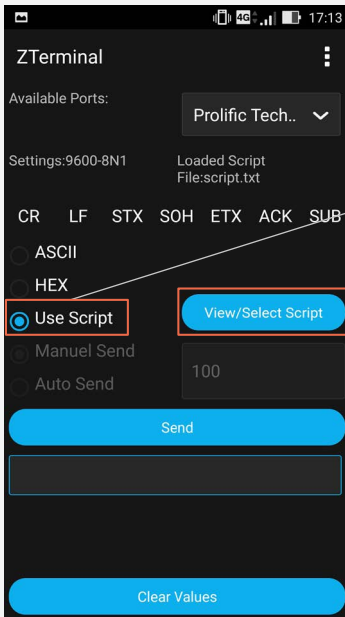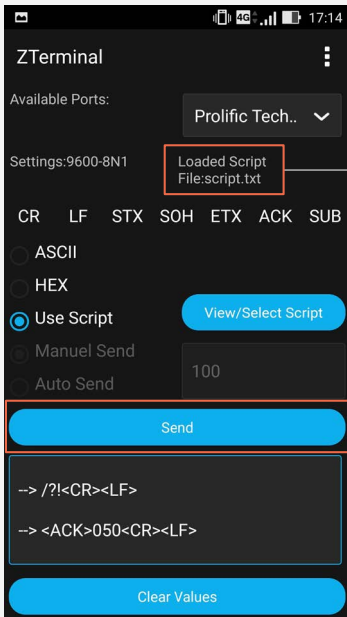
Select "Use Script" to use ZTerminal Software in script mode. Then press "View / Select Script" button

FIGURE 11

After marking the script file which you have already created as text file format, press the "Load File" button at the bottom. You can also delete the file using the "Delete" button. You can open the file by clicking on the file name

FIGURE 12

ZTelemebi

The selected file name will be displayed in this section

When you press the "Send" button, the relevant script commands will be processed line by line and the commands you specified will be executed

FIGURE 13

• ZTelemehi

06

OTHER FEATURES

In addition to "Serial Communication Settings" you can also choose "About" and "Save Output to File" options
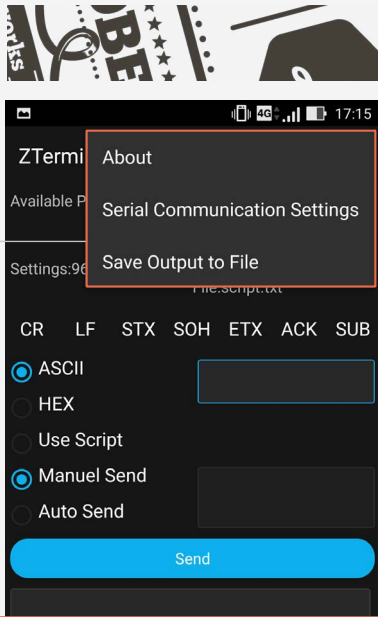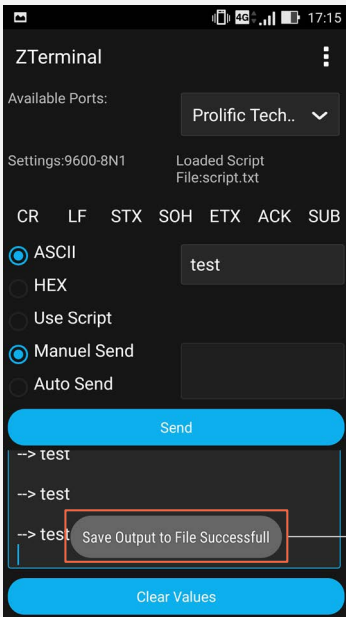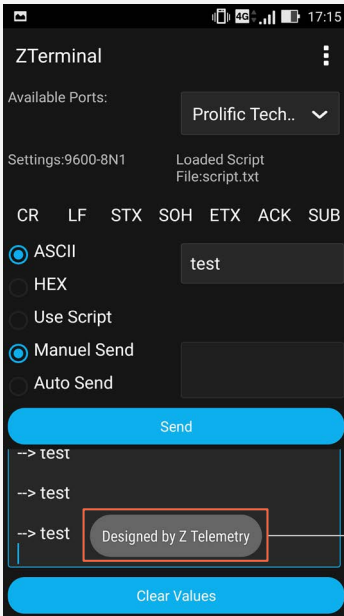

FIGURE 14

When "Save Output to File" option is selected, the existing communication record will be saved as a text file. It will also be notified that the saving process is completed successfully

FIGURE 15

A short description of the ZTerminal Software will be shown when the "About" option is selected

FIGURE 16