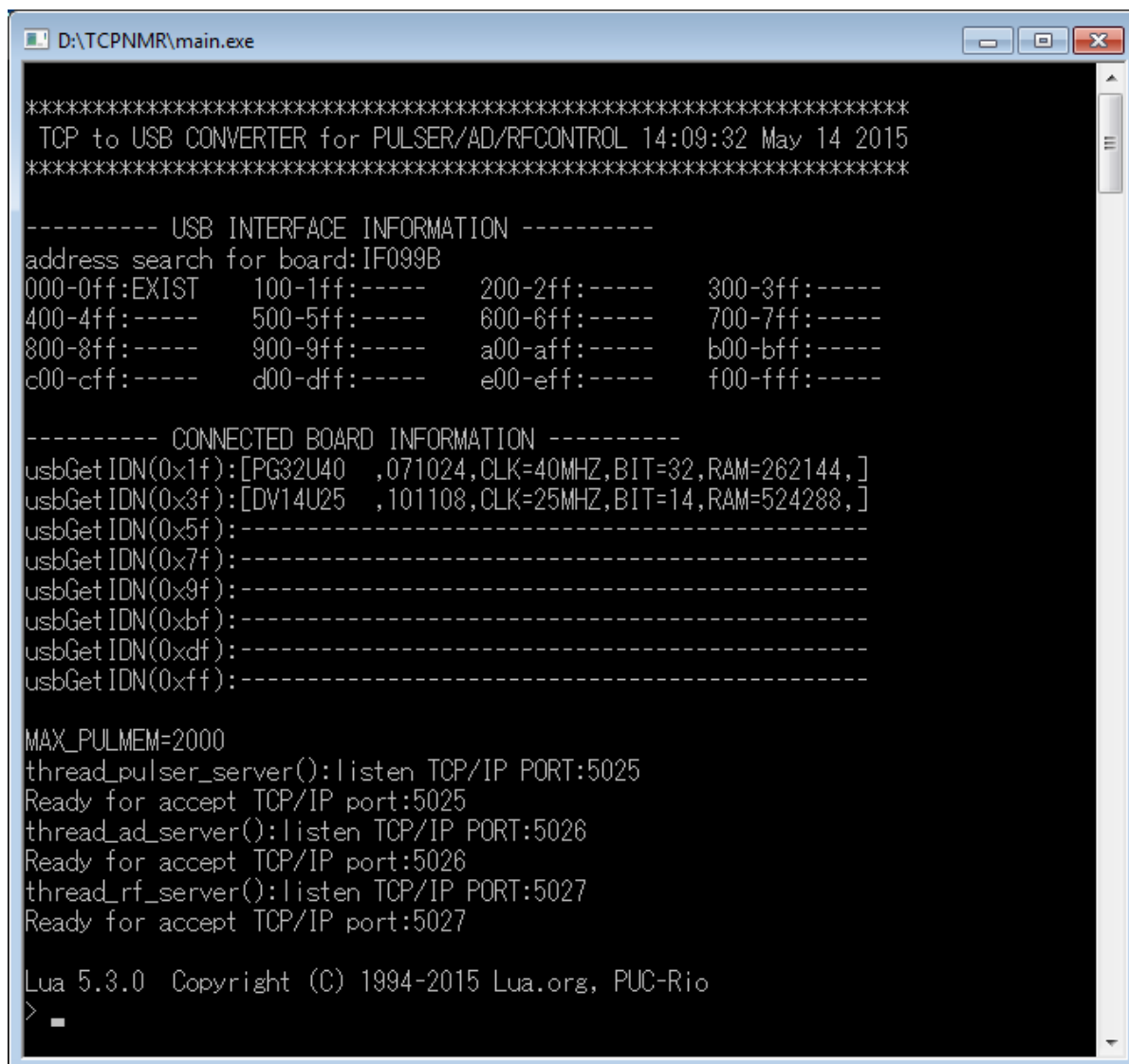


# THAMWAY PROT series hardware server software

## Lua command section

### Start screen image



```
D:\TCPNMR\main.exe

*****
TCP to USB CONVERTER for PULSER/AD/RFCONTROL 14:09:32 May 14 2015
*****

----- USB INTERFACE INFORMATION -----
address search for board:IF099B
000-0ff:EXIST    100-1ff:-----    200-2ff:-----    300-3ff:-----
400-4ff:-----    500-5ff:-----    600-6ff:-----    700-7ff:-----
800-8ff:-----    900-9ff:-----    a00-aff:-----    b00-bff:-----
c00-cff:-----    d00-dff:-----    e00-ef:-----    f00-fff:-----

----- CONNECTED BOARD INFORMATION -----
usbGet IDN(0x1f):[PG32U40  ,071024,CLK=40MHZ,BIT=32,RAM=262144,]
usbGet IDN(0x3f):[DV14U25  ,101108,CLK=25MHZ,BIT=14,RAM=524288,]
usbGet IDN(0x5f):-----
usbGet IDN(0x7f):-----
usbGet IDN(0x9f):-----
usbGet IDN(0xbf):-----
usbGet IDN(0xdf):-----
usbGet IDN(0xff):-----

MAX_PULMEM=2000
thread_pulser_server():listen TCP/IP PORT:5025
Ready for accept TCP/IP port:5025
thread_ad_server():listen TCP/IP PORT:5026
Ready for accept TCP/IP port:5026
thread_rf_server():listen TCP/IP PORT:5027
Ready for accept TCP/IP port:5027

Lua 5.3.0 Copyright (C) 1994-2015 Lua.org, PUC-Rio
> █
```

## About 'Lua' command

This software can also be operated using an internal Lua commands without using the TCP/IP connection. Operate and use the keyboard from the command line.

TCP / IP PORT: 5025 command, you can substitute callPG( "*pulsercommand*" ).

TCP / IP PORT: 5026 command, you can substitute callAD( "*AD command*" ).

TCP / IP PORT: 5027 command, you can substitute callRF( "*AD command*" ).

### Example

callPG( "start 10" )

callAD( "startad 256,1,1,0" )

callRF( "RFSWW1" )

callRF( "RFSWW0" )

# Additional Lua language Command Reference

This software has a built-in Lua language interpreter.

It adds a command for hardware operation to the standard Lua language.

## System command

To stop for a predetermined period of time.

[Format]

```
wait1ms( <integer number> )
```

[Description]

integer number    Stop the specified time. milliseconds to stop.

Exit the software

[Format]

```
os.exit()
```

[Description]

It will exit the software. This is a standard command of Lua.

## Hardware control command

Read data from the I/O port

[Format]

```
inb( <I/O address> )
```

```
inw( <I/O address> )
```

[Description]

It is used when operating the register of each device directly.

inb() It will read the byte data from the specified address.

inw() It will read the word data from the specified address.

The return value is an integer.

Write data to the I/O port

[Format]

```
outb( <I/O address> )
```

```
outw( <I/O address> )
```

[Description]

It is used when operating the register of each device directly.

outb() It will write the byte data to the specified address.

outw() It will write the word data to the specified address.

## Send a command to the device

---

### [Format]

```
callPG( <command string> )  
callAD( <command string> )  
callRF( <command string> )
```

### [Description]

callPG:Send a command to the pulser.

callAD:Send a command to the A/D board.

callRF:Send a command to the RF Controller.

The return value, all will be the string. TCP / IP connection similar message is returned.

### [Example]

```
callPG( "*idn?" )  
callAD( "*idn?" )  
callRF( "RFSWW1" )
```

## Other command

### Execute Lua script file

---

#### [Format]

```
dofile( <FileName> )
```

#### [Description]

Run the file specified by FileName.

Separated folder I specified in the "¥" instead of "/". This is a standard command of Lua.

#### [Example]

```
dofile( "example/myprogram.lua" )  
dofile( "d:/example/myprogram.lua" )
```