

*****Draft*****

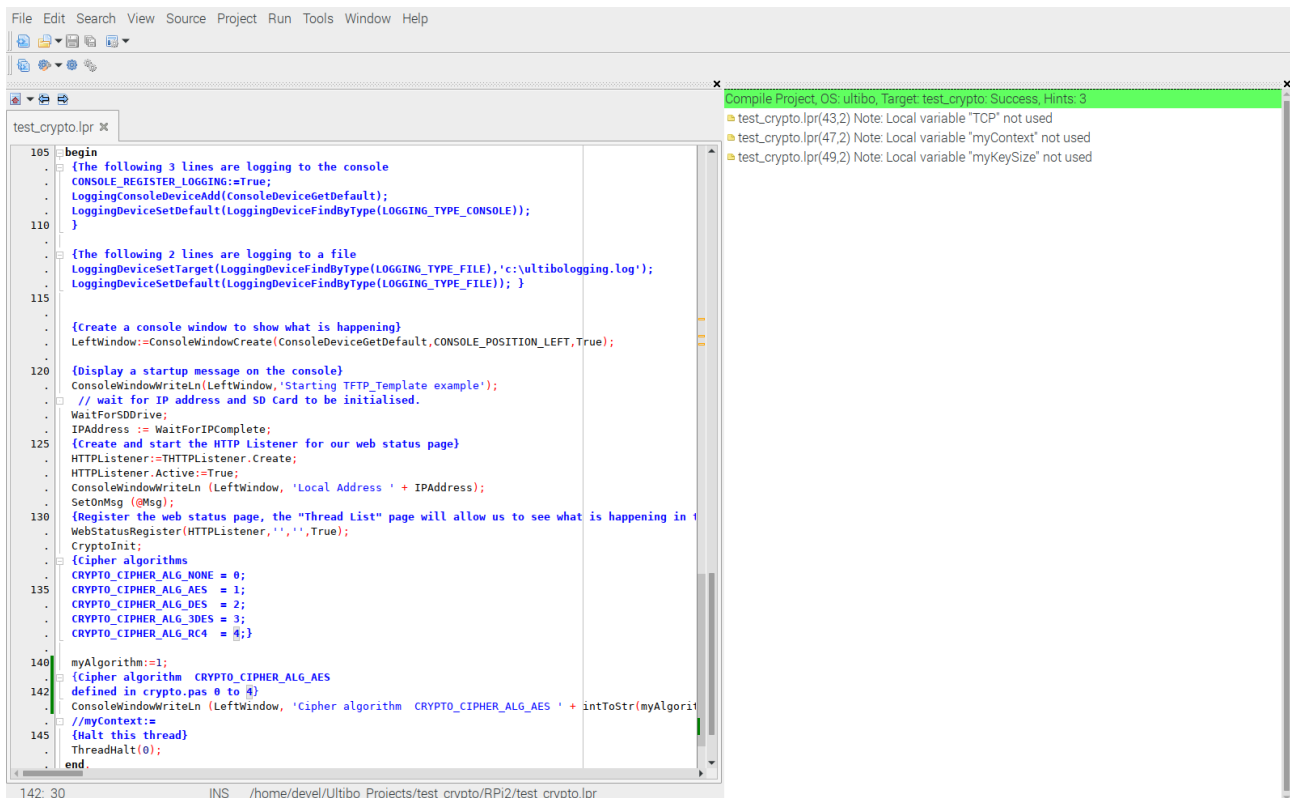
crypto notes 04/25/20

Starting with TFTP_Template

*****Draft*****

Started with the file from “TFTP_Template.lpr” to create “test_crypto.lpr” & “test_crypto.lpi”
In addition this needs uTFTP.pas, upker7.sh, and cmdstftp.

Compile the project with “Run/Compile” or “Run/Clean up and Build”.



```
File Edit Search View Source Project Run Tools Window Help
test_crypto.lpr x
105 begin
106 {The following 3 lines are logging to the console
107 . CONSOLE_REGISTER_LOGGING:=True;
108 . LoggingConsoleDeviceAdd(ConsoleDeviceGetDefault);
109 . LoggingDeviceSetDefault(LoggingDeviceFindByType(LOGGING_TYPE_CONSOLE));
110 }
111
112 {The following 2 lines are logging to a file
113 . LoggingDeviceSetTarget(LoggingDeviceFindByType(LOGGING_TYPE_FILE), 'c:\ultibo\logging.log');
114 . LoggingDeviceSetDefault(LoggingDeviceFindByType(LOGGING_TYPE_FILE)); }
115
116
117 {Create a console window to show what is happening}
118 . LeftWindow:=ConsoleWindowCreate(ConsoleDeviceGetDefault,CONSOLE_POSITION_LEFT,True);
119
120 {Display a startup message on the console}
121 . ConsoleWindowWriteLn(LeftWindow,'Starting TFTP_Template example');
122 . // wait for IP address and SD Card to be initialised.
123 . WaitForSDDrive;
124 . IPAddress := WaitForIPComplete;
125 {Create and start the HTTP Listener for our web status page}
126 . HTTPListener:=THTTPListener.Create;
127 . HTTPListener.Active:=True;
128 . ConsoleWindowWriteLn (LeftWindow, 'Local Address ' + IPAddress);
129 . SetOnMsg (@Msg);
130 {Register the web status page, the "Thread List" page will allow us to see what is happening in }
131 . WebStatusRegister(HTTPListener,'','',True);
132 . CryptoInit;
133 {Cipher algorithms
134 . CRYPTO_CIPHER_ALG_NONE = 0;
135 . CRYPTO_CIPHER_ALG_AES = 1;
136 . CRYPTO_CIPHER_ALG_DES = 2;
137 . CRYPTO_CIPHER_ALG_3DES = 3;
138 . CRYPTO_CIPHER_ALG_RC4 = 4;}
139
140 myAlgorithm:=1;
141 {Cipher algorithm CRYPTO_CIPHER_ALG_AES
142 defined in crypto.pas 0 to 4}
143 . ConsoleWindowWriteLn (LeftWindow, 'Cipher algorithm CRYPTO_CIPHER_ALG_AES ' + IntToStr(myAlgorit
144 . //myContext:=
145 {Halt this thread}
146 . ThreadHalt(0);
147 end.
```

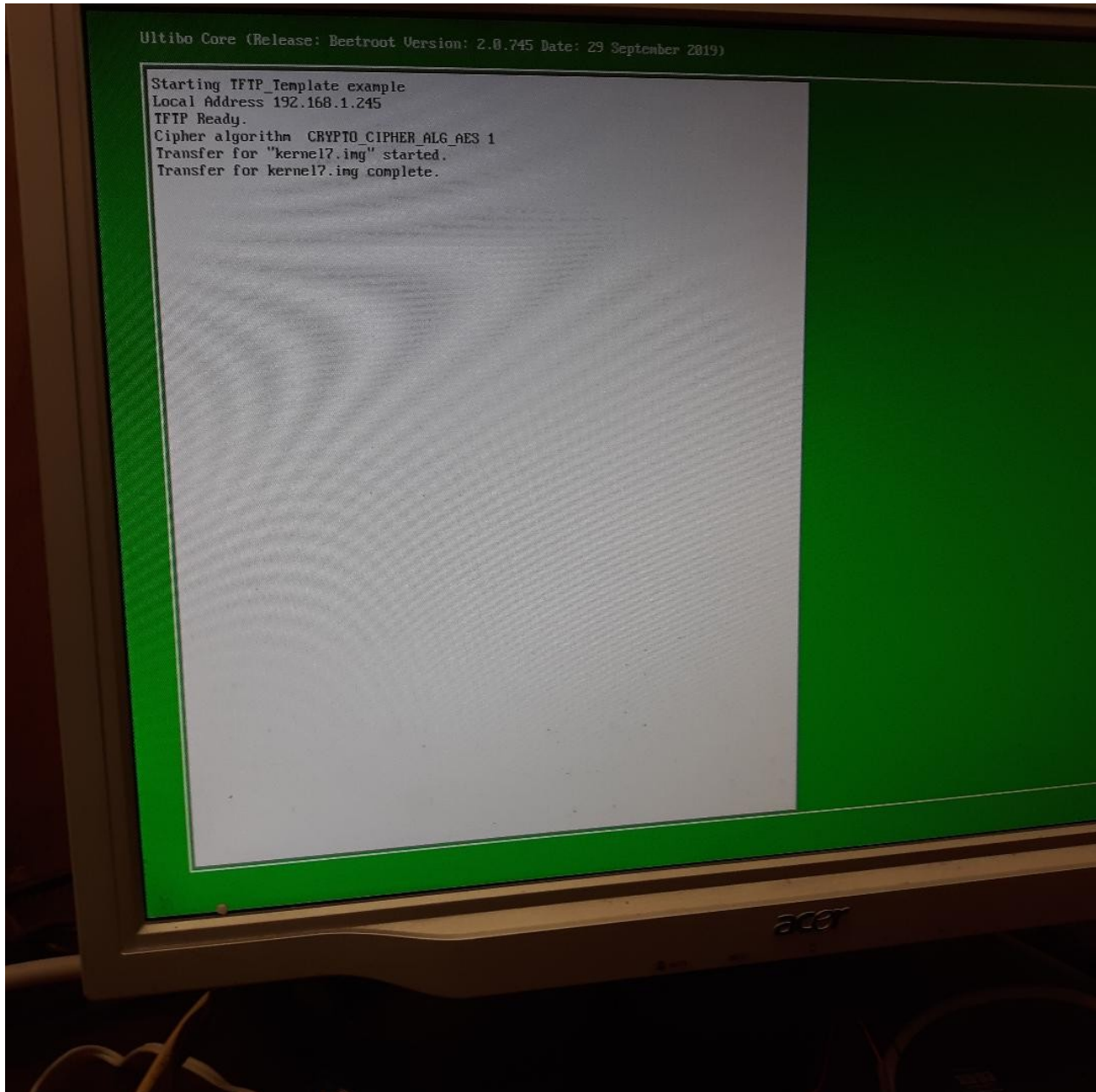
142: 30 INS /home/devel/Ultibo_Projects/test_crypto/RPi2/test_crypto.lpr

Compile Project OS: ultibo, Target: test_crypto: Success, Hints: 3

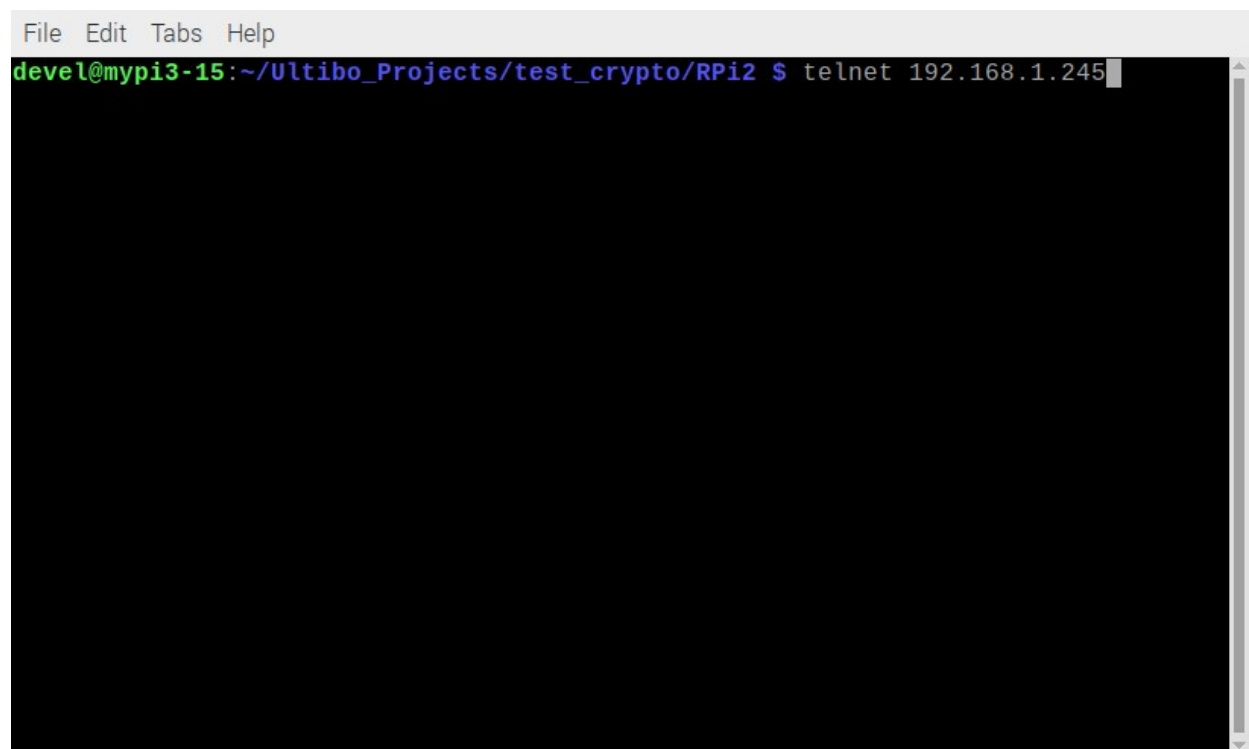
- test_crypto.lpr(43,2) Note: Local variable "TCP" not used
- test_crypto.lpr(47,2) Note: Local variable "myContext" not used
- test_crypto.lpr(49,2) Note: Local variable "myKeySize" not used

Once the Green bar is displayed it can be transfer to the Ultibo System.

./upker.sh



shell1

A terminal window with a light gray title bar containing the menu items 'File', 'Edit', 'Tabs', and 'Help'. The terminal has a black background. The prompt is 'devel@mypi3-15:~/Ultibo_Projects/test_crypto/RPi2 \$' in green and blue text. The command 'telnet 192.168.1.245' is entered in blue text, followed by a white cursor. A vertical scrollbar is on the right side of the terminal area.

```
File Edit Tabs Help
devel@mypi3-15:~/Ultibo_Projects/test_crypto/RPi2 $ telnet 192.168.1.245
```

shell2

```
File Edit Tabs Help
29-3-20 02:24:18      3798568 start_x.elf
29-3-20 02:24:18      3145850 t
29-3-20 02:24:20      635016 teapot.obj.dat
29-3-20 02:23:56         24 testfile
29-3-20 02:24:20     27983872 test.h264
29-3-20 02:24:24         500 test.html
10-4-20 16:23:58        7848 test.j2k
6-4-20 17:37:26     196730 test_wr.bmp
29-3-20 02:24:24         1718 ultibologging.log
29-3-20 02:24:24     27983872 v1.h264
29-3-20 02:24:30     1002763 v2.h264
29-3-20 02:24:30      <DIR> www
2-4-20 17:31:26      65596 red.pgm
2-4-20 17:31:38      65596 grn.pgm
2-4-20 17:31:52      65596 blu.pgm
6-4-20 11:23:30       1024 Sred.bin
6-4-20 11:23:34       1024 Sgrn.bin
6-4-20 11:23:36     262144 rcgrn.bin
6-4-20 11:23:38       1024 Sblu.bin
6-4-20 11:23:38     262144 rcblu.bin
      69 file(s) 136527430 bytes
      2 dir(s)

C:\>
```

Webstatus

(211 unread) - deve x | Wifi - Page 2 - ultib x | w Common Vulnerab x | develone/tiny-AES x | Ultibo Core (Releas x +

← → ↻ ⓘ Not secure | 192.168.1.245/status ☆ 🔒 🔐 ⓘ

Ultibo Core (Release: Beetroot Version: 2.0.745 Date: 29 September 2019)

General	General	
Platform	Release Name:	Beetroot
Memory	Release Version:	2.0.745
Heap Blocks	Release Date:	29 September 2019
CPU	Time (Local):	30-12-99 00:00:08
FPU	Time (UTC):	30-12-99 00:00:08
GPU	Timezone:	UTC
RTL	Daylight Start:	None
Clock	Daylight Date:	N/A
Locale	Standard Start:	None
Threading	Standard Date:	N/A
Thread List	Uptime:	0 days 00:00:08
Scheduler		
Devices		
Drivers		
Handles		
USB		
MMC / SD		
Network		
Storage		
Filesystem		
Disk Cache		
Keyboard		
Mouse		
Framebuffer		