Adding Webstatus to AsyncTest
RPi3B & RPi4B
06/12/21

The kernel7l,img was transferred to Ulitbo System with the following command **"tftp 192.168.1.143 < cmdstftp"**
tftp> tftp> Sent 2959144 bytes in 8.5 seconds
This new kernel7l.img will reboot.

Contents cmdstftp
binary
put kernel7l.img
quit

The kernel7,img was transferred to Ulitbo System with the following command
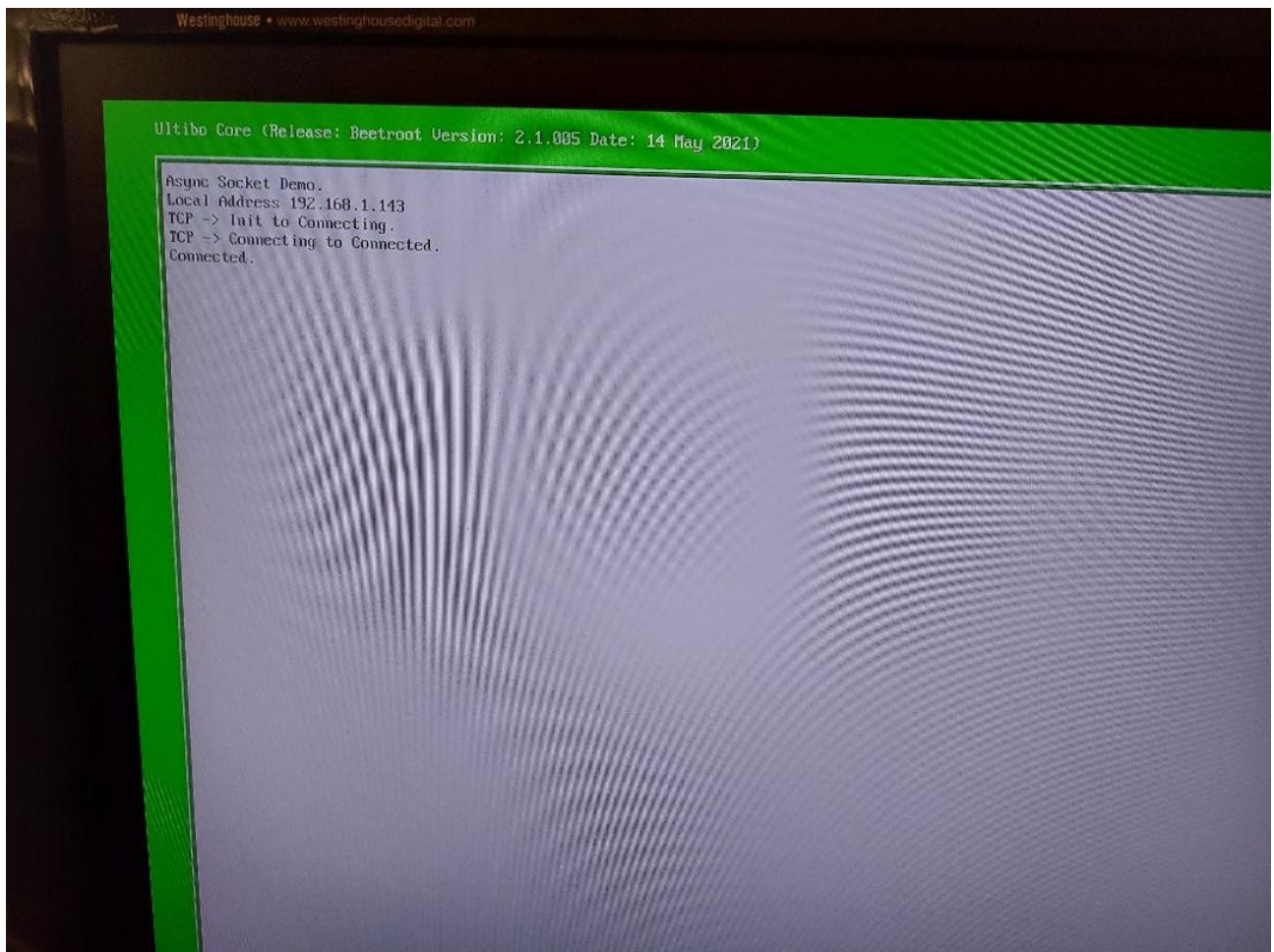"tftp 192.168.1.247 < cmdstftp"
tftp> tftp> Sent 2938280 bytes in 10.2 seconds

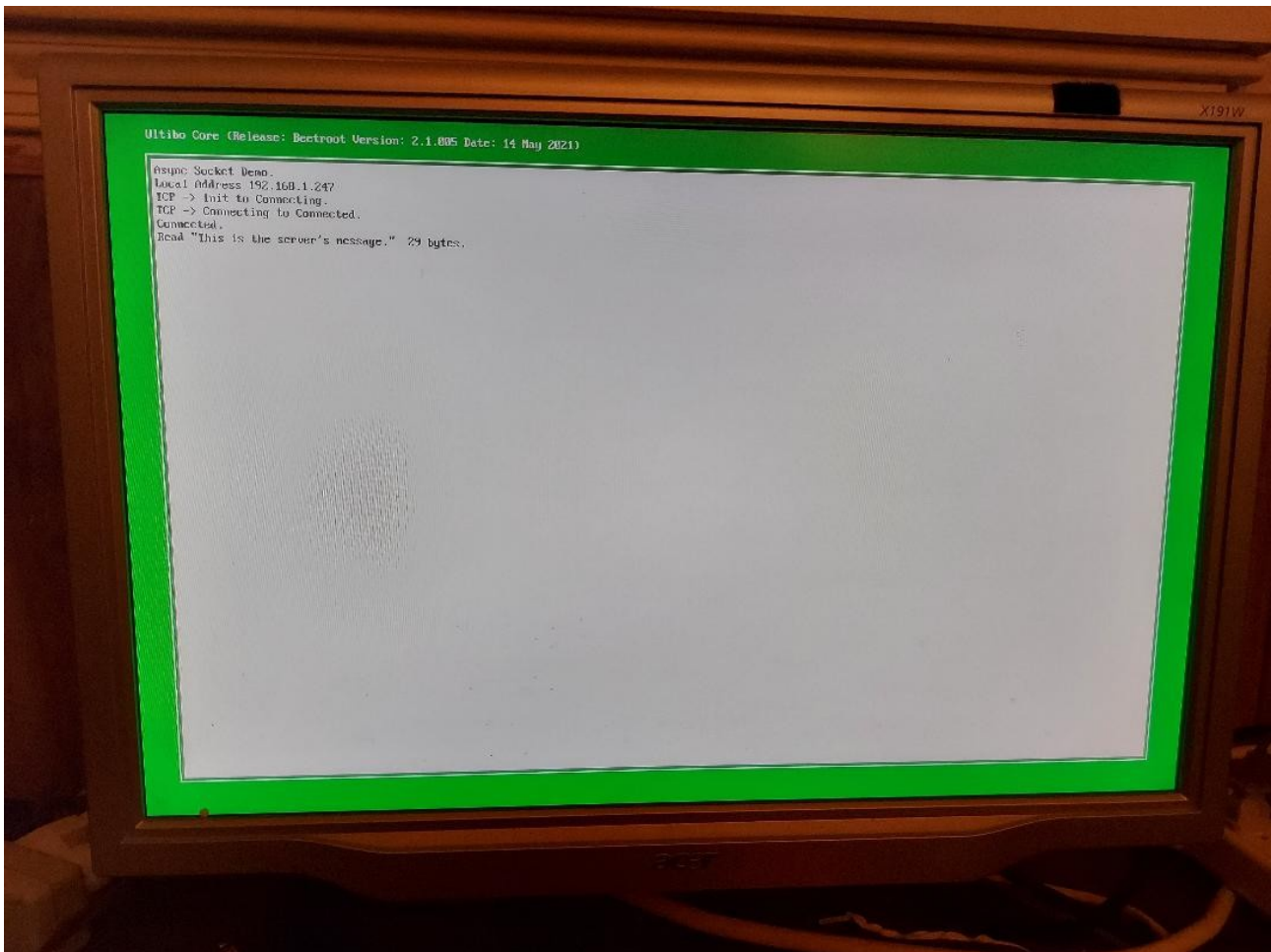Contents cmdstftp
binary
put kernel7.img
quit

Ultibo Core (Release: Beetroot Version: 2.1.005 Date: 14 May 2021)

Async Socket Demo.
Local Address 192.168.1.143
TCP -> Init to Connecting.
TCP -> Connecting to Connected.
Connected.

Rpi3B

Following the Reboot of Ultibo on RPi4B, if the server was running on Raspberry Pi OS

./server
Socket created successfully
Done with binding

Listening for incoming connections.....
Client connected at IP: 192.168.1.143 and port: 49152

Changes needed to support Webstatus.

git diff AsyncTest.lpr
diff --git a/AsyncTest/RPi4/AsyncTest.lpr b/AsyncTest/RPi4/AsyncTest.lpr
index c25f488..4602862 100644
--- a/AsyncTest/RPi4/AsyncTest.lpr
+++ b/AsyncTest/RPi4/AsyncTest.lpr
@@ -33,7 +33,8 @@ uses
  FileSystem, {Include the file system core and interfaces}
  FATFS,   {Include the FAT file system driver}
  MMC,   {Include the MMC/SD core to access our SD card}
- BCM2711,
+
+ //BCM2711,
  HTTP,   {Include HTTP and WebStatus so we can see from a web browser what is happening}

```
   WebStatus
   { Add additional units here };
@@ -43,6 +44,7 @@ var
  WindowHandle : TWindowHandle;
  IPAddress : string;
  ch : char;
+  HTTPListener:THTTPListener;

 function display_string (s : string) : string;
   var
@@ -118,7 +120,12 @@ begin
  aSocket.Addr := '192.168.1.245';
  aSocket.Port := 5050;
  aSocket.Connect;
-
+  {Create and start the HTTP Listener for our web status page}
+  HTTPListener:=THTTPListener.Create;
+  HTTPListener.Active:=True;
+  Sleep(5000);
+  {Register the web status page, the "Thread List" page will allow us to see what is happening in
the example}
+  WebStatusRegister(HTTPListener,'','',True);
   while true do
    begin
     if ConsoleReadChar (ch, nil) then
```

General

Ultibo Core (Release: Beetroot Version: 2.1.005 Date: 14 May 2021)

General		
Platform		**General**
Memory		
Heap Blocks	Release Name:	Beetroot
CPU	Release Version:	2.1.005
FPU	Release Date:	14 May 2021
GPU		
RTL	Time (Local):	12-6-21 15:00:43
Clock	Time (UTC):	12-6-21 15:00:43
Locale		
Threading	Timezone:	UTC
Thread List		
Scheduler	Daylight Start:	None
Devices	Daylight Date:	N/A
Drivers		
Handles	Standard Start:	None
USB	Standard Date:	N/A
MMC / SD		
Network	Temperature (SoC):	42.318 degrees Celcius
Storage		
Filesystem	Uptime:	0 days 00:02:31
Disk Cache		
Keyboard		
Mouse		
Touch		
Framebuffer		
Environment		
Page Tables		
Vector Tables		
IRQ / FIQ / IPI / SWI		
GPIO		
Configuration		

CPU RPi4B

Ultibo Core (Release: Beetroot Version: 2.1.005 Date: 14 May 2021)

General		
Platform		**CPU**
Memory	CPU Arch:	CPU_ARCH_ARM32
Heap Blocks	CPU Type:	CPU_TYPE_ARMV8
CPU	CPU Model:	CPU_MODEL_CORTEX_A72
FPU	CPU Revision:	0x00000003
GPU	CPU Description:	ARM Cortex-A72 MPCore
RTL	CPU Boot:	CPU_ID_0
Clock	CPU Mask:	0x0000000F
Locale	CPU Count:	4
Threading	CPU Max Count:	4
Thread List	CPU Mode:	0x0000001F
Scheduler	CPU Group:	CPU_GROUP_0
Devices	CPU Current:	CPU_ID_1
Drivers	CPU Memory:	Address: 0x00000000
Handles		Size: 939524096
USB	CPU Utilization:	CPU_ID_0: 0.2%
MMC / SD		CPU_ID_1: 0.7%
Network		CPU_ID_2: 0%
Storage		CPU_ID_3: 0.8%
Filesystem		
Disk Cache	System Utilization (Average):	0.4%
Keyboard		
Mouse	L1 Cache Type:	CACHE_TYPE_SEPARATE
Touch	L1 Data Cache Size:	32768
Framebuffer	L1 Instruction Cache Size:	32768
Environment	L1 Data Cache Line Size:	64
Page Tables	L1 Instruction Cache Line Size:	64
Vector Tables		
IRQ / FIQ / IPI / SWI	L2 Cache Type:	CACHE_TYPE_UNIFIED
GPIO	L2 Cache Size:	1048576
Configuration	L2 Cache Line Size:	64

CPU RPi3B

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CPU

CPU Arch:	CPU_ARCH_ARM32
CPU Type:	CPU_TYPE_ARMV8
CPU Model:	CPU_MODEL_CORTEX_A53
CPU Revision:	0x00000004
CPU Description:	ARM Cortex-A53 MPCore
CPU Boot:	CPU_ID_0
CPU Mask:	0x0000000F
CPU Count:	4
CPU Max Count:	4
CPU Mode:	0x0000001F
CPU Group:	CPU_GROUP_0
CPU Current:	CPU_ID_2
CPU Memory:	Address: 0x00000000
	Size: 939524096
CPU Utilization:	CPU_ID_0: 0%
	CPU_ID_1: 0%
	CPU_ID_2: 0%
	CPU_ID_3: 0%
System Utilization (Average):	0%
L1 Cache Type:	CACHE_TYPE_SEPARATE
L1 Data Cache Size:	32768
L1 Instruction Cache Size:	32768
L1 Data Cache Line Size:	64
L1 Instruction Cache Line Size:	64
L2 Cache Type:	CACHE_TYPE_UNIFIED
L2 Cache Size:	524288
L2 Cache Line Size:	64

Platform RPi4B

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Platform

Board Type:	BOARD_TYPE_RPI4B
Board Model:	0
Board Serial:	0x10000000A9740576
Board Revision:	0x00C03111
Firmware Revision:	0x608C2857 (1619798103)
Machine Type:	MACHINE_TYPE_BCM2711
Memory Base:	0x00000000
Memory Size:	4294967296
Page Size:	4096
Section Size:	2097152
Large Section Size:	1073741824
Power State	
POWER_ID_MMC0:	POWER_STATE_ON
POWER_ID_MMC1:	POWER_STATE_OFF
POWER_ID_MMC2:	POWER_STATE_ON
POWER_ID_MMC3:	POWER_STATE_OFF
POWER_ID_UART0:	POWER_STATE_OFF
POWER_ID_UART1:	POWER_STATE_OFF
POWER_ID_UART2:	POWER_STATE_OFF
POWER_ID_UART3:	POWER_STATE_OFF
POWER_ID_USB0:	POWER_STATE_ON
POWER_ID_USB1:	POWER_STATE_OFF
POWER_ID_USB2:	POWER_STATE_OFF
POWER_ID_USB3:	POWER_STATE_OFF
POWER_ID_I2C0:	POWER_STATE_OFF
POWER_ID_I2C1:	POWER_STATE_OFF
POWER_ID_I2C2:	POWER_STATE_OFF
POWER_ID_I2C3:	POWER_STATE_OFF
POWER_ID_SPI0:	POWER_STATE_OFF
POWER_ID_SPI1:	POWER_STATE_OFF
POWER_ID_SPI2:	POWER_STATE_OFF
POWER_ID_SPI3:	POWER_STATE_OFF
POWER_ID_CCP2TX:	POWER_STATE_OFF

Platform Rpi3B

Ultibo Core (Release: Beetroot Version: 2.1.005 Date: 14 May 2021)

General	**Platform**
Platform	
Memory	Board Type: BOARD_TYPE_RPI3B_PLUS
Heap Blocks	Board Model: 0
CPU	Board Serial: 0x00000000D67FBCB2
FPU	Board Revision: 0x00A020D3
GPU	
RTL	Firmware Revision: 0x5E4EB7C2 (1582217154)
Clock	
Locale	Machine Type: MACHINE_TYPE_BCM2710
Threading	
Thread List	Memory Base: 0x00000000
Scheduler	Memory Size: 1073741824
Devices	
Drivers	Page Size: 4096
Handles	Large Page Size: 65536
USB	
MMC / SD	Section Size: 1048576
Network	
Storage	Power State
Filesystem	POWER_ID_MMC0: POWER_STATE_ON
Disk Cache	POWER_ID_MMC1: POWER_STATE_OFF
Keyboard	POWER_ID_MMC2: POWER_STATE_OFF
Mouse	POWER_ID_MMC3: POWER_STATE_OFF
Touch	POWER_ID_UART0: POWER_STATE_OFF
Framebuffer	POWER_ID_UART1: POWER_STATE_OFF
Environment	POWER_ID_UART2: POWER_STATE_OFF
Page Tables	POWER_ID_UART3: POWER_STATE_OFF
Vector Tables	POWER_ID_USB0: POWER_STATE_ON
IRQ / FIQ / SWI	POWER_ID_USB1: POWER_STATE_OFF
GPIO	POWER_ID_USB2: POWER_STATE_OFF
Configuration	POWER_ID_USB3: POWER_STATE_OFF

Thread List

Ultibo Core (Release: Beetroot Version: 2.1.005 Date: 14 May 2021)

Thread List

	Handle	Name	State	Priority	CPU
General	0x033FDB4C	TCP Server	THREAD_STATE_RUNNING	THREAD_PRIORITY_NORMAL	CPU_ID_2
Platform	0x032F8288	TCP Listener	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_0
Memory	0x02EEF20C	RTL Thread	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_3
Heap Blocks	0x02D70B0C	Filesystem Cache	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHER	CPU_ID_2
CPU	0x01C54358	Network Adapter (Network0)	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHER	CPU_ID_1
FPU	0x0199A5B0	DWC Transfer Completion	THREAD_STATE_RECEIVE	THREAD_PRIORITY_HIGHEST	CPU_ID_0
GPU	0x0198E8E0	DWC Transfer Scheduler	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHEST	CPU_ID_3
RTL	0x018C66F0	USB Hub	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_2
Clock	0x017C0174	TCP Listener	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_1
Locale	0x016B5620	UDP Server	THREAD_STATE_SUSPENDED	THREAD_PRIORITY_NORMAL	CPU_ID_0
Threading	0x015B17BC	UDP Server	THREAD_STATE_SUSPENDED	THREAD_PRIORITY_NORMAL	CPU_ID_3
Thread List	0x014AD958	UDP Server	THREAD_STATE_SUSPENDED	THREAD_PRIORITY_NORMAL	CPU_ID_2
Scheduler	0x013A8CA8	UDP Server	THREAD_STATE_SUSPENDED	THREAD_PRIORITY_NORMAL	CPU_ID_1
Devices	0x013A6830	UDP Server	THREAD_STATE_SUSPENDED	THREAD_PRIORITY_NORMAL	CPU_ID_0
Drivers	0x01281220	UDP Listener	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_3
Handles	0x00E7F7D4	Network Protocol (TCP)	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHER	CPU_ID_2
USB	0x00D64908	Network Adapter (Loopback)	THREAD_STATE_RECEIVE	THREAD_PRIORITY_HIGHER	CPU_ID_1
MMC / SD	0x00CEBDF8	Logging	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_0
Network	0x00C0B8F0	Idle2	THREAD_STATE_READY	THREAD_PRIORITY_IDLE	CPU_ID_2
Storage	0x00CB4A74	Idle3	THREAD_STATE_RUNNING	THREAD_PRIORITY_IDLE	CPU_ID_3
Filesystem	0x00CA9A98	Idle1	THREAD_STATE_RUNNING	THREAD_PRIORITY_IDLE	CPU_ID_1
Disk Cache	0x00C93E1C	SWI2	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_2
Keyboard	0x00C93A14	SWI3	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_3
Mouse	0x00C88A6C	SWI1	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_1
Touch	0x00C67950	FIQ2	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_2
Framebuffer	0x00C7DA1C	FIQ3	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_3
Environment	0x00C7DE24	FIQ1	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_1
Page Tables	0x00C648F8	IRQ3	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_3
Vector Tables	0x00C36838	IRQ2	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_2
IRQ / FIQ / IPI / SWI	0x00C08778	IRQ1	THREAD_STATE_READY	THREAD_PRIORITY_NONE	CPU_ID_1
GPIO	0x00B9994C	Priority Worker1	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHER	CPU_ID_2
Configuration	0x00B54C1C	Priority Worker0	THREAD_STATE_WAIT	THREAD_PRIORITY_HIGHER	CPU_ID_1
	0x00B07D90	Worker7	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_0
	0x00AC40C0	Worker6	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_3
	0x00A803F0	Worker5	THREAD_STATE_WAIT	THREAD_PRIORITY_NORMAL	CPU_ID_2