UDPServerGPS
04/27/19

Using the browser to find the IP of the Ultibo System.

Device IP Address / Name   Status Connection   Radio, Type, Name
99.184.183.104 / ws010   off   Ethernet
192.168.1.65 / uverse_DVR_ETH_08:80:39:11:88:a2   on   Ethernet
192.168.1.71 / vidals-iPad   on   Wi-Fi   Wi-Fi 1 bar   2.4 GHz, Home, ATT9x2x9j7
192.168.1.93 / mypi3-4   on   Ethernet
192.168.1.143 / unknown68ee96256c06   on   Ethernet
192.168.1.154 / unknown702559c68dbe   on   Ethernet
192.168.1.155 / uverse_NODE_WIFI_84:8d:c7:8f:bd:a3   on   Ethernet
192.168.1.169 / mypi3-3wifi on   Wi-Fi   Wi-Fi 5 bars   2.4 GHz, Home, ATT9x2x9j7
192.168.1.179 / localhost   on   Ethernet
192.168.1.185 / localhost   off   Ethernet
192.168.1.197 / unknown702559a5077a   on   Ethernet
192.168.1.198 / uverse_NODE_WIFI_84:8d:c7:29:73:72   on   Ethernet
192.168.1.215 / mypi3-1   on   Ethernet
192.168.1.220 / mypi3-7wifi on   Wi-Fi   Wi-Fi 4 bars   2.4 GHz, Home, ATT9x2x9j7
192.168.1.224 / Galaxy-J7-V on   Wi-Fi   Wi-Fi 5 bars   2.4 GHz, Home, ATT9x2x9j7
192.168.1.225 / Galaxy-J7-V on   Wi-Fi   Wi-Fi 5 bars   2.4 GHz, Home, ATT9x2x9j7

Before compiling the kernel7.img from UDPServerGPS.lpi
pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/RPi2 $ ./libbuild.sh WR
Compiling checksum_ultibo.c
Compiling with -D WR
Creating libgps.a
Sat Apr 27 10:28:14 MDT 2019
-rw-r--r-- 1 pi pi 1644 Apr 27 10:28 checksum_ultibo.o
-rw-r--r-- 1 pi pi 1884 Apr 27 10:28 libgps.a
pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/RPi2 $ ./libbuild.sh
Compiling checksum_ultibo.c
./libbuild.sh: line 5: [: =: unary operator expected
Not compiling with -D WR
Creating libgps.a
Sat Apr 27 10:28:20 MDT 2019
-rw-r--r-- 1 pi pi 1332 Apr 27 10:28 checksum_ultibo.o
-rw-r--r-- 1 pi pi 1572 Apr 27 10:28 libgps.a

The program /home/pi/Ultibo_Projects/gpsudpserver/RPi2/Client_Server_Ex/
pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/RPi2/Client_Server_Ex $ gcc -o server server.c

pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/RPi2/Client_Server_Ex $ ./server
displays the messages from Ultibo System

These are the logging message sent from Ultibo System.

Waiting for data...Received packet from 192.168.1.179:49215
Data: <14>Apr 27 16:14:30 192.168.1.179 00000AA8 - 004699DC:0 -
$GPVTG,68.42,T,,M,1.68,N,3.11,K,D*0C
5467,W,1.68,68.42,270419,,,D*4C
000,0000*6D

These are the lines in file InitUnitGPS.pas that describe the port & IP where to send the logging messages.

 {Set SysLog to send logs to our UDP server}
 SYSLOG_SERVER_DEFAULT:='192.168.1.215';
 SYSLOG_PORT_DEFAULT:=8888;
 SYSLOG_PROTOCOL_DEFAULT:=LOGGING_PROTOCOL_UDP;

This are the line in file ServerUnitGPS.pas
SendDataTo('192.168.1.215',8888,PChar(MessageText),Length(MessageText));
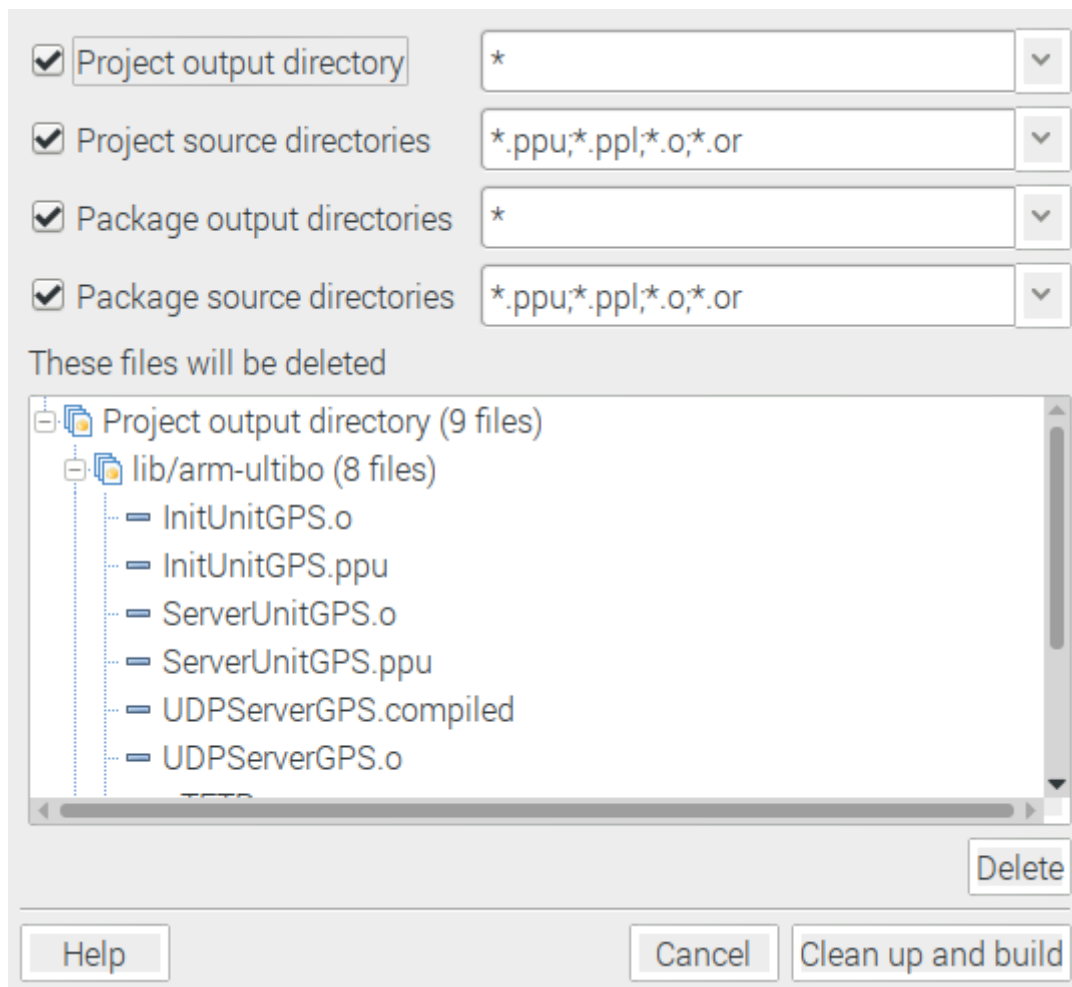
Open a new project
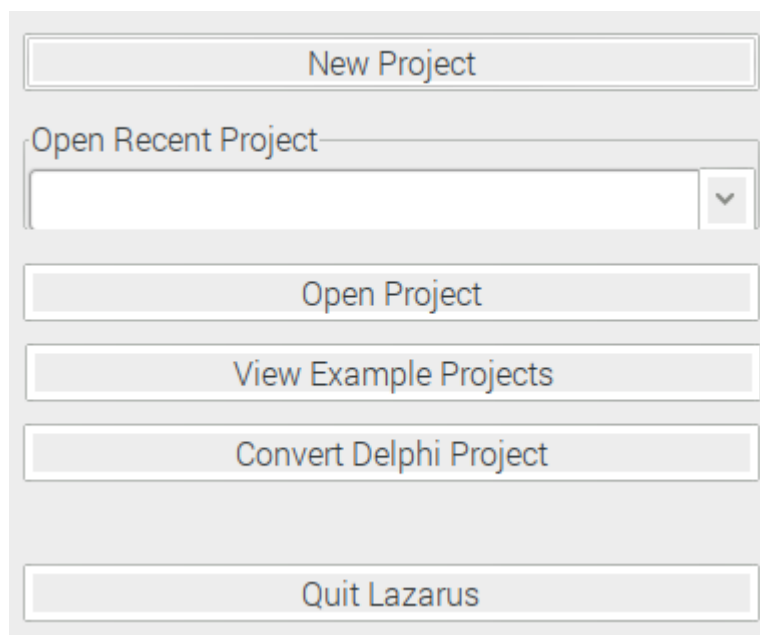
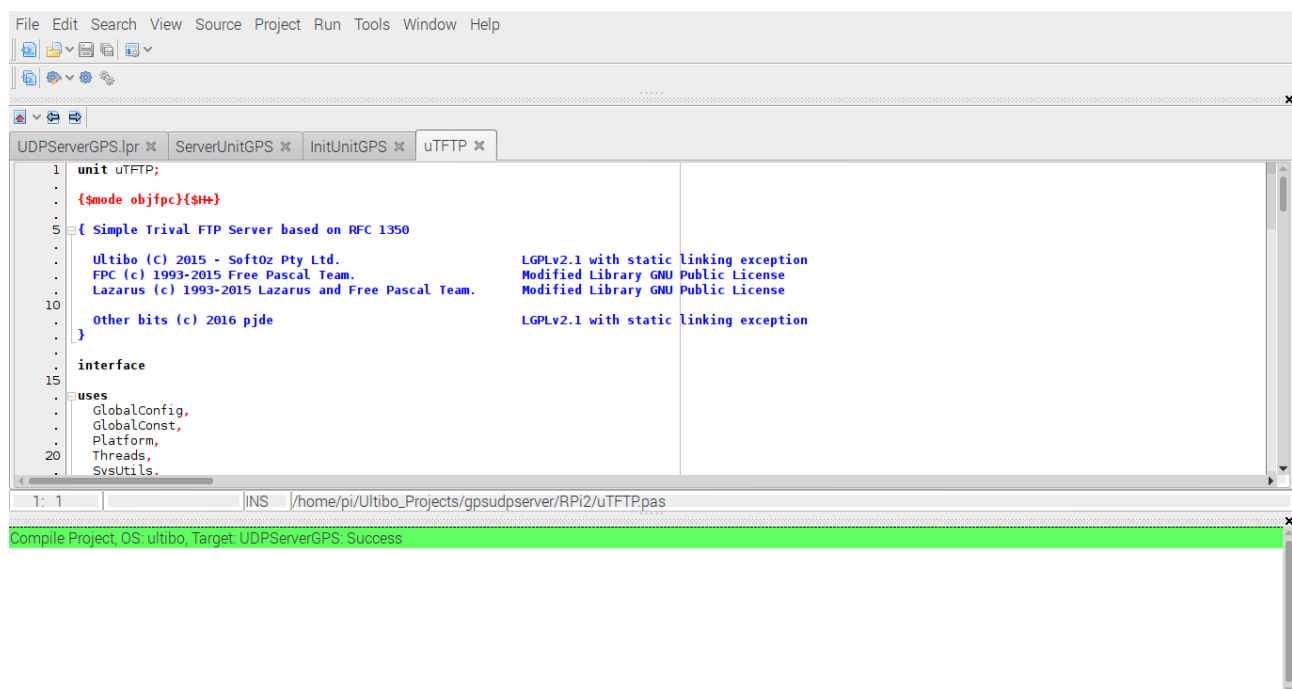Select the UDPServerGPS.lpi
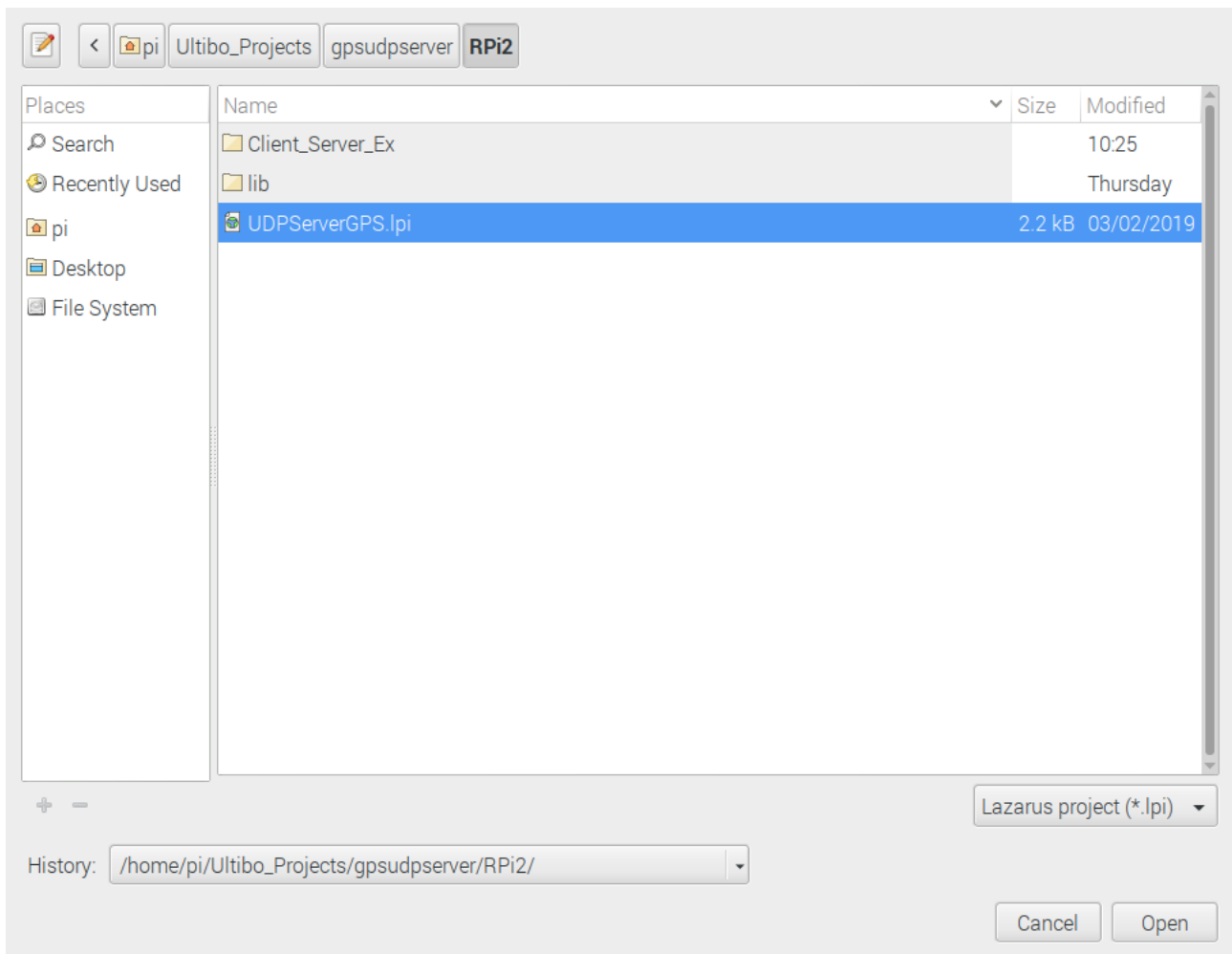
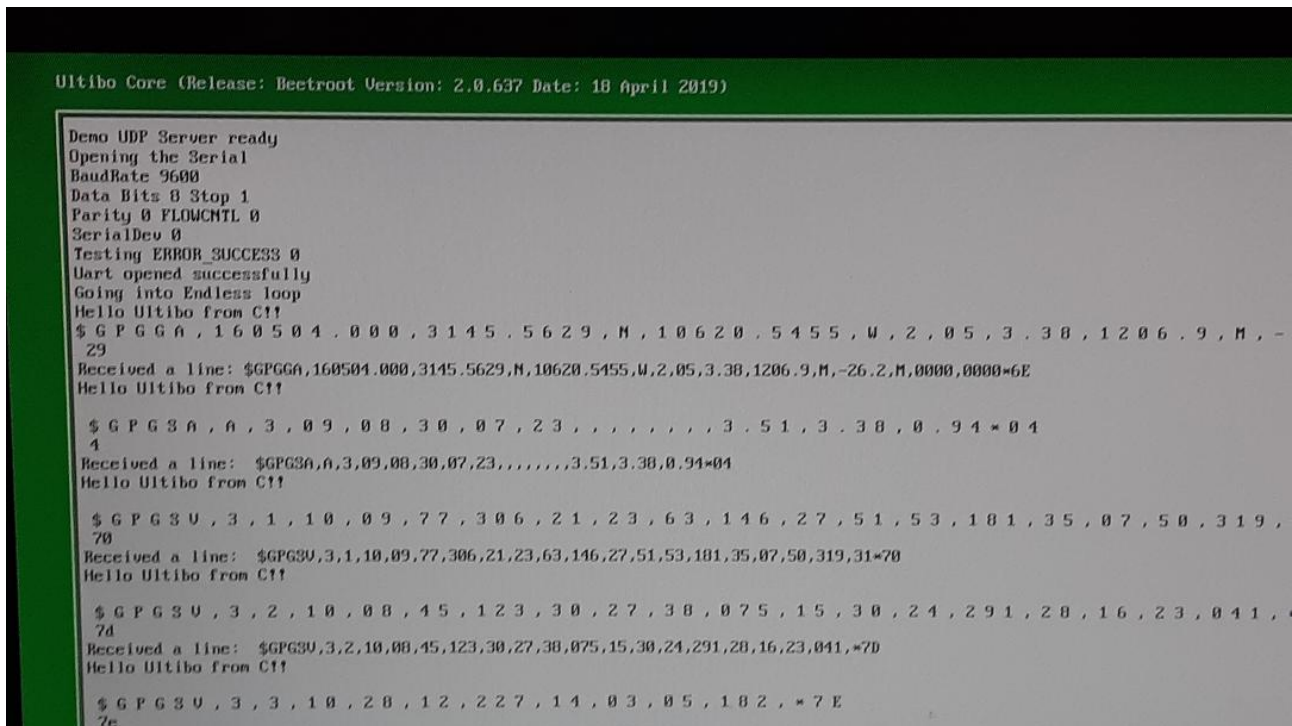This displays the files used in the project.
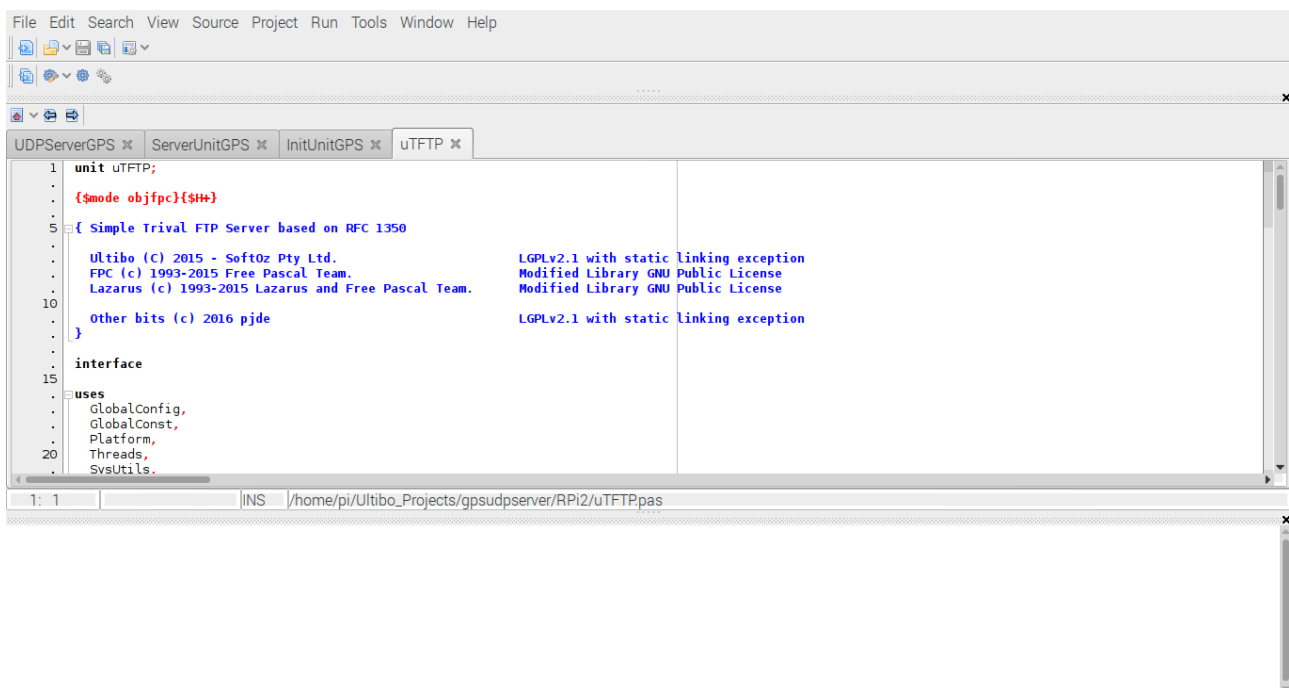
From Run/Clean up and Build

Depress Clean up and build

The kernel7.img can now be transferred to Ultibo System with GPS connected to Rpi2B RX.

pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/RPi2 $ tftp 192.168.1.179 < cmdstftp
tftp> tftp> Sent 2880960 bytes in 16.5 seconds

Following the reboot the follow image wil be displayed.

A telnet session can also be established with the Ultibo System.

pi@mypi3-1:~/Ultibo_Projects/gpsudpserver/doc $ telnet 192.168.1.179

Ultibo Core (Release: Beetroot Version: 2.0.637 Date: 18 April 2019)
 (Type HELP for a list of available commands)
Available commands:
 HELP
 INFO
 VER
 TIME
 CLS
 RESTART
 SHUTDOWN
 UPTIME
 THREAD
 MEMORY
 DEVICE
 FILESYSTEM
 CONTROLLER
 DISK
 PARTITION
 VOLUME
 DRIVE
 CACHE
 DIR

CD
MD
RD
TYPE
COPY
MOVE
DEL
REN
ATTRIB
TOUCH
VOL
LABEL
DELTREE
XCOPY
UPDATE
LOGOUT

The server receiving data from the Ultibo System


```
File  Edit  Tabs  Help
00,0000*60
v
Waiting for data...Received packet from 192.168.1.179:49215
Data: <14>Apr 27 17:06:56 192.168.1.179 00001D25 - 004699DC:0 -
$GPGGA,170657.000,3145.5650,N,10620.5432,W,2,07,1.20,1192.9,M,-26.2,M,0000,0000*
62
v
Waiting for data...Received packet from 192.168.1.179:49215
Data: <14>Apr 27 17:06:56 192.168.1.179 00001D26 - 004699DC:0 -
$GPGSA,A,3,09,08,23,27,11,30,07,,,,,,1.51,1.20,0.91*0D
2.9,M,-26.2,M,0000,0000*62
v
Waiting for data...Received packet from 192.168.1.179:49215
Data: <14>Apr 27 17:06:56 192.168.1.179 00001D27 - 004699DC:0 -
$GPRMC,170657.000,A,3145.5650,N,10620.5432,W,0.30,48.06,270419,,,D*4B
000,0000*62
v
Waiting for data...Received packet from 192.168.1.179:49215
Data: <14>Apr 27 17:06:57 192.168.1.179 00001D28 - 004699DC:0 -
$GPVTG,48.06,T,,M,0.30,N,0.56,K,D*02
5432,W,0.30,48.06,270419,,,D*4B
000,0000*62
v
Waiting for data...
```