

*****Draft*****
09/17/20
lvgl
*****Draft*****

Forked https://github.com/cejasmamas/ultibo_lvgl

git clone https://github.com/develone/ultibo_lvgl.git

unzipped these 2 files lv_examples.zip lvgl.zip which provides the C sources.

I created a script compile.sh based on compile.bat

compile.sh

```
#!/bin/bash
rm -f *.o libultiboCgeneric.a
arm-none-eabi-gcc -O2 -mabi=aapcs -marm -march=armv7-a -mfpu=vfpv3-d16 \
-mfloat-abi=hard -D__DYNAMIC_REENT__ -I libtess2/Include/ -c ultiboClvgl.c lvgl/src/lv_core/
*.c \
lvgl/src/lv_draw/*.c lvgl/src/lv_font/*.c lvgl/src/lv_gpu/*.c lvgl/src/lv_hal/*.c \
lvgl/src/lv_misc/*.c lvgl/src/lv_themes/*.c lvgl/src/lv_widgets/*.c \
lv_examples/src/lv_demo_printer/*.c lv_examples/src/lv_demo_printer/images/*.c \
lv_examples/src/lv_demo_benchmark/*.c lv_examples/assets/*.c
arm-none-eabi-ar rcs libultiboClvgl.a *.o
arm-none-eabi-objdump -d libultiboClvgl.a > libultiboClvgl.txt
```

Project needed a fix.

git remote add upstream https://github.com/cejasmamas/ultibo_lvgl

git fetch upstream

git merge upstream/master

git push origin master

https://github.com/develone/Ultibo_Projects/tree/master/ultibo_lvgl

git clone https://github.com/develone/Ultibo_Projects.git

```
~/Ultibo_Projects/ultibo_lvgl/
./compile.sh
```

```
~/Ultibo_Projects/ultibo_lvgl/RPi3
libultiboClvgl.a
```

```
File Edit Search View Source Project Run Tools Window Help

ultibolvgl

function NonBlockingMouse(Parameter:Pointer):PtrInt;
  ConsoleWindowWriteLn(WindowHandle, '');
.
.
  ConsoleWindowWriteLn (WindowHandle, 'Local Address ' + IPAddress);
  SetOnMsg (@Msg);
  {Create and start the HTTP Listener for our web status page}
185  HTTPListener:=THTTPListener.Create;
  HTTPListener.Active:=True;
  {Register the web status page, the "Thread List" page will allow us to see what is happening in the example}
  WebStatusRegister(HTTPListener, '', True);
  {Wait a couple of seconds for C:\ drive to be ready}
190  ConsoleWindowWriteLn(WindowHandle, 'Waiting for drive C:\');
  while not DirectoryExists('C:\') do
  begin
    {Sleep for a second}
    Sleep(1000);
  end;
195  ConsoleWindowWriteLn(WindowHandle, 'C:\ drive is ready');
  ConsoleWindowWriteLn(WindowHandle, '');
198  ScreenWidth := FramebufferProperties.PhysicalWidth;
ScreenHeight := FramebufferProperties.PhysicalHeight;

198: 1      INS      /home/devel/Ultibo_Projects/ultibo_lvgl/RPI3/ultibolvgl.lpr
```

Run/Compile

```
File Edit Search View Source Project Run Tools Window Help

ultibolvgl.lpr

function NonBlockingMouse(Parameter:Pointer):PtrInt;
  ConsoleWindowWriteLn(WindowHandle, '');
.
.
  ConsoleWindowWriteLn (WindowHandle, 'Local Address ' + IPAddress);
  SetOnMsg (@Msg);
  {Create and start the HTTP Listener for our web status page}
185  HTTPListener:=THTTPListener.Create;
  HTTPListener.Active:=True;
  {Register the web status page, the "Thread List" page will allow us to see what is happening in the example}
  WebStatusRegister(HTTPListener, '', True);
  {Wait a couple of seconds for C:\ drive to be ready}
190  ConsoleWindowWriteLn(WindowHandle, 'Waiting for drive C:\');
  while not DirectoryExists('C:\') do
  begin
    {Sleep for a second}
    Sleep(1000);
  end;
195  ConsoleWindowWriteLn(WindowHandle, 'C:\ drive is ready');
  ConsoleWindowWriteLn(WindowHandle, '');
198  ScreenWidth := FramebufferProperties.PhysicalWidth;
ScreenHeight := FramebufferProperties.PhysicalHeight;

198: 1      INS      /home/devel/Ultibo_Projects/ultibo_lvgl/RPI3/ultibolvgl.lpr

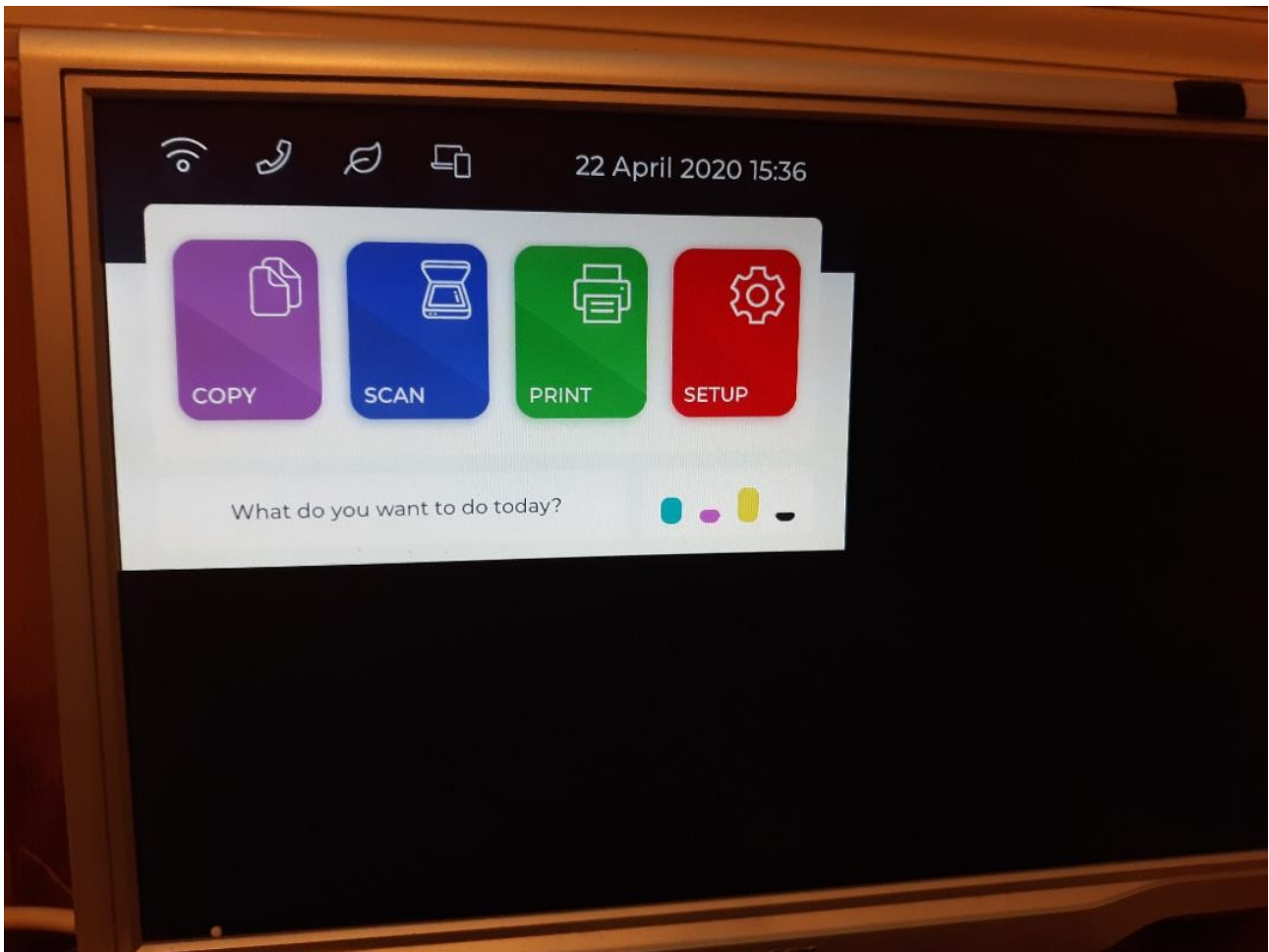
Compile Project, OS: ultibo, Target: ultibolvgl, Success, Hints: 12
ultibolvgl.lpr(192,21) Hint: Parameter "Parameter" not used
ultibolvgl.lpr(302,17) Hint: Conversion between ordinals and pointers is not portable
ultibolvgl.lpr(307,72) Hint: Variable "ThreadMouseHandle" does not seem to be initialized
ultibolvgl.lpr(49,2) Note: Local variable "MyPLoggingDevice" not used
ultibolvgl.lpr(52,2) Note: Local variable "TCP" not used
ultibolvgl.lpr(112,12) Hint: Local proc "getScreenPitch" is not used
ultibolvgl.lpr(117,12) Hint: Local proc "getScreenBuffer" is not used
ultibolvgl.lpr(122,13) Hint: Local proc "getKey" is not used
ultibolvgl.lpr(139,12) Hint: Local proc "getScreenSize" is not used
ultibolvgl.lpr(145,12) Hint: Local proc "getMouseXY" is not used
```

Green bar compile & link successful.

tftp 192.168.1.245 < cmdstftp

tftp> tftp> Sent 5044228 bytes in 27.4 seconds

After the reboot.



Remote shell

```
File Edit Tabs Help
Ultibo Core (Release: Beetroot Version: 2.0.807 Date: 3 September 2020)
(Type HELP for a list of available commands)
>
```

Remote shell help

File Edit Tabs Help

Connected to 192.168.1.245.

Escape character is '^['.

Ultibo Core (Release: Beetroot Version: 2.0.807 Date: 3 September 2020)
(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

>

(218 unread) - develop

cejasmamas/ultibo_lv

LVGL - ultibo.org

Yahoo Finance - Stock

Ultibo Core (Release: Beetr

192.168.1.245/status

...

...

...

...

Ultibo Core (Release: Beetr Version: 2.0.807 Date: 3 September 2020)

General

Platform

Memory

Heap Blocks

CPU

FPU

GPU

RTL

Clock

Locale

Threading

Thread List

Scheduler

Devices

Drivers

Handles

USB

MMC / SD

Network

Storage

Filesystem

Disk Cache

Keyboard

Mouse

Framebuffer

Environment

Page Tables

Vector Tables

IRQ / FIQ / SWI

Configuration

General

Release Name: Beetr

Release Version: 2.0.807

Release Date: 3 September 2020

Time (Local): 17-9-20 16:58:21

Time (UTC): 17-9-20 16:58:21

Timezone: UTC

Daylight Start: None

Daylight Date: N/A

Standard Start: None

Standard Date: N/A

Uptime: 0 days 00:00:57

web cpu

(218 unread) - develonexcejasmamas/ultibo_lvLVGL - ultibo.orgYahoo Finance - StockUltibo Core (Release: Beetr

192.168.1.245/status/cpu

...

Ultibo Core (Release: Beetr Version: 2.0.807 Date: 3 September 2020)

GeneralPlatformMemoryHeap BlocksCPUFPUGPURTLClockLocaleThreadingThread ListSchedulerDevicesDriversHandlesUSBMMC / SDNetworkStorageFilesystemDisk CacheKeyboardMouseFramebufferEnvironmentPage TablesVector TablesIRQ / FIQ / SWIConfiguration

CPU

CPU Arch: CPU_ARCH_ARM32CPU Type: CPU_TYPE_ARMV8CPU Model: CPU_MODEL_CORTEX_A53CPU Revision: 0x00000004CPU Description: ARM Cortex-A53 MPCoreCPU Boot: CPU_ID_0CPU Mask: 0x0000000FCPU Count: 4CPU Mode: 0x0000001FCPU Group: CPU_GROUP_0CPU Current: CPU_ID_3CPU Memory: Address: 0x00000000Size: 939524096CPU Utilization: CPU_ID_0: 2.5%CPU_ID_1: 0.7%CPU_ID_2: 0.6%CPU_ID_3: 78.4%

System Utilization (Average): 20.5%

L1 Cache Type: CACHE_TYPE_SEPARATEL1 Data Cache Size: 32768L1 Instruction Cache Size: 32768L1 Data Cache Line Size: 64L1 Instruction Cache Line Size: 64L2 Cache Type: CACHE_TYPE_UNIFIEDL2 Cache Size: 524288L2 Cache Line Size: 64