

ET: Legacy Development - Feature #885

Create ET:L on/for Raspberry Pi

06.11.2015 14:13 - IR4T4

Status:	New	% Done:	50%
Priority:	Normal	Spent time:	0.00 hour
Assignee:			
Category:	General		
Target version:	2.78		
OS:	Raspberry PI	Arch:	
Description			
Adjust the scripts & code for Raspbian + renderer GL ES OpenGL.			

Associated revisions

Revision 96d8b889 - 30.12.2015 19:59 - IR4T4

misc: easybuild.sh update for RPI refs #885

Revision 8236b583 - 06.01.2016 16:48 - IR4T4

misc/rendererGL ES: cmake FindGL ES added refs #885

Revision 125ee598 - 05.10.2018 09:16 - IR4T4

RPI: update easybuild - let RPI builds no longer use 32bit flags, disable GL ES renderer and witch to OpenGL refs #885

Revision 5d703bfd - 05.10.2018 12:23 - IR4T4

RPI: let etl compile with RPI system sdl2 lib refs #885

History

#1 - 07.11.2015 10:41 - morsik

Actually, even etlded worked really slow on RPi

#2 - 07.11.2015 22:11 - RaFaL

morsik which version of rpi were you trying etl on ?

#3 - 08.11.2015 11:29 - Dragonji

- Subject changed from Create ET: L on/for Raspberry Pi to Create ET:L on/for Raspberry Pi

As far as ET:L is single threaded I guess it will heavily lag on any ARM. RPi2's got a quad-core Cortex-A7 CPU and single core speed is only 900MHz. I guess it would run fine if it could use the whole power of RPi.

#4 - 30.12.2015 20:00 - IR4T4

- % Done changed from 0 to 10

About performance we'll figure it out. Afaik genuine sytem requirements of vanilla ET are Pentium III 600 MHz, 128 MB RAM. It also depends on used instruction sets and GL ES but RPi2 should deal with that. Time will tell.

Current status for raspbian:

```
./easybuild.sh -RPI -j4
```

Should build the current master on RPI. Some libs/features are disabled.

~~sound system isn't found~~

- client doesn't start (fix GLES linking)
- fix bundled libs not compiling (see `easybuild.sh`)
- optimize SDL2 build for RPI (our SDL lib/sdl/cmakeList.txt isn't prepared for arm - see architecture in script)
- use armv8, armv7 or armv6 in file names

Interesting links:

<https://www.raspberrypi.org/forums/viewtopic.php?t=56756&p=430647>

<https://solarianprogrammer.com/2015/01/22/raspberry-pi-raspbian-getting-started-sdl-2/>

Required libs (under construction):

- nasm autoconf git cmake zip gcc g++ libtool
- libudev-dev libdbus-1-dev
- libraspberrypi0 libraspberrypi-bin libraspberrypi-dev libx11-dev libglew-dev libegl1-mesa-dev
- libopenal-dev libasound2-dev
- libgles2-mesa-dev mesa-utils-extra ?!

#5 - 01.04.2016 09:58 - IR4T4

- Target version changed from ALL to 2.78

#6 - 01.04.2016 10:07 - IR4T4

- Target version changed from 2.78 to 2.76

#7 - 25.08.2016 11:42 - IR4T4

- Related to Bug #612: Fix OpenGL ES renderer added

#8 - 17.03.2017 16:20 - IR4T4

- Target version changed from 2.76 to 2.78

#9 - 05.10.2018 09:30 - IR4T4

- Description updated

#10 - 05.10.2018 09:30 - IR4T4

- Related to deleted (Bug #612: Fix OpenGL ES renderer)

#11 - 05.10.2018 16:04 - IR4T4

Our libtheora 1.1.1 doesn't support ARM. This has been introduced in theora v1.2.0alpha1.

Adjust this for ARM:

```
if(32BITS)
  add_definitions("-DOC_X86_ASM")
  if(MSVC)
    FILE(GLOB THEORA_ASM_SRC
      "${CMAKE_CURRENT_LIST_DIR}/theora/lib/x86_vc/*.c"
      "${CMAKE_CURRENT_LIST_DIR}/theora/lib/x86_vc/*.h"
    )
  else()
    FILE(GLOB THEORA_ASM_SRC
      "${CMAKE_CURRENT_LIST_DIR}/theora/lib/x86/*.c"
      "${CMAKE_CURRENT_LIST_DIR}/theora/lib/x86/*.h"
    )
  endif()

  LIST(APPEND THEORA_SRC ${THEORA_ASM_SRC})
endif()
```

#12 - 06.10.2018 14:35 - IR4T4

- % Done changed from 10 to 50