

# **AM5728 QT5 Lab 4(Exploration)**

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192.168.219.112 - PuTTY

Arago Project <http://arago-project.org> am57xx-evm

Arago 2017.12 am57xx-eum

```
am57yy-eum login: root
```

```
root@am57xx-evm:~# clear
```

```
root@am57xx-evm: # cd /usr/share/qt5/
root@am57xx-evm:/usr/share/qt5# ls
```

```
examples      resources      translations
root@am57xx-evm:/usr/share/qt5# cd examples/
```

```
root@am57xx-evm:/usr/share/qt5/examples# ls
README      multimediawidgets  qpa              sql              widgets
```

libdrm	networkmanager	qt3d	svg	xml
corelib	opencl	qtconcurrent	touch	

dbus	openmpi	qtconcurrent	touch
gui	positioning	qtestlib	wayland
3rdparty			

location	qml	quick	webengine
multimedia	qmltest	script	webenginewidgets

```
root@amb/xx-evm:/usr/share/qt5/examples#
```

```
root@am57xx-evm:/usr/share/qt5/examples# find . -name *.pro
./multimedia/audiooutput/audiooutput.pro
./multimedia/audiodecoder/audiodecoder.pro
./multimedia/audiorecorder/audiorecorder.pro
./multimedia/video/video.pro
./multimedia/video/qmlvideofilter_opengl/qmlvideofilter_opengl.pro
./multimedia/video/qmlvideo/qmlvideo.pro
./multimedia/video/qmlvideofx/qmlvideofx.pro
./multimedia/declarative-radio/declarative-radio.pro
./multimedia/multimedia.pro
./multimedia/spectrum/app/app.pro
./multimedia/spectrum/3rdparty/fftwreal/fftwreal.pro
./multimedia/spectrum/spectrum.pro
./multimedia/audiodevices/audiodevices.pro
./multimedia/declarative-camera/declarative-camera.pro
./multimedia/radio/radio.pro
./multimedia/audioinput/audioinput.pro
./qmltest/qmltest/qmltest.pro
./qmltest/qmltest.pro
./svg/embedded/desktopservices/desktopservices.pro
./svg/embedded/weatherinfo/weatherinfo.pro
./svg/embedded/embedded.pro
./svg/embedded/fluidlauncher/fluidlauncher.pro
./svg/richtext/textobject/textobject.pro
./svg/richtext/richtext.pro
./svg/svg.pro
./svg/embeddedsvgviewer/embeddedsvgviewer.pro
./svg/svggenerator/svggenerator.pro
./svg/svgviewer/svgviewer.pro
./svg/draganddrop/delayedencoding/delayedencoding.pro
./svg/draganddrop/draganddrop.pro
./svg/network/network.pro
./svg/network/bearercloud/bearercloud.pro
./touch/dials/dials.pro
./touch/fingerpaint/fingerpaint.pro
./touch/pinchzoom/pinchzoom.pro
./touch/knobs/knobs.pro
./touch/touch.pro
./qtestlib/tutorial5/tutorial5.pro
./qtestlib/tutorial4/tutorial4.pro
./qtestlib/tutorial1/tutorial1.pro
./qtestlib/tutorial3/tutorial3.pro
./qtestlib/qtestlib.pro
./qtestlib/tutorial2/tutorial2.pro
./sql/querymodel/querymodel.pro
./sql/cachedtable/cachedtable.pro
./sql/tablemodel/tablemodel.pro
./sql/extendedtable/extendedtable.pro
```

```
/qtconcurrent/imagescaling/imagescaling.pro
/qtconcurrent/runfunction/runfunction.pro
/script/qscript/qscript.pro
/script/customclass/customclass.pro
/script/defaultprototypes/defaultprototypes.pro
/script/script.pro
/script/context2d/context2d.pro
/script/marshal/marshal.pro
/script/helloscript/helloscript.pro
/script/qsdbg/qsdbg.pro
/wayland/qwindow-compositor/qwindow-compositor.pro
/wayland/wayland.pro
/wayland/multi-output/multi-output.pro
/wayland/minimal-cpp/minimal-cpp.pro
/wayland/custom-extension/compositor/compositor.pro
/wayland/custom-extension/custom-extension.pro
/wayland/custom-extension/testapp/testapp.pro
/wayland/custom-extension/client/client.pro
/wayland/custom-extension/qmltestapp/qmltestapp.pro
/wayland/pure-qml/pure-qml.pro
/wayland/minimal-qml/minimal-qml.pro
/wayland/server-buffer/compositor/compositor.pro
/wayland/server-buffer/server-buffer.pro
/wayland/server-buffer/client/client.pro
/corelib/mimetypes/mimetypes.pro
/corelib/mimetypes/mimetypebrowser/mimetypebrowser.pro
/corelib/ipc/localfortuneclient/localfortuneclient.pro
/corelib/ipc/localfortunesserver/localfortunesserver.pro
/corelib/ipc/sharedmemory/sharedmemory.pro
/corelib/ipc/ipc.pro
/corelib/tools/customtype/customtype.pro
/corelib/tools/contiguouscache/contiguouscache.pro
/corelib/tools/customtypesending/customtypesending.pro
/corelib/tools/tools.pro
/corelib/json/json.pro
/corelib/json/savegame/savegame.pro
/corelib/corelib.pro
/corelib/threads/waitconditions/waitconditions.pro
/corelib/threads/semaphores/semaphores.pro
/corelib/threads/mandelbrot/mandelbrot.pro
/corelib/threads/threads.pro
/corelib/threads/queuedcustomtype/queuedcustomtype.pro
root@am57xx-evm:/usr/share/qt5/examples# find . -name *.pro | wc
477      477      20321
root@am57xx-evm:/usr/share/qt5/examples# █
```

```

477      477      20321
root@am57xx-evm:/usr/share/qt5/examples# cd opengl
root@am57xx-evm:/usr/share/qt5/examples/opengl# ls
2dpainting      hellogl2      opengl.pro      textures
README          hellogles3    paintedwindow    threadedqopenglwidget
contextinfo     helloworld    qopenglwidget
cube           legacy        qopenglwindow
root@am57xx-evm:/usr/share/qt5/examples/opengl# cd hellogl2
root@am57xx-evm:/usr/share/qt5/examples/opengl/hellogl2# ls
glwidget.cpp    hellogl2      logo.cpp        main.cpp        mainwindow.h    window.h
glwidget.h      hellogl2.pro  logo.h          mainwindow.cpp  window.cpp
root@am57xx-evm:/usr/share/qt5/examples/opengl/hellogl2# ./hellogl2
Using Wayland-EGL
wlpvr: PVR Services Initialised
Non-blocking swap buffers not supported. Subsurface rendering can be affected.
Non-blocking swap buffers not supported. Subsurface rendering can be affected.

```

```
glwindow.h      hellogles3.pro  main.cpp
root@am57xx-evm:/usr/share/qt5/examples/opengl/hellogles3# ./hellogles3
Requesting 3.0 context
Using Wayland-EGL
wlpvr: PVR Services Initialised
Cannot find EGLConfig, returning null config
Cannot find EGLConfig, returning null config
QWaylandGLContext: failed to create EGLContext, error=3005
QOpenGLWindow::beginPaint: Failed to create context
QOpenGLWindow::beginPaint: Failed to make context current
Segmentation fault (core dumped)
root@am57xx-evm:/usr/share/qt5/examples/opengl/hellogles3# █
```

```
root@am57xx-evm:/usr/share/qt5/examples/opengl/cube# cd ..
root@am57xx-evm:/usr/share/qt5/examples/opengl# ls
2dpainting      hellogl2      opengl.pro      textures
README          hellogles3    paintedwindow    threadedgop
contextinfo     helloworld    qopenglwidget
cube            legacy        qopenglwindow
root@am57xx-evm:/usr/share/qt5/examples/opengl# cd helloworld/
root@am57xx-evm:/usr/share/qt5/examples/opengl/helloworld# ls
helloworld      helloworld.cpp helloworld.h    helloworld.pro  main.cpp
root@am57xx-evm:/usr/share/qt5/examples/opengl/helloworld# ./helloworld
Using Wayland-EGL
wlpvr: PVR Services Initialised
Non-blocking swap buffers not supported. Subsurface rendering can be affected.
```

```

root@am57xx-evm: /usr/share/OpenCV# cd
root@am57xx-evm: # ls
opencv_extra-master.zip  terminal  tibT  user_app
root@am57xx-evm: # unzip opencv_extra-master.zip
Archive:  opencv_extra-master.zip
  End-of-central-directory signature not found.  Either this file is not
  a zipfile, or it constitutes one disk of a multi-part archive.  In the
  latter case the central directory and zipfile comment will be found on
  the last disk(s) of this archive.
unzip:  cannot find zipfile directory in one of opencv_extra-master.zip or
       opencv_extra-master.zip.zip, and cannot find opencv_extra-master.zip.ZIP, period.
root@am57xx-evm: # ls
opencv_extra-master.zip  terminal  tibT  user_app
root@am57xx-evm: # rm -rf opencv_extra-master.zip
root@am57xx-evm: # ls
terminal  tibT  user_app
root@am57xx-evm: # unzip
UnZip 6.00 of 20 April 2009, by Info-ZIP.  Maintained by C. Spieler.  Send
bug reports using http://www.info-zip.org/zip-bug.html; see README for details.

Usage: unzip [-Z] [-opts[modifiers]] file[.zip] [list] [-x xlist] [-d exdir]
  Default action is to extract files in list, except those in xlist, to exdir;
  file[.zip] may be a wildcard.  -Z => ZipInfo mode ("unzip -Z" for usage).

  -p  extract files to pipe, no messages      -l  list files (short format)
  -f  freshen existing files, create none     -t  test compressed archive data
  -u  update files, create if necessary        -z  display archive comment only
  -v  list verbosely/show version info       -T  timestamp archive to latest
  -x  exclude files that follow (in xlist)    -d  extract files into exdir

modifiers:
  -n  never overwrite existing files          -q  quiet mode (-qq => quieter)
  -o  overwrite files WITHOUT prompting       -a  auto-convert any text files
  -j  junk paths (do not make directories)    -aa treat ALL files as text
  -U  use escapes for all non-ASCII Unicode   -UU ignore any Unicode fields
  -C  match filenames case-insensitively      -L  make (some) names lowercase
  -X  restore UID/GID info                   -V  retain VMS version numbers
  -K  keep setuid/setgid/tacky permissions    -M  pipe through "more" pager
  -O CHARSET specify a character encoding for DOS, Windows and OS/2 archives
  -I CHARSET specify a character encoding for UNIX and other archives

See "unzip -hh" or unzip.txt for more help.  Examples:
  unzip datal -x joe  => extract all files except joe from zipfile datal.zip
  unzip -p foo | more => send contents of foo.zip via pipe into program more
  unzip -fo foo ReadMe => quietly replace existing ReadMe if archive file newer
root@am57xx-evm: # ls
opencv_extra-master  terminal  tibT  user_app
root@am57xx-evm: # cd /usr/share/OpenCV/
root@am57xx-evm:/usr/share/OpenCV# cp ~/opencv_extra-master/testdata/ ./
cp: omitting directory '/home/root/opencv_extra-master/testdata'
root@am57xx-evm:/usr/share/OpenCV# cp -r ~/opencv_extra-master/testdata/ ./
root@am57xx-evm:/usr/share/OpenCV#

```



```
root@am57xx-evm:/usr/share/OpenCV/titestsuite# rm -f OpenCV_test_log.out
root@am57xx-evm:/usr/share/OpenCV/titestsuite# ls
runtests          setupEnv.sh       test_core_ocl     test_imgproc_ocl  tmp.txt
root@am57xx-evm:/usr/share/OpenCV/titestsuite# source setupEnv.sh
root@am57xx-evm:/usr/share/OpenCV/titestsuite# ./runtests
```

```
.....
..... OpenCL Tests.....
testing core module
elapsed time= 11 minutes and 40 seconds .
testing imgproc module
elapsed time= 4 minutes and 31 seconds .
total time= 16 minutes and 11 seconds .
testing calib3d module
elapsed time= 8 minutes and 31 seconds .
total time= 24 minutes and 42 seconds .
testing features2d module
elapsed time= 3 minutes and 35 seconds .
total time= 28 minutes and 17 seconds .
testing objdetect module
elapsed time= 3 minutes and 50 seconds .
total time= 32 minutes and 7 seconds .
testing photo module
elapsed time= 1 minutes and 58 seconds .
total time= 34 minutes and 5 seconds .
testing video module
elapsed time= 4 minutes and 45 seconds .
total time= 38 minutes and 50 seconds .
testing stitching module
elapsed time= 0 minutes and 12 seconds .
total time= 39 minutes and 2 seconds .
testing videoio module
elapsed time= 0 minutes and 0 seconds .
total time= 39 minutes and 2 seconds .
```

total time= 39 minutes and 7 seconds .

..... ARM Tests.....

testing core module

elapsed time= 5 minutes and 21 seconds .

total time= 44 minutes and 23 seconds .

elapsed time= 3 minutes and 34 seconds .

total time= 47 minutes and 57 seconds .

testing calib3d module

elapsed time= 5 minutes and 35 seconds .

total time= 53 minutes and 32 seconds .

testing features2d module

elapsed time= 2 minutes and 40 seconds .

total time= 56 minutes and 12 seconds .

testing flann module

elapsed time= 0 minutes and 0 seconds .

total time= 56 minutes and 12 seconds .

testing imgcodecs module

elapsed time= 0 minutes and 39 seconds .

total time= 56 minutes and 51 seconds .

testing ml module

elapsed time= 2 minutes and 1 seconds .

total time= 58 minutes and 52 seconds .

testing objdetect module

elapsed time= 0 minutes and 59 seconds .

total time= 59 minutes and 51 seconds .

testing photo module

elapsed time= 2 minutes and 2 seconds .

total time= 61 minutes and 53 seconds .

testing shape module

elapsed time= 4 minutes and 29 seconds .

total time= 66 minutes and 22 seconds .

testing stitching module

elapsed time= 0 minutes and 1 seconds .

total time= 66 minutes and 23 seconds .

testing superres module

elapsed time= 0 minutes and 17 seconds .

total time= 66 minutes and 40 seconds .

testing video module

elapsed time= 0 minutes and 38 seconds .

total time= 67 minutes and 18 seconds .

testing videoio module

elapsed time= 0 minutes and 4 seconds .

total time= 67 minutes and 22 seconds .

allTests =2357, passed=2333, failed=24

root@am57xx-evm:/usr/share/OpenCV/titestsuite#

# CTEST FULL OUTPUT

OpenCV version: 3.1.0

OpenCV VCS version: unknown

Build type: release

Parallel framework: tbb

CPU features: neon

OpenCL Platforms:

TI AM57x

unknown: TI Multicore C66 DSP (OpenCL 1.1 TI )

Current OpenCL device:

Type = TI\_DSP

Name = TI Multicore C66 DSP

Version = OpenCL 1.1 TI

Compute units = 2

Max work group size = 1024

Local memory size = 128 kB

Max memory allocation size = 144 MB

Double support = Yes

Host unified memory = Yes

Has AMD Blas = No

Has AMD Fft = No

Preferred vector width char = 8

Preferred vector width short = 4

Preferred vector width int = 2

Preferred vector width long = 2

Preferred vector width float = 2

Preferred vector width double = 1

Note: Google Test filter = OCL\_Arithm\*/0:OCL\_Arithm\*/1:OCL\_Arithm\*/2

Running 264 tests from 43 test cases.

Global test environment set-up.

3 tests from OCL\_Arithm/Lut

RUN OCL\_Arithm/Lut.Mat/0

OK OCL\_Arithm/Lut.Mat/0 (2548 ms)

RUN OCL\_Arithm/Lut.Mat/1

OK OCL\_Arithm/Lut.Mat/1 (1 ms)

RUN OCL\_Arithm/Lut.Mat/2

OK OCL\_Arithm/Lut.Mat/2 (0 ms)

3 tests from OCL\_Arithm/Lut (2549 ms total)

12 tests from OCL\_Arithm/Add

```

[-----] 18 tests from 0 test cases ran. (236333 ms total)
[ PASSED ] 18 tests.
CTEST_FULL_OUTPUT
OpenCV version: 3.1.0
OpenCV VCS version: unknown
Build type: release
Parallel framework: tbb
CPU features: neon
OpenCL Platforms:
  TI AM57x
    unknown: TI Multicore C66 DSP (OpenCL 1.1 TI )
Current OpenCL device:
  Type = TI_DSP
  Name = TI Multicore C66 DSP
  Version = OpenCL 1.1 TI
  Compute units = 2
  Max work group size = 1024
  Local memory size = 128 kB
  Max memory allocation size = 144 MB
  Double support = Yes
  Host unified memory = Yes
  Has AMD Blas = No
  Has AMD Fft = No
  Preferred vector width char = 8
  Preferred vector width short = 4
  Preferred vector width int = 2
  Preferred vector width long = 2
  Preferred vector width float = 2
  Preferred vector width double = 1
Note: Google Test filter = OCL*/0:OCL*/1
[=====] Running 2 tests from 1 test case.
[-----] Global test environment set-up.
[-----] 2 tests from OCL_StereoMatcher/StereoBMFixture
[ RUN      ] OCL_StereoMatcher/StereoBMFixture.StereoBM/0
[       OK ] OCL_StereoMatcher/StereoBMFixture.StereoBM/0 (266931 ms)
[ RUN      ] OCL_StereoMatcher/StereoBMFixture.StereoBM/1
[       OK ] OCL_StereoMatcher/StereoBMFixture.StereoBM/1 (244373 ms)
[-----] 2 tests from OCL_StereoMatcher/StereoBMFixture (511304 ms total)

[-----] Global test environment tear-down
[=====] 2 tests from 1 test case ran. (511304 ms total)
[ PASSED ] 2 tests.
CTEST_FULL_OUTPUT
OpenCV version: 3.1.0
OpenCV VCS version: unknown
Build type: release
Parallel framework: tbb
CPU features: neon
OpenCL Platforms:
  TI AM57x
- opencv_test_log.out 1088/7349 14%

```

Mon Mar 26. 03:52 PM



ARM



USB



Power

Window



Camera



MI



ptos

Mon Mar 26, 03:57 PM



Matrix App Launcher v2 p1



Touch



Camera



Browser



HMI



Settings



Cryptos