

## RAPP Platform Tests - Qr Detection

Generated by Doxygen 1.8.6

Wed Dec 2 2015 13:19:27



# Contents

<b>1</b>	<b>Namespace Index</b>	<b>1</b>
1.1	Namespace List . . . . .	1
<b>2</b>	<b>Hierarchical Index</b>	<b>3</b>
2.1	Class Hierarchy . . . . .	3
<b>3</b>	<b>Class Index</b>	<b>5</b>
3.1	Class List . . . . .	5
<b>4</b>	<b>File Index</b>	<b>7</b>
4.1	File List . . . . .	7
<b>5</b>	<b>Namespace Documentation</b>	<b>9</b>
5.1	functional_tests Namespace Reference . . . . .	9
5.1.1	Variable Documentation . . . . .	9
5.1.1.1	PKG . . . . .	9
<b>6</b>	<b>Class Documentation</b>	<b>11</b>
6.1	QrDetectionTest Class Reference . . . . .	11
6.1.1	Detailed Description . . . . .	11
6.1.2	Constructor & Destructor Documentation . . . . .	11
6.1.2.1	QrDetectionTest . . . . .	11
6.1.3	Member Function Documentation . . . . .	11
6.1.3.1	SetUp . . . . .	12
6.1.3.2	TearDown . . . . .	12
6.1.4	Member Data Documentation . . . . .	12
6.1.4.1	qr_detector_ . . . . .	12
6.2	functional_tests.QrDetFunc Class Reference . . . . .	12
6.2.1	Detailed Description . . . . .	12
6.2.2	Member Function Documentation . . . . .	13
6.2.2.1	test_fileIsAudio . . . . .	13
6.2.2.2	test_fileNotExists . . . . .	13
6.2.2.3	test_qrExists . . . . .	13

6.2.2.4	<a href="#">test_qrExists_stress</a>	13
6.2.2.5	<a href="#">test_qrNotExists</a>	13
<b>7</b>	<b>File Documentation</b>	<b>15</b>
7.1	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/tests/qr_detection/functional_tests.py File Reference</a>	15
7.2	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/tests/qr_detection/unit_tests.cpp File Reference</a>	15
7.2.1	Function Documentation	16
7.2.1.1	main	16
7.2.1.2	TEST_F	16
7.2.1.3	TEST_F	16
7.2.1.4	TEST_F	16
7.2.1.5	TEST_F	16
	<b>Index</b>	<b>17</b>

# Chapter 1

## Namespace Index

### 1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

<a href="#">functional_tests</a> . . . . .	9
--	---



## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Test	
QrDetectionTest . . . . .	<a href="#">11</a>
TestCase	
functional_tests.QrDetFunc . . . . .	<a href="#">12</a>





## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">QrDetectionTest</a>	Utilizes gtest in order to provide unit tests for qr detection . . . . .	11
<a href="#">functional_tests.QrDetFunc</a>	Supports the deployment of QR detection functional tests . . . . .	12



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/tests/qr_detection/ <a href="#">functional_tests.py</a> . . . . .	15
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/tests/qr_detection/ <a href="#">unit_tests.cpp</a> . . . . .	15



## Chapter 5

# Namespace Documentation

### 5.1 functional\_tests Namespace Reference

#### Classes

- class [QrDetFunc](#)  
*Supports the deployment of QR detection functional tests.*

#### Variables

- string [PKG](#) = 'ros\_nodes'

#### 5.1.1 Variable Documentation

##### 5.1.1.1 string functional\_tests.PKG = 'ros\_nodes'

Definition at line 17 of file functional\_tests.py.



## Chapter 6

# Class Documentation

### 6.1 QrDetectionTest Class Reference

Utilizes gtest in order to provide unit tests for qr detection.

Inheritance diagram for QrDetectionTest:

Collaboration diagram for QrDetectionTest:

#### Protected Member Functions

- [QrDetectionTest](#) ()  
*Default constructor.*
- virtual void [SetUp](#) ()  
*Sets up stuff before each unit test call.*
- virtual void [TearDown](#) ()  
*Clears up stuff after each unit test call.*

#### Protected Attributes

- QrDetector \* [qr\\_detector\\_](#)

#### 6.1.1 Detailed Description

Utilizes gtest in order to provide unit tests for qr detection.

Definition at line 27 of file unit\_tests.cpp.

#### 6.1.2 Constructor & Destructor Documentation

##### 6.1.2.1 QrDetectionTest::QrDetectionTest ( ) [inline], [protected]

Default constructor.

Definition at line 33 of file unit\_tests.cpp.

#### 6.1.3 Member Function Documentation

### 6.1.3.1 virtual void QrDetectionTest::SetUp ( ) [inline],[protected],[virtual]

Sets up stuff before each unit test call.

Definition at line 40 of file unit\_tests.cpp.

### 6.1.3.2 virtual void QrDetectionTest::TearDown ( ) [inline],[protected],[virtual]

Clears up stuff after each unit test call.

The QrDetector object, used to test its functions

Definition at line 48 of file unit\_tests.cpp.

## 6.1.4 Member Data Documentation

### 6.1.4.1 QrDetector\* QrDetectionTest::qr\_detector\_ [protected]

Definition at line 54 of file unit\_tests.cpp.

The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr\_detection/[unit\\_tests.cpp](#)

## 6.2 functional\_tests.QrDetFunc Class Reference

Supports the deployment of QR detection functional tests.

Inheritance diagram for functional\_tests.QrDetFunc:

Collaboration diagram for functional\_tests.QrDetFunc:

### Public Member Functions

- def [test\\_fileIsAudio](#)  
*Tests qr detection with an audio file.*
- def [test\\_fileNotExists](#)  
*Tests qr detection with a non-existent image.*
- def [test\\_qrExists](#)  
*Tests QR detection with an image containing a QR.*
- def [test\\_qrExists\\_stress](#)  
*Stress test for the QR detection.*
- def [test\\_qrNotExists](#)  
*Tests qr detection with an image containing a face.*

### 6.2.1 Detailed Description

Supports the deployment of QR detection functional tests.

Definition at line 32 of file functional\_tests.py.



## 6.2.2 Member Function Documentation

### 6.2.2.1 def functional\_tests.QrDetFunc.test\_fileIsAudio ( self )

Tests qr detection with an audio file.

Should return 0 qrs

Definition at line 88 of file functional\_tests.py.

### 6.2.2.2 def functional\_tests.QrDetFunc.test\_fileNotExists ( self )

Tests qr detection with a non-existent image.

Should return 0 qrs

Definition at line 75 of file functional\_tests.py.

### 6.2.2.3 def functional\_tests.QrDetFunc.test\_qrExists ( self )

Tests QR detection with an image containing a QR.

Should return 1 qr

Definition at line 35 of file functional\_tests.py.

### 6.2.2.4 def functional\_tests.QrDetFunc.test\_qrExists\_stress ( self )

Stress test for the QR detection.

Performs 100 consecutive calls

Definition at line 48 of file functional\_tests.py.

### 6.2.2.5 def functional\_tests.QrDetFunc.test\_qrNotExists ( self )

Tests qr detection with an image containing a face.

Should return 0 qrs

Definition at line 62 of file functional\_tests.py.

The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr\_detection/[functional\\_tests.py](#)



## Chapter 7

# File Documentation

### 7.1 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr\_detection/functional\_tests.py File Reference

#### Classes

- class [functional\\_tests.QrDetFunc](#)  
*Supports the deployment of QR detection functional tests.*

#### Namespaces

- [functional\\_tests](#)

#### Variables

- string [functional\\_tests.PKG](#) = 'ros\_nodes'

### 7.2 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr\_detection/unit\_tests.cpp File Reference

```
#include <gtest/gtest.h>
#include <qr_detection/qr_detector.h>
#include <ros/package.h>
Include dependency graph for unit_tests.cpp:
```

#### Classes

- class [QrDetectionTest](#)  
*Utilizes gtest in order to provide unit tests for qr detection.*

#### Functions

- int [main](#) (int argc, char \*\*argv)  
*The main function. Initializes the unit tests.*
- [TEST\\_F](#) ([QrDetectionTest](#), lenna\_test)

- Tests QR detection with an image containing face. Should return 0 qrs.*
  - [TEST\\_F \(QrDetectionTest, qr\\_test\)](#)  
*Tests QR detection with an image containing a qr. Should return 1 qr.*
  - [TEST\\_F \(QrDetectionTest, file\\_not\\_exists\\_test\)](#)  
*Tests QR detection with a non-existent image. Should return 0 qrs.*
  - [TEST\\_F \(QrDetectionTest, zero\\_sized\\_image\\_test\)](#)  
*Tests QR detection with a zero-sized image. Should return 0 qrs.*

## 7.2.1 Function Documentation

### 7.2.1.1 `int main ( int argc, char ** argv )`

The main function. Initializes the unit tests.

Definition at line 108 of file `unit_tests.cpp`.

### 7.2.1.2 `TEST_F ( QrDetectionTest , lenna_test )`

Tests QR detection with an image containing face. Should return 0 qrs.

Definition at line 61 of file `unit_tests.cpp`.

### 7.2.1.3 `TEST_F ( QrDetectionTest , qr_test )`

Tests QR detection with an image containing a qr. Should return 1 qr.

Definition at line 73 of file `unit_tests.cpp`.

### 7.2.1.4 `TEST_F ( QrDetectionTest , file_not_exists_test )`

Tests QR detection with a non-existent image. Should return 0 qrs.

Definition at line 85 of file `unit_tests.cpp`.

### 7.2.1.5 `TEST_F ( QrDetectionTest , zero_sized_image_test )`

Tests QR detection with a zero-sized image. Should return 0 qrs.

Definition at line 97 of file `unit_tests.cpp`.

# Index

/home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr-  
\_detection/functional\_tests.py, [15](#)

/home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/tests/qr-  
\_detection/unit\_tests.cpp, [15](#)

functional\_tests, [9](#)

    PKG, [9](#)

functional\_tests.QrDetFunc, [12](#)

functional\_tests::QrDetFunc

    test\_fileIsAudio, [13](#)

    test\_fileNotExists, [13](#)

    test\_qrExists, [13](#)

    test\_qrExists\_stress, [13](#)

    test\_qrNotExists, [13](#)

main

    unit\_tests.cpp, [16](#)

PKG

    functional\_tests, [9](#)

qr\_detector\_

    QrDetectionTest, [12](#)

QrDetectionTest, [11](#)

    qr\_detector\_, [12](#)

    QrDetectionTest, [11](#)

    QrDetectionTest, [11](#)

    SetUp, [11](#)

    TearDown, [12](#)

SetUp

    QrDetectionTest, [11](#)

TEST\_F

    unit\_tests.cpp, [16](#)

TearDown

    QrDetectionTest, [12](#)

test\_fileIsAudio

    functional\_tests::QrDetFunc, [13](#)

test\_fileNotExists

    functional\_tests::QrDetFunc, [13](#)

test\_qrExists

    functional\_tests::QrDetFunc, [13](#)

test\_qrExists\_stress

    functional\_tests::QrDetFunc, [13](#)

test\_qrNotExists

    functional\_tests::QrDetFunc, [13](#)

unit\_tests.cpp

    main, [16](#)

    TEST\_F, [16](#)