Übung Objektorientierte Programmierung

1.0

Erzeugt von Doxygen 1.8.13

Inhaltsverzeichnis

1 Klassen-Verzeichnis **1**

1.1 Auflistung der Klassen 1

2 Datei-Verzeichnis **3**

2.1 Auflistung der Dateien 3

3 Klassen-Dokumentation **5**

3.1 AnotherTest Klassenreferenz 5

3.2 QTstyle_Test Klassenreferenz 5

3.2.1 Ausführliche Beschreibung 6

3.2.2 Beschreibung der Konstruktoren und Destruktoren 6

3.2.2.1 QTstyle_Test() 7

3.2.2.2 ∼QTstyle_Test() 7

3.2.3 Dokumentation der Elementfunktionen 7

3.2.3.1 testMe() 7

3.2.3.2 testMeToo() 7

3.2.4 Dokumentation der Datenelemente 8

3.2.4.1 handler 8

3.2.4.2 publicVar 8

3.3 Test Klassenreferenz 8

3.3.1 Ausführliche Beschreibung 9

4 Datei-Dokumentation **11**

4.1 C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp-Dateireferenz 11

4.1.1 Ausführliche Beschreibung 12

4.1.2 Dokumentation der Funktionen 12

4.1.2.1 main() 12

Index **13**

Kapitel 1

Klassen-Verzeichnis

1.1 Auflistung der Klassen

Hier folgt die Aufzählung aller Klassen, Strukturen, Varianten und Schnittstellen mit einer Kurzbeschreibung:

AnotherTest 5

QTstyle_Test

A test class. This is a brief description, if length is only one line 5

Test

Short documentation of AnotherTest, located not directly in front of the class definition 8

Kapitel 2

Datei-Verzeichnis

2.1 Auflistung der Dateien

Hier folgt die Aufzählung aller Dateien mit einer Kurzbeschreibung:

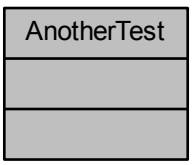
C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp
A short example (only) for documentation with doxygen 11

Kapitel 3

Klassen-Dokumentation

3.1 AnotherTest Klassenreferenz

Zusammengehörigkeiten von AnotherTest:



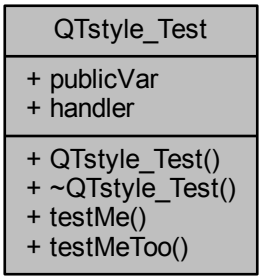
Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

- C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp

3.2 QTstyle_Test Klassenreferenz

A test class. This is a brief description, if length is only one line.

Zusammengehörigkeiten von QTstyle_Test:



Öffentliche Methoden

- QTstyle_Test ()

  A constructor.
- virtual ~QTstyle_Test ()

  A destructor.
- int testMe (int a, const char *s)

  A normal member taking two arguments and returning an integer value.
- virtual void testMeToo (char c1, char c2)=0

  A pure virtual member.

Öffentliche Attribute

- int publicVar

  A public variable.
- int(* handler)(int a, int b)

  A function variable.

3.2.1 Ausführliche Beschreibung

A test class. This is a brief description, if length is only one line.

A more elaborate class description.

3.2.2 Beschreibung der Konstruktoren und Destruktoren

3.2.2.1 QTstyle_Test()

```
QTstyle_Test::QTstyle_Test ( )
```

A constructor.

A more elaborate description of the constructor.

3.2.2.2 ~QTstyle_Test()

```
virtual QTstyle_Test::~QTstyle_Test ( )  [virtual]
```

A destructor.

A more elaborate description of the destructor.

3.2.3 Dokumentation der Elementfunktionen

3.2.3.1 testMe()

```
int QTstyle_Test::testMe (
            int a,
            const char * s )
```

A normal member taking two arguments and returning an integer value.

Parameter

a	an integer argument.
s	a constant character pointer.

Rückgabe

The test results

Siehe auch

QTstyle_Test(), ~QTstyle_Test(), testMeToo() and publicVar()

3.2.3.2 testMeToo()

```
virtual void QTstyle_Test::testMeToo (
            char c1,
            char c2 )  [pure virtual]
```

A pure virtual member.

Siehe auch

testMe()

Parameter

c1	the first argument.
c2	the second argument.

3.2.4 Dokumentation der Datenelemente

3.2.4.1 handler

```
int(* QTstyle_Test::handler) (int a, int b)
```

A function variable.

Details.

3.2.4.2 publicVar

```
int QTstyle_Test::publicVar
```

A public variable.

Details.

Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

- C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp

3.3 Test Klassenreferenz

Short documentation of AnotherTest, located not directly in front of the class definition.

Zusammengehörigkeiten von Test:

3.3.1 Ausführliche Beschreibung

Short documentation of AnotherTest, located not directly in front of the class definition.

This documentation is not located directly in front of the class definition. This is allowed, but the following structural commands have to be used as required, starting with a backslash symbol.

struct to document a C-struct. union to document a union. enum to document an enumeration type. fn to document a function. var to document a variable or typedef or enum value. def to document a define. typedef to document a type definition. file to document a file. namespace to document a namespace. package to document a Java package. interface to document an IDL interface.

see https://www.stack.nl/~dimitri/doxygen/manual/docblocks.html

Die Dokumentation für diese Klasse wurde erzeugt aufgrund der Datei:

- C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp

Kapitel 4

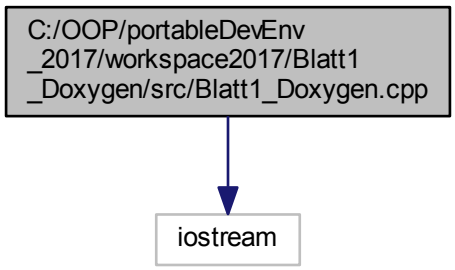
Datei-Dokumentation

4.1 C:/OOP/portableDevEnv_2017/workspace2017/Blatt1_Doxygen/src/Blatt1_Doxygen.cpp-Dateireferenz

A short example (only) for documentation with doxygen.

```
#include <iostream>
```

Include-Abhängigkeitsdiagramm für Blatt1_Doxygen.cpp:



Klassen

- class QTstyle_Test

  A test class. This is a brief description, if length is only one line.
- class AnotherTest

Funktionen

- int main ()

4.1.1 Ausführliche Beschreibung

A short example (only) for documentation with doxygen.

From eclipse execute the program doxygen by the following steps:

1. Open source file with doxygen-compatible comments (e.g. Blatt1_Doxygen.cpp) in the editor and click into the editor window.
2. Run-> external tools -> "Doxygen für alle Projekte (aus Blatt1_Doxygen)" In case of other projects the file "Blatt1_Doxygen/doxy/Doxygen für alle Projekte (aus Blatt1_Doxygen).launch" is required and therefore project Blatt1_Doxygen must be opened as well. 3a. HTML-output: Double-click doxy/html/index.html 3b. LaTeX-output as pdf: Run-> external tools-> "Preview Document in sumatra PDF" opens external viewer SumatraPDF or Double-click doxy/latex/refman.pdf opens the internal viewer pdf4Eclipse

See also Z_Doxygen.pdf in StudIP and the Link https://www.stack.nl/~dimitri/doxygen/manual/docblocks.↩
html In doxygen there is a C++ notation (used in this lecture) and a Java notation.

The first line starting with command file containing the file name is required for documenting e.g. global functions. The second line starting with command brief contains the one-line-short-description, ending with a blank line. The following lines contain the long version of the documentation.

This program just contains a very simple class to demonstrate doxygen comments. For member functions the documentation can be placed directly above the declaration (in the header file ∗.hpp) of directly above the definition (in the source file ∗.cpp).

The comments containing documentation in doxygen style are usually placed immediately in front of a declaration or definition of classes, memberfunctions, membervariables etc., often the brief description in front of the declaration and the long documentation in front of the definition. The documentation of all classes etc. could be collected at the front of a file, but in this case structural commands have to be used, see below.

For documentation of global objects (functions, typedefs, enums, macros etc.) the file-command must also be used. For documentation of members of a class that class must also be documented.

Only for member functions and member variables the documentation may be located directly behind the respective member. All other documentation is located immediately ahead of the entity, of in arbitrary position in combination with structural commands.

Doxygen knows quite a few equivalent notations, but be aware of the subtle differences.

4.1.2 Dokumentation der Funktionen

4.1.2.1 main()

```
int main ( )
```

< Short description of var1

< Long description of var2 using multiple lines

< Long description of var3

Index

~QTstyle_Test
    QTstyle_Test, 7

AnotherTest, 5

Blatt1_Doxygen.cpp
    main, 12

C:/OOP/portableDevEnv_2017/workspace2017/↩
        Blatt1_Doxygen/src/Blatt1_Doxygen.cpp, 11

handler
    QTstyle_Test, 8

main
    Blatt1_Doxygen.cpp, 12

publicVar
    QTstyle_Test, 8

QTstyle_Test, 5
    ~QTstyle_Test, 7
    handler, 8
    publicVar, 8
    QTstyle_Test, 6
    testMe, 7
    testMeToo, 7

Test, 8
testMe
    QTstyle_Test, 7
testMeToo
    QTstyle_Test, 7