



FREE eBook

LEARNING doxygen

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#doxygen

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About

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Chapter 1: Getting started with doxygen

Remarks

This section provides an overview of what doxygen is, and why a developer might want to use it.

It should also mention any large subjects within doxygen, and link out to the related topics. Since the Documentation for doxygen is new, you may need to create initial versions of those related topics.

Examples

Installation or Setup

Detailed instructions on getting doxygen set up or installed.

Commenting your code

There are several ways to mark a comment block as a detailed description, so that this comment block is parsed by Doxygen and added as a description of the following code item to the documentation. The first and most common one are C style comments with an extra asterisk in the comment start sequence, e.g.:

```
/**
 * ... text ...
 */
int dummy_var;
```

The next alternative is to use the Qt style and add an exclamation mark (!) after the opening sequence of a C-style comment block:

```
/*!
 * ... text ...
 */
void foo(void);
```

A third alternative is to use a block of at least two C++ comment lines, where each line starts with an additional slash or an exclamation mark:

```
///
/// ... text ...
///
```

or

```
//!
//! ... text ...
```

```
//!
```

Some people like to make their comment blocks more visible in the documentation. For this purpose you can use the following:

```
/*  
 * ... text  
 */
```

Note the 2 slashes to end the normal comment block and start a special comment block.

```
////////////////////  
/// ... text ...  
////////////////////
```

To structure and format the generated documentation, Doxygen provides a large number (> 170) of special commands. All commands in the documentation start with a backslash (\) or an at-sign (@).

For example

```
/**  
 * \brief A brief description in one short sentence.  
 */
```

is equivalent to

```
/**  
 * @brief A brief description in one short sentence.  
 */
```

For the brief description there are also several possibilities:

One could use the `\brief` command with one of the above comment blocks. This command ends at the end of a paragraph, so the detailed description follows after an empty line.

```
/** \brief Brief description.  
 * Brief description continued.  
 *  
 * Detailed description starts here.  
 */
```

If `JAVADOC_AUTOBRIEF` is set to `YES` in the configuration file, then using JavaDoc style comment blocks will automatically start a brief description which ends at the first dot followed by a space or new line.

```
/// Brief description which ends at this dot. Details follow  
/// here.
```

And finally here an example for a full documentation of a function with doxygen:

```

/**
 * \brief The function bar.
 *
 * \details This function does something which is doing nothing. So this text
 * is totally senseless and you really do not need to read this,
 * because this text is basically saying nothing.
 *
 * \note This text shall only show you, how such a \"note\" section
 * is looking. There is nothing which really needs your notice,
 * so you do not really need to read this section.
 *
 * \param[in] a Description of parameter a.
 * \param[out] b Description of the parameter b.
 * \param[in,out] c Description of the parameter c.
 *
 * \return The error return code of the function.
 *
 * \retval ERR_SUCCESS The function is successfully executed
 * \retval ERR_FAILURE An error occurred
 */

errcode_t bar(int a, int b, int c)
{
    /** More detailed description inside the code */
}

```

source and more info on the [Doxygen homepage](#)

Read [Getting started with doxygen online](#): <https://riptutorial.com/doxygen/topic/7279/getting-started-with-doxygen>

Credits

S. No	Chapters	Contributors
1	Getting started with doxygen	Community , gmug