

# DOC++ + 3.4.9 Reference Card

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## Comment Styles

Every DOC++ comment defines a manual entry. A manual entry consists of documentation from the DOC++ comment and information from the subsequent declaration.

Trailing comments can be used to define manual entries. Enable these by turning on Quantel extensions (-Q).

```
/** ... */           C style
/// ...             C++ style
//@f               Defines documentation scope/grouping
...
//@j               Includes named file. Wildcards allowed.
//@include:file
```

## DOC++ Declaration Tags

These tags are used immediately before a subsequent declaration. Note that in the following section, the term function refers to a method of a class, or a standalone function.

Tag	Description
@author	Author of function
@deprecated	Function has been deprecated
@doc	Long documentation
@exception	Documents exceptions thrown
@field	Documents fields
@invariant	Documents invariants
@memo	Short documentation (typically, one line)
@name	Function name (overrides DOC++)
@param	Documents the named parameter
@postcondition	Documents postconditions
@precondition	Documents preconditions
@return	Documents functions return value
@see	Cross reference.
@since	Version when function was introduced
@version	Current version

## Inline DOC++ Tags

The following tags are useful when writing documentation for a function, method, variable, and so on.

Tag	Description
#text#	Corresponds to TeX "\verbatim" - outputs "foo" verbatim.
@filename file	Force manual entry to go to the named file
{@link entry name}	Cross-reference to manual entry. <i>name</i> specifies link name (optional).
Date	Insert current date and time
IMG{file}	Insert image into documentation
IMG[param]{file}	Insert image, using HTML parameters
IMG[param]{file}	Insert image, using HTML and TeX params, resp. For TeX output, include the 'graphicx' TeX package
Label{label}	Make a label
Ref{entry}	Cross-reference to manual entry
URL{URL}	Make link to web page, <i>URL</i>
URL[name]{URL}	Make link to web page, with <i>text</i> as the link text
TEXT{text}	Include the TeX "text" in document - for HTML output, generates GIFs
includegraphics	Same as IMG
today	Same as Date

## Supported HTML macros

For best results with both printed (TeX) and online (HTML) documentation, it is recommended that TeX macros are used - see next section - and not the HTML macros given below.

Tag	Description
 	New line; i.e. line break
<P>	New paragraph
<EM>text</EM>	Emphasize <i>text</i> - usually means italic
<I>text</I>	Italicize <i>text</i>
<B>text</B>	Make <i>text</i> bold
<STRONG>text</STRONG>	Make <i>text</i> "strong" - usually bold
<TT>text</TT>	Display verbatim - don't format
<PRE>text</PRE>	Display verbatim - don't format
<CODE>text</CODE>	Display verbatim - don't format
<DL>...</DL>	Ordered/numbered list
<DL>...</DL>	Description
<DT>...</DT>	Unordered/bulleted list
<DD>...</DD>	Enumerations
<UL>...</UL>	List item, used within <DL> or <UL>
<LI>...</LI>	

## Supported TeX macros

For best results with both printed (TeX) and online (HTML) documentation, it is recommended that TeX macros are used

Tag	Description
\$...\$	math mode for inline equations
\L... \]	display math mode
\#	Output character "#"
\_	Output character "_"
\	Output character " " (a space)
\hline	Horizontal line

The following macros are all of the form:

{*name text*}

The macro applies to all *text* enclosed within the curly brackets, {}, and following the macro *name*.

Macro	Description
\em	Emphasize enclosed characters
\bf	Bold face for enclosed characters
\it	Italicize enclosed characters
\tt	Use fixed font for enclosed characters
\tiny	Use small font for enclosed characters
\scriptsize	Use script size for enclosed characters
\footnotesize	Use footnote size for enclosed characters
\small	Use small font for enclosed characters
\large	Use large font for enclosed characters
\LARGE	Use LARGE font for enclosed characters
\huge	Use huge font for enclosed characters
\HUGE	Use HUGER font for enclosed characters

The following TeX macros are all of the form:

\begin{*name*} ... \end{*name*}

For brevity only the *name* of the tag is given below.

Macro	Description
center	Center paragraph
flushleft	Left align paragraph
flushright	Right align paragraph
verbatim	Output enclosed text as is
tabular	Defines a table
array	Defines an array
itemize	Defines a bulleted list of items
enumerate	Defines a numerated list of items
description	Description (???)
equation	Defines an equation
equarray	Equation array (???)

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## Command Line Options

### Input Formats

If none of the following input options are used, DOC++ defaults to C++/C mode.

Short	Long	Source file format
-J	--java	C++/C mode (default)
-Y	--idl	Java files
-Z	--php	IDL files PHP files

### Output Formats

If none of the following output options are used, DOC++ defaults to output in HTML format.

Short	Long	Output file format
-t	--tex	HTML (default)
-Z	--docbook	TeX (PS/PDF) DocBook (SGML)

### General Options

Short	Long	Description
-A	--all	Generate entry for all elements
-C	--c-comments	C/C++ comments as DOC++ comments
-c	file --config file	Read options
-h	--help	Display available options
-H	--html	Use HTML as formatting language
-I	file --input file	Read list of input files from file
-J	--java	Parse Java source files
-nd	--no-define	Ignore #define macros
-ng	--no-class-graph	Don't generate class graphs
-p	--private	Include private members in output
-q	--quick	Run fast, even if larger file output
-Q	--quantel	Parse Quantel extensions
-R	--internal-doc	Generate internal documentation
-t	--tex	Produce TeX output
-u	--upwards-arrow	Draw upwards arrows in class graphs
-v	--verbose	Put DOC++ in verbose mode
-V	--version	Output DOC++ version info.
-y	--scan-includes	Scan #included header files
-Y	--idl	Parse IDL source files
-z	--php	Parse PHP source files
-Z	--docbook	Output DocBook SGML

## Customizing HTML Output

### HTML-specific Command Line Options

These options are only active when HTML output is selected, i.e. when no -t or --tex option is used.

Short	Long	Description
-a	--tables	Use HTML tables
-b	--tables-border	Use HTML tables, with borders
-B	file --footer file	Use file as HTML footer
-d	name --dir name	Specifies output directory for HTML
-f	--filenames	Output source file name on each page
-F	--filenames-path	As above, but output full path
-g	--no-gifs	Don't generate GIFs for equations/TeX
-G	--gifs	Force re-generation of GIFs
-i	--no-inherited	Don't show inherited members
-j	--no-java-graphs	Don't use Java applets for class graphs
-k	--trivial-graphs	Generate even trivial class graphs
-K	file --stylesheet file	Use file as stylesheet for generated pages
-m	--no-members	Hide members with no documentation
-M	--full-toc	Show members in Table of Contents
-P	--no-general	Discard general stuff
-S	--sort	Sort entries alphabetically
-T	file --header file	Use file as the HTML header
-w	--before-group	Print groups' doc. before groups
-W	--before-class	Print classes' doc. before classes
-x	x --suffix x	Use x as file extension, instead of .html

### Customizing HTML Pages

In addition to the above command line options, the HTML output can be customized by defining any combination of the following files. They will be inserted in the appropriate places on the relevant pages.

File name	Description
indexheader.inc	Header for index pages
indexfooter.inc	Footer for index pages
hierheader.inc	Header for class hierarchy pages
hierfooter.inc	Footer for class hierarchy pages
classheader.inc	Header for all other pages
classfooter.inc	Footer for all other pages

The indexheader.inc and hierheader.inc files should start with <HTML><TITLE>...<BODY>, whereas classheader.inc should start with <BODY> (since DOC++ sets up the title).

Within these files, certain special tags are supported, as listed below. DOC++ will substitute these when generating the HTML pages.

Tag	Description
%file	Entry's file name
%fullname	Entry's full name (includes the inheritance)
%name	Entry's name
%type	Entry's return type

## Customizing TeX Output

### TeX-specific Command Line Options

These options provide control over the TeX output of DOC++.

Short	Long	Description
-ec	--class-graph	Only generates the class graph
-ef	file --env file	Read TeX environment from file
-ei	--index	Only generate the index
-eo	option --style option	Adds option to TeX's \documentclass
-ep	name --package name	Adds \usepackage{name} to TeX env.
-et	file --title file	Use file as TeX title page
-D	x --depth x	Sets min. depth in Table of Contents
-l	--no-env	Disable generation of TeX environment
-o	file --output file	Sets the output filename
-s	--source	Generate formatted source code listing
-X	--hide-index	Disable index at start of each section

### Customizing the TeX Document

In addition to the above command line options, the TeX output can be customized by editing the style file docxx.sty (Sorry, but there is no documentation on how to do this.)

## Example Command Lines

To generate HTML documentation, I often use something like:

```
doc++ -p -u -d docs/html -B docs/banner.html \
      docs/name.dxx
```

This includes private members, uses up-arrows in class graphs, stores the resulting HTML files in the docs/html subdirectory, uses the docs/banner.html file as a footer on each page, and reads docs/name.dxx as the main DOC++ input file.

Similarly, to generate TeX documentation (which is then processed to create a PDF or PS file), I use:

```
doc++ -p -u -t -o docs/latex/name.tex docs/name.dxx
```

## Reference

DOC++ project <http://sourceforge.net/projects/docpp/>  
DOC++ home page <http://docpp.sourceforge.net/>  
Author's web site <http://www.stevengould.org/>

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