

Wiki Processors

Processors are [WikiMacros](#) designed to provide alternative markup formats for the [Wiki engine](#). Processors can be thought of as *macro functions to process user-edited text*.

Wiki processors can be used in any Wiki text throughout Trac, such as:

- [syntax highlighting](#) or for rendering text verbatim
- rendering [Wiki markup inside a context](#), like inside `<div>` blocks or `` or within `<td>` or `<th>` table cells
- using an alternative markup syntax, like [raw HTML](#) and [Restructured Text](#) or [Textile](#)

Using Processors

To use a processor on a block of text, first delimit the lines using a Wiki *code block*:

```
{{{
The lines
that should be processed...
}}}
```

Immediately after the `{{{` or on the line just below, add `#!` followed by the *processor name*:

```
{{{
#!processorname
The lines
that should be processed...
}}}
```

This is the "shebang" notation, familiar to most UNIX users.

Besides their content, some Wiki processors can also accept *parameters*, which are then given as `key=value` pairs after the processor name and on the same line. If `value` has to contain space, as it's often the case for the `style` parameter, a quoted string can be used (`key="value with space"`).

As some processors are meant to process Wiki markup, it's quite possible to *nest* processor blocks. You may want to indent the content of nested blocks for increased clarity, this extra indentation will be ignored when processing the content.

Examples

Wiki Markup	Display
Example 1: Inserting raw HTML	
<pre>{{{ #!html <hl style="color: grey">This is raw HTML</hl> }}}</pre>	This is raw HTML
Example 2: Highlighted Python code in a <div> block with custom style	
<pre>{{{#!div style="background: #ffd; border: 3px ridge" This is an example of embedded "code" block: {{{ #!python def hello(): return "world" }}}} }}}</pre>	<div style="border: 1px solid black; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">This is an example of embedded "code" block:</div> <pre>def hello(): return "world"</pre>
Example 3: Searching tickets from a wiki page, by keywords.	
<pre>{{{ #!html <form action="/query" method="get"><div> <input type="text" name="keywords" value="-" size="30"/> <input type="submit" value="Search by Keywords"/> <!-- To control what fields show up use hidden fields <input type="hidden" name="col" value="id"/> <input type="hidden" name="col" value="summary"/> <input type="hidden" name="col" value="status"/> <input type="hidden" name="col" value="milestone"/> <input type="hidden" name="col" value="version"/> <input type="hidden" name="col" value="owner"/> <input type="hidden" name="col" value="priority"/> <input type="hidden" name="col" value="component"/> --> </div></form> }}}</pre>	

Available Processors

The following processors are included in the Trac distribution:

<code>#!default</code>	Present the text verbatim in a preformatted text block. This is the same as specifying <i>no</i> processor name (and no <code>#!</code>).
<code>#!comment</code>	Do not process the text in this section, i.e. contents exist only in the plain text - not in the rendered page.
<code>#!rtl</code>	Introduce a Right-To-Left block with appropriate CSS direction and styling. (<i>since 0.12.2</i>)
HTML related	
<code>#!html</code>	Insert custom HTML in a wiki page.
<code>#!htmlcomment</code>	Insert an HTML comment in a wiki page. (<i>since 0.12</i>)
	Note that <code>#!html</code> blocks have to be <i>self-contained</i> , i.e. you can't start an HTML element in one block and close it later in a second block. Use the following processors for achieving a similar effect.
<code>#!div</code>	Wrap wiki content inside a <code><div></code> element.
<code>#!span</code>	Wrap wiki content inside a <code></code> element.
<code>#!td</code>	Wrap wiki content inside a <code><td></code> element. (<i>since 0.12</i>)
<code>#!th</code>	Wrap wiki content inside a <code><th></code> element. (<i>since 0.12</i>)
<code>#!tr</code>	Can optionally be used for wrapping <code>#!td</code> and <code>#!th</code> blocks, either for specifying row attributes or better visual grouping. (<i>since 0.12</i>)
<code>#!table</code>	Can optionally be used for wrapping <code>#!tr</code> , <code>#!td</code> and <code>#!th</code> blocks, for specifying table attributes. One current limitation however is that tables cannot be nested. (<i>since 0.12</i>)
	See WikiHtml for example usage and more details about these processors.
Other Markups	
<code>#!rst</code>	Trac support for Restructured Text. See WikiRestructuredText .
<code>#!textile</code>	Supported if Textile is installed. See a Textile reference .
Code Highlighting Support	
<pre>#!c #!cpp (C++) #!python #!perl #!ruby #!php #!asp #!java #!js (Javascript) #!sql #!xml (XML or HTML) #!sh (Bourne/Bash shell) etc.</pre>	<p>Trac includes processors to provide inline syntax highlighting for source code in various languages.</p> <p>Trac relies on Pygments for syntax coloring.</p> <p>See TracSyntaxColoring for information about which languages are supported and how to enable support for more languages.</p>

Since 1.1.2 the default, coding highlighting and MIME-type processors support the argument `lineno` for adding line numbering to the code block. When a value is specified, as in `lineno=3`, the numbering will start at the specified value. When used in combination with the `lineno` argument, the `marks`

argument is also supported for highlighting lines. A single line number, set of line numbers and range of line numbers are allowed. For example, `marks=3`, `marks=3-6`, `marks=3,5,7` and `marks=3-5,7` are all allowed. The specified values are relative to the numbered lines, so if `lineno=2` is specified to start the line numbering at 2, `marks=2` will result in the first line being highlighted.

Using the MIME type as processor, it is possible to syntax-highlight the same languages that are supported when browsing source code.

MIME Type Processors																																																													
Some examples:	The result will be syntax highlighted HTML code:																																																												
<pre> {{{#!text/html <h1>text</h1> }}} </pre>	<pre> <h1>text</h1> </pre> <p>The same is valid for all other mime types supported.</p>																																																												
<pre> {{{#!diff --- Version 55 +++ Version 56 @@ -115,8 +115,9 @@ name='TracHelloWorld', version='1.0', packages=find_packages(exclude=['*.tests*']), - entry_points = "" - [trac.plugins] - helloworld = myplugins.helloworld - """ + entry_points = { + 'trac.plugins': [+ 'helloworld = myplugins.helloworld', +], + },) }}} </pre>	<p>#!diff has a particularly nice renderer:</p> <p><u>Version</u></p> <table border="0"> <tr> <td style="width: 100px;"></td> <td style="width: 100px;">115</td> <td style="width: 100px;">115</td> <td>name='TracHelloWorld',</td> </tr> <tr> <td></td> <td></td> <td></td> <td>version='1.0',</td> </tr> <tr> <td></td> <td>116</td> <td>116</td> <td>packages=find_packages(exclud</td> </tr> <tr> <td></td> <td>117</td> <td></td> <td>entry_points = ""</td> </tr> <tr> <td></td> <td>118</td> <td></td> <td>[trac.plugins]</td> </tr> <tr> <td></td> <td>119</td> <td></td> <td>helloworld =</td> </tr> <tr> <td></td> <td>120</td> <td></td> <td>myplugins.helloworld</td> </tr> <tr> <td></td> <td></td> <td></td> <td>"""</td> </tr> <tr> <td></td> <td></td> <td>117</td> <td>entry_points = {</td> </tr> <tr> <td></td> <td></td> <td>118</td> <td>'trac.plugins': [</td> </tr> <tr> <td></td> <td></td> <td>119</td> <td>'helloworld =</td> </tr> <tr> <td></td> <td></td> <td></td> <td>myplugins.helloworld',</td> </tr> <tr> <td></td> <td></td> <td>120</td> <td>],</td> </tr> <tr> <td></td> <td></td> <td>121</td> <td>},</td> </tr> <tr> <td></td> <td>121</td> <td>122</td> <td>)</td> </tr> </table>		115	115	name='TracHelloWorld',				version='1.0',		116	116	packages=find_packages(exclud		117		entry_points = ""		118		[trac.plugins]		119		helloworld =		120		myplugins.helloworld				"""			117	entry_points = {			118	'trac.plugins': [119	'helloworld =				myplugins.helloworld',			120],			121	},		121	122)
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Line numbers can be added to code blocks and lines can be highlighted (since 1.1.2).

```

{{{#!python lineno=3 marks=3,9-10,16
def expand_markup(stream, ctxt=None):
    """A Genshi stream filter for expanding `genshi.Markup` events.

    Note: Expansion may not be possible if the fragment is badly
    formed, or partial.
    """
    for event in stream:
        if isinstance(event[1], Markup):
            try:
                for subevent in HTML(event[1]):
                    yield subevent
            except ParseError:
                yield event
        else:
            yield event
}}}

```

For more processor macros developed and/or contributed by users, visit the [Trac Hacks](#) community site.

Developing processors is no different from Wiki macros. In fact, they work the same way, only the usage syntax differs. See [WikiMacros#DevelopingCustomMacros](#) for more information.

See also: [WikiMacros](#), [WikiHtml](#), [WikiRestructuredText](#), [TracSyntaxColoring](#), [WikiFormatting](#), [TracGuide](#)