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 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

Example 1: Inserting raw HTML

```
{{{
#!html
<h1 style="color: grey">This is raw HTML</h1>
}}}
```

This is raw HTML

Example 2: Highlighted Python code in a block with custom style

```
{{{#!div style="background: #ffd; border: 3px ridge"

This is an example of embedded "code" block:

 {{{
 #!python
 def hello():
     return "world"
 }}}

}}}
```

This is an example of embedded "code" block:

```
def hello():
   return "world"
```

Example 3: Searching tickets from a wiki page, by keywords.

```
{{{
#!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>
}}}
```

Available Processors

The following processors are included in the Trac distribution:

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

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:

```
{{{#!text/html
<h1>text</h1>
}}}
```

The result will be syntax highlighted HTML code:

```
<h1>text</h1>
```

The same is valid for all other mime types supported.

```
{{{#!diff
--- Version 55
+++ Version 56
@@ -115,8 +115,9 @@
    name='TracHelloWorld', version='1.0',
    packages=find_packages(exclude=['*.tests*']),
-    entry_points = """
-        [trac.plugins]
-        helloworld = myplugs.helloworld
-    """,
+    entry_points = {
+        'trac.plugins': [
+            'helloworld = myplugs.helloworld',
+        ],
+    },
)
}}}
```

`#!diff` has a particularly nice renderer:

Version

115	**115**	name='TracHelloWorld', version='1.0',
116	**116**	packages=find_packages(exclud
117		entry_points = """
118		[trac.plugins]
119		helloworld = myplugs.helloworld
120		""",
	117	entry_points = {
	118	'trac.plugins': [
	119	'helloworld = myplugs.helloworld',
	120	],
	121	},
121	**122**	)

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