# 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, for various different purposes, like:

- 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, 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

```
{{{
#!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"
```

**Wiki Markup**

```
This is an example of embedded "code" block:

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

}}}
```

**Display**

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). |
| | **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 an arbitrary Wiki content inside a  element (*since 0.11*). |
| **`#!span`** | Wrap an arbitrary Wiki content inside a  element (*since 0.11*). |
| **`#!td`** | Wrap an arbitrary Wiki content inside a <td> element (*since 0.12*) |
| **`#!th`** | Wrap an arbitrary 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 of better visual grouping (*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 external software packages for syntax coloring, like ?Pygments.

See TracSyntaxColoring for information about which languages are supported and how to enable support for more languages.

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>
}}}
```

```
{{{
#!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',
+        ],
+    },
 )
}}}
```

The result will be syntax highlighted HTML code:

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

The same is valid for all other mime types supported.

`#!diff` has a particularly nice renderer:

# • Version

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

**MIME Type Processors**

**121 122** )

For more processor macros developed and/or contributed by users, visit:

- ?ProcessorBazaar
- ?MacroBazaar
- ?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.

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See also: WikiMacros, WikiHtml, WikiRestructuredText, TracSyntaxColoring, WikiFormatting, TracGuide