

Sphinx, the Python Documentation System

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- reStructuredText Primer
- Sphinx Markup Constructs

reStructuredText goal #10

Extensible. The markup should provide a simple syntax and interface for adding more complex general markup, and custom markup.

Vocabulary: directives

`http://docutils.sourceforge.net/docs/ref/rst/directives.html`

```
.. name:: arguments
   :options:
```

content

```
.. figure:: picture.png
   :scale: 50 %
   :alt: map to buried treasure
```

This is the caption of the figure
(a simple paragraph).

Vocabulary: roles

`http://docutils.sourceforge.net/docs/ref/rst/roles.html`

```
:rolename: `interpreted text`  
`interpreted text`:rolename:
```

See `:PEP: `287`` for more information about `reStructuredText`.

The area of a circle is

```
:math: `A_\text{c} = (\pi/4) d^2`.
```

```
% sphinx-quickstart
```

The TOC tree

- All documents must be linked from a TOC tree
- The master document (`master_doc`) is the root of the TOC tree hierarchy
- sub-TOC tree directives can appear anywhere so long as they're linked from another toctree
- TOC tree directives can be hidden
- This is not the same as the `reStructuredText contents` directive

```
.. toctree::  
    :maxdepth: 2  
    :glob:  
  
    intro/*  
    strings  
    datatypes  
    numeric
```

File organization

```
.. toctree::  
    :maxdepth: 1  
  
    majortopic_1/index  
    majortopic_2/index  
    majortopic_3/index
```

Cross-referencing documents

```
* :role: `target`  
* :role: `title <target>`  
* :role: `~parent.child.target`
```

- Objects (domains)
- Arbitrary locations (:ref: & “reference names”)
- Documents (:doc: absolute or relative paths)
- Downloads (:download:)
- Index-generating references (:envvar:, :term:, ...
index::)

Semantic markup

- `:abbr:`
- `:command:`
- `:program: & :option:`
- `:file:`
- `:kbd: `C-x C-f``
- `:manpage: `ls(1)``
- `:menuselection: `Start --> Programs``
- `:samp: `print 1+{variable}``

It's Python!

- Version numbers
- Mocking

```
MOCK_MODULES = ['pygtk', 'gtk']  
for mod_name in MOCK_MODULES:  
    sys.modules[mod_name] = Mock()
```

- Environments

```
sys.path.append(os.path.dirname(__file__))  
import settings  
from django.core.management \  
    import setup_environ  
setup_environ(settings)
```

- extlinks

```
:issue: `384`
```

- intersphinx (objects.inv)

```
:py:class: `zipfile.ZipFile`
```

```
.. automodule:: mypackage.mymodule  
   :members:
```

```
autodoc-process-docstring(app, what, name,  
obj, options, lines)
```

Templating

```
{% extends "!layout.html" %}
{%- block rootrellink %}
<li><a href="{{ pathto('index') }}">
    My home</a>&nbsp;|&nbsp;</li>
<li><a href="{{ pathto('home') }}">
    Documentation</a> &raquo;</li>
{%- endblock %}

html_additional_pages = {
    'index': 'index.html',
    '404': '404.html',
}

html_sidebars = { ... }
```

```
def setup(app):  
    app.add_crossref_type(...)   
    app.add_directive(...)   
    app.add_role(...)   
    app.connect('event_name', handler)   
    app.add_config_value(name, default, rebuild)   
    app.add_node(node, \   
                  html=(visit_mynode_html, \   
                        depart_mynode_html))   
    app.add_event(name)   
    app.emit(event, *arguments)
```

Sphinx build events

<http://sphinx.pocoo.org/ext/appapi.html#events>

- `builder-inited(app)`
- `source-read(app, docname, source)`
- `html-page-context(app, pagename, templatenamename, context, doctree)`
- `build-finished(app, exception)`

```
app.builder.env
```

```
app.builder.outdir
```

```
app.config
```

```
app.builder.warn("Look out!")
```

Appendix: reStructuredText output formats

- rst2html
- rst2latex
- rst2man
- rst2odt
- rst2s5
- rst2xml

Appendix: Sphinx builders

- StandaloneHTMLBuilder
- DirectoryHTMLBuilder
- SingleFileHTMLBuilder
- HTMLHelpBuilder (Microsoft CHM)
 - QtHelpBuilder (KDE)
 - DevhelpBuilder (Gnome)
- EpubBuilder
- LaTeXBuilder
- TextBuilder
- ManualPageBuilder
- SerializingHTMLBuilder (pickle, simplejson, phpserialize)
- PickleHTMLBuilder
- JSONHTMLBuilder
- ChangesBuilder (versionadded, versionchanged and deprecated)
- CheckExternalLinksBuilder

Appendix: Other links

- <http://rst2a.com/>
- <http://docutils.sourceforge.net/docs/user/links.html>