Pelican Documentation

Release 4.9.1

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CONTENTS

Pelican is a static site generator, written in Python. Highlights include:

- Write your content directly with your editor of choice in reStructuredText or Markdown formats

- Includes a simple CLI tool to (re)generate your site

- Easy to interface with distributed version control systems and web hooks

- Completely static output is easy to host anywhere

Ready to get started? Check out the *Quickstart* guide.

FEATURES

Pelican's feature highlights include:

- Articles (e.g., blog posts) and pages (e.g., "About", "Projects", "Contact")
- Integration with external services
- Site themes (created using Jinja2 templates)
- Publication of articles in multiple languages
- Generation of Atom and RSS feeds
- Code syntax highlighting
- Import existing content from WordPress, Dotclear, or RSS feeds
- Fast rebuild times thanks to content caching and selective output writing
- Extensible via a rich plugin ecosystem: Pelican Plugins

TWO

WHY THE NAME "PELICAN"?

"Pelican" is an anagram for *calepin*, which means "notebook" in French. ;)

SOURCE CODE

You can access the source code at: https://github.com/getpelican/pelican

HOW TO GET HELP, CONTRIBUTE, OR PROVIDE FEEDBACK

See our *feedback and contribution submission guidelines*.

DOCUMENTATION

5.1 Quickstart

Reading through all the documentation is highly recommended, but for the truly impatient, following are some quick steps to get started.

5.1.1 Installation

Install Pelican (and optionally Markdown if you intend to use it) on Python >=3.8.1 by running the following command in your preferred terminal, prefixing with `sudo` if permissions warrant:

```
python -m pip install "pelican[markdown]"
```

5.1.2 Create a project

First, choose a name for your project, create an appropriately-named directory for your site, and switch to that directory:

```
mkdir -p ~/projects/yoursite
cd ~/projects/yoursite
```

Create a skeleton project via the `pelican-quickstart` command, which begins by asking some questions about your site:

```
pelican-quickstart
```

For questions that have default values denoted in brackets, feel free to use the Return key to accept those default values[1]. When asked for your URL prefix, enter your domain name as indicated (e.g., `https://example.com`).

---

[1] You can help localize default fields by installing the optional tzlocal module.

5.1.3 Create an article

You cannot run Pelican until you have created some content. Use your preferred text editor to create your first article with the following content:

```
Title: My First Review
Date: 2010-12-03 10:20
Category: Review

Following is a review of my favorite mechanical keyboard.
```

Given that this example article is in Markdown format, save it as `~/projects/yoursite/content/keyboard-review.md`.

5.1.4 Generate your site

From your project root directory, run the `pelican` command to generate your site:

```
pelican content
```

Your site has now been generated inside the `output/` directory. (You may see a warning related to feeds, but that is normal when developing locally and can be ignored for now.)

5.1.5 Preview your site

Open a new terminal session, navigate to your project root directory, and run the following command to launch Pelican's web server:

```
pelican --listen
```

Preview your site by navigating to http://localhost:8000/ in your browser.

Continue reading the other documentation sections for more detail, and check out the Pelican wiki's Tutorials page for links to community-published tutorials.

5.1.6 Footnotes

5.2 Installing Pelican

Pelican currently runs best on >=3.8.1; earlier versions of Python are not supported.

You can install Pelican via several different methods. The simplest is via Pip:

```
python -m pip install pelican
```

Or, if you plan on using Markdown:

```
python -m pip install "pelican[markdown]"
```

(Keep in mind that some operating systems will require you to prefix the above command with `sudo` in order to install Pelican system-wide.)

While the above is the simplest method, the recommended approach is to create a virtual environment for Pelican via virtualenv before installing Pelican. Assuming you have virtualenv installed, you can then open a new terminal session and create a new virtual environment for Pelican:

```
virtualenv ~/virtualenvs/pelican
cd ~/virtualenvs/pelican
source bin/activate
```

Once the virtual environment has been created and activated, Pelican can be installed via `python -m pip install pelican` as noted above. Alternatively, if you have the project source, you can install Pelican using the distutils method:

```
cd path-to-Pelican-source
python setup.py install
```

If you have Git installed and prefer to install the latest bleeding-edge version of Pelican rather than a stable release, use the following command:

```
python -m pip install -e "git+https://github.com/getpelican/pelican.git#egg=pelican"
```

Once Pelican is installed, you can run `pelican --help` to see basic usage options. For more detail, refer to the *Publish* section.

5.2.1 Optional packages

If you plan on using Markdown as a markup format, you can install Pelican with Markdown support:

```
python -m pip install "pelican[markdown]"
```

Typographical enhancements can be enabled in your settings file, but first the requisite Typogrify library must be installed:

```
python -m pip install typogrify
```

5.2.2 Dependencies

When Pelican is installed, the following dependent Python packages should be automatically installed without any action on your part:

- feedgenerator, to generate the Atom feeds
- jinja2, for templating support
- pygments, for syntax highlighting
- docutils, for supporting reStructuredText as an input format
- blinker, an object-to-object and broadcast signaling system
- unidecode, for ASCII transliterations of Unicode text utilities
- MarkupSafe, for a markup-safe string implementation
- python-dateutil, to read the date metadata

5.2.3 Upgrading

If you installed a stable Pelican release via Pip and wish to upgrade to the latest stable release, you can do so by adding `--upgrade`:

```
python -m pip install --upgrade pelican
```

If you installed Pelican via distutils or the bleeding-edge method, simply perform the same step to install the most recent version.

5.2.4 Kickstart your site

Once Pelican has been installed, you can create a skeleton project via the `pelican-quickstart` command, which begins by asking some questions about your site:

```
pelican-quickstart
```

If run inside an activated virtual environment, `pelican-quickstart` will look for an associated project path inside `$VIRTUAL_ENV/.project`. If that file exists and contains a valid directory path, the new Pelican project will be saved at that location. Otherwise, the default is the current working directory. To set the new project path on initial invocation, use: `pelican-quickstart --path /your/desired/directory`

Once you finish answering all the questions, your project will consist of the following hierarchy (except for *pages* — shown in parentheses below — which you can optionally add yourself if you plan to create non-chronological content):

```
yourproject/
├── content
│   └── (pages)
├── output
├── tasks.py
├── Makefile
├── pelicanconf.py      # Main settings file
└── publishconf.py      # Settings to use when ready to publish
```

The next step is to begin to adding content to the *content* folder that has been created for you.

5.3 Writing content

5.3.1 Articles and pages

Pelican considers "articles" to be chronological content, such as posts on a blog, and thus associated with a date.

The idea behind "pages" is that they are usually not temporal in nature and are used for content that does not change very often (e.g., "About" or "Contact" pages).

You can find sample content in the repository at `samples/content/`.

5.3.2 File metadata

Pelican tries to be smart enough to get the information it needs from the file system (for instance, about the category of your articles), but some information you need to provide in the form of metadata inside your files.

If you are writing your content in reStructuredText format, you can provide this metadata in text files via the following syntax (give your file the `.rst` extension):

```
My super title
##############

:date: 2010-10-03 10:20
:modified: 2010-10-04 18:40
:tags: thats, awesome
:category: yeah
:slug: my-super-post
:authors: Alexis Metaireau, Conan Doyle
:summary: Short version for index and feeds
```

Author and tag lists may be semicolon-separated instead, which allows you to write authors and tags containing commas:

```
:tags: pelican, publishing tool; pelican, bird
:authors: Metaireau, Alexis; Doyle, Conan
```

Pelican implements an extension to reStructuredText to enable support for the `abbr` HTML tag. To use it, write something like this in your post:

```
This will be turned into :abbr:`HTML (HyperText Markup Language)`.
```

You can also use Markdown syntax (with a file ending in `.md`, `.markdown`, `.mkd`, or `.mdown`). Markdown generation requires that you first explicitly install the Python-Markdown package, which can be done via `pip install Markdown`.

Pelican also supports Markdown Extensions, which might have to be installed separately if they are not included in the default `Markdown` package and can be configured and loaded via the `MARKDOWN` setting.

Metadata syntax for Markdown posts should follow this pattern:

```
Title: My super title
Date: 2010-12-03 10:20
Modified: 2010-12-05 19:30
Category: Python
Tags: pelican, publishing
Slug: my-super-post
Authors: Alexis Metaireau, Conan Doyle
Summary: Short version for index and feeds

This is the content of my super blog post.
```

You can also have your own metadata keys (so long as they don't conflict with reserved metadata keywords) for use in your templates. The following table contains a list of reserved metadata keywords:

Metadata	Description
`title`	Title of the article or page
`date`	Publication date (e.g., `YYYY-MM-DD HH:SS`)
`modified`	Modification date (e.g., `YYYY-MM-DD HH:SS`)
`tags`	Content tags, separated by commas
`keywords`	Content keywords, separated by commas (HTML content only)
`category`	Content category (one only — not multiple)
`slug`	Identifier used in URLs and translations
`author`	Content author, when there is only one
`authors`	Content authors, when there are multiple
`summary`	Brief description of content for index pages
`lang`	Content language ID (`en`, `fr`, etc.)
`translation`	If content is a translation of another (`true` or `false`)
`status`	Content status: `draft`, `hidden`, or `published`
`template`	Name of template to use to generate content (without extension)
`save_as`	Save content to this relative file path
`url`	URL to use for this article/page

Readers for additional formats (such as AsciiDoc) are available via plugins, which you can find via the Pelican Plugins collection as well as the legacy pelican-plugins repository.

Pelican can also process HTML files ending in `.html` and `.htm`. Pelican interprets the HTML in a very straightforward manner, reading metadata from `meta` tags, the title from the `title` tag, and the body out from the `body` tag:

```html
<html>
    <head>
        <title>My super title</title>
        <meta name="tags" content="thats, awesome" />
        <meta name="date" content="2012-07-09 22:28" />
        <meta name="modified" content="2012-07-10 20:14" />
        <meta name="category" content="yeah" />
        <meta name="authors" content="Alexis Métaireau, Conan Doyle" />
        <meta name="summary" content="Short version for index and feeds" />
    </head>
    <body>
        This is the content of my super blog post.
    </body>
</html>
```

With HTML, there is one simple exception to the standard metadata: tags can be specified either via the `tags` metadata, as is standard in Pelican, or via the `keywords` metadata, as is standard in HTML. The two can be used interchangeably.

Note that, aside from the title, none of this content metadata is mandatory: if the date is not specified and `DEFAULT_DATE` is set to `'fs'`, Pelican will rely on the file's "mtime" timestamp, and the category can be determined by the directory in which the file resides. For example, a file located at `python/foobar/myfoobar.rst` will have a category of `foobar`. If you would like to organize your files in other ways where the name of the subfolder would not be a good category name, you can set the setting `USE_FOLDER_AS_CATEGORY` to `False`. When parsing dates given in the page metadata, Pelican supports the W3C's suggested subset ISO 8601.

So the title is the only required metadata. If that bothers you, worry not. Instead of manually specifying a title in your metadata each time, you can use the source content file name as the title. For example, a Markdown source file named `Publishing via Pelican.md` would automatically be assigned a title of *Publishing via Pelican*. If you would prefer this behavior, add the following line to your settings file:

```
FILENAME_METADATA = '(?P<title>.*)'
```

Note: When experimenting with different settings (especially the metadata ones) caching may interfere and the changes may not be visible. In such cases disable caching with `LOAD_CONTENT_CACHE = False` or use the `--ignore-cache` command-line switch.

`modified` should be last time you updated the article, and defaults to `date` if not specified. Besides you can show `modified` in the templates, feed entries in feed readers will be updated automatically when you set `modified` to the current date after you modified your article.

`authors` is a comma-separated list of article authors. If there's only one author you can use `author` field.

If you do not explicitly specify summary metadata for a given post, the `SUMMARY_MAX_LENGTH` setting can be used to specify how many words from the beginning of an article are used as the summary.

You can also extract any metadata from the filename through a regular expression to be set in the `FILENAME_METADATA` setting. All named groups that are matched will be set in the metadata object. The default value for the `FILENAME_METADATA` setting will only extract the date from the filename. For example, if you would like to extract both the date and the slug, you could set something like: `'(?P<date>\d{4}-\d{2}-\d{2})_(?P<slug>.*)'`

Please note that the metadata available inside your files takes precedence over the metadata extracted from the filename.

5.3.3 Pages

If you create a folder named `pages` inside the content folder, all the files in it will be used to generate static pages, such as **About** or **Contact** pages. (See example filesystem layout below.)

You can use the `DISPLAY_PAGES_ON_MENU` setting to control whether all those pages are displayed in the primary navigation menu. (Default is `True`.)

If you want to exclude any pages from being linked to or listed in the menu, then add a `status: hidden` attribute to its metadata. This is useful for things like making error pages that fit the generated theme of your site.

5.3.4 Static content

Static files are files other than articles and pages that are copied to the output folder as-is, without processing. You can control which static files are copied over with the `STATIC_PATHS` setting of the project's `pelicanconf.py` file. Pelican's default configuration includes the `images` directory for this, but others must be added manually. In addition, static files that are explicitly linked to are included (see below).

Note: In the default configuration, all files with a valid content file suffix (`.html`, `.rst`, `.md`, ...) get processed by the article and page generators *before* the static generator. This is avoided by altering the `*_EXCLUDE` settings appropriately.

Mixed content in the same directory

Starting with Pelican 3.5, static files can safely share a source directory with page source files, without exposing the page sources in the generated site. Any such directory must be added to both `STATIC_PATHS` and `PAGE_PATHS` (or `STATIC_PATHS` and `ARTICLE_PATHS`). Pelican will identify and process the page source files normally, and copy the remaining files as if they lived in a separate directory reserved for static files.

Note: Placing static and content source files together in the same source directory does not guarantee that they will end up in the same place in the generated site. The easiest way to do this is by using the `{attach}` link syntax (described below). Alternatively, the `STATIC_SAVE_AS`, `PAGE_SAVE_AS`, and `ARTICLE_SAVE_AS` settings (and the corresponding `*_URL` settings) can be configured to place files of different types together, just as they could in earlier versions of Pelican.

5.3.5 Linking to internal content

From Pelican 3.1 onwards, it is now possible to specify intra-site links to files in the *source content* hierarchy instead of files in the *generated* hierarchy. This makes it easier to link from the current post to other content that may be sitting alongside that post (instead of having to determine where the other content will be placed after site generation).

To link to internal content (files in the `content` directory), use the following syntax for the link target: `{filename}path/to/file`. Note: forward slashes, /, are the required path separator in the `{filename}` directive on all operating systems, including Windows.

For example, a Pelican project might be structured like this:

```
website/
├── content
│   ├── category/
│   │   └── article1.rst
│   ├── article2.md
│   └── pages
│       └── about.md
└── pelican.conf.py
```

In this example, `article1.rst` could look like this:

```
The first article
#################

:date: 2012-12-01 10:02

See below intra-site link examples in reStructuredText format.

`a link relative to the current file <{filename}../article2.md>`_
`a link relative to the content root <{filename}/article2.md>`_
```

and `article2.md`:

```
Title: The second article
Date: 2012-12-01 10:02

See below intra-site link examples in Markdown format.

[a link relative to the current file]({filename}category/article1.rst)
[a link relative to the content root]({filename}/category/article1.rst)
```

Linking to static files

You can link to static content using `{static}path/to/file`. Files linked to with this syntax will automatically be copied to the output directory, even if the source directories containing them are not included in the `STATIC_PATHS` setting of the project's `pelicanconf.py` file.

For example, a project's content directory might be structured like this:

```
content
├── images
│   └── han.jpg
├── pdfs
│   └── menu.pdf
└── pages
    └── test.md
```

`test.md` would include:

```
![Alt Text]({static}/images/han.jpg)
[Our Menu]({static}/pdfs/menu.pdf)
```

Site generation would then copy `han.jpg` to `output/images/han.jpg`, `menu.pdf` to `output/pdfs/menu.pdf`, and write the appropriate links in `test.md`.

If you use `{static}` to link to an article or a page, this will be turned into a link to its source code.

Attaching static files

Starting with Pelican 3.5, static files can be "attached" to a page or article using this syntax for the link target: `{attach}path/to/file`. This works like the `{static}` syntax, but also relocates the static file into the linking document's output directory. If the static file originates from a subdirectory beneath the linking document's source, that relationship will be preserved on output. Otherwise, it will become a sibling of the linking document.

This only works for linking to static files.

For example, a project's content directory might be structured like this:

```
content
├── blog
│   ├── icons
│   │   └── icon.png
│   ├── photo.jpg
│   └── testpost.md
└── downloads
    └── archive.zip
```

`pelicanconf.py` would include:

```
PATH = 'content'
ARTICLE_PATHS = ['blog']
ARTICLE_SAVE_AS = '{date:%Y}/{slug}.html'
ARTICLE_URL = '{date:%Y}/{slug}.html'
```

`testpost.md` would include:

```
Title: Test Post
Category: test
Date: 2014-10-31

![Icon]({attach}icons/icon.png)
![Photo]({attach}photo.jpg)
[Downloadable File]({attach}/downloads/archive.zip)
```

Site generation would then produce an output directory structured like this:

```
output
└── 2014
        ├── archive.zip
        ├── icons
        │   └── icon.png
        ├── photo.jpg
        └── test-post.html
```

Notice that all the files linked using {attach} ended up in or beneath the article's output directory.

If a static file is linked multiple times, the relocating feature of {attach} will only work in the first of those links to be processed. After the first link, Pelican will treat {attach} like {static}. This avoids breaking the already-processed links.

Be careful when linking to a file from multiple documents: Since the first link to a file finalizes its location and Pelican does not define the order in which documents are processed, using {attach} on a file linked by multiple documents can cause its location to change from one site build to the next. (Whether this happens in practice will depend on the operating system, file system, version of Pelican, and documents being added, modified, or removed from the project.) Any external sites linking to the file's old location might then find their links broken. **It is therefore advisable to use {attach} only if you use it in all links to a file, and only if the linking documents share a single directory.** Under these conditions, the file's output location will not change in future builds. In cases where these precautions are not possible, consider using {static} links instead of {attach}, and letting the file's location be determined by the project's STATIC_SAVE_AS and STATIC_URL settings. (Per-file save_as and url overrides can still be set in EXTRA_PATH_METADATA.)

Note: When using {attach}, any parent directory in *_URL / *_SAVE_AS settings should match each other. See also: *URL settings*

Linking to authors, categories, index and tags

You can link to authors, categories, index and tags using the `{author}name`, `{category}foobar`, `{index}` and `{tag}tagname` syntax.

Deprecated internal link syntax

To remain compatible with earlier versions, Pelican still supports vertical bars (`||`) in addition to curly braces (`{}`) for internal links. For example: `|filename|an_article.rst`, `|tag|tagname`, `|category|foobar`. The syntax was changed from `||` to `{}` to avoid collision with Markdown extensions or reST directives. Similarly, Pelican also still supports linking to static content with `{filename}`. The syntax was changed to `{static}` to allow linking to both generated articles and pages and their static sources.

Support for the old syntax may eventually be removed.

Including other files

Both Markdown and reStructuredText syntaxes provide mechanisms for this.

Following below are some examples for **reStructuredText** using the include directive:

```
.. include:: file.rst
```

Include a fragment of a file delimited by two identifiers, highlighted as C++ (slicing based on line numbers is also possible):

```
.. include:: main.cpp
    :code: c++
    :start-after: // begin
    :end-before: // end
```

Include a raw HTML file (or an inline SVG) and put it directly into the output without any processing:

```
.. raw:: html
    :file: table.html
```

For **Markdown**, one must rely on an extension. For example, using the mdx_include plugin:

```
```html
{! template.html !}
```
```

5.3.6 Importing an existing site

It is possible to import your site from several other blogging sites (like WordPress, Tumblr, ..) using a simple script. See *Importing an existing site*.

5.3.7 Translations

It is possible to translate articles. To do so, you need to add a `lang` meta attribute to your articles/pages and set a `DEFAULT_LANG` setting (which is English [en] by default). With those settings in place, only articles with the default language will be listed, and each article will be accompanied by a list of available translations for that article.

Note: This core Pelican functionality does not create sub-sites (e.g. `example.com/de`) with translated templates for each language. For such advanced functionality the i18n_subsites plugin can be used.

By default, Pelican uses the article's URL "slug" to determine if two or more articles are translations of one another. (This can be changed with the `ARTICLE_TRANSLATION_ID` setting.) The slug can be set manually in the file's metadata; if not set explicitly, Pelican will auto-generate the slug from the title of the article.

Here is an example of two articles, one in English and the other in French.

The English article:

```
Foobar is not dead
##################

:slug: foobar-is-not-dead
:lang: en

That's true, foobar is still alive!
```

And the French version:

```
Foobar n'est pas mort !
######################

:slug: foobar-is-not-dead
:lang: fr

Oui oui, foobar est toujours vivant !
```

Post content quality notwithstanding, you can see that only item in common between the two articles is the slug, which is functioning here as an identifier. If you'd rather not explicitly define the slug this way, you must then instead ensure that the translated article titles are identical, since the slug will be auto-generated from the article title.

If you do not want the original version of one specific article to be detected by the `DEFAULT_LANG` setting, use the `translation` metadata to specify which posts are translations:

```
Foobar is not dead
##################

:slug: foobar-is-not-dead
:lang: en
:translation: true

That's true, foobar is still alive!
```

5.3.8 Syntax highlighting

Pelican can provide colorized syntax highlighting for your code blocks. To do so, you must use the following conventions inside your content files.

For reStructuredText, use the `code-block` directive to specify the type of code to be highlighted (in these examples, we'll use `python`):

```
.. code-block:: python

   print("Pelican is a static site generator.")
```

For Markdown, which utilizes the CodeHilite extension to provide syntax highlighting, include the language identifier just above the code block, indenting both the identifier and the code:

```
There are two ways to specify the identifier:

    :::python
    print("The triple-colon syntax will *not* show line numbers.")

To display line numbers, use a path-less shebang instead of colons:

    #!python
    print("The path-less shebang syntax *will* show line numbers.")
```

The specified identifier (e.g. `python`, `ruby`) should be one that appears on the list of available lexers.

When using reStructuredText the following options are available in the *code-block* directive:

Option	Valid values	Description
anchorlinenos	N/A	If present, wrap line numbers in <a> tags.
classprefix	string	String to prepend to token class names
hl_lines	numbers	List of lines to be highlighted, where line numbers to highlight are separated by a space. This is similar to `emphasize-lines` in Sphinx, but it does not support a range of line numbers separated by a hyphen, or comma-separated line numbers.
lineanchors	string	Wrap each line in an anchor using this string and -linenumber.
linenos	string	If present or set to "table", output line numbers in a table; if set to "inline", output them inline. "none" means do not output the line numbers for this table.
linenoscial	number	If set, every nth line will be given the 'special' CSS class.
linenostart	number	Line number for the first line.
linenostep	number	Print every nth line number.
lineseparator	string	String to print between lines of code, 'n' by default.
linespans	string	Wrap each line in a span using this and -linenumber.
nobackground	N/A	If set, do not output background color for the wrapping element
nowrap	N/A	If set, do not wrap the tokens at all.
tagsfile	string	ctags file to use for name definitions.
tagurlformat	string	format for the ctag links.

Note that, depending on the version, your Pygments module might not have all of these options available. Refer to the *HtmlFormatter* section of the Pygments documentation for more details on each of the options.

For example, the following code block enables line numbers, starting at 153, and prefixes the Pygments CSS classes with *pgcss* to make the names more unique and avoid possible CSS conflicts:

```
.. code-block:: identifier
   :classprefix: pgcss
   :linenos: table
   :linenostart: 153

   <indented code block goes here>
```

It is also possible to specify the `PYGMENTS_RST_OPTIONS` variable in your Pelican settings file to include options that will be automatically applied to every code block.

For example, if you want to have line numbers displayed for every code block and a CSS prefix, you would set this variable to:

```
PYGMENTS_RST_OPTIONS = {'classprefix': 'pgcss', 'linenos': 'table'}
```

If specified, settings for individual code blocks will override the defaults in your settings file.

5.3.9 Publishing drafts

If you want to publish an article or a page as a draft (for friends to review before publishing, for example), you can add a `Status: draft` attribute to its metadata. That article will then be output to the `drafts` folder and not listed on the index page nor on any category or tag page.

If your articles should be automatically published as a draft (to not accidentally publish an article before it is finished), include the status in the `DEFAULT_METADATA`:

```
DEFAULT_METADATA = {
    'status': 'draft',
}
```

To publish a post when the default status is `draft`, update the post's metadata to include `Status: published`.

5.3.10 Hidden Posts

Like pages, posts can also be marked as `hidden` with the `Status: hidden` attribute. Hidden posts will be output to `ARTICLE_SAVE_AS` as expected, but are not included by default in tag, category, and author indexes, nor in the main article feed. This has the effect of creating an "unlisted" post.

5.4 Publish your site

5.4.1 Site generation

Once Pelican is installed and you have some content (e.g., in Markdown or reST format), you can convert your content into HTML via the `pelican` command, specifying the path to your content and (optionally) the path to your *settings* file:

```
pelican /path/to/your/content/ [-s path/to/your/settings.py]
```

The above command will generate your site and save it in the `output/` folder, using the default theme to produce a simple site. The default theme consists of very simple HTML without styling and is provided so folks may use it as a basis for creating their own themes.

You can also tell Pelican to watch for your modifications, instead of manually re-running it every time you want to see your changes. To enable this, run the `pelican` command with the `-r` or `--autoreload` option. On non-Windows environments, this option can also be combined with the `-l` or `--listen` option to simultaneously both auto-regenerate *and* serve the output at http://localhost:8000:

```
pelican --autoreload --listen
```

Pelican has other command-line switches available. Have a look at the help to see all the options you can use:

```
pelican --help
```

Viewing the generated files

The files generated by Pelican are static files, so you don't actually need anything special to view them. You can use your browser to open the generated HTML files directly:

```
firefox output/index.html
```

Because the above method may have trouble locating your CSS and other linked assets, running Pelican's simple built-in web server will often provide a more reliable previewing experience:

```
pelican --listen
```

Once the web server has been started, you can preview your site at: http://localhost:8000/

5.4.2 Deployment

After you have generated your site, previewed it in your local development environment, and are ready to deploy it to production, you might first re-generate your site with any production-specific settings (e.g., analytics, feeds, etc.) that you may have defined:

```
pelican content -s publishconf.py
```

To base your publish configuration on top of your `pelicanconf.py`, you can import your `pelicanconf` settings by including the following line in your `publishconf.py`:

```python
from pelicanconf import *
```

If you have generated a `publishconf.py` using `pelican-quickstart`, this line is included by default.

The steps for deploying your site will depend on where it will be hosted. If you have SSH access to a server running Nginx or Apache, you might use the `rsync` tool to transmit your site files:

```
rsync -avc --delete output/ host.example.com:/var/www/your-site/
```

There are many other deployment options, some of which can be configured when first setting up your site via the `pelican-quickstart` command. See the *Tips* page for detail on publishing via GitHub Pages.

5.4.3 Automation

While the `pelican` command is the canonical way to generate your site, automation tools can be used to streamline the generation and publication flow. One of the questions asked during the `pelican-quickstart` process pertains to whether you want to automate site generation and publication. If you answered "yes" to that question, a `tasks.py` and `Makefile` will be generated in the root of your project. These files, pre-populated with certain information gleaned from other answers provided during the `pelican-quickstart` process, are meant as a starting point and should be customized to fit your particular needs and usage patterns. If you find one or both of these automation tools to be of limited utility, these files can be deleted at any time and will not affect usage of the canonical `pelican` command.

Following are automation tools that "wrap" the `pelican` command and can simplify the process of generating, previewing, and uploading your site.

Invoke

The advantage of Invoke is that it is written in Python and thus can be used in a wide range of environments. The downside is that it must be installed separately. Use the following command to install Invoke, prefixing with `sudo` if your environment requires it:

```
python -m pip install invoke
```

Take a moment to open the `tasks.py` file that was generated in your project root. You will see a number of commands, any one of which can be renamed, removed, and/or customized to your liking. Using the out-of-the-box configuration, you can generate your site via:

```
invoke build
```

If you'd prefer to have Pelican automatically regenerate your site every time a change is detected (which is handy when testing locally), use the following command instead:

```
invoke regenerate
```

To serve the generated site so it can be previewed in your browser at http://localhost:8000/:

```
invoke serve
```

To serve the generated site with automatic browser reloading every time a change is detected, first `python -m pip install livereload`, then use the following command:

```
invoke livereload
```

If during the `pelican-quickstart` process you answered "yes" when asked whether you want to upload your site via SSH, you can use the following command to publish your site via rsync over SSH:

```
invoke publish
```

These are just a few of the commands available by default, so feel free to explore `tasks.py` and see what other commands are available. More importantly, don't hesitate to customize `tasks.py` to suit your specific needs and preferences.

Make

A `Makefile` is also automatically created for you when you say "yes" to the relevant question during the `pelican-quickstart` process. The advantage of this method is that the `make` command is built into most POSIX systems and thus doesn't require installing anything else in order to use it. The downside is that non-POSIX systems (e.g., Windows) do not include `make`, and installing it on those systems can be a non-trivial task.

If you want to use `make` to generate your site using the settings in `pelicanconf.py`, run:

```
make html
```

To generate the site for production, using the settings in `publishconf.py`, run:

```
make publish
```

If you'd prefer to have Pelican automatically regenerate your site every time a change is detected (which is handy when testing locally), use the following command instead:

```
make regenerate
```

To serve the generated site so it can be previewed in your browser at http://localhost:8000/:

```
make serve
```

Normally you would need to run `make regenerate` and `make serve` in two separate terminal sessions, but you can run both at once via:

```
make devserver
```

The above command will simultaneously run Pelican in regeneration mode as well as serve the output at http://localhost:8000.

When you're ready to publish your site, you can upload it via the method(s) you chose during the `pelican-quickstart` questionnaire. For this example, we'll use rsync over ssh:

```
make rsync_upload
```

That's it! Your site should now be live.

(The default `Makefile` and `devserver.sh` scripts use the `python` and `pelican` executables to complete its tasks. If you want to use different executables, such as `python3`, you can set the `PY` and `PELICAN` environment variables, respectively, to override the default executable names.)

5.5 Settings

Pelican is configurable thanks to a settings file you can pass to the command line:

```
pelican content -s path/to/your/pelicanconf.py
```

If you used the `pelican-quickstart` command, your primary settings file will be named `pelicanconf.py` by default.

You can also specify settings via `-e` / `--extra-settings` option flags. It will override default settings as well as any defined within the setting file. Note that values must follow JSON notation:

```
pelican content -e SITENAME='"A site"' READERS='{"html": null}' CACHE_CONTENT=true
```

Environment variables can also be used here but must be escaped appropriately:

```
pelican content -e API_KEY='''\"$API_KEY\"'''
```

Note: When experimenting with different settings (especially the metadata ones) caching may interfere and the changes may not be visible. In such cases disable caching with `LOAD_CONTENT_CACHE = False` or use the `--ignore-cache` command-line switch.

Settings are configured in the form of a Python module (a file). There is an example settings file available for reference.

To see a list of current settings in your environment, including both default and any customized values, run the following command (append one or more specific setting names as arguments to see values for those settings only):

```
pelican --print-settings
```

All the setting identifiers must be set in all-caps, otherwise they will not be processed. Setting values that are numbers (5, 20, etc.), booleans (True, False, None, etc.), dictionaries, or tuples should *not* be enclosed in quotation marks. All other values (i.e., strings) *must* be enclosed in quotation marks.

Unless otherwise specified, settings that refer to paths can be either absolute or relative to the configuration file. The settings you define in the configuration file will be passed to the templates, which allows you to use your settings to add site-wide content.

Here is a list of settings for Pelican:

5.5.1 Basic settings

USE_FOLDER_AS_CATEGORY = True

> When you don't specify a category in your post metadata, set this setting to `True`, and organize your articles in subfolders, the subfolder will become the category of your post. If set to `False`, `DEFAULT_CATEGORY` will be used as a fallback.

DEFAULT_CATEGORY = 'misc'

> The default category to fall back on.

DISPLAY_PAGES_ON_MENU = True

> Whether to display pages on the menu of the template. Templates may or may not honor this setting.

DISPLAY_CATEGORIES_ON_MENU = True

> Whether to display categories on the menu of the template. Templates may or not honor this setting.

DOCUTILS_SETTINGS = {}

> Extra configuration settings for the docutils publisher (applicable only to reStructuredText). See Docutils Configuration settings for more details.

DELETE_OUTPUT_DIRECTORY = False

> Delete the output directory, and **all** of its contents, before generating new files. This can be useful in preventing older, unnecessary files from persisting in your output. However, **this is a destructive setting and should be handled with extreme care.**

OUTPUT_RETENTION = []

> A list of filenames that should be retained and not deleted from the output directory. One use case would be the preservation of version control data.
>
> Example:

```
OUTPUT_RETENTION = [".hg", ".git", ".bzr"]
```

JINJA_ENVIRONMENT = {'trim_blocks': True, 'lstrip_blocks': True}

> A dictionary of custom Jinja2 environment variables you want to use. This also includes a list of extensions you may want to include. See Jinja Environment documentation.

JINJA_FILTERS = {}

> A dictionary of custom Jinja2 filters you want to use. The dictionary should map the filtername to the filter function.
>
> Example:

```
import sys
sys.path.append('to/your/path')

from custom_filter import urlencode_filter
JINJA_FILTERS = {'urlencode': urlencode_filter}
```

See: Jinja custom filters documentation.

JINJA_GLOBALS = {}

> A dictionary of custom objects to map into the Jinja2 global environment namespace. The dictionary should map the global name to the global variable/function. See: Jinja global namespace documentation.

JINJA_TESTS = {}

> A dictionary of custom Jinja2 tests you want to use. The dictionary should map test names to test functions. See: Jinja custom tests documentation.

LOG_FILTER = []

> A list of tuples containing the logging level (up to `warning`) and the message to be ignored.
>
> Example:

```
LOG_FILTER = [(logging.WARN, 'TAG_SAVE_AS is set to False')]
```

READERS = {}

> A dictionary of file extensions / Reader classes for Pelican to process or ignore.
>
> For example, to avoid processing .html files, set:

```
READERS = {'html': None}
```

> To add a custom reader for the `foo` extension, set:

```
READERS = {'foo': FooReader}
```

IGNORE_FILES = ['.#*']

> A list of glob patterns. Files and directories matching any of these patterns will be ignored by the processor. For example, the default `['.#*']` will ignore emacs lock files, and `['__pycache__']` would ignore Python 3's bytecode caches.

MARKDOWN = {...}

> Extra configuration settings for the Markdown processor. Refer to the Python Markdown documentation's Options section for a complete list of supported options. The `extensions` option will be automatically computed from the `extension_configs` option.
>
> Defaults to:

```
MARKDOWN = {
    'extension_configs': {
        'markdown.extensions.codehilite': {'css_class': 'highlight'},
        'markdown.extensions.extra': {},
        'markdown.extensions.meta': {},
    },
    'output_format': 'html5',
}
```

Note: The dictionary defined in your settings file will replace this default one.

OUTPUT_PATH = 'output/'

Where to output the generated files. This should correspond to your web server's virtual host root directory.

PATH

Path to content directory to be processed by Pelican. If undefined, and content path is not specified via an argument to the `pelican` command, Pelican will use the current working directory.

PAGE_PATHS = ['pages']

A list of directories and files to look at for pages, relative to `PATH`.

PAGE_EXCLUDES = []

A list of directories to exclude when looking for pages in addition to `ARTICLE_PATHS`.

ARTICLE_PATHS = ['']

A list of directories and files to look at for articles, relative to `PATH`.

ARTICLE_EXCLUDES = []

A list of directories to exclude when looking for articles in addition to `PAGE_PATHS`.

OUTPUT_SOURCES = False

Set to True if you want to copy the articles and pages in their original format (e.g. Markdown or reStructuredText) to the specified `OUTPUT_PATH`.

OUTPUT_SOURCES_EXTENSION = '.text'

Controls the extension that will be used by the SourcesGenerator. Defaults to `.text`. If not a valid string the default value will be used.

PLUGINS = None

The list of plugins to load. See *Plugins*.

PLUGIN_PATHS = []

A list of directories where to look for plugins. See *Plugins*.

SITENAME = 'A Pelican Blog'

Your site name

SITEURL

Base URL of your web site. Not defined by default, so it is best to specify your SITEURL; if you do not, feeds will not be generated with properly-formed URLs. If your site is available via HTTPS, this setting should begin with `https://` — otherwise use `http://`. Then append your domain, with no trailing slash at the end. Example: `SITEURL = 'https://example.com'`

STATIC_PATHS = ['images']

A list of directories (relative to `PATH`) in which to look for static files. Such files will be copied to the output directory without modification. Articles, pages, and other content source files will normally be skipped, so it is safe for a directory to appear both here and in `PAGE_PATHS` or `ARTICLE_PATHS`. Pelican's default settings include the "images" directory here.

STATIC_EXCLUDES = []

A list of directories to exclude when looking for static files.

STATIC_EXCLUDE_SOURCES = True

If set to False, content source files will not be skipped when copying files found in `STATIC_PATHS`. This setting is for backward compatibility with Pelican releases before version 3.5. It has no effect unless `STATIC_PATHS` contains a directory that is also in `ARTICLE_PATHS` or `PAGE_PATHS`. If you are trying to publish your site's source files, consider using the `OUTPUT_SOURCES` setting instead.

STATIC_CREATE_LINKS = False

Create links instead of copying files. If the content and output directories are on the same device, then create hard links. Falls back to symbolic links if the output directory is on a different filesystem. If symlinks are created, don't forget to add the `-L` or `--copy-links` option to rsync when uploading your site.

STATIC_CHECK_IF_MODIFIED = False

If set to `True`, and `STATIC_CREATE_LINKS` is `False`, compare mtimes of content and output files, and only copy content files that are newer than existing output files.

TYPOGRIFY = False

If set to True, several typographical improvements will be incorporated into the generated HTML via the Typogrify library, which can be installed via: `python -m pip install typogrify`

TYPOGRIFY_IGNORE_TAGS = []

A list of tags for Typogrify to ignore. By default Typogrify will ignore `pre` and `code` tags. This requires that Typogrify version 2.0.4 or later is installed

TYPOGRIFY_DASHES = 'default'

This setting controls how Typogrify sets up the Smartypants filter to interpret multiple dash/hyphen/minus characters. A single ASCII dash character (-) is always rendered as a hyphen. The `default` setting does not handle en-dashes and converts double-hyphens into em-dashes. The `oldschool` setting renders both en-dashes and em-dashes when it sees two (--) and three (---) hyphen characters, respectively. The `oldschool_inverted` setting turns two hyphens into an em-dash and three hyphens into an en-dash.

SUMMARY_MAX_LENGTH = 50

When creating a short summary of an article, this will be the default length (measured in words) of the text created. This only applies if your content does not otherwise specify a summary. Setting to `None` will cause the summary to be a copy of the original content.

SUMMARY_END_SUFFIX = '...'

When creating a short summary of an article and the result was truncated to match the required word length, this will be used as the truncation suffix.

WITH_FUTURE_DATES = True

If disabled, content with dates in the future will get a default status of `draft`. See *Reading only modified content* for caveats.

INTRASITE_LINK_REGEX = '[{|](?P<what>.*?)[|}]'

Regular expression that is used to parse internal links. Default syntax when linking to internal files, tags, etc., is to enclose the identifier, say `filename`, in {} or ||. Identifier between { and } goes into the `what` capturing group. For details see *Linking to internal content*.

PYGMENTS_RST_OPTIONS = []

A list of default Pygments settings for your reStructuredText code blocks. See *Syntax highlighting* for a list of supported options.

CACHE_CONTENT = False

If `True`, saves content in caches. See *Reading only modified content* for details about caching.

CONTENT_CACHING_LAYER = 'reader'

    If set to `'reader'`, save only the raw content and metadata returned by readers. If set to `'generator'`, save processed content objects.

CACHE_PATH = 'cache'

    Directory in which to store cache files.

GZIP_CACHE = True

    If `True`, use gzip to (de)compress the cache files.

CHECK_MODIFIED_METHOD = 'mtime'

    Controls how files are checked for modifications.

- If set to `'mtime'`, the modification time of the file is checked.

- If set to a name of a function provided by the `hashlib` module, e.g. `'md5'`, the file hash is checked.

LOAD_CONTENT_CACHE = False

    If `True`, load unmodified content from caches.

FORMATTED_FIELDS = ['summary']

    A list of metadata fields containing reST/Markdown content to be parsed and translated to HTML.

PORT = 8000

    The TCP port to serve content from the output folder via HTTP when pelican is run with –listen

BIND = ''

    The IP to which to bind the HTTP server.

5.5.2 URL settings

The first thing to understand is that there are currently two supported methods for URL formation: *relative* and *absolute*. Relative URLs are useful when testing locally, and absolute URLs are reliable and most useful when publishing. One method of supporting both is to have one Pelican configuration file for local development and another for publishing. To see an example of this type of setup, use the `pelican-quickstart` script as described in the *Installation* section, which will produce two separate configuration files for local development and publishing, respectively.

You can customize the URLs and locations where files will be saved. The `*_URL` and `*_SAVE_AS` variables use Python's format strings. These variables allow you to place your articles in a location such as {slug}/index.html and link to them as {slug} for clean URLs (see example below). These settings give you the flexibility to place your articles and pages anywhere you want.

Note: If a `*_SAVE_AS` setting contains a parent directory that doesn't match the parent directory inside the corresponding `*_URL` setting, this may cause Pelican to generate unexpected URLs in a few cases, such as when using the {attach} syntax.

If you don't want that flexibility and instead prefer that your generated output paths mirror your source content's filesystem path hierarchy, try the following settings:

```
PATH_METADATA = '(?P<path_no_ext>.*)\..*'
ARTICLE_URL = ARTICLE_SAVE_AS = PAGE_URL = PAGE_SAVE_AS = '{path_no_ext}.html'
```

Otherwise, you can use a variety of file metadata attributes within URL-related settings:

- slug

- date

- lang

- author

- category

Example usage:

```
ARTICLE_URL = 'posts/{date:%Y}/{date:%b}/{date:%d}/{slug}/'
ARTICLE_SAVE_AS = 'posts/{date:%Y}/{date:%b}/{date:%d}/{slug}/index.html'
PAGE_URL = 'pages/{slug}/'
PAGE_SAVE_AS = 'pages/{slug}/index.html'
```

This would save your articles into something like `/posts/2011/Aug/07/sample-post/index.html`, save your pages into `/pages/about/index.html`, and render them available at URLs of `/posts/2011/Aug/07/sample-post/` and `/pages/about/`, respectively.

Note: If you specify a `datetime` directive, it will be substituted using the input files' date metadata attribute. If the date is not specified for a particular file, Pelican will rely on the file's `mtime` timestamp. Check the Python datetime documentation for more information.

RELATIVE_URLS = False

> Defines whether Pelican should use document-relative URLs or not. Only set this to `True` when developing/testing and only if you fully understand the effect it can have on links/feeds.

ARTICLE_URL = '{slug}.html'

> The URL to refer to an article.

ARTICLE_SAVE_AS = '{slug}.html'

> The place where we will save an article.

ARTICLE_LANG_URL = '{slug}-{lang}.html'

> The URL to refer to an article which doesn't use the default language.

ARTICLE_LANG_SAVE_AS = '{slug}-{lang}.html'

> The place where we will save an article which doesn't use the default language.

DRAFT_URL = 'drafts/{slug}.html'

> The URL to refer to an article draft.

DRAFT_SAVE_AS = 'drafts/{slug}.html'

> The place where we will save an article draft.

DRAFT_LANG_URL = 'drafts/{slug}-{lang}.html'

> The URL to refer to an article draft which doesn't use the default language.

DRAFT_LANG_SAVE_AS = 'drafts/{slug}-{lang}.html'

> The place where we will save an article draft which doesn't use the default language.

PAGE_URL = 'pages/{slug}.html'

> The URL we will use to link to a page.

PAGE_SAVE_AS = 'pages/{slug}.html'

> The location we will save the page. This value has to be the same as PAGE_URL or you need to use a rewrite in your server config.

PAGE_LANG_URL = 'pages/{slug}-{lang}.html'

> The URL we will use to link to a page which doesn't use the default language.

PAGE_LANG_SAVE_AS = 'pages/{slug}-{lang}.html'

> The location we will save the page which doesn't use the default language.

DRAFT_PAGE_URL = 'drafts/pages/{slug}.html'

> The URL used to link to a page draft.

DRAFT_PAGE_SAVE_AS = 'drafts/pages/{slug}.html'

> The actual location a page draft is saved at.

DRAFT_PAGE_LANG_URL = 'drafts/pages/{slug}-{lang}.html'

> The URL used to link to a page draft which doesn't use the default language.

DRAFT_PAGE_LANG_SAVE_AS = 'drafts/pages/{slug}-{lang}.html'

> The actual location a page draft which doesn't use the default language is saved at.

AUTHOR_URL = 'author/{slug}.html'

> The URL to use for an author.

AUTHOR_SAVE_AS = 'author/{slug}.html'

> The location to save an author.

CATEGORY_URL = 'category/{slug}.html'

> The URL to use for a category.

CATEGORY_SAVE_AS = 'category/{slug}.html'

> The location to save a category.

TAG_URL = 'tag/{slug}.html'

> The URL to use for a tag.

TAG_SAVE_AS = 'tag/{slug}.html'

> The location to save the tag page.

Note: If you do not want one or more of the default pages to be created (e.g., you are the only author on your site and thus do not need an Authors page), set the corresponding `*_SAVE_AS` setting to `''` to prevent the relevant page from being generated.

Pelican can optionally create per-year, per-month, and per-day archives of your posts. These secondary archives are disabled by default but are automatically enabled if you supply format strings for their respective _SAVE_AS settings. Period archives fit intuitively with the hierarchical model of web URLs and can make it easier for readers to navigate through the posts you've written over time.

Example usage:

```
YEAR_ARCHIVE_SAVE_AS = 'posts/{date:%Y}/index.html'
YEAR_ARCHIVE_URL = 'posts/{date:%Y}/'
MONTH_ARCHIVE_SAVE_AS = 'posts/{date:%Y}/{date:%b}/index.html'
MONTH_ARCHIVE_URL = 'posts/{date:%Y}/{date:%b}/'
```

With these settings, Pelican will create an archive of all your posts for the year at (for instance) `posts/2011/index.html` and an archive of all your posts for the month at `posts/2011/Aug/index.html`. These can be accessed through the URLs `posts/2011/` and `posts/2011/Aug/`, respectively.

Note: Period archives work best when the final path segment is `index.html`. This way a reader can remove a portion of your URL and automatically arrive at an appropriate archive of posts, without having to specify a page name.

YEAR_ARCHIVE_SAVE_AS = ''

> The location to save per-year archives of your posts.

YEAR_ARCHIVE_URL = ''

> The URL to use for per-year archives of your posts. You should set this if you enable per-year archives.

MONTH_ARCHIVE_SAVE_AS = ''

> The location to save per-month archives of your posts.

MONTH_ARCHIVE_URL = ''

> The URL to use for per-month archives of your posts. You should set this if you enable per-month archives.

DAY_ARCHIVE_SAVE_AS = ''

> The location to save per-day archives of your posts.

DAY_ARCHIVE_URL = ''

> The URL to use for per-day archives of your posts. You should set this if you enable per-day archives.

`DIRECT_TEMPLATES` work a bit differently than noted above. Only the _SAVE_AS settings are available, but it is available for any direct template.

ARCHIVES_SAVE_AS = 'archives.html'

> The location to save the article archives page.

AUTHORS_SAVE_AS = 'authors.html'

> The location to save the author list.

CATEGORIES_SAVE_AS = 'categories.html'

> The location to save the category list.

TAGS_SAVE_AS = 'tags.html'

> The location to save the tag list.

INDEX_SAVE_AS = 'index.html'

> The location to save the list of all articles.

URLs for direct template pages are theme-dependent. Some themes use corresponding *_URL setting as string, while others hard-code them: `'archives.html'`, `'authors.html'`, `'categories.html'`, `'tags.html'`.

SLUGIFY_SOURCE = 'title'

> Specifies from where you want the slug to be automatically generated. Can be set to `title` to use the "Title:" metadata tag or `basename` to use the article's file name when creating the slug.

SLUGIFY_USE_UNICODE = False

> Allow Unicode characters in slugs. Set `True` to keep Unicode characters in auto-generated slugs. Otherwise, Unicode characters will be replaced with ASCII equivalents.

SLUGIFY_PRESERVE_CASE = False

> Preserve uppercase characters in slugs. Set `True` to keep uppercase characters from `SLUGIFY_SOURCE` as-is.

SLUG_REGEX_SUBSTITUTIONS = [
(r'[^\\w\\s-]', ''), # remove non-alphabetical/whitespace/'-' chars
(r'(?u)\\A\\s*', ''), # strip leading whitespace

```
(r'(?u)\\s*\\Z', ''),  # strip trailing whitespace
(r'[-\\s]+', '-'),  # reduce multiple whitespace or '-' to single '-'
]
```

> Regex substitutions to make when generating slugs of articles and pages. Specified as a list of pairs of (`from`, `to`) which are applied in order, ignoring case. The default substitutions have the effect of removing non-alphanumeric characters and converting internal whitespace to dashes. Apart from these substitutions, slugs are always converted to lowercase ascii characters and leading and trailing whitespace is stripped. Useful for backward compatibility with existing URLs.

AUTHOR_REGEX_SUBSTITUTIONS = SLUG_REGEX_SUBSTITUTIONS

> Regex substitutions for author slugs. Defaults to SLUG_REGEX_SUBSTITUTIONS.

CATEGORY_REGEX_SUBSTITUTIONS = SLUG_REGEX_SUBSTITUTIONS

> Regex substitutions for category slugs. Defaults to SLUG_REGEX_SUBSTITUTIONS.

TAG_REGEX_SUBSTITUTIONS = SLUG_REGEX_SUBSTITUTIONS

> Regex substitutions for tag slugs. Defaults to SLUG_REGEX_SUBSTITUTIONS.

5.5.3 Time and Date

TIMEZONE

> The timezone used in the date information, to generate Atom and RSS feeds.
>
> If no timezone is defined, UTC is assumed. This means that the generated Atom and RSS feeds will contain incorrect date information if your locale is not UTC.
>
> Pelican issues a warning in case this setting is not defined, as it was not mandatory in previous versions.
>
> Have a look at the wikipedia page to get a list of valid timezone values.

DEFAULT_DATE = None

> The default date you want to use. If `'fs'`, Pelican will use the file system timestamp information (mtime) if it can't get date information from the metadata. If given any other string, it will be parsed by the same method as article metadata. If set to a tuple object, the default datetime object will instead be generated by passing the tuple to the `datetime.datetime` constructor.

DEFAULT_DATE_FORMAT = '%a %d %B %Y'

> The default date format you want to use.

DATE_FORMATS = {}

> If you manage multiple languages, you can set the date formatting here.
>
> If no DATE_FORMATS are set, Pelican will fall back to DEFAULT_DATE_FORMAT. If you need to maintain multiple languages with different date formats, you can set the DATE_FORMATS dictionary using the language name (`lang` metadata in your post content) as the key.
>
> In addition to the standard C89 strftime format codes that are listed in Python datetime documentation, you can use the - character between % and the format character to remove any leading zeros. For example, %d/%m/%Y will output 01/01/2014 whereas %-d/%-m/%Y will result in 1/1/2014.

```
DATE_FORMATS = {
    'en': '%a, %d %b %Y',
    'jp': '%Y-%m-%d(%a)',
}
```

> It is also possible to set different locale settings for each language by using a (`locale`, `format`) tuple as a dictionary value which will override the `LOCALE` setting:

```
# On Unix/Linux
DATE_FORMATS = {
    'en': ('en_US','%a, %d %b %Y'),
    'jp': ('ja_JP','%Y-%m-%d(%a)'),
}

# On Windows
DATE_FORMATS = {
    'en': ('usa','%a, %d %b %Y'),
    'jp': ('jpn','%Y-%m-%d(%a)'),
}
```

LOCALE

Change the locale[1]. A list of locales can be provided here or a single string representing one locale. When providing a list, all the locales will be tried until one works.

You can set locale to further control date format:

```
LOCALE = ('usa', 'jpn',      # On Windows
          'en_US', 'ja_JP'   # On Unix/Linux
)
```

For a list of available locales refer to locales on Windows or on Unix/Linux, use the `locale -a` command; see manpage locale(1) for more information.

5.5.4 Template pages

TEMPLATE_PAGES = None

A mapping containing template pages that will be rendered with the blog entries.

If you want to generate custom pages besides your blog entries, you can point any Jinja2 template file with a path pointing to the file and the destination path for the generated file.

For instance, if you have a blog with three static pages — a list of books, your resume, and a contact page — you could have:

```
TEMPLATE_PAGES = {'src/books.html': 'dest/books.html',
                  'src/resume.html': 'dest/resume.html',
                  'src/contact.html': 'dest/contact.html'}
```

TEMPLATE_EXTENSIONS = ['.html']

The extensions to use when looking up template files from template names.

DIRECT_TEMPLATES = ['index', 'authors', 'categories', 'tags', 'archives']

List of templates that are used directly to render content. Typically direct templates are used to generate index pages for collections of content (e.g., category and tag index pages). If the author, category and tag collections are not needed, set `DIRECT_TEMPLATES = ['index', 'archives']`

`DIRECT_TEMPLATES` are searched for over paths maintained in `THEME_TEMPLATES_OVERRIDES`.

---

[1] Default is the system locale.

5.5.5 Metadata

AUTHOR

> Default author (usually your name).

DEFAULT_METADATA = {}

> The default metadata you want to use for all articles and pages.

FILENAME_METADATA = r'(?P<date>\\d{4}-\\d{2}-\\d{2}).*'

> The regexp that will be used to extract any metadata from the filename. All named groups that are matched will be set in the metadata object. The default value will only extract the date from the filename.
>
> For example, to extract both the date and the slug:

```
FILENAME_METADATA = r'(?P<date>\d{4}-\d{2}-\d{2})_(?P<slug>.*)'
```

> See also `SLUGIFY_SOURCE`.

PATH_METADATA = ''

> Like `FILENAME_METADATA`, but parsed from a page's full path relative to the content source directory.

EXTRA_PATH_METADATA = {}

> Extra metadata dictionaries keyed by relative path. Relative paths require correct OS-specific directory separators (i.e. / in UNIX and \ in Windows) unlike some other Pelican file settings. Paths to a directory apply to all files under it. The most-specific path wins conflicts.

Not all metadata needs to be *embedded in source file itself*. For example, blog posts are often named following a `YYYY-MM-DD-SLUG.rst` pattern, or nested into `YYYY/MM/DD-SLUG` directories. To extract metadata from the filename or path, set `FILENAME_METADATA` or `PATH_METADATA` to regular expressions that use Python's group name notation `(?P<name>...)`. If you want to attach additional metadata but don't want to encode it in the path, you can set `EXTRA_PATH_METADATA`:

```
EXTRA_PATH_METADATA = {
    'relative/path/to/file-1': {
        'key-1a': 'value-1a',
        'key-1b': 'value-1b',
        },
    'relative/path/to/file-2': {
        'key-2': 'value-2',
        },
    }
```

This can be a convenient way to shift the installed location of a particular file:

```
# Take advantage of the following defaults
# STATIC_SAVE_AS = '{path}'
# STATIC_URL = '{path}'
STATIC_PATHS = [
    'static/robots.txt',
    ]
EXTRA_PATH_METADATA = {
    'static/robots.txt': {'path': 'robots.txt'},
    }
```

5.5.6 Feed settings

By default, Pelican uses Atom feeds. However, it is also possible to use RSS feeds if you prefer.

Pelican generates category feeds as well as feeds for all your articles. It does not generate feeds for tags by default, but it is possible to do so using the `TAG_FEED_ATOM` and `TAG_FEED_RSS` settings:

`FEED_DOMAIN = None, i.e. base URL is "/"`

The domain prepended to feed URLs. Since feed URLs should always be absolute, it is highly recommended to define this (e.g., "https://feeds.example.com"). If you have already explicitly defined SITEURL (see above) and want to use the same domain for your feeds, you can just set: `FEED_DOMAIN = SITEURL`.

`FEED_ATOM = None, i.e. no Atom feed`

The location to save the Atom feed.

`FEED_ATOM_URL = None`

Relative URL of the Atom feed. If not set, `FEED_ATOM` is used both for save location and URL.

`FEED_RSS = None, i.e. no RSS`

The location to save the RSS feed.

`FEED_RSS_URL = None`

Relative URL of the RSS feed. If not set, `FEED_RSS` is used both for save location and URL.

`FEED_ALL_ATOM = 'feeds/all.atom.xml'`

The location to save the all-posts Atom feed: this feed will contain all posts regardless of their language.

`FEED_ALL_ATOM_URL = None`

Relative URL of the all-posts Atom feed. If not set, `FEED_ALL_ATOM` is used both for save location and URL.

`FEED_ALL_RSS = None, i.e. no all-posts RSS`

The location to save the the all-posts RSS feed: this feed will contain all posts regardless of their language.

`FEED_ALL_RSS_URL = None`

Relative URL of the all-posts RSS feed. If not set, `FEED_ALL_RSS` is used both for save location and URL.

`CATEGORY_FEED_ATOM = 'feeds/{slug}.atom.xml'`

The location to save the category Atom feeds.[2]

`CATEGORY_FEED_ATOM_URL = None`

Relative URL of the category Atom feeds, including the `{slug}` placeholder.[2] If not set, `CATEGORY_FEED_ATOM` is used both for save location and URL.

`CATEGORY_FEED_RSS = None, i.e. no RSS`

The location to save the category RSS feeds, including the `{slug}` placeholder.[2]

`CATEGORY_FEED_RSS_URL = None`

Relative URL of the category RSS feeds, including the `{slug}` placeholder.[2] If not set, `CATEGORY_FEED_RSS` is used both for save location and URL.

`AUTHOR_FEED_ATOM = 'feeds/{slug}.atom.xml'`

The location to save the author Atom feeds.[2]

`AUTHOR_FEED_ATOM_URL = None`

Relative URL of the author Atom feeds, including the `{slug}` placeholder.[2] If not set, `AUTHOR_FEED_ATOM` is used both for save location and URL.

---

[2] `{slug}` is replaced by name of the category / author / tag.

AUTHOR_FEED_RSS = 'feeds/{slug}.rss.xml'

> The location to save the author RSS feeds.[2]

AUTHOR_FEED_RSS_URL = None

> Relative URL of the author RSS feeds, including the {slug} placeholder.[Page 40, 2] If not set, AUTHOR_FEED_RSS is used both for save location and URL.

TAG_FEED_ATOM = None, i.e. no tag feed

> The location to save the tag Atom feed, including the {slug} placeholder.[Page 40, 2]

TAG_FEED_ATOM_URL = None

> Relative URL of the tag Atom feed, including the {slug} placeholder.[Page 40, 2]

TAG_FEED_RSS = None, i.e. no RSS tag feed

> Relative URL to output the tag RSS feed, including the {slug} placeholder. If not set, TAG_FEED_RSS is used both for save location and URL.

FEED_MAX_ITEMS = 100

> Maximum number of items allowed in a feed. Setting to None will cause the feed to contains every article. 100 if not specified.

RSS_FEED_SUMMARY_ONLY = True

> Only include item summaries in the description tag of RSS feeds. If set to False, the full content will be included instead. This setting doesn't affect Atom feeds, only RSS ones.

If you don't want to generate some or any of these feeds, set the above variables to None.

5.5.7 Pagination

The default behaviour of Pelican is to list all the article titles along with a short description on the index page. While this works well for small-to-medium sites, sites with a large quantity of articles will probably benefit from paginating this list.

You can use the following settings to configure the pagination.

DEFAULT_ORPHANS = 0

> The minimum number of articles allowed on the last page. Use this when you don't want the last page to only contain a handful of articles.

DEFAULT_PAGINATION = False

> The maximum number of articles to include on a page, not including orphans. False to disable pagination.

PAGINATED_TEMPLATES = {'index': None, 'tag': None, 'category': None, 'author': None}

> The templates to use pagination with, and the number of articles to include on a page. If this value is None, it defaults to DEFAULT_PAGINATION.

PAGINATION_PATTERNS = (

(1, '{name}{extension}', '{name}{extension}'),

(2, '{name}{number}{extension}', '{name}{number}{extension}'),

)

> A set of patterns that are used to determine advanced pagination output.

Using Pagination Patterns

By default, pages subsequent to `.../foo.html` are created as `.../foo2.html`, etc. The `PAGINATION_PATTERNS` setting can be used to change this. It takes a sequence of triples, where each triple consists of:

```
(minimum_page, page_url, page_save_as,)
```

For `page_url` and `page_save_as`, you may use a number of variables. `{url}` and `{save_as}` correspond respectively to the `*_URL` and `*_SAVE_AS` values of the corresponding page type (e.g. `ARTICLE_SAVE_AS`). If `{save_as}` `== foo/bar.html`, then `{name}` `== foo/bar` and `{extension}` `== .html`. `{base_name}` equals `{name}` except that it strips trailing `/index` if present. `{number}` equals the page number.

For example, if you want to leave the first page unchanged, but place subsequent pages at `.../page/2/` etc, you could set `PAGINATION_PATTERNS` as follows:

```
PAGINATION_PATTERNS = (
    (1, '{url}', '{save_as}'),
    (2, '{base_name}/page/{number}/', '{base_name}/page/{number}/index.html'),
)
```

If you want a pattern to apply to the last page in the list, use `-1` as the `minimum_page` value:

```
(-1, '{base_name}/last/', '{base_name}/last/index.html'),
```

5.5.8 Translations

Pelican offers a way to translate articles. See the *Content* section for more information.

DEFAULT_LANG = 'en'

> The default language to use.

ARTICLE_TRANSLATION_ID = 'slug'

> The metadata attribute(s) used to identify which articles are translations of one another. May be a string or a collection of strings. Set to `None` or `False` to disable the identification of translations.

PAGE_TRANSLATION_ID = 'slug'

> The metadata attribute(s) used to identify which pages are translations of one another. May be a string or a collection of strings. Set to `None` or `False` to disable the identification of translations.

TRANSLATION_FEED_ATOM = 'feeds/all-{lang}.atom.xml'

> The location to save the Atom feed for translations.[3]

TRANSLATION_FEED_ATOM_URL = None

> Relative URL of the Atom feed for translations, including the `{lang}` placeholder.[Page 42, 3] If not set, `TRANSLATION_FEED_ATOM` is used both for save location and URL.

TRANSLATION_FEED_RSS = None, i.e. no RSS

> Where to put the RSS feed for translations.

TRANSLATION_FEED_RSS_URL = None

> Relative URL of the RSS feed for translations, including the `{lang}` placeholder.[3] If not set, `TRANSLATION_FEED_RSS` is used both for save location and URL.

---

[3] {lang} is the language code

5.5.9 Ordering content

NEWEST_FIRST_ARCHIVES = True

> Order archives by newest first by date. (False: orders by date with older articles first.)

REVERSE_CATEGORY_ORDER = False

> Reverse the category order. (True: lists by reverse alphabetical order; default lists alphabetically.)

ARTICLE_ORDER_BY = 'reversed-date'

> Defines how the articles (`articles_page.object_list` in the template) are sorted. Valid options are: metadata as a string (use `reversed-` prefix to reverse the sort order), special option `'basename'` which will use the basename of the file (without path), or a custom function to extract the sorting key from articles. Using a value of `'date'` will sort articles in chronological order, while the default value, `'reversed-date'`, will sort articles by date in reverse order (i.e., newest article comes first).

PAGE_ORDER_BY = 'basename'

> Defines how the pages (`pages` variable in the template) are sorted. Options are same as `ARTICLE_ORDER_BY`. The default value, `'basename'` will sort pages by their basename.

5.5.10 Themes

Creating Pelican themes is addressed in a dedicated section (see *Themes*). However, here are the settings that are related to themes.

THEME

> Theme to use to produce the output. Can be a relative or absolute path to a theme folder, or the name of a default theme or a theme installed via *pelican-themes* (see below).

THEME_STATIC_DIR = 'theme'

> Destination directory in the output path where Pelican will place the files collected from *THEME_STATIC_PATHS*. Default is *theme*.

THEME_STATIC_PATHS = ['static']

> Static theme paths you want to copy. Default value is *static*, but if your theme has other static paths, you can put them here. If files or directories with the same names are included in the paths defined in this settings, they will be progressively overwritten.

THEME_TEMPLATES_OVERRIDES = []

> A list of paths you want Jinja2 to search for templates before searching the theme's `templates/` directory. Allows for overriding individual theme template files without having to fork an existing theme. Jinja2 searches in the following order: files in `THEME_TEMPLATES_OVERRIDES` first, then the theme's `templates/`.
>
> You can also extend templates from the theme using the `{% extends %}` directive utilizing the `!theme` prefix as shown in the following example:

```
{% extends '!theme/article.html' %}
```

CSS_FILE = 'main.css'

> Specify the CSS file you want to load.

By default, two themes are available. You can specify them using the `THEME` setting or by passing the `-t` option to the `pelican` command:

- notmyidea
- simple (a synonym for "plain text" :)

There are a number of other themes available at https://github.com/getpelican/pelican-themes. Pelican comes with *pelican-themes*, a small script for managing themes.

You can define your own theme, either by starting from scratch or by duplicating and modifying a pre-existing theme. Here is *a guide on how to create your theme*.

Following are example ways to specify your preferred theme:

```
# Specify name of a built-in theme
THEME = "notmyidea"
# Specify name of a theme installed via the pelican-themes tool
THEME = "chunk"
# Specify a customized theme, via path relative to the settings file
THEME = "themes/mycustomtheme"
# Specify a customized theme, via absolute path
THEME = "/home/myuser/projects/mysite/themes/mycustomtheme"
```

The built-in `simple` theme can be customized using the following settings.

STYLESHEET_URL

The URL of the stylesheet to use.

The built-in `notmyidea` theme can make good use of the following settings. Feel free to use them in your themes as well.

SITESUBTITLE

A subtitle to appear in the header.

DISQUS_SITENAME

Pelican can handle Disqus comments. Specify the Disqus sitename identifier here.

GITHUB_URL

Your GitHub URL (if you have one). It will then use this information to create a GitHub ribbon.

ANALYTICS

Put any desired analytics scripts in this setting in `publishconf.py`. Example:

```
ANALYTICS = """
    <script src="/theme/js/primary-analytics.js"></script>
    <script>
        [ ... in-line Javascript code for secondary analytics ... ]
    </script>
"""
```

MENUITEMS

A list of tuples (Title, URL) for additional menu items to appear at the beginning of the main menu.

LINKS

A list of tuples (Title, URL) for links to appear on the header.

SOCIAL

A list of tuples (Title, URL) to appear in the "social" section.

TWITTER_USERNAME

Allows for adding a button to articles to encourage others to tweet about them. Add your Twitter username if you want this button to appear.

LINKS_WIDGET_NAME

> Allows override of the name of the links widget. If not specified, defaults to "links".

SOCIAL_WIDGET_NAME

> Allows override of the name of the "social" widget. If not specified, defaults to "social".

In addition, you can use the "wide" version of the `notmyidea` theme by adding the following to your configuration:

```
CSS_FILE = "wide.css"
```

5.5.11 Logging

Sometimes, a long list of warnings may appear during site generation. Finding the **meaningful** error message in the middle of tons of annoying log output can be quite tricky. In order to filter out redundant log messages, Pelican comes with the `LOG_FILTER` setting.

`LOG_FILTER` should be a list of tuples (`level, msg`), each of them being composed of the logging level (up to `warning`) and the message to be ignored. Simply populate the list with the log messages you want to hide, and they will be filtered out.

For example:

```
import logging
LOG_FILTER = [(logging.WARN, 'TAG_SAVE_AS is set to False')]
```

It is possible to filter out messages by a template. Check out source code to obtain a template.

For example:

```
import logging
LOG_FILTER = [(logging.WARN, 'Empty alt attribute for image %s in %s')]
```

> **Warning:** Silencing messages by templates is a dangerous feature. It is possible to unintentionally filter out multiple message types with the same template (including messages from future Pelican versions). Proceed with caution.

> **Note:** This option does nothing if `--debug` is passed.

5.5.12 Reading only modified content

To speed up the build process, Pelican can optionally read only articles and pages with modified content.

When Pelican is about to read some content source file:

1. The hash or modification time information for the file from a previous build are loaded from a cache file if `LOAD_CONTENT_CACHE` is `True`. These files are stored in the `CACHE_PATH` directory. If the file has no record in the cache file, it is read as usual.

2. The file is checked according to `CHECK_MODIFIED_METHOD`:

   - If set to `'mtime'`, the modification time of the file is checked.

   - If set to a name of a function provided by the `hashlib` module, e.g. `'md5'`, the file hash is checked.

- If set to anything else or the necessary information about the file cannot be found in the cache file, the content is read as usual.

3. If the file is considered unchanged, the content data saved in a previous build corresponding to the file is loaded from the cache, and the file is not read.

4. If the file is considered changed, the file is read and the new modification information and the content data are saved to the cache if `CACHE_CONTENT` is `True`.

If `CONTENT_CACHING_LAYER` is set to `'reader'` (the default), the raw content and metadata returned by a reader are cached. If this setting is instead set to `'generator'`, the processed content object is cached. Caching the processed content object may conflict with plugins (as some reading related signals may be skipped) and the `WITH_FUTURE_DATES` functionality (as the `draft` status of the cached content objects would not change automatically over time).

Checking modification times is faster than comparing file hashes, but it is not as reliable because `mtime` information can be lost, e.g., when copying content source files using the `cp` or `rsync` commands without the `mtime` preservation mode (which for `rsync` can be invoked by passing the `--archive` flag).

The cache files are Python pickles, so they may not be readable by different versions of Python as the pickle format often changes. If such an error is encountered, it is caught and the cache file is rebuilt automatically in the new format. The cache files will also be rebuilt after the `GZIP_CACHE` setting has been changed.

The `--ignore-cache` command-line option is useful when the whole cache needs to be regenerated, such as when making modifications to the settings file that will affect the cached content, or just for debugging purposes. When Pelican runs in autoreload mode, modification of the settings file will make it ignore the cache automatically if `AUTORELOAD_IGNORE_CACHE` is `True`.

Note that even when using cached content, all output is always written, so the modification times of the generated `*.html` files will always change. Therefore, `rsync`-based uploading may benefit from the `--checksum` option.

5.5.13 Example settings

```python
AUTHOR = "Alexis Métaireau"
SITENAME = "Alexis' log"
SITESUBTITLE = "A personal blog."
SITEURL = "http://blog.notmyidea.org"
TIMEZONE = "Europe/Paris"

# can be useful in development, but set to False when you're ready to publish
RELATIVE_URLS = True

GITHUB_URL = "http://github.com/ametaireau/"
DISQUS_SITENAME = "blog-notmyidea"
REVERSE_CATEGORY_ORDER = True
LOCALE = "C"
DEFAULT_PAGINATION = 4
DEFAULT_DATE = (2012, 3, 2, 14, 1, 1)

FEED_ALL_RSS = "feeds/all.rss.xml"
CATEGORY_FEED_RSS = "feeds/{slug}.rss.xml"

LINKS = (
    ("Biologeek", "http://biologeek.org"),
    ("Filyb", "http://filyb.info/"),
    ("Libert-fr", "http://www.libert-fr.com"),
```

(continues on next page)

```
        ("N1k0", "http://prendreuncafe.com/blog/"),
        ("Tarek Ziadé", "http://ziade.org/blog"),
        ("Zubin Mithra", "http://zubin71.wordpress.com/"),
)

SOCIAL = (
        ("twitter", "http://twitter.com/ametaireau"),
        ("lastfm", "http://lastfm.com/user/akounet"),
        ("github", "http://github.com/ametaireau"),
)

# global metadata to all the contents
DEFAULT_METADATA = {"yeah": "it is"}

# path-specific metadata
EXTRA_PATH_METADATA = {
        "extra/robots.txt": {"path": "robots.txt"},
}

# static paths will be copied without parsing their contents
STATIC_PATHS = [
        "images",
        "extra/robots.txt",
]

# custom page generated with a jinja2 template
TEMPLATE_PAGES = {"pages/jinja2_template.html": "jinja2_template.html"}

# there is no other HTML content
READERS = {"html": None}

# code blocks with line numbers
PYGMENTS_RST_OPTIONS = {"linenos": "table"}

# foobar will not be used, because it's not in caps. All configuration keys
# have to be in caps
foobar = "barbaz"
```

5.6 Plugins

Beginning with version 3.0, Pelican supports plugins. Plugins are a way to add features to Pelican without having to directly modify the Pelican core.

5.6.1 How to use plugins

Starting with version 4.5, Pelican moved to a new plugin structure utilizing namespace packages that can be easily installed via Pip. Plugins supporting this structure will install under the namespace package `pelican.plugins` and can be automatically discovered by Pelican. To see a list of Pip-installed namespace plugins that are active in your environment, run:

```
pelican-plugins
```

If you leave the `PLUGINS` setting as default (`None`), Pelican will automatically discover namespace plugins and register them. If, on the other hand, you specify a `PLUGINS` setting as a list of plugins, this auto-discovery will be disabled. At that point, only the plugins you specify will be registered, and you must explicitly list any namespace plugins as well.

If you are using the `PLUGINS` setting, you can specify plugins in two ways. The first method specifies plugins as a list of strings. Namespace plugins can be specified either by their full names (`pelican.plugins.myplugin`) or by their short names (`myplugin`):

```
PLUGINS = ['package.myplugin',
           'namespace_plugin1',
           'pelican.plugins.namespace_plugin2']
```

Alternatively, you can import them in your settings file and pass the modules:

```
from package import myplugin
from pelican.plugins import namespace_plugin1, namespace_plugin2
PLUGINS = [myplugin, namespace_plugin1, namespace_plugin2]
```

Note: When experimenting with different plugins (especially the ones that deal with metadata and content) caching may interfere and the changes may not be visible. In such cases disable caching with `LOAD_CONTENT_CACHE = False` or use the `--ignore-cache` command-line switch.

If your plugins are not in an importable path, you can specify a list of paths via the `PLUGIN_PATHS` setting. As shown in the following example, paths in the `PLUGIN_PATHS` list can be absolute or relative to the settings file:

```
PLUGIN_PATHS = ["plugins", "/srv/pelican/plugins"]
PLUGINS = ["assets", "liquid_tags", "sitemap"]
```

5.6.2 Where to find plugins

Namespace plugins can be found in the pelican-plugins organization as individual repositories. Legacy plugins are located in the pelican-plugins repository and will be gradually phased out in favor of the namespace versions.

Please note that while we do our best to review and maintain these plugins, they are submitted by the Pelican community and thus may have varying levels of support and interoperability.

5.6.3 How to create plugins

Plugins are based on the concept of signals. Pelican sends signals, and plugins subscribe to those signals. The list of available signals is documented in a subsequent section.

The only rule to follow for plugins is to define a `register` callable, in which you map the signals to your plugin logic. Let's take a simple example:

```python
import logging

from pelican import signals

log = logging.getLogger(__name__)

def test(sender):
    log.debug("%s initialized !!", sender)

def register():
    signals.initialized.connect(test)
```

Note: Signal receivers are weakly-referenced and thus must not be defined within your `register` callable or they will be garbage-collected before the signal is emitted.

If multiple plugins connect to the same signal, plugins will be executed in the order they are connected. With `PLUGINS` setting, order will be as defined in the setting. If you rely on auto-discovered namespace plugins, no `PLUGINS` setting, they will be connected in the same order they are discovered (same order as `pelican-plugins` output). If you want to specify the order explicitly, disable auto-discovery by defining `PLUGINS` in the desired order.

Namespace plugin structure

Namespace plugins must adhere to a certain structure in order to function properly. They need to be installable (i.e. contain `setup.py` or equivalent) and have a folder structure as follows:

```
myplugin
├── pelican
│   └── plugins
│       └── myplugin
│           ├── __init__.py
│           └── ...
├── ...
└── setup.py
```

It is crucial that `pelican` or `pelican/plugins` folder **not** contain an `__init__.py` file. In fact, it is best to have those folders empty besides the listed folders in the above structure and keep your plugin related files contained solely in the `pelican/plugins/myplugin` folder to avoid any issues.

To easily set up the proper structure, a cookiecutter template for plugins is provided. Refer to that project's README for instructions on how to use it.

5.6.4 List of signals

Here is the list of currently implemented signals:

Signal	Arguments	Description
initialized	pelican object	
finalized	pelican object	invoked after all the generators are executed and just before pelican exits useful for custom post processing actions, such as: - minifying js/css assets. - notify/ping search engines with an updated sitemap.
generator_init	generator	invoked in the Generator.__init__
all_generators_	generators	invoked after all the generators are executed and before writing output
readers_init	readers	invoked in the Readers.__init__
article_generator_	article_generato metadata	
article_generator_	article_generato	invoked before a article is read in ArticlesGenerator.generate_context; use if code needs to do something before every article is parsed
article_generator_	article_generato	invoked in the ArticlesGenerator.__init__
article_generator_	article_generato	invoked before categories and tags lists are created useful when e.g. modifying the list of articles to be generated so that removed articles are not leaked in categories or tags
article_generator_	article_generato	invoked at the end of ArticlesGenerator.generate_context
article_generator_	article_generato content	invoked before writing each article, the article is passed as content
article_writer_fina	article_generato writer	invoked after all articles and related pages have been written, but before the article generator is closed.
get_generators	pelican object	invoked in Pelican.get_generator_classes, can return a Generator, or several generators in a tuple or in a list.
get_writer	pelican object	invoked in Pelican.get_writer, can return a custom Writer.
page_generato	page_genera metadata	
page_generato	page_genera	invoked before a page is read in PageGenerator.generate_context; use if code needs to do something before every page is parsed.
page_generato	page_genera	invoked in the PagesGenerator.__init__
page_generato	page_genera	invoked at the end of PagesGenerator.generate_context
page_generato	page_genera content	invoked before writing each page, the page is passed as content
page_writer_fi	page_genera writer	invoked after all pages have been written, but before the page generator is closed.
static_generato	static_genera metadata	
static_generato	static_genera	invoked before a static file is read in StaticGenerator.generate_context; use if code needs to do something before every static file is added to the staticfiles list.
static_generato	static_genera	invoked in the StaticGenerator.__init__
static_generato	static_genera	invoked at the end of StaticGenerator.generate_context
content_object_in	content_object	invoked at the end of Content.__init__
content_written	path, context	invoked each time a content file is written.
feed_generated	context, feed	invoked each time a feed gets generated. Can be used to modify a feed object before it gets written.
feed_written	path, context, feed	invoked each time a feed file is written.

> **Warning:** Avoid `content_object_init` signal if you intend to read `summary` or `content` properties of the content object. That combination can result in unresolved links when *Linking to internal content* (see pelican-plugins bug #314). Use `_summary` and `_content` properties instead, or, alternatively, run your plugin at a later stage (e.g. `all_generators_finalized`).

Note: After Pelican 3.2, signal names were standardized. Older plugins may need to be updated to use the new names:

Old name	New name
article_generate_context	article_generator_context
article_generate_finalized	article_generator_finalized
article_generate_preread	article_generator_preread
pages_generate_context	page_generator_context
pages_generate_preread	page_generator_preread
pages_generator_finalized	page_generator_finalized
pages_generator_init	page_generator_init
static_generate_context	static_generator_context
static_generate_preread	static_generator_preread

5.6.5 Recipes

We eventually realised some of the recipes to create plugins would be best shared in the documentation somewhere, so here they are!

How to create a new reader

One thing you might want is to add support for your very own input format. While it might make sense to add this feature in Pelican core, we wisely chose to avoid this situation and instead have the different readers defined via plugins.

The rationale behind this choice is mainly that plugins are really easy to write and don't slow down Pelican itself when they're not active.

No more talking — here is an example:

```python
from pelican import signals
from pelican.readers import BaseReader

# Create a new reader class, inheriting from the pelican.reader.BaseReader
class NewReader(BaseReader):
    enabled = True  # Yeah, you probably want that :-)

    # The list of file extensions you want this reader to match with.
    # If multiple readers were to use the same extension, the latest will
    # win (so the one you're defining here, most probably).
    file_extensions = ['yeah']

    # You need to have a read method, which takes a filename and returns
    # some content and the associated metadata.
    def read(self, filename):
```

(continues on next page)

```python
        metadata = {'title': 'Oh yeah',
                    'category': 'Foo',
                    'date': '2012-12-01'}

        parsed = {}
        for key, value in metadata.items():
            parsed[key] = self.process_metadata(key, value)

        return "Some content", parsed

def add_reader(readers):
    readers.reader_classes['yeah'] = NewReader


# This is how pelican works.
def register():
    signals.readers_init.connect(add_reader)
```

Adding a new generator

Adding a new generator is also really easy. You might want to have a look at *Pelican internals* for more information on how to create your own generator.

```python
def get_generators(pelican_object):
    # define a new generator here if you need to
    return MyGenerator

def register():
    signals.get_generators.connect(get_generators)
```

Adding a new writer

Adding a writer will allow you to output additional file formats to disk, or change how the existing formats are written to disk. Note that only one writer will be active at a time, so be sure to either subclass the built-in Writer, or completely re-implement it.

Here is a basic example of how to set up your own writer:

```python
from pelican.writers import Writer
from pelican import signals


class MyWriter(Writer):
    # define new writer functionality
    pass


def add_writer(pelican_object):
    # use pelican_instance to setup stuff if needed
    return MyWriter
```

```python
def register():
    signals.get_writer.connect(add_writer)
```

Using Plugins to Inject Content

You can programmatically inject articles or pages using plugins. This can be useful if you plan to fetch articles from an API, for example.

Following is a simple example of how one can build a plugin that injects a custom article, using the `article_generator_pretaxonomy` signal:

```python
import datetime

from pelican import signals
from pelican.contents import Article
from pelican.readers import BaseReader

def addArticle(articleGenerator):
    settings = articleGenerator.settings

    # Author, category, and tags are objects, not strings, so they need to
    # be handled using BaseReader's process_metadata() function.
    baseReader = BaseReader(settings)

    content = "I am the body of an injected article!"

    newArticle = Article(content, {
        "title": "Injected Article!",
        "date": datetime.datetime.now(),
        "category": baseReader.process_metadata("category", "fromAPI"),
        "tags": baseReader.process_metadata("tags", "tagA, tagB")
    })

    articleGenerator.articles.insert(0, newArticle)

def register():
    signals.article_generator_pretaxonomy.connect(addArticle)
```

5.7 Themes

There is a community-managed repository of Pelican Themes for people to share and use.

Please note that while we do our best to review and merge theme contributions, they are submitted by the Pelican community and thus may have varying levels of support and interoperability.

5.7.1 Creating Themes

To generate its HTML output, Pelican uses the Jinja templating engine due to its flexibility and straightforward syntax. If you want to create your own theme, feel free to take inspiration from the "simple" theme.
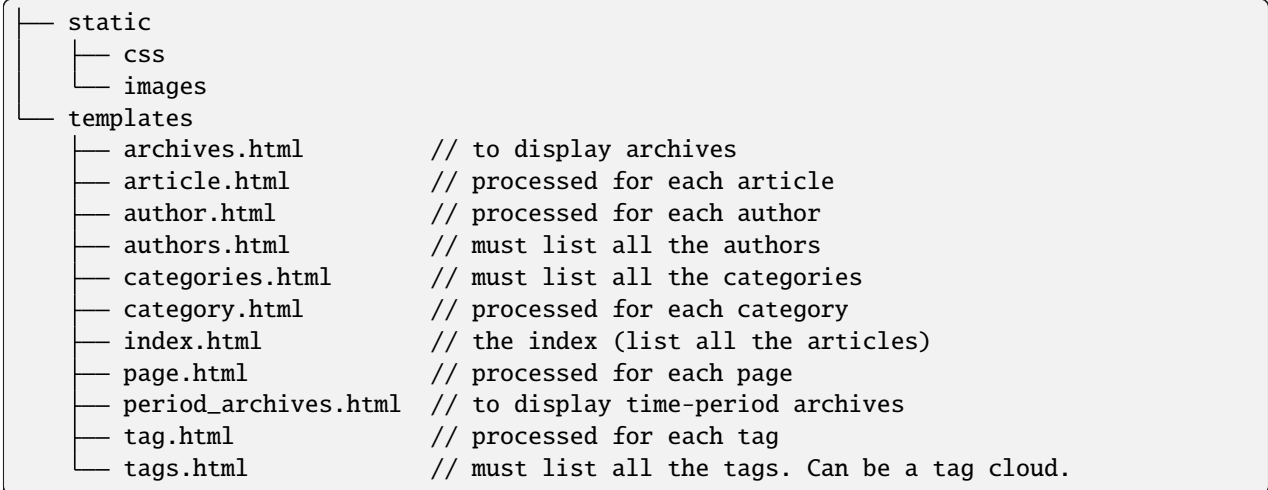
To generate your site using a theme you have created (or downloaded manually and then modified), you can specify that theme via the `-t` flag:

```
pelican content -s pelicanconf.py -t /projects/your-site/themes/your-theme
```

If you'd rather not specify the theme on every invocation, you can define `THEME` in your settings to point to the location of your preferred theme.

Structure

To make your own theme, you must follow the following structure:

```
├── static
│   ├── css
│   └── images
└── templates
    ├── archives.html        // to display archives
    ├── article.html         // processed for each article
    ├── author.html          // processed for each author
    ├── authors.html         // must list all the authors
    ├── categories.html      // must list all the categories
    ├── category.html        // processed for each category
    ├── index.html           // the index (list all the articles)
    ├── page.html            // processed for each page
    ├── period_archives.html // to display time-period archives
    ├── tag.html             // processed for each tag
    └── tags.html            // must list all the tags. Can be a tag cloud.
```

- *static* contains all the static assets, which will be copied to the output *theme* folder. The above filesystem layout includes CSS and image folders, but those are just examples. Put what you need here.

- *templates* contains all the templates that will be used to generate the content. The template files listed above are mandatory; you can add your own templates if it helps you keep things organized while creating your theme.

Templates and Variables

The idea is to use a simple syntax that you can embed into your HTML pages. This document describes which templates should exist in a theme, and which variables will be passed to each template at generation time.

All templates will receive the variables defined in your settings file, as long as they are in all-caps. You can access them directly.

Common Variables

All of these settings will be available to all templates.

Variable	Description
output_file	The name of the file currently being generated. For instance, when Pelican is rendering the home page, output_file will be "index.html".
articles	The list of articles, ordered descending by date. All the elements are *Article* objects, so you can access their attributes (e.g. title, summary, author etc.). Sometimes this is shadowed (for instance, in the tags page). You will then find info about it in the *all_articles* variable.
dates	The same list of articles, but ordered by date, ascending.
hidden_art	The list of hidden articles
drafts	The list of draft articles
period_arc	A dictionary containing elements related to time-period archives (if enabled). See the section *Listing and Linking to Period Archives* for details.
authors	A list of (author, articles) tuples, containing all the authors and corresponding articles (values)
categories	A list of (category, articles) tuples, containing all the categories and corresponding articles (values)
tags	A list of (tag, articles) tuples, containing all the tags and corresponding articles (values)
pages	The list of pages
hidden_pag	The list of hidden pages
draft_pa	The list of draft pages

Sorting

URL wrappers (currently categories, tags, and authors), have comparison methods that allow them to be easily sorted by name:

```
{% for tag, articles in tags|sort %}
```

If you want to sort based on different criteria, Jinja's sort command has a number of options.

Date Formatting

Pelican formats the date according to your settings and locale (`DATE_FORMATS/DEFAULT_DATE_FORMAT`) and provides a `locale_date` attribute. On the other hand, the `date` attribute will be a datetime object. If you need custom formatting for a date different than your settings, use the Jinja filter `strftime` that comes with Pelican. Usage is same as Python strftime format, but the filter will do the right thing and format your date according to the locale given in your settings:

```
{{ article.date|strftime('%d %B %Y') }}
```

Checking Loaded Plugins

Pelican provides a `plugin_enabled` Jinja test for checking if a certain plugin is enabled. This test accepts a plugin name as a string and will return a Boolean. Namespace plugins can be specified by full name (`pelican.plugins.plugin_name`) or short name (`plugin_name`). The following example uses the `webassets` plugin to minify CSS if the plugin is enabled and otherwise falls back to regular CSS:

```
{% if "webassets" is plugin_enabled %}
    {% assets filters="cssmin", output="css/style.min.css", "css/style.scss" %}
        <link rel="stylesheet" href="{{SITEURL}}/{{ASSET_URL}}">
    {% endassets %}
{% else %}
    <link rel="stylesheet" href="{{SITEURL}}/css/style.css}">
{% endif %}
```

index.html

This is the home page or index of your blog, generated at `index.html`.

If pagination is active, subsequent pages will reside in `index{number}.html`.

Variable	Description
articles_paginator	A paginator object for the list of articles
articles_page	The current page of articles
articles_previous_page	The previous page of articles (`None` if page does not exist)
articles_next_page	The next page of articles (`None` if page does not exist)
dates_paginator	A paginator object for the article list, ordered by date, ascending.
dates_page	The current page of articles, ordered by date, ascending.
dates_previous_page	The previous page of articles, ordered by date, ascending (`None` if page does not exist)
dates_next_page	The next page of articles, ordered by date, ascending (`None` if page does not exist)
page_name	'index' – useful for pagination links

author.html

This template will be processed for each of the existing authors, with output generated according to the `AUTHOR_SAVE_AS` setting (*Default:* `author/{slug}.html`). If pagination is active, subsequent pages will by default reside at `author/{slug}{number}.html`.

Variable	Description
author	The name of the author being processed
articles	Articles by this author
dates	Articles by this author, but ordered by date, ascending
articles_paginator	A paginator object for the list of articles
articles_page	The current page of articles
articles_previous_page	The previous page of articles (`None` if page does not exist)
articles_next_page	The next page of articles (`None` if page does not exist)
dates_paginator	A paginator object for the article list, ordered by date, ascending.
dates_page	The current page of articles, ordered by date, ascending.
dates_previous_page	The previous page of articles, ordered by date, ascending (`None` if page does not exist)
dates_next_page	The next page of articles, ordered by date, ascending (`None` if page does not exist)
page_name	AUTHOR_URL where everything after *{slug}* is removed – useful for pagination links

category.html

This template will be processed for each of the existing categories, with output generated according to the `CATEGORY_SAVE_AS` setting (*Default:* `category/{slug}.html`). If pagination is active, subsequent pages will by default reside at `category/{slug}{number}.html`.

Variable	Description
category	The name of the category being processed
articles	Articles for this category
dates	Articles for this category, but ordered by date, ascending
articles_paginator	A paginator object for the list of articles
articles_page	The current page of articles
articles_previous_page	The previous page of articles (`None` if page does not exist)
articles_next_page	The next page of articles (`None` if page does not exist)
dates_paginator	A paginator object for the list of articles, ordered by date, ascending
dates_page	The current page of articles, ordered by date, ascending
dates_previous_page	The previous page of articles, ordered by date, ascending (`None` if page does not exist)
dates_next_page	The next page of articles, ordered by date, ascending (`None` if page does not exist)
page_name	CATEGORY_URL where everything after *{slug}* is removed – useful for pagination links

article.html

This template will be processed for each article, with output generated according to the `ARTICLE_SAVE_AS` setting (*Default:* `{slug}.html`). The following variables are available when rendering.

Variable	Description
article	The article object to be displayed
category	The name of the category for the current article

Any metadata that you put in the header of the article source file will be available as fields on the `article` object. The field name will be the same as the name of the metadata field, except in all-lowercase characters.

For example, you could add a field called *FacebookImage* to your article metadata, as shown below:

```
Title: I love Python more than music
Date: 2013-11-06 10:06
Tags: personal, python
Category: Tech
Slug: python-je-l-aime-a-mourir
Author: Francis Cabrel
FacebookImage: http://franciscabrel.com/images/pythonlove.png
```

This new metadata will be made available as *article.facebookimage* in your *article.html* template. This would allow you, for example, to specify an image for the Facebook open graph tags that will change for each article:

```html
<meta property="og:image" content="{{ article.facebookimage }}"/>
```

page.html

This template will be processed for each page, with output generated according to the `PAGE_SAVE_AS` setting (*Default:* `pages/{slug}.html`). The following variables are available when rendering.

Variable	Description
page	The page object to be displayed. You can access its title, slug, and content.

tag.html

This template will be processed for each tag, with output generated according to the `TAG_SAVE_AS` setting (*Default:* `tag/{slug}.html`). If pagination is active, subsequent pages will by default reside at `tag/{slug}{number}.html`.

Variable	Description
tag	The name of the tag being processed
articles	Articles related to this tag
dates	Articles related to this tag, but ordered by date, ascending
articles_paginator	A paginator object for the list of articles
articles_page	The current page of articles
articles_previous_page	The previous page of articles (`None` if page does not exist)
articles_next_page	The next page of articles (`None` if page does not exist)
dates_paginator	A paginator object for the list of articles, ordered by date, ascending
dates_page	The current page of articles, ordered by date, ascending
dates_previous_page	The previous page of articles, ordered by date, ascending (`None` if page does not exist)
dates_next_page	The next page of articles, ordered by date, ascending (`None` if page does not exist)
page_name	TAG_URL where everything after *{slug}* is removed – useful for pagination links

period_archives.html

This template will be processed for each year of your posts if a path for `YEAR_ARCHIVE_SAVE_AS` is defined, each month if `MONTH_ARCHIVE_SAVE_AS` is defined, and each day if `DAY_ARCHIVE_SAVE_AS` is defined.

Variable	Description
period	A tuple of the form (*year*, *month*, *day*) that indicates the current time period. *year* and *day* are numbers while *month* is a string. This tuple only contains *year* if the time period is a given year. It contains both *year* and *month* if the time period is over years and months and so on.
period_r	A tuple of the form (`year`, `month`, `day`), as in `period`, except all values are numbers.

You can see an example of how to use *period* in the "simple" theme period_archives.html template.

Listing and Linking to Period Archives

The `period_archives` variable can be used to generate a list of links to the set of period archives that Pelican generates. As a *common variable*, it is available for use in any template, so you can implement such an index in a custom direct template, or in a sidebar visible across different site pages.

`period_archives` is a dict that may contain `year`, `month`, and/or `day` keys, depending on which `*_ARCHIVE_SAVE_AS` settings are enabled. The corresponding value is a list of dicts, where each dict in turn represents a time period (ordered according to the `NEWEST_FIRST_ARCHIVES` setting) with the following keys and values:

Key	Value
period	The same tuple as described in `period_archives.html`, e.g. `(2023, 'June', 18)`.
period_num	The same tuple as described in `period_archives.html`, e.g. `(2023, 6, 18)`.
url	The URL to the period archive page, e.g. `posts/2023/06/18/`. This is controlled by the corresponding `*_ARCHIVE_URL` setting.
save_as	The path to the save location of the period archive page file, e.g. `posts/2023/06/18/index.html`. This is used internally by Pelican and is usually not relevant to themes.
articles	A list of *Article* objects that fall under the time period.
dates	Same list as `articles`, but ordered according to the `NEWEST_FIRST_ARCHIVES` setting.

Here is an example of how `period_archives` can be used in a template:

```
<ul>
{% for archive in period_archives.month %}
    <li>
        <a href="{{ SITEURL }}/{{ archive.url }}">
            {{ archive.period | reverse | join(' ') }} ({{ archive.articles|count }})
        </a>
    </li>
{% endfor %}
</ul>
```

You can change `period_archives.month` in the `for` statement to `period_archives.year` or `period_archives.day` as appropriate, depending on the time period granularity desired.

Objects

Detail objects attributes that are available and useful in templates. Not all attributes are listed here, this is a selection of attributes considered useful in a template.

Article

The string representation of an Article is the *source_path* attribute.

Attribute	Description
author	The *Author* of this article.
authors	A list of *Authors* of this article.
category	The *Category* of this article.
content	The rendered content of the article.
date	Datetime object representing the article date.
date_format	Either default date format or locale date format.
default_template	Default template name.
in_default_lang	Boolean representing if the article is written in the default language.
lang	Language of the article.
locale_date	Date formatted by the *date_format*.
metadata	Article header metadata *dict*.
save_as	Location to save the article page.
slug	Page slug.
source_path	Full system path of the article source file.
relative_source_path	Relative path from PATH to the article source file.
status	The article status, can be any of 'published' or 'draft'.
summary	Rendered summary content.
tags	List of *Tag* objects.
template	Template name to use for rendering.
title	Title of the article.
translations	List of translations *Article* objects.
url	URL to the article page.

Author / Category / Tag

The string representation of those objects is the *name* attribute.

Attribute	Description
name	Name of this object[1].
page_name	Author page name.
save_as	Location to save the author page.
slug	Page slug.
url	URL to the author page.

---

[1] for Author object, coming from *:authors:* or *AUTHOR*.

Page

The string representation of a Page is the *source_path* attribute.

Attribute	Description
author	The *Author* of this page.
content	The rendered content of the page.
date	Datetime object representing the page date.
date_format	Either default date format or locale date format.
default_template	Default template name.
in_default_lang	Boolean representing if the article is written in the default language.
lang	Language of the article.
locale_date	Date formatted by the *date_format*.
metadata	Page header metadata *dict*.
save_as	Location to save the page.
slug	Page slug.
source_path	Full system path of the page source file.
relative_source_path	Relative path from PATH to the page source file.
status	The page status, can be any of 'published', 'hidden' or 'draft'.
summary	Rendered summary content.
tags	List of *Tag* objects.
template	Template name to use for rendering.
title	Title of the page.
translations	List of translations *Article* objects.
url	URL to the page.

Feeds

The feed variables changed in 3.0. Each variable now explicitly lists ATOM or RSS in the name. ATOM is still the default. Old themes will need to be updated. Here is a complete list of the feed variables:

```
AUTHOR_FEED_ATOM
AUTHOR_FEED_RSS
CATEGORY_FEED_ATOM
CATEGORY_FEED_RSS
FEED_ALL_ATOM
FEED_ALL_RSS
FEED_ATOM
FEED_RSS
TAG_FEED_ATOM
TAG_FEED_RSS
TRANSLATION_FEED_ATOM
TRANSLATION_FEED_RSS
```

Inheritance

Since version 3.0, Pelican supports inheritance from the `simple` theme, so you can re-use the `simple` theme templates in your own themes.

If one of the mandatory files in the `templates/` directory of your theme is missing, it will be replaced by the matching template from the `simple` theme. So if the HTML structure of a template in the `simple` theme is right for you, you don't have to write a new template from scratch.

You can also extend templates from the `simple` theme in your own themes by using the `{% extends %}` directive as in the following example:

```
{% extends "!simple/index.html" %}   <!-- extends the ``index.html`` template from the
↪``simple`` theme -->

{% extends "index.html" %}   <!-- "regular" extending -->
```

Example

With this system, it is possible to create a theme with just two files.

base.html

The first file is the `templates/base.html` template:

```
{% extends "!simple/base.html" %}

{% block head %}
{{ super() }}
    <link rel="stylesheet" type="text/css" href="{{ SITEURL }}/theme/css/style.css" />
{% endblock %}
```

1. On the first line, we extend the `base.html` template from the `simple` theme, so we don't have to rewrite the entire file.

2. On the third line, we open the `head` block which has already been defined in the `simple` theme.

3. On the fourth line, the function `super()` keeps the content previously inserted in the `head` block.

4. On the fifth line, we append a stylesheet to the page.

5. On the last line, we close the `head` block.

This file will be extended by all the other templates, so the stylesheet will be linked from all pages.

style.css

The second file is the `static/css/style.css` CSS stylesheet:

```css
body {
    font-family : monospace ;
    font-size : 100% ;
    background-color : white ;
    color : #111 ;
    width : 80% ;
    min-width : 400px ;
    min-height : 200px ;
    padding : 1em ;
    margin : 5% 10% ;
    border : thin solid gray ;
    border-radius : 5px ;
    display : block ;
}

a:link    { color : blue ; text-decoration : none ;      }
a:hover   { color : blue ; text-decoration : underline ; }
a:visited { color : blue ;                               }

h1 a { color : inherit !important }
h2 a { color : inherit !important }
h3 a { color : inherit !important }
h4 a { color : inherit !important }
h5 a { color : inherit !important }
h6 a { color : inherit !important }

pre {
    margin : 2em 1em 2em 4em ;
}

#menu li {
    display : inline ;
}

#post-list {
    margin-bottom : 1em ;
    margin-top : 1em ;
}
```

Download

You can download this example theme `here`.

5.8 pelican-themes

5.8.1 Description

`pelican-themes` is a command line tool for managing themes for Pelican. See *Themes* for settings related to themes.

Usage

pelican-themes [-h] [-l] [-i theme path [theme path …]]
     [-r theme name [theme name …]]
     [-s theme path [theme path …]] [-v] [–version]

Optional arguments:

-h, --help	Show the help and exit
-l, --list	Show the themes already installed
-i theme_path, --install theme_path	One or more themes to install
-r theme_name, --remove theme_name	One or more themes to remove
-s theme_path, --symlink theme_path	Same as `--install`, but create a symbolic link instead of copying the theme. Useful for theme development
-v, --verbose	Verbose output
--version	Print the version of this script

5.8.2 Examples

Listing the installed themes

With `pelican-themes`, you can see the available themes by using the `-l` or `--list` option:

```
$ pelican-themes -l
notmyidea
two-column@
simple
$ pelican-themes --list
notmyidea
two-column@
simple
```

In this example, we can see there are three themes available: `notmyidea`, `simple`, and `two-column`.

`two-column` is followed by an `@` because this theme is not copied to the Pelican theme path, but is instead just linked to it (see *Creating symbolic links* for details about creating symbolic links).

Note that you can combine the `--list` option with the `-v` or `--verbose` option to get more verbose output, like this:

```
$ pelican-themes -v -l
/usr/local/lib/python2.6/dist-packages/pelican-2.6.0-py2.6.egg/pelican/themes/notmyidea
/usr/local/lib/python2.6/dist-packages/pelican-2.6.0-py2.6.egg/pelican/themes/two-column␣
→(symbolic link to `/home/skami/Dev/Python/pelican-themes/two-column')
/usr/local/lib/python2.6/dist-packages/pelican-2.6.0-py2.6.egg/pelican/themes/simple
```

Installing themes

You can install one or more themes using the `-i` or `--install` option. This option takes as argument the path(s) of the theme(s) you want to install, and can be combined with the `--verbose` option:

```
# pelican-themes --install ~/Dev/Python/pelican-themes/notmyidea-cms --verbose
```

```
# pelican-themes --install ~/Dev/Python/pelican-themes/notmyidea-cms\
                           ~/Dev/Python/pelican-themes/martyalchin \
                           --verbose
```

```
# pelican-themes -vi ~/Dev/Python/pelican-themes/two-column
```

Removing themes

The `pelican-themes` command can also remove themes from the Pelican themes path. The `-r` or `--remove` option takes as argument the name(s) of the theme(s) you want to remove, and can be combined with the `--verbose` option.

```
# pelican-themes --remove two-column
```

```
# pelican-themes -r martyachin notmyidea-cmd -v
```

Creating symbolic links

`pelican-themes` can also install themes by creating symbolic links instead of copying entire themes into the Pelican themes path.

To symbolically link a theme, you can use the `-s` or `--symlink`, which works exactly as the `--install` option:

```
# pelican-themes --symlink ~/Dev/Python/pelican-themes/two-column
```

In this example, the `two-column` theme is now symbolically linked to the Pelican themes path, so we can use it, but we can also modify it without having to reinstall it after each modification.

This is useful for theme development:

```
$ sudo pelican-themes -s ~/Dev/Python/pelican-themes/two-column
$ pelican ~/Blog/content -o /tmp/out -t two-column
$ firefox /tmp/out/index.html
$ vim ~/Dev/Pelican/pelican-themes/two-column/static/css/main.css
$ pelican ~/Blog/content -o /tmp/out -t two-column
$ cp /tmp/bg.png ~/Dev/Pelican/pelican-themes/two-column/static/img/bg.png
$ pelican ~/Blog/content -o /tmp/out -t two-column
```

```
$ vim ~/Dev/Pelican/pelican-themes/two-column/templates/index.html
$ pelican ~/Blog/content -o /tmp/out -t two-column
```

Doing several things at once

The `--install`, `--remove` and `--symlink` options are not mutually exclusive, so you can combine them in the same command line to do more than one operation at time, like this:

```
# pelican-themes --remove notmyidea-cms two-column \
                 --install ~/Dev/Python/pelican-themes/notmyidea-cms-fr \
                 --symlink ~/Dev/Python/pelican-themes/two-column \
                 --verbose
```

In this example, the theme `notmyidea-cms` is replaced by the theme `notmyidea-cms-fr`

5.9 Importing an existing site

5.9.1 Description

`pelican-import` is a command-line tool for converting articles from other software to reStructuredText or Markdown. The supported import formats are:

- Blogger XML export

- Dotclear export

- Medium export

- Tumblr API

- WordPress XML export

- RSS/Atom feed

The conversion from HTML to reStructuredText or Markdown relies on Pandoc. For Dotclear, if the source posts are written with Markdown syntax, they will not be converted (as Pelican also supports Markdown).

Note: Unlike Pelican, Wordpress supports multiple categories per article. These are imported as a comma-separated string. You have to resolve these manually, or use a plugin such as More Categories that enables multiple categories per article.

Note: Imported pages may contain links to images that still point to the original site. So you might want to download those images into your local content and manually re-link them from the relevant pages of your site.

5.9.2 Dependencies

`pelican-import` has some dependencies not required by the rest of Pelican:

- *BeautifulSoup4* and *lxml*, for WordPress and Dotclear import. Can be installed like any other Python package (`pip install BeautifulSoup4 lxml`).

- *Feedparser*, for feed import (`pip install feedparser`).

- *Pandoc*, see the Pandoc site for installation instructions on your operating system.

5.9.3 Usage

```
pelican-import [-h] [--blogger] [--dotclear] [--tumblr] [--wpfile] [--feed]
               [-o OUTPUT] [-m MARKUP] [--dir-cat] [--dir-page] [--strip-raw] [--wp-
→custpost]
               [--wp-attach] [--disable-slugs] [-b BLOGNAME]
               input|api_key
```

Positional arguments

`input`	The input file to read
`api_key`	(Tumblr only) api_key can be obtained from https://www.tumblr.com/oauth/apps

Optional arguments

-h, --help	Show this help message and exit
--blogger	Blogger XML export (default: False)
--dotclear	Dotclear export (default: False)
--medium	Medium export (default: False)
--tumblr	Tumblr API (default: False)
--wpfile	WordPress XML export (default: False)
--feed	Feed to parse (default: False)
-o OUTPUT, --output OUTPUT	Output path (default: content)
-m MARKUP, --markup MARKUP	Output markup format: `rst`, `markdown`, or `asciidoc` (default: `rst`)
--dir-cat	Put files in directories with categories name (default: False)
--dir-page	Put files recognised as pages in "pages/" sub- directory (blogger and wordpress import only) (default: False)
--filter-author	Import only post from the specified author
--strip-raw	Strip raw HTML code that can't be converted to markup such as flash embeds or iframes (default: False)

--wp-custpost	Put wordpress custom post types in directories. If used with –dir-cat option directories will be created as "/post_type/category/" (wordpress import only)
--wp-attach	Download files uploaded to wordpress as attachments. Files will be added to posts as a list in the post header and links to the files within the post will be updated. All files will be downloaded, even if they aren't associated with a post. Files will be downloaded with their original path inside the output directory, e.g. "output/wp-uploads/date/postname/file.jpg". (wordpress import only) (requires an internet connection)
--disable-slugs	Disable storing slugs from imported posts within output. With this disabled, your Pelican URLs may not be consistent with your original posts. (default: False)

-b BLOGNAME, --blogname=BLOGNAME   Blog name used in Tumblr API

5.9.4 Examples

For Blogger:

```
$ pelican-import --blogger -o ~/output ~/posts.xml
```

For Dotclear:

```
$ pelican-import --dotclear -o ~/output ~/backup.txt
```

For Medium:

```
$ pelican-import --medium -o ~/output ~/medium-export/posts/
```

The Medium export is a zip file. Unzip it, and point this tool to the "posts" subdirectory. For more information on how to export, see https://help.medium.com/hc/en-us/articles/115004745787-Export-your-account-data.

For Tumblr:

```
$ pelican-import --tumblr -o ~/output --blogname=<blogname> <api_key>
```

For WordPress:

```
$ pelican-import --wpfile -o ~/output ~/posts.xml
```

For Medium (an example of using an RSS feed):

> $ python -m pip install feedparser $ pelican-import –feed https://medium.com/feed/@username

---

Note: The RSS feed may only return the most recent posts — not all of them.

5.9.5 Tests

To test the module, one can use sample files:

- for WordPress: https://www.wpbeginner.com/wp-themes/how-to-add-dummy-content-for-theme-development-in-wordpress/

- for Dotclear: http://media.dotaddict.org/tda/downloads/lorem-backup.txt

5.10 Frequently Asked Questions (FAQ)

Here are some frequently asked questions about Pelican.

5.10.1 What's the best way to communicate a problem, question, or suggestion?

Please read our *feedback guidelines*.

5.10.2 How can I help?

There are several ways to help out. First, you can communicate any Pelican suggestions or problems you might have via Pelican Discussions. Please first check the existing list of discussions and issues (both open and closed) in order to avoid submitting topics that have already been covered before.

If you want to contribute, please fork the Git repository, create a new feature branch, make your changes, and issue a pull request. Someone will review your changes as soon as possible. Please refer to the *How to Contribute* section for more details.

You can also contribute by creating themes and improving the documentation.

5.10.3 Is the Pelican settings file mandatory?

Configuration files are optional and are just an easy way to configure Pelican. For basic operations, it's possible to specify options while invoking Pelican via the command line. See `pelican --help` for more information.

5.10.4 Changes to the settings file take no effect

When experimenting with different settings (especially the metadata ones) caching may interfere and the changes may not be visible. In such cases, ensure that caching is disabled via `LOAD_CONTENT_CACHE = False` or use the `--ignore-cache` command-line switch.

5.10.5 I'm creating my own theme. How do I use Pygments for syntax highlighting?

Pygments adds some classes to the generated content. These classes are used by themes to style code syntax highlighting via CSS. Specifically, you can customize the appearance of your syntax highlighting via the `.highlight pre` class in your theme's CSS file. To see how various styles can be used to render Django code, for example, use the style selector drop-down at top-right on the Pygments project demo site.

You can use the following example commands to generate a starting CSS file from a Pygments built-in style (in this case, "monokai") and then copy the generated CSS file to your new theme:

```
pygmentize -S monokai -f html -a .highlight > pygment.css
cp pygment.css path/to/theme/static/css/
```

Don't forget to import your `pygment.css` file from your main CSS file.

5.10.6 How do I create my own theme?

Please refer to *Themes*.

5.10.7 I want to use Markdown, but I got an error.

If you try to generate Markdown content without first installing the Markdown library, you may see a message that says `No valid files found in content`. Markdown is not a hard dependency for Pelican, so if you have content in Markdown format, you will need to explicitly install the Markdown library. You can do so by typing the following command, prepending `sudo` if permissions require it:

```
python -m pip install markdown
```

5.10.8 Can I use arbitrary metadata in my templates?

Yes. For example, to include a modified date in a Markdown post, one could include the following at the top of the article:

```
Modified: 2012-08-08
```

For reStructuredText, this metadata should of course be prefixed with a colon:

```
:Modified: 2012-08-08
```

This metadata can then be accessed in templates such as `article.html` via:

```
{% if article.modified %}
Last modified: {{ article.modified }}
{% endif %}
```

If you want to include metadata in templates outside the article context (e.g., `base.html`), the `if` statement should instead be:

```
{% if article and article.modified %}
```

5.10.9 How do I assign custom templates on a per-page basis?

It's as simple as adding an extra line of metadata to any page or article that you want to have its own template. For example, this is how it would be handled for content in reST format:

```
:template: template_name
```

For content in Markdown format:

```
Template: template_name
```

Then just make sure your theme contains the relevant template file (e.g. `template_name.html`).

5.10.10 How can I override the generated URL of a specific page or article?

Include `url` and `save_as` metadata in any pages or articles that you want to override the generated URL. Here is an example page in reST format:

```
Override url/save_as page
#########################

:url: override/url/
:save_as: override/url/index.html
```

With this metadata, the page will be written to `override/url/index.html` and Pelican will use the URL `override/url/` to link to this page.

5.10.11 How can I use a static page as my home page?

The override feature mentioned above can be used to specify a static page as your home page. The following Markdown example could be stored in `content/pages/home.md`:

```
Title: Welcome to My Site
URL:
save_as: index.html

Thank you for visiting. Welcome!
```

If the original blog index is still wanted, it can then be saved in a different location by setting `INDEX_SAVE_AS = 'blog_index.html'` for the `'index'` direct template.

5.10.12 What if I want to disable feed generation?

To disable feed generation, all feed settings should be set to `None`. All but three feed settings already default to `None`, so if you want to disable all feed generation, you only need to specify the following settings:

```python
FEED_ALL_ATOM = None
CATEGORY_FEED_ATOM = None
TRANSLATION_FEED_ATOM = None
AUTHOR_FEED_ATOM = None
AUTHOR_FEED_RSS = None
```

The word `None` should not be surrounded by quotes. Please note that `None` and `''` are not the same thing.

5.10.13 I'm getting a warning about feeds generated without SITEURL being set properly

RSS and Atom feeds require all URL links to be absolute. In order to properly generate links in Pelican you will need to set SITEURL to the full path of your site.

Feeds are still generated when this warning is displayed, but links within may be malformed and thus the feed may not validate.

5.10.14 Can I force Atom feeds to show only summaries instead of article content?

Instead of having to open a separate browser window to read articles, the overwhelming majority of folks who use feed readers prefer to read content within the feed reader itself. Mainly for that reason, Pelican does not support restricting Atom feeds to only contain summaries. Unlike Atom feeds, the RSS feed specification does not include a separate content field, so by default Pelican publishes RSS feeds that only contain summaries (but can optionally be set to instead publish full content RSS feeds). So the default feed generation behavior provides users with a choice: subscribe to Atom feeds for full content or to RSS feeds for just the summaries.

5.10.15 Is Pelican only suitable for blogs?

No. Pelican can be easily configured to create and maintain any type of static site. This may require a little customization of your theme and Pelican configuration. For example, if you are building a launch site for your product and do not need tags on your site, you could remove the relevant HTML code from your theme. You can also disable generation of tag-related pages via:

```
TAGS_SAVE_AS = ''
TAG_SAVE_AS = ''
```

5.10.16 Why does Pelican always write all HTML files even with content caching enabled?

In order to reliably determine whether the HTML output is different before writing it, a large part of the generation environment including the template contexts, imported plugins, etc. would have to be saved and compared, at least in the form of a hash (which would require special handling of unhashable types), because of all the possible combinations of plugins, pagination, etc. which may change in many different ways. This would require a lot more processing time and memory and storage space. Simply writing the files each time is a lot faster and a lot more reliable.

However, this means that the modification time of the files changes every time, so a rsync based upload will transfer them even if their content hasn't changed. A simple solution is to make rsync use the --checksum option, which will make it compare the file checksums in a much faster way than Pelican would.

5.10.17 How to process only a subset of all articles?

It is often useful to process only e.g. 10 articles for debugging purposes. This can be achieved by explicitly specifying only the filenames of those articles in ARTICLE_PATHS. A list of such filenames could be found using a command similar to cd content; find -name '*.md' | head -n 10.

5.10.18 My tag cloud is missing/broken since I upgraded Pelican

In an ongoing effort to streamline Pelican, tag cloud generation has been moved out of Pelican core and into a separate plugin. See the *Plugins* documentation for further information about the Pelican plugin system.

5.10.19 Since I upgraded Pelican my pages are no longer rendered

Pages were available to themes as lowercase `pages` and uppercase `PAGES`. To bring this inline with the *Templates and Variables* section, `PAGES` has been removed. This is quickly resolved by updating your theme to iterate over `pages` instead of `PAGES`. Just replace:

```
{% for pg in PAGES %}
```

with something like:

```
{% for pg in pages %}
```

5.10.20 How can I stop Pelican from trying to parse my static files as content?

Pelican's article and page generators run before it's static generator. That means if you use a setup similar to the default configuration, where a static source directory is defined inside a `*_PATHS` setting, all files that have a valid content file ending (`.html`, `.rst`, `.md`, …) will be treated as articles or pages before they get treated as static files.

To circumvent this issue either use the appropriate `*_EXCLUDES` setting or disable the offending reader via `READERS` if you don't need it.

5.10.21 Why is [arbitrary Markdown syntax] not supported?

Pelican does not directly handle Markdown processing and instead delegates that task to the Python-Markdown project, the core of which purposefully follows the original Markdown syntax rules and not the myriad Markdown "flavors" that have subsequently propagated. That said, Python-Markdown is quite modular, and the syntax you are looking for may be provided by one of the many available Markdown Extensions. Alternatively, some folks have created Pelican plugins that support Markdown variants, so that may be your best choice if there is a particular variant you want to use when writing your content.

5.11 Tips

Here are some tips about Pelican that you might find useful.

5.11.1 Custom 404 Pages

When a browser requests a resource that the web server cannot find, the web server usually displays a generic "File not found" (404) error page that can be stark and unsightly. One way to provide an error page that matches the theme of your site is to create a custom 404 page (*not* an article), such as this Markdown-formatted example stored in `content/pages/404.md`:

```
Title: Not Found
Status: hidden
Save_as: 404.html

The requested item could not be located. Perhaps you might want to check
the [Archives](/archives.html)?
```

The next step is to configure your web server to display this custom page instead of its default 404 page. For Nginx, add the following to your configuration file's `location` block:

```
error_page 404 /404.html;
```

For Apache:

```
ErrorDocument 404 /404.html
```

For Amazon S3, first navigate to the `Static Site Hosting` menu in the bucket settings on your AWS console. From there:

```
Error Document: 404.html
```

5.11.2 Publishing to GitHub Pages

If you use GitHub for your Pelican site you can publish your site to GitHub Pages for free. Your site will be published to `https://<username>.github.io` if it's a user or organization site or to `https://<username>.github.io/<repository>` if it's a project site. It's also possible to use a custom domain with GitHub Pages.

There are two ways to publish a site to GitHub Pages:

1. **Publishing from a branch:** run `pelican` locally and push the output directory to a special branch of your GitHub repo. GitHub will then publish the contents of this branch to your GitHub Pages site.

2. **Publishing with a custom GitHub Actions workflow:** just push the source files of your Pelican site to your GitHub repo's default branch and have a custom GitHub Actions workflow run `pelican` for you to generate the output directory and publish it to your GitHub Pages site. This way you don't need to run `pelican` locally. You can even edit your site's source files using GitHub's web interface and any changes that you commit will be published.

Publishing a Project Site to GitHub Pages from a Branch

To publish a Pelican site as a Project Page you need to *push* the content of the `output` dir generated by Pelican to a repository's `gh-pages` branch on GitHub.

The excellent ghp-import, which can be installed with `pip`, makes this process really easy.

For example, if the source of your Pelican site is contained in a GitHub repository, and if you want to publish that Pelican site in the form of Project Pages to this repository, you can then use the following:

```
$ pelican content -o output -s pelicanconf.py
$ ghp-import output -b gh-pages
$ git push origin gh-pages
```

The `ghp-import output` command updates the local `gh-pages` branch with the content of the `output` directory (creating the branch if it doesn't already exist). The `git push origin gh-pages` command updates the remote `gh-pages` branch, effectively publishing the Pelican site.

Note: The `github` target of the Makefile (and the `gh_pages` task of `tasks.py`) created by the `pelican-quickstart` command publishes the Pelican site as Project Pages, as described above.

Publishing a User Site to GitHub Pages from a Branch

To publish a Pelican site in the form of User Pages, you need to *push* the content of the `output` dir generated by Pelican to the `master` branch of your `<username>.github.io` repository on GitHub.

Again, you can take advantage of `ghp-import`:

```
$ pelican content -o output -s pelicanconf.py
$ ghp-import output -b gh-pages
$ git push git@github.com:elemoine/elemoine.github.io.git gh-pages:master
```

The `git push` command pushes the local `gh-pages` branch (freshly updated by the `ghp-import` command) to the `elemoine.github.io` repository's `master` branch on GitHub.

Note: To publish your Pelican site as User Pages, feel free to adjust the `github` target of the Makefile.

Another option for publishing to User Pages is to generate the output files in the root directory of the project.

For example, your main project folder is `<username>.github.io` and you can create the Pelican project in a subdirectory called `Pelican`. Then from inside the `Pelican` folder you can run:

```
$ pelican content -o .. -s pelicanconf.py
```

Now you can push the whole project `<username>.github.io` to the master branch of your GitHub repository:

```
$ git push origin master
```

(assuming origin is set to your remote repository).

Publishing to GitHub Pages Using a Custom GitHub Actions Workflow

Pelican comes with a custom workflow for publishing a Pelican site. To use it:

1. Enable GitHub Pages in your repo: go to **Settings → Pages** and choose **GitHub Actions** for the **Source** setting.

2. Commit a `.github/workflows/pelican.yml` file to your repo with these contents:

```yaml
name: Deploy to GitHub Pages
on:
  push:
    branches: ["main"]
  workflow_dispatch:
jobs:
  deploy:
    uses: "getpelican/pelican/.github/workflows/github_pages.yml@master"
    permissions:
      contents: "read"
      pages: "write"
      id-token: "write"
```

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```
    with:
      settings: "publishconf.py"
```

3. Go to the **Actions** tab in your repo (`https://github.com/<username>/<repository>/actions`) and you should see a **Deploy to GitHub Pages** action running.

4. Once the action completes you should see your Pelican site deployed at your repo's GitHub Pages URL: `https://<username>.github.io` for a user or organization site or `https://<username>.github.io/<repository>>` for a project site.

Notes:

- You don't need to set `SITEURL` in your Pelican settings: the workflow will set it for you

- You don't need to commit your `--output` / `OUTPUT_PATH` directory (`output/`) to git: the workflow will run `pelican` to build the output directory for you on GitHub Actions

See GitHub's docs about reusable workflows for more information.

A number of optional inputs can be added to the `with:` block when calling the workflow:

Name	Required	Description	Type	Default
set-tings	Yes	The path to your Pelican settings file (`pelican`'s `--settings` option), for example: `"publishconf.py"`	string	
re-quire-ments	No	The Python requirements to install, for example to enable markdown and typografy use: `"pelican[markdown] typografy"` or if you have a requirements file: `"-r requirements.txt"`	string	`"pelican"`
output-path	No	Where to output the generated files (`pelican`'s `--output` option)	string	`"output/"`

For example:

```
with:
  settings: "publishconf.py"
  requirements: "pelican[markdown] typografy"
  output-path: "__output__/"
```

Custom 404 Pages

GitHub Pages will display the custom 404 page described above, as noted in the relevant GitHub docs.

Update your site on each commit

To automatically update your Pelican site on each commit, you can create a post-commit hook. For example, you can add the following to `.git/hooks/post-commit`:

```
pelican content -o output -s pelicanconf.py && ghp-import output && git push origin gh-
→pages
```

Copy static files to the root of your site

To use a custom domain with GitHub Pages, you need to put the domain of your site (e.g., `blog.example.com`) inside a `CNAME` file at the root of your site. To do this, create the `content/extra/` directory and add a `CNAME` file to it. Then use the `STATIC_PATHS` setting to tell Pelican to copy this file to your output directory. For example:

```
STATIC_PATHS = ['images', 'extra/CNAME']
EXTRA_PATH_METADATA = {'extra/CNAME': {'path': 'CNAME'},}
```

Note: use forward slashes, /, even on Windows.

You can also use the `EXTRA_PATH_METADATA` mechanism to place a `favicon.ico` or `robots.txt` at the root of any site.

5.11.3 How to add YouTube or Vimeo Videos

The easiest way is to paste the embed code of the video from these sites directly into your source content.

Alternatively, you can also use Pelican plugins like `liquid_tags`, `pelican_youtube`, or `pelican_vimeo` to embed videos in your content.

Moreover, markup languages like reST and Markdown have plugins that let you embed videos in the markup. You can use reST video directive for reST or mdx_video plugin for Markdown.

5.11.4 Develop Locally Using SSL

Here's how you can set up your local pelican server to support SSL.

First, create a self-signed certificate and key using `openssl` (this creates `cert.pem` and `key.pem`):

```
$ openssl req -x509 -newkey rsa:4096 -keyout key.pem -out cert.pem -days 365 -nodes
```

And use this command to launch the server (the server starts within your `output` directory):

```
python -m pelican.server 8443 --key=../key.pem --cert=../cert.pem
```

If you are using `develop-server.sh`, add this to the top:

```
CERT="$BASEDIR/cert.pem"
KEY="$BASEDIR/key.pem"
```

and modify the `pelican.server` line as follows:

```
$PY -m pelican.server $port --ssl --cert="$CERT" --key="$KEY" &
```

5.12 Contributing and feedback guidelines

There are many ways to contribute to Pelican. You can improve the documentation, add missing features, and fix bugs (or just report them). You can also help out by reviewing and commenting on existing issues.

Don't hesitate to fork Pelican and submit an issue or pull request on GitHub. When doing so, please consider the following guidelines.

5.12.1 Filing issues

- Before you submit a new issue, try *asking for help* first.

- If determined to create a new issue, first search Pelican Discussions and existing issues (open and closed) to see if your question has already been answered previously.

5.12.2 How to get help

Before you ask for help, please make sure you do the following:

1. Read the documentation thoroughly. If in a hurry, at least use the search field that is provided at top-left on the documentation pages. Make sure you read the docs for the Pelican version you are using.

2. Use a search engine (e.g., DuckDuckGo, Google) to search for a solution to your problem. Someone may have already found a solution, perhaps in the form of a 'plugins or a specific combination of settings.

3. Try reproducing the issue in a clean environment, ensuring you are using:

- latest Pelican release (or an up-to-date Git clone of Pelican master)

- latest releases of libraries used by Pelican

- no plugins or only those related to the issue

NOTE: The most common sources of problems are anomalies in (1) themes, (2) plugins, (3) settings files, and (4) `make`/`invoke` automation wrappers. If you can't reproduce your problem when using the following steps to generate your site, then the problem is almost certainly with one of the above-listed elements (and not Pelican itself):

```
cd ~/projects/your-site
git clone https://github.com/getpelican/pelican ~/projects/pelican
pelican content -s ~/projects/pelican/samples/pelican.conf.py -t ~/projects/pelican/
↪pelican/themes/notmyidea
```

If you can generate your site without problems using the steps above, then your problem is unlikely to be caused by Pelican itself, and therefore please consider reaching out to the maintainers of the plugins/theme you are using instead of raising the topic with the Pelican core community.

If despite the above efforts you still cannot resolve your problem, be sure to include in your inquiry the following information, preferably in the form of links to content uploaded to a paste service, GitHub repository, or other publicly-accessible location:

- Describe what version of Pelican you are running (output of `pelican --version` or the HEAD commit hash if you cloned the repo) and how exactly you installed it (the full command you used, e.g. `python -m pip install pelican`).

- If you are looking for a way to get some end result, prepare a detailed description of what the end result should look like (preferably in the form of an image or a mock-up page) and explain in detail what you have done so far to achieve it.

- If you are trying to solve some issue, prepare a detailed description of how to reproduce the problem. If the issue cannot be easily reproduced, it cannot be debugged by developers or volunteers. Describe only the **minimum steps** necessary to reproduce it (no extra plugins, etc.).

- Upload your settings file or any other custom code that would enable people to reproduce the problem or to see what you have already tried to achieve the desired end result.

- Upload detailed and **complete** output logs and backtraces (remember to add the `--debug` flag: `pelican --debug content [...]`)

Once the above preparation is ready, you can post your query as a new thread in Pelican Discussions. Remember to include all the information you prepared.

5.12.3 Contributing code

Before you submit a contribution, please ask whether it is desired so that you don't spend a lot of time working on something that would be rejected for a known reason. Consider also whether your new feature might be better suited as a 'plugins — you can *ask for help* to make that determination.

Also, if you intend to submit a pull request to address something for which there is no existing issue, there is no need to create a new issue and then immediately submit a pull request that closes it. You can submit the pull request by itself.

Using Git and GitHub

- Create a new branch specific to your change (as opposed to making your commits in the master branch).

- **Don't put multiple unrelated fixes/features in the same branch / pull request.** For example, if you're working on a new feature and find a bugfix that doesn't *require* your new feature, **make a new distinct branch and pull request** for the bugfix. Similarly, any proposed changes to code style formatting should be in a completely separate pull request.

- Add a `RELEASE.md` file in the root of the project that contains the release type (major, minor, patch) and a summary of the changes that will be used as the release changelog entry. For example:

```
Release type: minor

Reload browser window upon changes to content, settings, or theme
```

- Check for unnecessary whitespace via `git diff --check` before committing.

- First line of your commit message should start with present-tense verb, be 50 characters or less, and include the relevant issue number(s) if applicable. *Example:* `Ensure proper PLUGIN_PATH behavior. Refs #428.` If the commit *completely fixes* an existing bug report, please use `Fixes #585` or `Fix #585` syntax (so the relevant issue is automatically closed upon PR merge).

- After the first line of the commit message, add a blank line and then a more detailed explanation (when relevant).

- Squash your commits to eliminate merge commits and ensure a clean and readable commit history.

- After you have issued a pull request, the continuous integration (CI) system will run the test suite on all supported Python versions and check for code style compliance. If any of these checks fail, you should fix them. (If tests fail on the CI system but seem to pass locally, ensure that local test runs aren't skipping any tests.)

Contribution quality standards

- Adhere to the project's code style standards. See: Development Environment

- Ensure your code is compatible with the officially-supported Python releases.

- Add docs and tests for your changes. Undocumented and untested features will not be accepted.

- Run all the tests **on all versions of Python supported by Pelican** to ensure nothing was accidentally broken.

Check out our Git Tips page or *ask for help* if you need assistance or have any questions about these guidelines.

5.12.4 Setting up the development environment

While there are many ways to set up one's development environment, the following instructions will utilize Pip and PDM. These tools facilitate managing virtual environments for separate Python projects that are isolated from one another, so you can use different packages (and package versions) for each.

Please note that Python >=3.8.1 is required for Pelican development.

(Optional) If you prefer to install PDM once for use with multiple projects, you can install it via:

```
curl -sSL https://pdm.fming.dev/install-pdm.py | python3 -
```

Point your web browser to the Pelican repository and tap the **Fork** button at top-right. Then clone the source for your fork and add the upstream project as a Git remote:

```
mkdir ~/projects
git clone https://github.com/YOUR_USERNAME/pelican.git ~/projects/pelican
cd ~/projects/pelican
git remote add upstream https://github.com/getpelican/pelican.git
```

While PDM can dynamically create and manage virtual environments, we're going to manually create and activate a virtual environment:

```
mkdir ~/virtualenvs && cd ~/virtualenvs
python3 -m venv pelican
source ~/virtualenvs/pelican/*/activate
```

Install the needed dependencies and set up the project:

```
python -m pip install invoke
invoke setup
```

Your local environment should now be ready to go!

5.12.5 Development

Once Pelican has been set up for local development, create a topic branch for your bug fix or feature:

```
git checkout -b name-of-your-bugfix-or-feature
```

Now you can make changes to Pelican, its documentation, and/or other aspects of the project.

Running the test suite

Each time you make changes to Pelican, there are two things to do regarding tests: check that the existing tests pass, and add tests for any new features or bug fixes. The tests are located in `pelican/tests`, and you can run them via:

```
invoke tests
```

(For more on Invoke, see `invoke -l` to list tasks, or https://pyinvoke.org for documentation.)

In addition to running the test suite, it is important to also ensure that any lines you changed conform to code style guidelines. You can check that via:

```
invoke lint
```

If code style violations are found in lines you changed, correct those lines and re-run the above lint command until they have all been fixed. You do not need to address style violations, if any, for code lines you did not touch.

After making your changes and running the tests, you may see a test failure mentioning that "some generated files differ from the expected functional tests output." If you have made changes that affect the HTML output generated by Pelican, and the changes to that output are expected and deemed correct given the nature of your changes, then you should update the output used by the functional tests. To do so, **make sure you have both `en_EN.utf8` and `fr_FR.utf8` locales installed**, and then run the following command:

```
invoke update-functional-tests
```

You may also find that some tests are skipped because some dependency (e.g., Pandoc) is not installed. This does not automatically mean that these tests have passed; you should at least verify that any skipped tests are not affected by your changes.

You should run the test suite under each of the supported versions of Python. This is best done by creating a separate Python environment for each version. Tox is a useful tool to automate running tests inside `virtualenv` environments.

Building the docs

If you make changes to the documentation, you should build and inspect your changes before committing them:

```
invoke docserve
```

Open http://localhost:8000 in your browser to review the documentation. While the above task is running, any changes you make and save to the documentation should automatically appear in the browser, as it live-reloads when it detects changes to the documentation source files.

Plugin development

To create a *new* Pelican plugin, please refer to the plugin template repository for detailed instructions.

If you want to contribute to an *existing* Pelican plugin, follow the steps above to set up Pelican for local development, and then create a directory to store cloned plugin repositories:

```
mkdir -p ~/projects/pelican-plugins
```

Assuming you wanted to contribute to the Simple Footnotes plugin, you would first browse to the Simple Footnotes repository on GitHub and tap the **Fork** button at top-right. Then clone the source for your fork and add the upstream project as a Git remote:

```
git clone https://github.com/YOUR_USERNAME/simple-footnotes.git ~/projects/pelican-
→plugins/simple-footnotes
cd ~/projects/pelican-plugins/simple-footnotes
git remote add upstream https://github.com/pelican-plugins/simple-footnotes.git
```

Install the needed dependencies and set up the project:

```
invoke setup
```

Create a topic branch for your plugin bug fix or feature:

```
git checkout -b name-of-your-bugfix-or-feature
```

After writing new tests for your plugin changes, run the plugin test suite and check for code style compliance via:

```
invoke tests
invoke lint
```

If style violations are found, many of them can be addressed automatically via:

```
invoke format
```

If style violations are found even after running the above auto-formatters, you will need to make additional manual changes until `invoke lint` no longer reports any code style violations.

Submitting your changes

Assuming linting validation and tests pass, add a `RELEASE.md` file in the root of the project that contains the release type (major, minor, patch) and a summary of the changes that will be used as the release changelog entry. For example:

```
Release type: patch

Fix browser reloading upon changes to content, settings, or theme
```

Commit your changes and push your topic branch:

```
git add .
git commit -m "Your detailed description of your changes"
git push origin name-of-your-bugfix-or-feature
```

Finally, browse to your repository fork on GitHub and submit a pull request.

5.12.6 Logging tips

Try to use logging with appropriate levels.

For logging messages that are not repeated, use the usual Python way:

```
# at top of file
import logging
logger = logging.getLogger(__name__)

# when needed
logger.warning("A warning with %s formatting", arg_to_be_formatted)
```

Do not format log messages yourself. Use `%s` formatting in messages and pass arguments to logger. This is important, because the Pelican logger will preprocess some arguments, such as exceptions.

Limiting extraneous log messages

If the log message can occur several times, you may want to limit the log to prevent flooding. In order to do that, use the `extra` keyword argument for the logging message in the following format:

```
logger.warning("A warning with %s formatting", arg_to_be_formatted,
    extra={'limit_msg': 'A generic message for too many warnings'})
```

Optionally, you can also set `'limit_args'` as a tuple of arguments in `extra` dict if your generic message needs formatting.

Limit is set to 5, i.e, first four logs with the same `'limit_msg'` are outputted normally but the fifth one will be logged using `'limit_msg'` (and `'limit_args'` if present). After the fifth, corresponding log messages will be ignored.

For example, if you want to log missing resources, use the following code:

```python
for resource in resources:
    if resource.is_missing:
        logger.warning(
            'The resource %s is missing', resource.name,
            extra={'limit_msg': 'Other resources were missing'})
```

The log messages will be displayed as follows:

```
WARNING: The resource prettiest_cat.jpg is missing
WARNING: The resource best_cat_ever.jpg is missing
WARNING: The resource cutest_cat.jpg is missing
WARNING: The resource lolcat.jpg is missing
WARNING: Other resources were missing
```

Outputting traceback in the logs

If you're logging inside an `except` block, you may want to provide the traceback information as well. You can do that by setting `exc_info` keyword argument to `True` during logging. However, doing so by default can be undesired because tracebacks are long and can be confusing to regular users. Try to limit them to `--debug` mode like the following:

```python
try:
    some_action()
except Exception as e:
    logger.error('Exception occurred: %s', e,
        exc_info=settings.get('DEBUG', False))
```

5.13 Pelican internals

This section describe how Pelican works internally. As you'll see, it's quite simple, but a bit of documentation doesn't hurt. :)

You can also find in the *Some history about Pelican* section an excerpt of a report the original author wrote with some software design information.

5.13.1 Overall structure

What Pelican does is take a list of files and process them into some sort of output. Usually, the input files are reStructuredText and Markdown files, and the output is a blog, but both input and output can be anything you want.

The logic is separated into different classes and concepts:

- **Writers** are responsible for writing files: .html files, RSS feeds, and so on. Since those operations are commonly used, the object is created once and then passed to the generators.

- **Readers** are used to read from various formats (HTML, Markdown and reStructuredText for now, but the system is extensible). Given a file, they return metadata (author, tags, category, etc.) and content (HTML-formatted).

- **Generators** generate the different outputs. For instance, Pelican comes with `ArticlesGenerator` and `PageGenerator`. Given a configuration, they can do whatever they want. Most of the time, it's generating files from inputs.

- Pelican also uses templates, so it's easy to write your own theme. The syntax is Jinja2 and is very easy to learn, so don't hesitate to jump in and build your own theme.

5.13.2 How to implement a new reader?

Is there an awesome markup language you want to add to Pelican? Well, the only thing you have to do is to create a class with a `read` method that returns HTML content and some metadata.

Take a look at the Markdown reader:

```python
from pelican.readers import BaseReader
from pelican.utils import pelican_open
from markdown import Markdown

class MarkdownReader(BaseReader):
    enabled = True

    def read(self, source_path):
        """Parse content and metadata of markdown files"""

        with pelican_open(source_path) as text:
            md_extensions = {'markdown.extensions.meta': {},
                             'markdown.extensions.codehilite': {}}
            md = Markdown(extensions=md_extensions.keys(),
                          extension_configs=md_extensions)
            content = md.convert(text)

        metadata = {}
        for name, value in md.Meta.items():
```

(continues on next page)

```
            name = name.lower()
            meta = self.process_metadata(name, value[0])
            metadata[name] = meta
        return content, metadata
```

Simple, isn't it?

If your new reader requires additional Python dependencies, then you should wrap their `import` statements in a `try.
..except` block. Then inside the reader's class, set the `enabled` class attribute to mark import success or failure.
This makes it possible for users to continue using their favourite markup method without needing to install modules
for formats they don't use.

5.13.3 How to implement a new generator?

Generators have two important methods. You're not forced to create both; only the existing ones will be called.

- `generate_context`, that is called first, for all the generators. Do whatever you have to do, and update the
  global context if needed. This context is shared between all generators, and will be passed to the templates. For
  instance, the `PageGenerator generate_context` method finds all the pages, transforms them into objects,
  and populates the context with them. Be careful *not* to output anything using this context at this stage, as it is
  likely to change by the effect of other generators.

- `generate_output` is then called. And guess what is it made for? Oh, generating the output. :) It's here that you
  may want to look at the context and call the methods of the `writer` object that is passed as the first argument
  of this function. In the `PageGenerator` example, this method will look at all the pages recorded in the global
 context and output a file on the disk (using the writer method `write_file`) for each page encountered.

5.14 Some history about Pelican

> **Warning:** This page comes from a report the original author (Alexis Métaireau) wrote right after writing Pelican,
> in December 2010. The information may not be up-to-date.

Pelican is a simple static blog generator. It parses markup files (Markdown or reStructuredText for now) and generates
an HTML folder with all the files in it. I've chosen to use Python to implement Pelican because it seemed to be simple
and to fit to my needs. I did not wanted to define a class for each thing, but still wanted to keep my things loosely
coupled. It turns out that it was exactly what I wanted. From time to time, thanks to the feedback of some users, it took
me a very few time to provide fixes on it. So far, I've re-factored the Pelican code by two times; each time took less
than 30 minutes.

5.14.1 Use case

I was previously using WordPress, a solution you can host on a web server to manage your blog. Most of the time, I
prefer using markup languages such as Markdown or reStructuredText to type my articles. To do so, I use vim. I think
it is important to let the people choose the tool they want to write the articles. In my opinion, a blog manager should
just allow you to take any kind of input and transform it to a weblog. That's what Pelican does. You can write your
articles using the tool you want, and the markup language you want, and then generate a static HTML weblog.
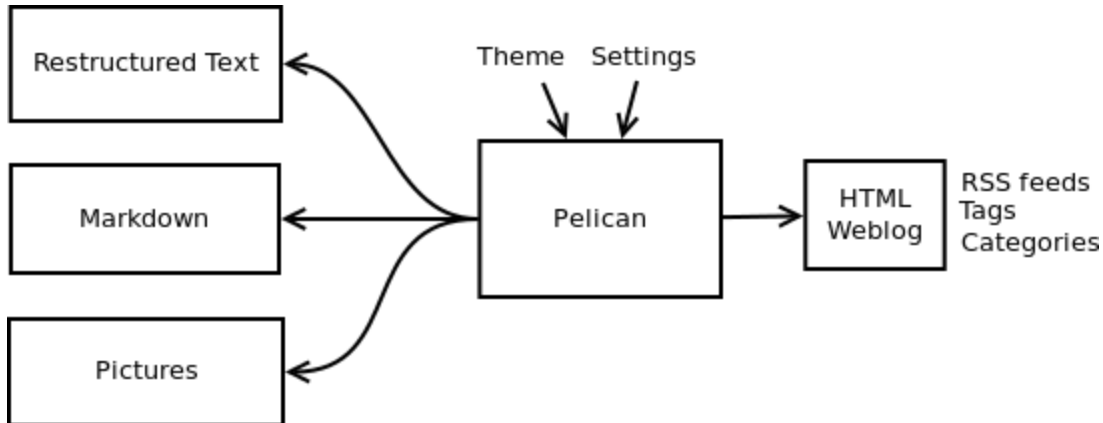
To be flexible enough, Pelican has template support, so you can easily write your own themes if you want to.

5.14.2 Design process

Pelican came from a need I have. I started by creating a single file application, and I have make it grow to support what it does by now. To start, I wrote a piece of documentation about what I wanted to do. Then, I created the content I wanted to parse (the reStructuredText files) and started experimenting with the code. Pelican was 200 lines long and contained almost ten functions and one class when it was first usable.

I have been facing different problems all over the time and wanted to add features to Pelican while using it. The first change I have done was to add the support of a settings file. It is possible to pass the options to the command line, but can be tedious if there is a lot of them. In the same way, I have added the support of different things over time: Atom feeds, multiple themes, multiple markup support, etc. At some point, it appears that the "only one file" mantra was not good enough for Pelican, so I decided to rework a bit all that, and split this in multiple different files.

I've separated the logic in different classes and concepts:

- *writers* are responsible of all the writing process of the files. They are responsible of writing .html files, RSS feeds and so on. Since those operations are commonly used, the object is created once, and then passed to the generators.

- *readers* are used to read from various formats (Markdown and reStructuredText for now, but the system is extensible). Given a file, they return metadata (author, tags, category, etc) and content (HTML formatted).

- *generators* generate the different outputs. For instance, Pelican comes with an ArticlesGenerator and Pages-Generator, into others. Given a configuration, they can do whatever you want them to do. Most of the time it's generating files from inputs (user inputs and files).

I also deal with contents objects. They can be `Articles`, `Pages`, `Quotes`, or whatever you want. They are defined in the `contents.py` module and represent some content to be used by the program.

5.14.3 In more detail

Here is an overview of the classes involved in Pelican.
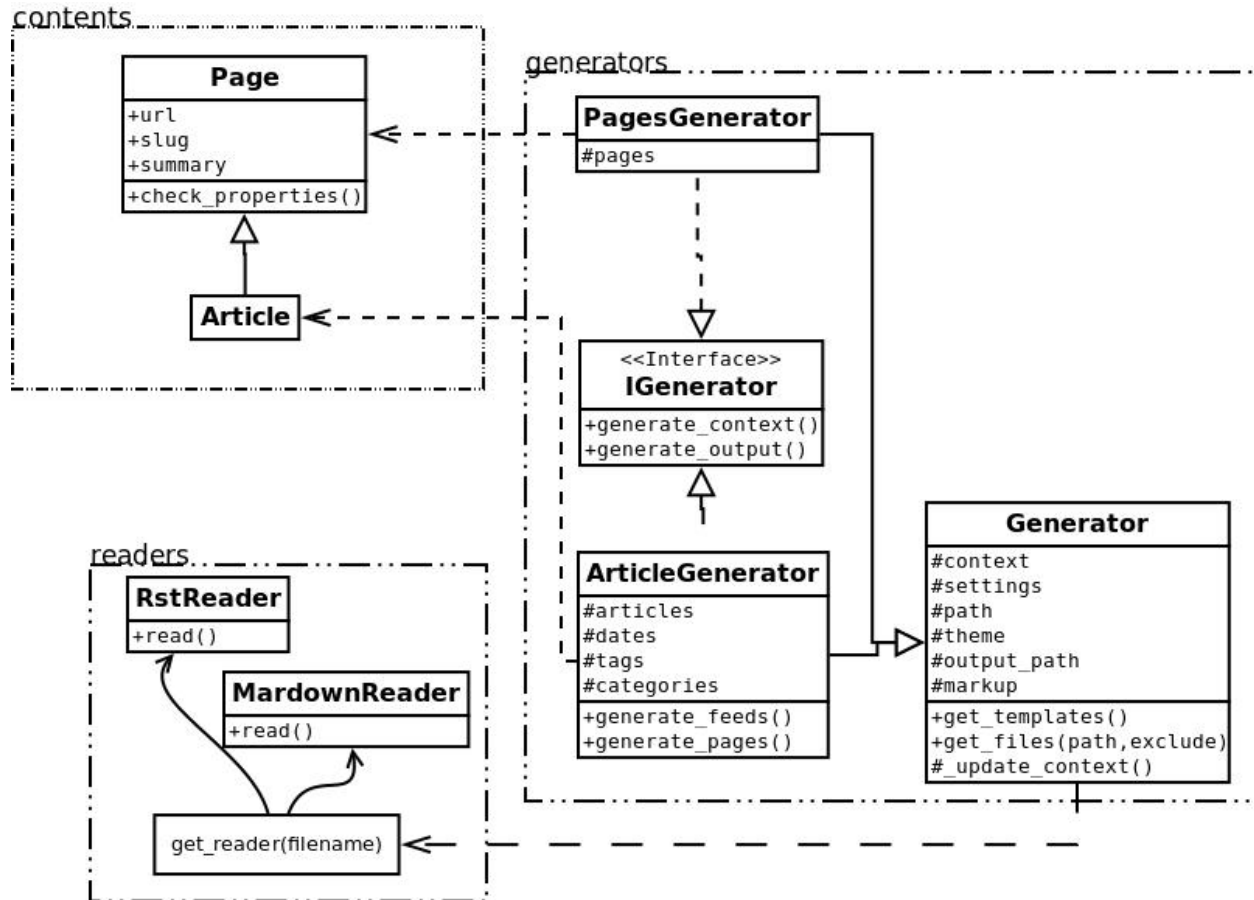
The interface does not really exist, and I have added it only to clarify the whole picture. I do use duck typing and not interfaces.

Internally, the following process is followed:

- First of all, the command line is parsed, and some content from the user is used to initialize the different generator objects.

- A `context` is created. It contains the settings from the command line and a settings file if provided.

- The `generate_context` method of each generator is called, updating the context.

- The writer is created and given to the `generate_output` method of each generator.

I make two calls because it is important that when the output is generated by the generators, the context will not change. In other words, the first method `generate_context` should modify the context, whereas the second `generate_output` method should not.

Then, it is up to the generators to do what the want, in the `generate_context` and `generate_content` method. Taking the `ArticlesGenerator` class will help to understand some others concepts. Here is what happens when calling the `generate_context` method:

- Read the folder "path", looking for restructured text files, load each of them, and construct a content object (`Article`) with it. To do so, use `Reader` objects.

- Update the `context` with all those articles.

Then, the `generate_content` method uses the `context` and the `writer` to generate the wanted output.

5.15 Release history

5.15.1 4.9.1 - 2023-11-15

- Ensure `tzdata` dependency is installed on Windows

5.15.2 4.9.0 - 2023-11-12

- Upgrade code to new minimum supported Python version: 3.8
- Settings support for `pathlib.Path` (#2758)
- Various improvements to Simple theme (#2976 & #3234)
- Use Furo as Sphinx documentation theme (#3023)
- Default to 100 articles maximum in feeds (#3127)
- Add `period_archives common context` variable (#3148)
- Use `watchfiles` as the file-watching backend (#3151)
- Add GitHub Actions workflow for GitHub Pages (#3189)
- Allow dataclasses in settings (#3204)
- Switch build tool to PDM instead of Setuptools/Poetry (#3220)
- Provide a `plugin_enabled` Jinja test for themes (#3235)
- Preserve connection order in Blinker (#3238)
- Remove social icons from default `notmyidea` theme (#3240)
- Remove unreliable `WRITE_SELECTED` feature (#3243)
- Importer: Report broken embedded video links when importing from Tumblr (#3177)
- Importer: Remove newline addition when iterating Photo post types (#3178)
- Importer: Force timestamp conversion in Tumblr importer to be UTC with offset (#3221)
- Importer: Use tempfile for intermediate HTML file for Pandoc (#3221)
- Switch linters to Ruff (#3223)

5.15.3 4.8.0 - 2022-07-11

- Use JSON values for extra settings in Invoke tasks template (#2994)
- Add content tag for links, which can help with things like Twitter social cards (#3001)
- Improve word count behavior when generating summary (#3002)

5.15.4 4.7.2 - 2022-02-09

- Fix incorrect parsing of parameters specified via *-e / –extra-settings* option flags (#2938)
- Add `categories.html` template to default theme (#2973)
- Document how to use plugins to inject content (#2922)

5.15.5 4.7.1 - 2021-10-12

- Extend rich logging to server component (#2927)
- Fix an issue where metadata flagged to be discarded was being cached (#2926)
- Adjust suffix in server to allow redirection when needed (#2931)
- Add MIME types for web fonts (#2929)
- Distribute sample data used to run tests (#2935)
- Add Python 3.10 to test matrix

5.15.6 4.7.0 - 2021-10-01

- Improve default theme rendering on mobile and other small screen devices (#2914)
- Add support for hidden articles (#2866)
- Improve word count behavior when generating summary CJK & other locales (#2864)
- Add progress spinner during generation (#2869) and richer logging (#2897), both via Rich
- Invoke tasks `serve` and `livereload` now auto-open a web browser pointing to the locally-served web site (#2764)
- Support some date format codes used by ISO dates (#2902)
- Document how to add a new writer (#2901)

5.15.7 4.6.0 - 2021-03-23

- Add new URL pattern to `PAGINATION_PATTERNS` for the last page in the list (#1401)
- Speed up `livereload` Invoke task via caching (#2847)
- Ignore `None` return value from `get_generators` signal (#2850)
- Relax dependency minimum versions and remove upper bounds

5.15.8 4.5.4 - 2021-01-04

Replace plugin definitions in settings with string representations after registering, so they can be cached correctly (#2828).

5.15.9 4.5.3 - 2020-12-01

Fix a mistake made in PR #2821

5.15.10 4.5.2 - 2020-11-22

Improve logging of generators and writer loaders

5.15.11 4.5.1 - 2020-11-02

- Refactor intra-site link discovery in order to match more permissively (#2646)
- Fix plugins running twice in auto-reload mode (#2817)
- Add notice to use `from pelican import signals` instead of `import pelican.signals` (#2805)

5.15.12 4.5.0 - 2020-08-20

- Add namespace plugin support; list plugins via `pelican-plugins` command
- Override settings via `-e` / `--extra-settings` CLI option flags
- Add settings for custom Jinja globals and tests
- Customize article summary ellipsis via `SUMMARY_END_SUFFIX` setting
- Customize Typogrify dash handling via new `TYPOGRIFY_DASHES` setting
- Support Unicode when generating slugs
- Support Asciidoc `.adoc` file generation in Pelican importer
- Improve user experience when `pelican --listen` web server is quit
- Improve Invoke tasks template
- Include tests in source distributions
- Switch CI from Travis to GitHub Actions
- Remove support for Python 2.7

5.15.13 4.2.0 - 2019-10-17

- Support inline SVGs; don't treat titles in SVGs as HTML titles
- Add category to feeds (in addition to tags)
- Improve content metadata field docs
- Add docs for including other Markdown/reST files in content

5.15.14 4.1.3 - 2019-10-09

- Fix quick-start docs regarding `pelican --listen`
- Set default listen address to 127.0.0.1
- Add extra/optional Markdown dependency to setup.py
- Use correct SSH port syntax for rsync in tasks.py
- Place all deprecated settings handling together
- Add related project URLs for display on PyPI
- Skip some tests on Windows that can't pass due to filesystem differences

5.15.15 4.1.2 - 2019-09-23

Fix pelican.settings.load_source to avoid caching issues - PR #2621

5.15.16 4.1.1 - 2019-08-23

- Add AutoPub to auto-publish releases on PR merge
- Add CSS classes for reStructuredText figures
- Pass `argv` to Pelican `main` entrypoint
- Set default content status to a blank string rather than `None`

5.15.17 4.1.0 - 2019-07-14

- Live browser reload upon changed files (provided via Invoke task)
- Add `pyproject.toml`, managed by Poetry
- Support for invoking `python -m pelican`
- Add relative source path attribute to content
- Allow directories in `EXTRA_PATH_METADATA`
- Add `all_articles` variable to period pages (for recent posts functionality)
- Improve debug mode output
- Remove blank or duplicate summaries from Atom feed
- Fix bugs in pagination, pelican-import, pelican-quickstart, and feed importer

5.15.18 4.0.1 (2018-11-30)

- Refactor `pelican.server` logging

- Fix bug in which all static files were processed as "draft"

- Bug fixes for Invoke/Makefile automation, Importer, and other miscellanea

If upgrading from 3.7.x or earlier, please note that slug-related settings in 4.0+ use `{slug}` and/or `{lang}` rather than `%s`. If `%s`-style settings are encountered, Pelican will emit a warning and fall back to the default setting. Some user-submitted themes might try to format setting values but fail upon site build with a `TypeError`. In such cases, the theme needs to be updated. For example, instead of `TAG_FEED_ATOM|format(tag.slug)`, use `TAG_FEED_ATOM.format(slug=tag.slug)`

5.15.19 4.0.0 (2018-11-13)

- Replace `develop_server.sh` script with `pelican --listen`

- Improved copy/link behavior for large static files (e.g., videos)

- New `{static}` syntax to link to static content; content linked to by `{static}` and `{attach}` is automatically copied over even if not in `STATIC_PATHS`

- Pages can now have `draft` status

- Show current settings via new `--print-settings` flag

- All settings for slugs now use `{slug}` and/or `{lang}` rather than `%s`. If `%s`-style settings are encountered, Pelican will emit a warning and fallback to the default setting.

- New signals: `feed_generated` and `page_generated_write_page`

- Replace Fabric with Invoke and `fabfile.py` template with `tasks.py`

- Replace `PAGINATED_DIRECT_TEMPLATES` by `PAGINATED_TEMPLATES`, extending control over pagination to all templates and making page size variable

- Replace `SLUG_SUBSTITUTIONS` (and friends) by `SLUG_REGEX_SUBSTITUTIONS` for more finegrained control

- `'{base_name}'` value in `PAGINATION_PATTERNS` setting no longer strips `'bar'` from `'foo/bar.html'` (unless `'bar' == 'index'`).

- `ARTICLE_ORDER_BY` and `PAGE_ORDER_BY` now also affect 1) category, tag and author pages 2) feeds 3) draft and hidden articles and pages

- New `ARTICLE_TRANSLATION_ID` and `PAGE_TRANSLATION_ID` settings to specify metadata attributes used to identify/disable translations

- Make the HTML reader parse multiple occurrences of metadata tags as a list

- New Blogger XML backup importer

- Wordpress importer now updates file links to point to local copies if the files were downloaded with `--wp-attach`.

- Importer no longer inserts extra newlines, to prevent breaking of HTML attributes.

- Pelican server now prioritises `foo.html` and `foo/index.html` over `foo/` when resolving `foo`.

5.15.20 3.7.1 (2017-01-10)

- Fix locale issues in Quickstart script
- Specify encoding for README and CHANGELOG in setup.py

5.15.21 3.7.0 (2016-12-12)

- Atom feeds output `<content>` in addition to `<summary>`
- Atom feeds use `<published>` for the original publication date and `<updated>` for modifications
- Simplify Atom feed ID generation and support URL fragments
- Produce category feeds with category-specific titles
- RSS feeds now default to summary instead of full content; set `RSS_FEED_SUMMARY_ONLY = False` to revert to previous behavior
- Replace `MD_EXTENSIONS` with `MARKDOWN` setting
- Replace `JINJA_EXTENSIONS` with more-robust `JINJA_ENVIRONMENT` setting
- Improve summary truncation logic to handle special characters and tags that span multiple lines, using HTML parser instead of regular expressions
- Include summary when looking for intra-site link substitutions
- Link to authors and index via `{author}name` and `{index}` syntax
- Override widget names via `LINKS_WIDGET_NAME` and `SOCIAL_WIDGET_NAME`
- Add `INDEX_SAVE_AS` option to override default `index.html` value
- Remove `PAGES` context variable for themes in favor of `pages`
- `SLUG_SUBSTITUTIONS` now accepts 3-tuple elements, allowing URL slugs to contain non-alphanumeric characters
- Tag and category slugs can be controlled with greater precision using the `TAG_SUBSTITUTIONS` and `CATEGORY_SUBSTITUTIONS` settings
- Author slugs can be controlled with greater precision using the `AUTHOR_SUBSTITUTIONS` setting
- `DEFAULT_DATE` can be defined as a string
- Use `mtime` instead of `ctime` when `DEFAULT_DATE = 'fs'`
- Add `--fatal=errors|warnings` option for use with continuous integration
- When using generator-level caching, ensure previously-cached files are processed instead of just new files.
- Add Python and Pelican version information to debug output
- Improve compatibility with Python 3.5
- Comply with and enforce PEP8 guidelines
- Replace tables in settings documentation with `data::` directives

5.15.22 3.6.3 (2015-08-14)

- Fix permissions issue in release tarball

5.15.23 3.6.2 (2015-08-01)

- Fix installation errors related to Unicode in tests
- Don't show pagination in `notmyidea` theme if there's only one page
- Make hidden pages available in context
- Improve URLWrapper comparison

5.15.24 3.6.0 (2015-06-15)

- Disable caching by default in order to prevent potential confusion
- Improve caching behavior, replacing `pickle` with `cpickle`
- Allow Markdown or reST content in metadata fields other than `summary`
- Support semicolon-separated author/tag lists
- Improve flexibility of article sorting
- Add `--relative-urls` argument
- Support devserver listening on addresses other than localhost
- Unify HTTP server handlers to `pelican.server` throughout
- Handle intra-site links to draft posts
- Move `tag_cloud` from core to plugin
- Load default theme's external resources via HTTPS
- Import drafts from WordPress XML
- Improve support for Windows users
- Enhance logging and test suite
- Clean up and refactor codebase
- New signals: `all_generators_finalized` and `page_writer_finalized`

5.15.25 3.5.0 (2014-11-04)

- Introduce `ARTICLE_ORDER_BY` and `PAGE_ORDER_BY` settings to control the order of articles and pages.
- Include time zone information in dates rendered in templates.
- Expose the reader name in the metadata for articles and pages.
- Add the ability to store static files along with content in the same directory as articles and pages using `{attach}` in the path.
- Prevent Pelican from raising an exception when there are duplicate pieces of metadata in a Markdown file.
- Introduce the `TYPOGRIFY_IGNORE_TAGS` setting to add HTML tags to be ignored by Typogrify.

- Add the ability to use - in date formats to strip leading zeros. For example, `%-d/%-m/%y` will now result in the date 9/8/12.

- Ensure feed generation is correctly disabled during quickstart configuration.

- Fix `PAGE_EXCLUDES` and `ARTICLE_EXCLUDES` from incorrectly matching sub-directories.

- Introduce `STATIC_EXCLUDE` setting to add static file excludes.

- Fix an issue when using `PAGINATION_PATTERNS` while `RELATIVE_URLS` is enabled.

- Fix feed generation causing links to use the wrong language for month names when using other locales.

- Fix an issue where the authors list in the simple template wasn't correctly formatted.

- Fix an issue when parsing non-string URLs from settings.

- Improve consistency of debug and warning messages.

5.15.26 3.4.0 (2014-07-01)

- Speed up content generation via new caching mechanism

- Add selective post generation (instead of always building entire site)

- Many documentation improvements, including switching to prettier RtD theme

- Add support for multiple content and plugin paths

- Add `:modified:` metadata field to complement `:date:`. Used to specify the last date and time an article was updated independently from the date and time it was published.

- Add support for multiple authors via new `:authors:` metadata field

- Watch for changes in static directories when in auto-regeneration mode

- Add filters to limit log output when desired

- Add language support to drafts

- Add `SLUGIFY_SOURCE` setting to control how post slugs are generated

- Fix many issues relating to locale and encoding

- Apply Typogrify filter to post summary

- Preserve file metadata (e.g. time stamps) when copying static files to output

- Move AsciiDoc support from Pelican core into separate plugin

- Produce inline links instead of reference-style links when importing content

- Improve handling of `IGNORE_FILES` setting behavior

- Properly escape symbol characters in tag names (e.g., C++)

- Minor tweaks for Python 3.4 compatibility

- Add several new signals

5.15.27 3.3.0 (2013-09-24)

- Drop Python 3.2 support in favor of Python 3.3
- Add `Fabfile` so Fabric can be used for workflow automation instead of Make
- `OUTPUT_RETENTION` setting can be used to preserve metadata (e.g., VCS data such as `.hg` and `.git`) from being removed from output directory
- Tumblr import
- Improve logic and consistency when cleaning output folder
- Improve documentation versioning and release automation
- Improve pagination flexibility
- Rename signals for better consistency (some plugins may need to be updated)
- Move metadata extraction from generators to readers; metadata extraction no longer article-specific
- Deprecate `FILES_TO_COPY` in favor of `STATIC_PATHS` and `EXTRA_PATH_METADATA`
- Summaries in Markdown posts no longer include footnotes
- Remove unnecessary whitespace in output via `lstrip_blocks` Jinja parameter
- Move PDF generation from core to plugin
- Replace `MARKUP` setting with `READERS`
- Add warning if img tag is missing `alt` attribute
- Add support for {} in relative links syntax, besides ||
- Add support for `{tag}` and `{category}` relative links
- Add a `content_written` signal

5.15.28 3.2.1 and 3.2.2

- Facilitate inclusion in FreeBSD Ports Collection

5.15.29 3.2 (2013-04-24)

- Support for Python 3!
- Override page save-to location from meta-data (enables using a static page as the site's home page, for example)
- Time period archives (per-year, per-month, and per-day archives of posts)
- Posterous blog import
- Improve WordPress blog import
- Migrate plugins to separate repository
- Improve HTML parser
- Provide ability to show or hide categories from menu using `DISPLAY_CATEGORIES_ON_MENU` option
- Auto-regeneration can be told to ignore files via `IGNORE_FILES` setting
- Improve post-generation feedback to user
- For multilingual posts, use meta-data to designate which is the original and which is the translation

- Add `.mdown` to list of supported Markdown file extensions
- Document-relative URL generation (`RELATIVE_URLS`) is now off by default

5.15.30 3.1 (2012-12-04)

- Importer now stores slugs within files by default. This can be disabled with the `--disable-slugs` option.
- Improve handling of links to intra-site resources
- Ensure WordPress import adds paragraphs for all types of line endings in post content
- Decode HTML entities within WordPress post titles on import
- Improve appearance of LinkedIn icon in default theme
- Add GitHub and Google+ social icons support in default theme
- Optimize social icons
- Add `FEED_ALL_ATOM` and `FEED_ALL_RSS` to generate feeds containing all posts regardless of their language
- Split `TRANSLATION_FEED` into `TRANSLATION_FEED_ATOM` and `TRANSLATION_FEED_RSS`
- Different feeds can now be enabled/disabled individually
- Allow for blank author: if `AUTHOR` setting is not set, author won't default to `${USER}` anymore, and a post won't contain any author information if the post author is empty
- Move LESS and Webassets support from Pelican core to plugin
- The `DEFAULT_DATE` setting now defaults to `None`, which means that articles won't be generated unless date metadata is specified
- Add `FILENAME_METADATA` setting to support metadata extraction from filename
- Add `gzip_cache` plugin to compress common text files into a `.gz` file within the same directory as the original file, preventing the server (e.g. Nginx) from having to compress files during an HTTP call
- Add support for AsciiDoc-formatted content
- Add `USE_FOLDER_AS_CATEGORY` setting so that feature can be toggled on/off
- Support arbitrary Jinja template files
- Restore basic functional tests
- New signals: `generator_init`, `get_generators`, and `article_generate_preread`

5.15.31 3.0 (2012-08-08)

- Refactored the way URLs are handled
- Improved the English documentation
- Fixed packaging using `setuptools` entrypoints
- Added `typogrify` support
- Added a way to disable feed generation
- Added support for `DIRECT_TEMPLATES`
- Allow multiple extensions for content files
- Added LESS support

- Improved the import script

- Added functional tests

- Rsync support in the generated Makefile

- Improved feed support (easily pluggable with Feedburner for instance)

- Added support for `abbr` in reST

- Fixed a bunch of bugs :-)

5.15.32 2.8 (2012-02-28)

- Dotclear importer

- Allow the usage of Markdown extensions

- Themes are now easily extensible

- Don't output pagination information if there is only one page

- Add a page per author, with all their articles

- Improved the test suite

- Made the themes easier to extend

- Removed Skribit support

- Added a `pelican-quickstart` script

- Fixed timezone-related issues

- Added some scripts for Windows support

- Date can be specified in seconds

- Never fail when generating posts (skip and continue)

- Allow the use of future dates

- Support having different timezones per language

- Enhanced the documentation

5.15.33 2.7 (2011-06-11)

- Use `logging` rather than echoing to stdout

- Support custom Jinja filters

- Compatibility with Python 2.5

- Added a theme manager

- Packaged for Debian

- Added draft support

5.15.34 2.6 (2011-03-08)

- Changes in the output directory structure
- Makes templates easier to work with / create
- Added RSS support (was Atom-only)
- Added tag support for the feeds
- Enhance the documentation
- Added another theme (brownstone)
- Added translations
- Added a way to use cleaner URLs with a rewrite url module (or equivalent)
- Added a tag cloud
- Added an autoreloading feature: the blog is automatically regenerated each time a modification is detected
- Translate the documentation into French
- Import a blog from an RSS feed
- Pagination support
- Added Skribit support

5.15.35 2.5 (2010-11-20)

- Import from WordPress
- Added some new themes (martyalchin / wide-notmyidea)
- First bug report!
- Linkedin support
- Added a FAQ
- Google Analytics support
- Twitter support
- Use relative URLs, not static ones

5.15.36 2.4 (2010-11-06)

- Minor themes changes
- Add Disqus support (so we have comments)
- Another code refactoring
- Added config settings about pages
- Blog entries can also be generated in PDF

5.15.37 2.3 (2010-10-31)

- Markdown support

5.15.38 2.2 (2010-10-30)

- Prettify output
- Manages static pages as well

5.15.39 2.1 (2010-10-30)

- Make notmyidea the default theme

5.15.40 2.0 (2010-10-30)

- Refactoring to be more extensible
- Change into the setting variables

5.15.41 1.2 (2010-09-28)

- Added a debug option
- Added per-category feeds
- Use filesystem to get dates if no metadata is provided
- Add Pygments support

5.15.42 1.1 (2010-08-19)

- First working version

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