sphinxcontrib-bibtex Documentation

Release 0.2.2

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1.1 Getting Started

1.1.1 Overview

sphinxcontrib-bibtex is a Sphinx extension for BibTeX style citations.

It allows BibTeX citations to be inserted into documentation generated by Sphinx, via a `bibliography` directive, and a `cite` role, which work similarly to LaTeX's `\bibliography` and `\cite` commands.

Inspired by bibstuff.sphinxext.bibref by Matthew Brett.

- Download: http://pypi.python.org/pypi/sphinxcontrib-bibtex/#downloads

- Documentation: http://sphinxcontrib-bibtex.readthedocs.org/

- Development: http://github.com/mcmtroffaes/sphinxcontrib-bibtex/

1.1.2 Installation

Install the module with `pip install sphinxcontrib-bibtex`, or from source using `python setup.py install`. Then add:

```
extensions = ['sphinxcontrib.bibtex']
```

to your project's Sphinx configuration file `conf.py`.

1.1.3 Minimal Example

In your project's documentation, you can then write for instance:

```
See :cite:`1987:nelson` for an introduction to non-standard analysis.
```

```
.. bibliography:: refs.bib
```

where refs.bib would contain an entry:

```
@Book{1987:nelson,
  author = {Edward Nelson},
  title = {Radically Elementary Probability Theory},
  publisher = {Princeton University Press},
  year = {1977},
```

```
    series = {Annals of Mathematical Studies}
}
```

1.2 Usage

:cite:
    Create a citation to a bibliographic entry. For example:

```
See :cite:`1987:nelson` for an introduction to non-standard analysis.
```

which would be equivalent to the following LaTeX code:

```
See \cite{1987:nelson} for an introduction to non-standard analysis.
```

.. bibliography:: refs.bib [...]
    Create bibliography for all cited references. The `all` flag forces all references to be included (equivalent to \nocite{*} in LaTeX). The `notcited` flag causes all references that were not cited to be included. The `cited` flag is recognized as well but is entirely optional. For example:

```
.. rubric:: References

.. bibliography:: refs.bib
    :cited:

.. rubric:: Further reading

.. bibliography:: refs.bib
    :notcited:
```

> **Warning:** Sphinx will attempt to resolve references to the bibliography across all documents, so you must take care that no citation key is included more than once.

You can also pick a bibliography style, using the `style` option. This is not yet quite as useful, as only `unsrt` is supported, which is also the default.

```
.. bibliography:: refs.bib
    :style: unsrt
```

All citations have numbered labels, as in the `plain` LaTeX bibliography style, regardless of the style chosen. This limitation might be lifted in a future version.

You can also set the encoding of the bibliography files, using the `encoding` option.

```
.. bibliography:: refs.bib
    :encoding: latin
```

1.3 Extension API

1.3.1 Sphinx Interface

sphinxcontrib.bibtex.**setup**(*app*)
    Set up the bibtex extension:

        • register directives

>> •register nodes

>> •register roles

>> •register transforms

>> •connect events to functions

> **Parameters app** (`sphinx.application.Sphinx`) – The sphinx application.

sphinxcontrib.bibtex.**init_bibtex_cache**(*app*)
> Create `app.env.bibtex_cache` if it does not exist yet. Reset citation label dictionary.

> **Parameters app** (`sphinx.application.Sphinx`) – The sphinx application.

sphinxcontrib.bibtex.**purge_bibtex_cache**(*app*, *env*, *docname*)
> Remove all information related to *docname* from the cache.

> **Parameters**

>> • **app** (`sphinx.application.Sphinx`) – The sphinx application.

>> • **env** (`sphinx.environment.BuildEnvironment`) – The sphinx build environment.

sphinxcontrib.bibtex.**process_citations**(*app*, *doctree*, *docname*)
> Replace labels of citation nodes by numbers.

> **Parameters**

>> • **app** (`sphinx.application.Sphinx`) – The sphinx application.

>> • **doctree** (`docutils.nodes.document`) – The document tree.

>> • **docname** (`str`) – The document name.

sphinxcontrib.bibtex.**process_citation_references**(*app*, *doctree*, *docname*)
> Replace text of citation reference nodes by numbers.

> **Parameters**

>> • **app** (`sphinx.application.Sphinx`) – The sphinx application.

>> • **doctree** (`docutils.nodes.document`) – The document tree.

>> • **docname** (`str`) – The document name.

1.3.2 New Doctree Roles

class sphinxcontrib.bibtex.roles.**CiteRole**(*fix_parens=False*, *lowercase=False*, *nodeclass=None*, *innernodeclass=None*, *warn_dangling=False*)
> Bases: `sphinx.roles.XRefRole`

> Class for processing the [cite](#) role.

> **result_nodes**(*document*, *env*, *node*, *is_ref*)
>> Transform reference node into a citation reference, and note that the reference was cited.

1.3.3 New Doctree Nodes

class sphinxcontrib.bibtex.nodes.**bibliography**(*rawsource=''*, **children*, ***attributes*)
> Node for representing a bibliography. Replaced by a list of citations by [BibliographyTransform](#).

1.3.4 New Doctree Directives

class sphinxcontrib.bibtex.directives.**BibliographyDirective**(*name*, *arguments*, *options*, *content*, *lineno*, *content_offset*, *block_text*, *state*, *state_machine*)

Class for processing the `bibliography` directive.

Parses the bibliography files, and produces a `bibliography` node.

See Also:

Further processing of the resulting `bibliography` node is done by `BibliographyTransform`.

run()
Process .bib files, set file dependencies, and create a nodes for all entries of the bibliography.

process_bibfile(*bibfile*, *encoding*)
Check if `env.bibtex_cache.bibfiles[bibfile]` is still up to date. If not, parse the *bibfile* (see `update_bibfile_cache()`), and store parsed data in the bibtex cache.

> **Parameters** **bibfile** (`str`) – The bib file name.
>
> **Returns** The parsed bibliography data.
>
> **Return type** `pybtex.database.BibliographyData`

update_bibfile_cache(*bibfile*, *mtime*, *encoding*)
Parse *bibfile* (see `parse_bibfile()`), and store the parsed data, along with modification time *mtime*, in the bibtex cache.

> **Parameters**
>
> - **bibfile** (`str`) – The bib file name.
> - **mtime** (`float`) – The bib file's modification time.
>
> **Returns** The parsed bibliography data.
>
> **Return type** `pybtex.database.BibliographyData`

parse_bibfile(*bibfile*, *encoding*)
Parse *bibfile*, and return parsed data.

> **Parameters** **bibfile** (`str`) – The bib file name.
>
> **Returns** The parsed bibliography data.
>
> **Return type** `pybtex.database.BibliographyData`

1.3.5 New Doctree Transforms

class sphinxcontrib.bibtex.transforms.**BibliographyTransform**(*document*, *startnode=None*)

default_priority = 10
Priority of the transform. See http://docutils.sourceforge.net/docs/ref/transforms.html

apply()
Transform each `bibliography` node into a list of citations.

1.3.6 Cached Information

Classes and methods to maintain any information that is stored outside the doctree.

class `sphinxcontrib.bitex.cache.`**`Cache`**

    Global bitex extension information cache. Stored in `app.env.bitex_cache`, so must be picklable.

    bibfiles

        A `dict` mapping .bib file names (relative to the top source folder) to `BibfileCache` instances.

    bibliographies

        Each bibliography directive is assigned an id of the form bitex-bibliography-xxx. This `dict` maps each such id to information about the bibliography directive, `BibliographyCache`. We need to store this extra information separately because it cannot be stored in the `bibliography` nodes themselves.

    purge(*docname*)

        Remove all information related to *docname*.

                Parameters docname (`str`) – The document name.

class `sphinxcontrib.bitex.cache.`**`BibfileCache`**(*mtime=None*, *data=None*)

    Contains information about a parsed .bib file.

    mtime

        A `float` representing the modification time of the .bib file when it was last parsed.

    data

        A `pybtex.database.BibliographyData` containing the parsed .bib file.

class `sphinxcontrib.bitex.cache.`**`BibliographyCache`**(*docname=None*, *bibfiles=None*, *cite='cited'*, *style=None*, *encoding=None*, *curly_bracket_strip=True*)

    Contains information about a bibliography directive.

    docname

        A `str` containing the name of the document in which the directive occurs. We need this information during the Sphinx event *env-purge-doc*.

    bibfiles

        A `list` of `str`s containing the .bib file names (relative to the top source folder) that contain the references.

    cite

        A `str`. Should be one of:

            "cited" Only generate cited references.

            "notcited" Only generated non-cited references.

            "all" Generate all references from the .bib files.

    style

        The bitex style.

1.4 License

sphinxcontrib-bitex is a Sphinx extension for BibTeX style citations

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- *modindex*
- *search*

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