reStructuredText tool support

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128

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I am a great fan of reStructuredText, however the tools that support it are scattered all over the Internet. The official tool list is incomplete and/or outdated, and can be updated only via commit privileges. For some time there was a comprehensive list at the Wikipedia reStructuredText page, but this apparently "did not meet the notability guideline for web content" and was removed.

So to put it in a question form: **What tool support can one expect to find when working with reStructuredText, e.g. text editors, Wiki software, converters to and from reStructuredText etc.?**

restructuredtext

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edited Aug 12, 2010 at 2:34

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1 Answer

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452

Salvaging (and extending) the list from an old version of the Wikipedia page:

Documentation

- Primer
- Cheat Sheet
- Quick Reference
- reStructuredText and Sphinx Reference

Implementations

Although the reference implementation of reStructuredText is written in Python, there are reStructuredText parsers in other languages too.

Python - Docutils

The main distribution of reStructuredText is the Python Docutils package. It contains several conversion tools:

- rst2html - from reStructuredText to *HTML*
- rst2xml - from reStructuredText to *XML*
- rst2latex - from reStructuredText to *LaTeX*
- rst2odt - from reStructuredText to *ODF Text* (word processor) document.
- rst2s5 - from reStructuredText to *S5*, a Simple Standards-based Slide Show System
- rst2man - from reStructuredText to *Man page*

Haskell - Pandoc

Pandoc is a Haskell library for converting from one markup format to another, and a command-line tool that uses this library. It can read Markdown and (subsets of) reStructuredText, HTML, and LaTeX, and it can write Markdown, reStructuredText, HTML, LaTeX, ConTeXt, PDF, RTF, DocBook XML, OpenDocument XML, ODT, GNU Texinfo, MediaWiki markup, groff man pages, and S5 HTML slide shows.

There is an Pandoc online tool (POT) to try this library. Unfortunately, compared to the reStructuredText online renderer (ROR),

- POT truncates input rather more shortly. The POT user must render input in chunks that could be rendered whole by the ROR.
- POT output lacks the helpful error messages displayed by the ROR (and generated by `docutils`)

Java - JRst

JRst is a Java reStructuredText parser. It can currently output HTML, XHTML, DocBook xdoc and PDF, BUT seems to have serious problems: neither PDF or (X)HTML generation works using the current full download, result pages in (X)HTML are empty and PDF generation fails on IO problems with XSL files (not bundled??). Note that the original JRst has been removed from the website; a fork is found on GitHub.

Scala - Laika

Laika is a new library for transforming markup languages to other output formats. Currently it supports input from Markdown and reStructuredText and produce HTML output. The library is written in Scala but should be also usable from Java.

Perl

- Text::Restructured - Perl implementation of reStructuredText parser
- Dotiac::DTL::Addon::markup - Filters to work with common markup languages - support reStructuredText
- Pod::POM::View::Restructured - View for Pod::POM that outputs reStructuredText

PHP

- Gregwar/RST - A mature PHP5.3 parser with tests
- php-restructuredtext - A simple, incomplete (but functional) implementation

C#/.NET

- reStructuredText for ANTLR - A C# based parser with tests (in progress). It also provides the language server behind reStructuredText extension for Visual Studio Code.

Nim/C

The Nim compiler features the commands `rst2html` and `rst2tex` which transform reStructuredText files to HTML and TeX files. The standard library provides the following modules (used by the compiler) to handle reStructuredText files programmatically:

- rst - implements a reStructuredText parser
- rstast - implements an AST for the reStructuredText parser
- rstgen - implements a generator of HTML/Latex from reStructuredText

Other 3rd party converters

Most (but not all) of these tools are based on Docutils (see above) and provide conversion to or from formats that might not be supported by the main distribution.

From reStructuredText

- restview - This `pip`-installable python package requires `docutils`, which does the actual rendering. `restview`'s major ease-of-use feature is that, when you save changes to your document(s), it automagically re-renders and re-displays them. `restview`
    1. starts a small web server
    2. calls `docutils` to render your document(s) to HTML
    3. calls your device's browser to display the output HTML.
- rst2pdf or rinohtype - from reStructuredText to PDF
- rst2odp - from reStructuredText to ODF Presentation
- rst2beamer - from reStructuredText to LaTeX beamer Presentation class
- Wikir - from reStructuredText to a Google (and possibly other) Wiki formats
- rst2qhc - Convert a collection of reStructuredText files into a Qt (toolkit) Help file and (optional) a Qt Help Project file

To reStructuredText

- xml2rst is an XSLT script to convert Docutils internal XML representation (back) to reStructuredText
- Pandoc (see above) can also convert from Markdown, HTML and LaTeX to reStructuredText
- db2rst is a simple and limited DocBook to reStructuredText translator
- pod2rst - convert .pod files to reStructuredText files

Extensions

Some projects use reStructuredText as a baseline to build on, or provide extra functionality extending the utility of the reStructuredText tools.

Sphinx

The Sphinx documentation generator translates a set of reStructuredText source files into various output formats, automatically producing cross-references, indices etc.

rest2web

rest2web is a simple tool that lets you build your website from a single template (or as many as you want), and keep the contents in reStructuredText.

Pygments

Pygments is a generic syntax highlighter for general use in all kinds of software such as forum systems, Wikis or other applications that need to prettify source code. See Using Pygments in reStructuredText documents.

Free Editors

While any plain text editor is suitable to write reStructuredText documents, some editors have better support than others.

Emacs

The Emacs support via rst-mode comes as part of the Docutils package under `/docutils/tools/editors/emacs/rst.el`

Vim

The `vim-common` package for that comes with most GNU/Linux distributions has reStructuredText syntax highlight and indentation support of reStructuredText out of the box:

- reStructuredText syntax highlighting mode for vim
- VST (Vim reStructured Text) is a plugin for Vim7 with folding for reStructuredText

- Riv.vim - fresh vim plugin for authoring rst and Sphinx doc
- Previm: Vim plugin for live previewing of reStructuredText and other mark up documents

Jed

There is a rst mode for the Jed programmers editor.

gedit

gedit, the official text editor of the GNOME desktop environment. There is a gedit reStructuredText plugin.

Geany

Geany, a small and lightweight Integrated Development Environment include support for reStructuredText from version 0.12 (October 10, 2007).

Leo

Leo, an outlining editor for programmers, supports reStructuredText via rst-plugin or via "@auto-rst" nodes (it's not well-documented, but @auto-rst nodes allow editing rst files directly, parsing the structure into the Leo outline).

It also provides a way to preview the resulting HTML, in a "viewrendered" pane.

FTE

The FTE Folding Text Editor - a free (licensed under the GNU GPL) text editor for developers. FTE has a mode for reStructuredText support. It provides color highlighting of basic RSTX elements and special menu that provide easy way to insert most popular RSTX elements to a document.

PyK

PyK is a successor of PyEdit and reStInPeace, written in Python with the help of the Qt4 toolkit.

Eclipse

The Eclipse IDE with the ReST Editor plug-in provides support for editing reStructuredText files.

NoTex

NoTex is a browser based (general purpose) text editor, with integrated project management and syntax highlighting. Plus it enables to write books, reports, articles etc. using rST and convert them to LaTex, PDF or

HTML. The PDF files are of high publication quality and are produced via Sphinx with the Texlive LaTex suite.

Notepad++

Notepad++ is a general purpose text editor for Windows. It has syntax highlighting for many languages built-in and support for reStructuredText via a user defined language for reStructuredText.

Visual Studio Code

Visual Studio Code is a general purpose text editor for Windows/macOS/Linux. It has syntax highlighting for many languages built-in and supports reStructuredText via an extension from LeXtudio.

Dedicated reStructuredText Editors

- ReSTedit by Dinu Gherman and Bill Bumgarner
- Rest in Peace
- Enthought Tool Suite editor
- ReText a cross platform program that works like Marked.
- RSTPad a standalone cross-platform editor with live preview

Proprietary editors

Sublime Text

Sublime Text is a completely customizable and extensible source code editor available for Windows, OS X, and Linux. Registration is required for long-term use, but all functions are available in the unregistered version, with occasional reminders to purchase a license. Versions 2 and 3 (currently in beta) support reStructuredText syntax highlighting by default, and several plugins are available through the package manager Package Control to provide snippets and code completion, additional syntax highlighting, conversion to/from RST and other formats, and HTML preview in the browser.

BBEdit / TextWrangler

BBEdit (and its free variant TextWrangler) for Mac can syntax-highlight reStructuredText using this codeless language module.

TextMate

TextMate, a proprietary general-purpose GUI text editor for Mac OS X, has a bundle for reStructuredText.

Intype

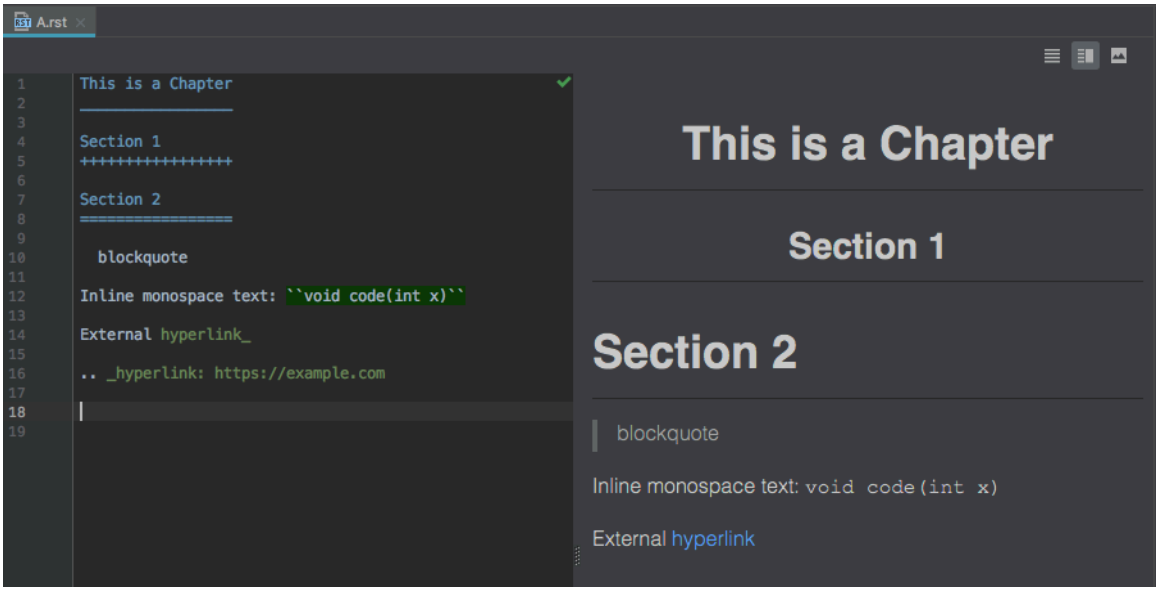
Intype is a proprietary text editor for Windows, that support reStructuredText out of the box.

E Text Editor

E is a proprietary Text Editor licensed under the "Open Company License". It supports TextMate's bundles, so it should support reStructuredText the same way TextMate does.

PyCharm

PyCharm (and other IntelliJ platform IDEs?) has ReST/Sphinx support (syntax highlighting, autocomplete and preview).



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Wiki

here are some Wiki programs that support the reStructuredText markup as the native markup syntax, or as an add-on:

MediaWiki

MediaWiki reStructuredText extension allows for reStructuredText markup in MediaWiki surrounded by `<rst>` and `</rst>`.

MoinMoin

MoinMoin is an advanced, easy to use and extensible WikiEngine with a large community of users. Said in a few words, it is about collaboration on easily editable web pages.

There is a reStructuredText Parser for MoinMoin.

Trac

Trac is an enhanced wiki and issue tracking system for software development projects. There is a reStructuredText Support in Trac.

This Wiki

This Wiki is a Webware for Python Wiki written by Ian Bicking. This wiki uses ReStructuredText for its markup.

rstiki

rstiki is a minimalist single-file personal wiki using reStructuredText syntax (via docutils) inspired by pwyky. It does not support authorship indication, versioning, hierarchy, chrome/framing/templating or styling. It leverages docutils/reStructuredText as the wiki syntax. As such, it's under 200 lines of code, and in a single file. You put it in a directory and it runs.

ikiwiki

Ikiwiki is a wiki compiler. It converts wiki pages into HTML pages suitable for publishing on a website. Ikiwiki stores pages and history in a revision control system such as Subversion or Git. There are many other features, including support for blogging, as well as a large array of plugins. Its reStructuredText plugin, however is somewhat limited and is not recommended as its' main markup language at this time.

Web Services

Preview

The Snippets, online reStructuredText editor can be used to play with the markup and see the results immediately.

Blogging frameworks

WordPress

WordPreSt reStructuredText plugin for WordPress. (PHP)

Zine

reStructuredText parser plugin for Zine (will become obsolete in version 0.2 when Zine is scheduled to get a native reStructuredText support). Zine is discontinued. (Python)

pelican

Pelican is a static blog generator that supports writing articles in ReST. (Python)

hyde

Hyde is a static website generator that supports ReST. (Python)

Acrylamid

Acrylamid is a static blog generator that supports writing articles in ReST. (Python)

Nikola

Nikola is a Static Site and Blog Generator that supports ReST. (Python)

ipsum genera

Ipsum genera is a static blog generator written in Nim.

Yozuch

Yozuch is a static blog generator written in Python.

More

- Voidspace: ReStructuredText Tools blog post.
- reStructuredText wiki post to the text.docutils.user mailing list.
- IBM's Developer Works XML Matters: reStructuredText article.
- MZlinux » Marc Links and Tips » Networking » World Wide Web » Wikis » Structured text formatters

edited 12 hours ago

community wiki

66 revs, 35 users 72%
Chen Levy

1 For PHP, Zeta Components' Document package has good reStructuredText support. – Rob Allen Oct 31, 2010 at 12:35

1 You might also be interested in having live preview, which is a little like what Markedapp is offering for Markdown documents. It's not a reStructredText tool persé, but I find it really helpful. – Wilfred Springer Sep 11, 2011 at 13:47

2 Via Amy Brown's Comment, I learned you can set Marked.app to render rst by going to preferences>behavior, enabling "custom Markdown Processor", and pointing it to a rst2html.py file. – Shon Mar 2, 2012 at 22:00

1 Time will make this answer also outdated. I checked just couple of suggestions, like PYK and RIP, which can't run on today systems as they depend on outdated modules, so... – theta Nov 9, 2012 at 21:50

4 I added link to vim addon riv.vim, which to me provides what I was looking for for long time. github.com/Rykka/riv.vim – Jan Vlcinsky Apr 25, 2013 at 20:01