lookatme

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Contents

`lookatme` is an interactive, terminal-based markdown presentation tool that supports:

- Themes
- Syntax highlighting
- Styling and settings embedded within the Markdown YAML header
- Embedded terminals as part of a presentation
- Live and manual source reloading
- Contrib extensions
- Smart Slide Splitting

CHAPTER 1

Tour

CHAPTER 2

TL;DR Getting Started

Install `lookatme` with:

```
pip install lookatme
```

Run lookatme on slides written in Markdown:

```
lookatme slides.md
```

Slides are separated with `---` hrules:

```
# Slide 1

Some text

---

# Slide 2

More text
```

A basic, optional YAML header may be included at the top of the slides:

```
---
title: Slides Presentation
author: Me Not You
date: 2019-12-02
---

# Slide 1

Some text
```

2.1 Getting Started

2.1.1 Installation

`lookatme` can be installed with pip using the command:

```
pip install lookatme
```

2.1.2 Usage

The `lookatme` CLI has a few options to control it's behavior:

```
Usage: lookatme [OPTIONS] [INPUT_FILES]...

  lookatme - An interactive, terminal-based markdown presentation tool.

  See https://lookatme.readthedocs.io/en/v{{VERSION}} for documentation

Options:
  --debug
  -l, --log PATH
  -t, --theme [dark|light]
  -s, --style␣
↪[default|emacs|friendly|colorful|autumn|murphy|manni|monokai|perldoc|pastie|borland|trac|native|fru
↪light|paraiso-dark|lovelace|algol|algol_nu|arduino|rainbow_dash|abap|solarized-
↪dark|solarized-light|sas|stata|stata-light|stata-dark|inkpot]
  --dump-styles                   Dump the resolved styles that will be used
                                  with the presentation to stdout

  --live, --live-reload           Watch the input filename for modifications
                                  and automatically reload

  -s, --safe                      Do not load any new extensions specified in
                                  the source markdown. Extensions specified
                                  via env var or -e are still loaded

  --no-ext-warn                   Load new extensions specified in the source
                                  markdown without warning

  -i, --ignore-ext-failure        Ignore load failures of extensions
  -e, --exts TEXT                 A comma-separated list of extension names to
                                  automatically load (LOOKATME_EXTS)

  --single, --one                 Render the source as a single slide
  --version                       Show the version and exit.
  --help                          Show this message and exit.
```

`--live` / `--live-reload`

This flag turns on live reloading within lookatme. If the input markdown is a filepath (and not stdin), the filepath with be watched for changes to its modification time. If a change to the file's modification time is observed, the slide deck is re-read and rendered, keeping the current slide in focus.

If your editor supports saving with every keystroke, instant slide updates are possible:

`-e EXT_NAME1,EXT_NAME2` / `--exts EXT_NAME1,EXT_NAME2`

Allows a comma-separated list of extension names to be pre-loaded into lookatme without requring them to be declared in the Markdown source.

`-s` / `--safe`

Do **NOT** load any new extensions specified in the markdown (ignore them). New extensions are extensions that have not manually been allowed via the `-e` argument or the `LOOKATME_EXTS` environment variable.

`--no-ext-warn`

Do not warn about new extensions that are to-be-loaded that are specified in the source markdown. New extensions are extensions that have not manually been allowed via the `-e` argument or the `LOOKATME_EXTS` environment variable.

`-i`

Ignore failure loading extensions. This does not ignore warnings, but ignores any hard-errors during import, such as `ImportError`.

`--single` / `--one`

Render the markdown source as a single slide, ignoring all hrules. Scroll overflowing slides with the up/down arrow keys and page up/page down.

`--debug` and `--log`

Turns on debug logging for lookatme. The debug log will be created in your platform's temporary directory by default and will be named `lookatme.log`:

```
$> lookatme slides.md --debug

# in another terminal
$> tail -f /tmp/lookatme.log
DEBUG:lookatme.RENDER:  Rendering token {'type': 'heading', 'level': 2, 'text': 'TOC'}
DEBUG:lookatme.RENDER:  Rendering token {'type': 'list_start', 'ordered': False}
DEBUG:lookatme.RENDER:    Rendering token {'type': 'list_item_start'}
DEBUG:lookatme.RENDER:      Rendering token {'type': 'text', 'text': '[Features](
↪#features)'}
DEBUG:lookatme.RENDER:      Rendering token {'type': 'list_start', 'ordered': False}
DEBUG:lookatme.RENDER:        Rendering token {'type': 'list_item_start'}
```

You may set a custom log location with the `--log` flag

--theme

Themes in lookatme are pre-defined stylings. Lookatme comes with two built-in themes: `dark` and `light`. These themes are intended to look good on dark terminals and light terminals.

See the *Dark Theme* and *Light Theme* pages for more details. See the *Style Precedence* page for details on the order style overrides and settings are applied.

--style

This option overrides the Pygments syntax highlighting style to use. See the *Style Precedence* for details about style overriding order.

At the time of this writing, available Pygments style options include:

- default
- emacs
- friendly
- colorful
- autumn
- murphy
- manni
- monokai
- perldoc
- pastie
- borland
- trac
- native
- fruity
- bw
- vim
- vs
- tango
- rrt
- xcode
- igor
- paraiso-light
- paraiso-dark
- lovelace
- algol
- algol_nu
- arduino

- rainbow_dash
- abap
- solarized-dark
- solarized-light
- sas
- stata
- stata-light
- stata-dark

--dump-styles

Print the final, resolved style definition that will be used to render the markdown as currently specified on the command-line. See the *Style Precedence* section for details on how this works.

E.g.:

```
lookatme examples/tour.md -theme --style solarized-dark --dump-styles
```

2.2 Slides

Slides in `lookatme` are:

- Separated by hrule elements: `---` in Markdown
- Resized to fit the current window

2.2.1 Metadata

Slide metadata is contained within an optional YAML header:

```
---
title: TITLE
author: AUTHOR
date: 2019-12-02
extensions: []
styles: {}
---
```

Extensions

Extensions are lookatme contrib modules that redefine lookatme behavior. E.g., the `lookatmecontrib.calendar` example in the examples folder redefines the `render_code` function found in `lookatme/render/markdown_block.py`.

The original `render_code` function gives contrib extensions first-chance at handling any function calls. Contrib extensions are able to ignore function calls, and thus allow the default `lookatme` behavior, by raising the *`IgnoredByContrib`* exception:

```
import datetime
import calendar
import urwid


from lookatme.exceptions import IgnoredByContrib


def render_code(token, body, stack, loop):
    lang = token["lang"] or ""
    if lang != "calendar":
        raise IgnoredByContrib()

    today = datetime.datetime.utcnow()
    return urwid.Text(calendar.month(today.year, today.month))
```

Styles

In addition to the `--style` and `--theme` CLI options for lookatme, the slide metadata may explicitly override styling behaviors within lookatme:

```
---
title: TITLE
author: AUTHOR
date: 2019-12-02
styles:
  style: monokai
  table:
    column_spacing: 3
    header_divider: "-"
---

# Slide 1

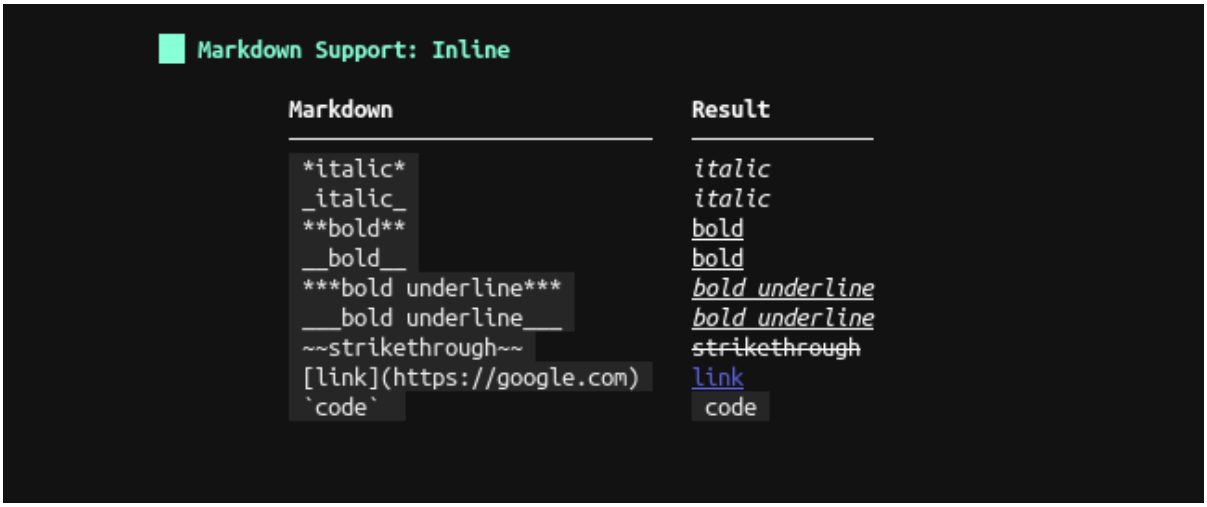
text
```

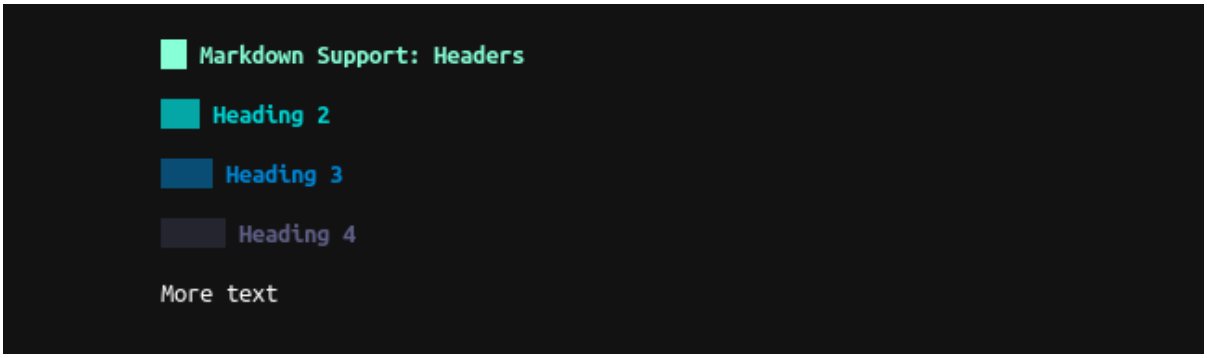
The final, resolved styling settings that will be used when displaying a markdown source is viewable by adding the `--dump-styles` flag as a command-line argument.

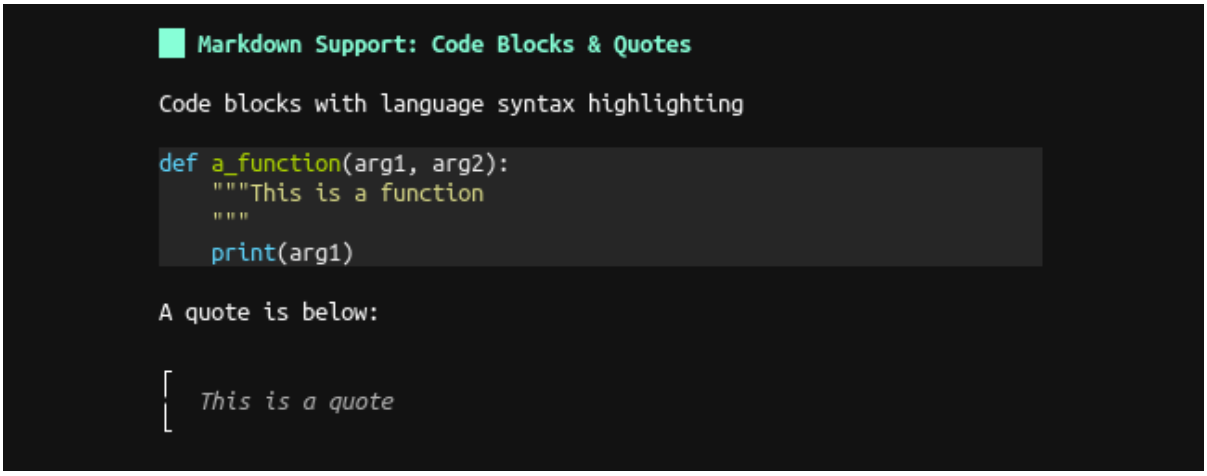
See the *Default Style Settings* for a full list of available, overrideable styles.

2.3 Dark Theme

The dark theme is intended to appear well on terminals with dark backgrounds

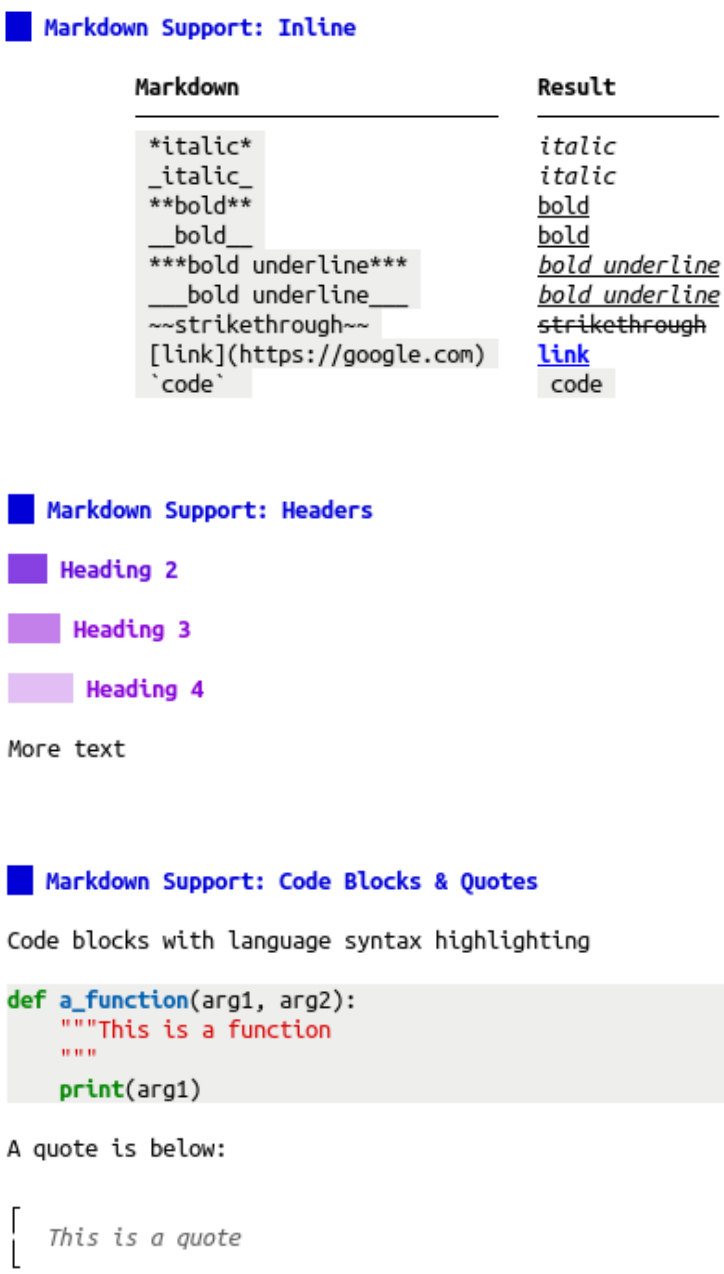






2.4 Light Theme

The light theme is intended to appear well on terminals with light backgrounds



2.5 Style Precedence

Styling may be set in three locations in lookatme:

1. In a theme
2. In a slide's YAML header
3. On the command-line

When constructing the final, resolved style set that will be used to render markdown, lookatme starts with the default style settings defined in `lookatme.schemas`, and then applies overrides in the order specified above.

Overrides are applied by performing a deep merge of nested dictionaries. For example, if the default styles defined in schemas.py were:

```
headings:
  "1":
    fg: "#33c,bold"
    bg: "default"
  "2":
    fg: "#222,bold"
    bg: "default"
```

... and if the style overrides defined by a theme were:

```
headings:
  "1":
    bg: "#f00"
```

... and if the style overrides defined in the slide YAML header were:

```
headings:
  "2":
    fg: "#f00,bold,underline"
```

The final, resolved style settings for rendering the markdown would be:

```
headings:
  "1":
    fg: "#33c,bold"
    bg: "#f00" # from the theme
  "2":
    fg: "#f00,bold,underline" # from the slide YAML header
    bg: "default"
```

2.5.1 Default Style Settings

The default styles and formats are defined in the marshmallow schemas in *lookatme.schemas*. The dark theme is an empty theme with no overrides (the defaults *are* the dark theme):

```
author:
  bg: default
  fg: '#f30'
bullets:
  '1': •
  '2':
  '3': ○
  default: ▪
date:
  bg: default
  fg: '#777'
headings:
  '1':
    bg: default
    fg: '#9fc,bold'
    prefix: ' '
    suffix: ''
  '2':
```

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```
    bg: default
    fg: '#1cc,bold'
    prefix: ' '
    suffix: ''
  '3':
    bg: default
    fg: '#29c,bold'
    prefix: ' '
    suffix: ''
  '4':
    bg: default
    fg: '#559,bold'
    prefix: ' '
    suffix: ''
  default:
    bg: default
    fg: '#346,bold'
    prefix: ' '
    suffix: ''
hrule:
  char: —
  style:
    bg: default
    fg: '#777'
link:
  bg: default
  fg: '#33c,underline'
margin:
  bottom: 0
  left: 2
  right: 2
  top: 0
numbering:
  '1': numeric
  '2': alpha
  '3': roman
  default: numeric
padding:
  bottom: 0
  left: 10
  right: 10
  top: 0
quote:
  bottom_corner: └
  side:
  style:
    bg: default
    fg: italics,#aaa
  top_corner:
slides:
  bg: default
  fg: '#f30'
style: monokai
table:
  column_spacing: 3
  header_divider: —
title:
```

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```
  bg: default
  fg: '#f30,bold,italics'
```

2.6 Contrib Extensions

lookatme allows an extension to override and redefine how markdown is rendered. Extensions have first-chance opportunities to handle rendering function calls. Extensions also have the ability to ignore specific rendering function calls and allow original lookatme behavior (or other extensions) to handle the call to that rendering function.

For example, an extension may provide its own implementation of the render function `render_table` to provide custom table rendering, such as sortable rows, alternating row background colors, etc.

2.6.1 Using Extensions

Extensions are namespace packages within `lookatme.contrib`. The are used by

1. Installing the extension with `pip install lookatme.contrib.XXX`
2. Adding the extension to the list of extensions required by your slides:

```
---
title: TITLE
author: AUTHOR
date: 2019-11-01
extensions:
  - XXX
---

# Slide 1

...
```

2.6.2 Extension Layout

It is highly recommended that you use the lookatme.contrib-template to create new extensions.

Extensions *must* be a namespaced module within the `lookatme.contrib` submodule. The basic tree layout for such an extension is below:

```
examples/calendar_contrib/
├── lookatme
│   └── contrib
│       └── calendar.py
└── setup.py
```

Notice that there is not an `__init__.py` file in the contrib path. This is using the implicit namespace package format for creating namespace packages, where an `__init__.py` is not needed.

2.6.3 Extension setup.py

Below is the `setup.py` from the `examples/calendar_contrib` extension:

```
"""
Setup for lookatme.contrib.calender example
"""


from setuptools import setup, find_namespace_packages
import os


setup(
    name="lookatme.contrib.calendar",
    version="0.0.0",
    description="Adds a calendar code block type",
    author="James Johnson",
    author_email="d0c.s4vage@gmail.com",
    python_requires=">=3.5",
    packages=find_namespace_packages(include=["lookatme.*"]),
)
```

2.6.4 Overriding Behavior

Any function within lookatme that is decorated with `@contrib_first` may be overridden by an extension by defining a function of the same name within the extension module.

For example, to override the `render_code` function that is declared in lookatme in lookatme/render/markdown_block.py, the example calender extension must declare its own function named `render_code` that accepts the same arguments and provides the same return values as the original function:

```
"""
Defines a calendar extension that overrides code block rendering if the
language type is calendar
"""


import datetime
import calendar
import urwid


from lookatme.exceptions import IgnoredByContrib


def user_warnings():
    """No warnings exist for this extension. Anything you want to warn the
    user about, such as security risks in processing untrusted markdown, should
    go here.
    """
    return []


def render_code(token, body, stack, loop):
    lang = token["lang"] or ""
    if lang != "calendar":
        raise IgnoredByContrib()
```

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```
    today = datetime.datetime.utcnow()
    return urwid.Text(calendar.month(today.year, today.month))
```

Notice how the extension code above raises the *IgnoredByContrib* exception to allow the default lookatme behavior to occur.

2.6.5 Overrideable Functions

Below is an automatically generated list of all overrideable functions that are present in this release of lookatme. See the *lookatme.tui.SlideRenderer.do_render* function for details on markdown_block render function arguments and return values.

- *render_newline*
- *render_hrule*
- *render_heading*
- *render_table*
- *render_list_start*
- *render_list_end*
- *render_list_item_start*
- *render_loose_item_start*
- *render_list_item_end*
- *render_text*
- *render_paragraph*
- *render_block_quote_start*
- *render_block_quote_end*
- *render_code*
- *inline_html*
- *text*
- *escape*
- *autolink*
- *footnote_ref*
- *image*
- *link*
- *double_emphasis*
- *emphasis*
- *codespan*
- *linebreak*
- *strikethrough*
- *root_urwid_widget*

2.7 Smart Slide Splitting

lookatme will automatically split input markdown into separate slides if no `hrules` are present in the input markdown.

Slides are split automatically in two ways

1. If the lowest (e.g. h1 < h2) heading occurs only once, that heading is used as the title for the presentation. The next lowest heading will be used as the slide separator marker.
2. If the lowest (e.g. h1 < h2) heading occurs multiple times, that heading will be used as the slide separator marker and the heading will not be set.

E.g., below is the README.md of lookatme:

2.8 Builtin Extensions

`lookatme` comes with a few built-in extensions.

2.8.1 Builtin Extension Qualification

Builtin extensions must:

- Not require extra dependencies just for the extension
- Be generally useful in most cases

E.g., the qrcode extension has an extra dependency. This immediately disqualifies it from being a builtin extension.

2.8.2 Usage

Although builtin extensions are defined in the same way as external *Contrib Extensions*, builtin extensions do not need to be explicitly declared in the YAML header.

2.8.3 List of Builtin Extensions

Terminal Extension

The *`lookatme.contrib.terminal`* builtin extension allows terminals to be embedded within slides.

Basic Format

The terminal extension modifies the code block markdown rendering by intercepting code blocks whose language has the format `terminal\d+`. The number following the `terminal` string indicates how many rows the terminal should use when rendered (the height).

Usage

E.g.

```
```terminal8
bash -il
```
```

The content of the code block is the command to be run in the terminal. Clicking inside of the terminal gives the terminal focus, which will allow you to interact with it, type in it, etc.

To escape from the terminal, press `ctrl+a`.

Extended Format

The terminal extension also has a *terminal-ex* mode that can be used as the language in a code block. When *terminal-ex* is used, the contents of the code block must be YAML that conforms to the *TerminalExSchema* schema.

The default schema is shown below:

```
command: "the command to run"  # required
rows: 10                       # number of rows for the terminal (height)
init_text: null                # initial text to feed to the command. This is
                               #     useful to, e.g., pre-load text on a
                               #     bash prompt so that only "enter" must be
                               #     pressed. Uses the `expect` command.
init_wait: null                # the prompt (string) to wait for with `expect`
                               #     this is required if init_text is set.
init_codeblock: true           # show a codeblock with the init_text as its
                               # content
init_codeblock_lang: text      # the language of the init codeblock
```

Usage

E.g.

```
```terminal-ex
command: bash -il
rows: 20
init_text: echo hello
init_wait: '$> '
init_codeblock_lang: bash
```
```

File Loader Extension

The *lookatme.contrib.file_loader* builtin extension allows external files to be sourced into the code block, optionally being transformed and optionally restricting the range of lines to display.

Format

The file loader extension modifies the code block markdown rendering by intercepting code blocks whose language equals `file`. The contents of the code block must be YAML that conforms to the *FileSchema* schema.

The default schema is shown below:

```
path: path/to/the/file # required
relative: true         # relative to the slide source directory
lang: text             # pygments language to render in the code block
transform: null        # optional shell command to transform the file data
lines:
  start: 0
  end: null
```

Note: The line range is only applied **AFTER** transformations are performed on the file data.

Usage

E.g.

```
```file
path: ../source/main.c
lang: c
```
```

2.9 lookatme

2.9.1 lookatme package

Subpackages

lookatme.contrib package

Submodules

lookatme.contrib.file_loader module

This module defines a built-in contrib module that enables external files to be included within the slide. This is extremely useful when having source code displayed in a code block, and then running/doing something with the source data in a terminal on the same slide.

class lookatme.contrib.file_loader.**FileSchema**(*, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None)

Bases: marshmallow.schema.Schema

class Meta

Bases: object

render_module
alias of *YamlRender*

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.contrib.file_loader.**LineRange**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.contrib.file_loader.**YamlRender**

Bases: object

dumps()

loads()

lookatme.contrib.file_loader.**render_code**(*token*, *body*, *stack*, *loop*)

Render the code, ignoring all code blocks except ones with the language set to file.

lookatme.contrib.file_loader.**transform_data**(*transform_shell_cmd*, *input_data*)

Transform the input_data using the transform_shell_cmd shell command.

lookatme.contrib.file_loader.**user_warnings**()

Provide warnings to the user that loading this extension may cause shell commands specified in the markdown to be run.

lookatme.contrib.terminal module

This module defines a built-in contrib module that enables terminal embedding within a slide.

class lookatme.contrib.terminal.**TerminalExSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

The schema used for terminal-ex code blocks.

class Meta

Bases: object

render_module
alias of *YamlRender*

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.contrib.terminal.**YamlRender**
Bases: object

dumps()

loads()

lookatme.contrib.terminal.**render_code**(*token*, *body*, *stack*, *loop*)

lookatme.contrib.terminal.**shutdown**()

lookatme.contrib.terminal.**user_warnings**()
Provide warnings to the user that loading this extension may cause shell commands specified in the markdown to be run.

Module contents

This module handles loading and using lookatme_contriba modules

Contrib modules are directly used

lookatme.contrib.**contrib_first**(*fn*)
A decorator that allows contrib modules to override default behavior of lookatme. E.g., a contrib module may override how a table is displayed to enable sorting, or enable displaying images rendered with ANSII color codes and box drawing characters, etc.

Contrib modules may ignore chances to override default behavior by raising the lookatme.contrib.IgnoredByContrib exception.

lookatme.contrib.**load_contribs**(*contrib_names*, *safe_contribs*, *ignore_load_failure=False*)
Load all contrib modules specified by contrib_names. These should all be namespaced packages under the lookatmecontrib namespace. E.g. lookatmecontrib.calendar would be an extension provided by a contrib module, and would be added to an extensions list in a slide's YAML header as calendar.

safe_contribs is a set of contrib names that are manually provided by the user by the -e flag or env variable of extensions to auto-load.

lookatme.contrib.**shutdown_contribs**()
Call the shutdown function on all contrib modules

lookatme.contrib.**validate_extension_mod**(*ext_name*, *ext_mod*)
Validate the extension, returns an array of warnings associated with the module

lookatme.render package

Submodules

lookatme.render.asciinema module

lookatme.render.markdown_block module

Defines render functions that render lexed markdown block tokens into urwid representations

lookatme.render.markdown_block.**render_block_quote_end**(*token*, *body*, *stack*, *loop*)
Pops the block quote start urwid.Pile() from the stack, taking future renderings out of the block quote styling.

See *lookatme.tui.SlideRenderer.do_render* for additional argument and return value descriptions.

lookatme.render.markdown_block.**render_block_quote_start**(*token*, *body*, *stack*, *loop*)
Begins rendering of a block quote. Pushes a new `urwid.Pile()` to the stack that is indented, has styling applied, and has the quote markers on the left.

This function makes use of the styles:

```
quote:
  top_corner: ""
  bottom_corner: "└"
  side: ""
  style:
    bg: default
    fg: italics,#aaa
```

See *lookatme.tui.SlideRenderer.do_render* for additional argument and return value descriptions.

lookatme.render.markdown_block.**render_code**(*token*, *body*, *stack*, *loop*)
Renders a code block using the Pygments library.

See *lookatme.tui.SlideRenderer.do_render* for additional argument and return value descriptions.

lookatme.render.markdown_block.**render_heading**(*token*, *body*, *stack*, *loop*)
Render markdown headings, using the defined styles for the styling and prefix/suffix.

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

Below are the default stylings for headings:

```
headings:
  '1':
    bg: default
    fg: '#9fc,bold'
    prefix: " "
    suffix: ""
  '2':
    bg: default
    fg: '#1cc,bold'
    prefix: " "
    suffix: ""
  '3':
    bg: default
    fg: '#29c,bold'
    prefix: " "
    suffix: ""
  '4':
    bg: default
    fg: '#66a,bold'
    prefix: " "
    suffix: ""
  default:
    bg: default
    fg: '#579,bold'
    prefix: " "
    suffix: ""
```

Returns A list of urwid Widgets or a single urwid Widget

lookatme.render.markdown_block.**render_hrule**(*token*, *body*, *stack*, *loop*)
Render a newline

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_list_end**(*token*, *body*, *stack*, *loop*)
Pops the pushed `urwid.Pile()` from the stack (decreases indentation)

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_list_item_end**(*token*, *body*, *stack*, *loop*)
Pops the pushed `urwid.Pile()` from the stack (decreases indentation)

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_list_item_start**(*token*, *body*, *stack*, *loop*)
Render the start of a list item. This function makes use of the styles:

```
bullets:
  '1': "•"
  '2': ""
  '3': "○"
  default: "·"
```

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_list_start**(*token*, *body*, *stack*, *loop*)
Handles the indentation when starting rendering a new list. List items themselves (with the bullets) are rendered by the *render_list_item_start* function.

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_loose_item_start**(*token*, *body*, *stack*, *loop*)
Render the start of a list item. This function makes use of the styles:

```
bullets:
  '1': "•"
  '2': ""
  '3': "○"
  default: "·"
```

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_newline**(*token*, *body*, *stack*, *loop*)
Render a newline

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

lookatme.render.markdown_block.**render_paragraph**(*token*, *body*, *stack*, *loop*)
Renders the provided text with additional pre and post paddings.

See *lookatme.tui.SlideRenderer.do_render* for additional argument and return value descriptions.

lookatme.render.markdown_block.**render_table**(*token*, *body*, *stack*, *loop*)
Renders a table using the *Table* widget.

See *lookatme.tui.SlideRenderer.do_render* for argument and return value descriptions.

The table widget makes use of the styles below:

```
table:
  column_spacing: 3
  header_divider: "—"
```

Returns A list of urwid Widgets or a single urwid Widget

lookatme.render.markdown_block.**render_text**(*token=None*, *body=None*, *stack=None*, *loop=None*, *text=None*)

Renders raw text. This function uses the inline markdown lexer from mistune with the *lookatme.render.markdown_inline* render module to render the lexed inline markup to a list composed of widgets or urwid Text markup. The created list of widgets/Text markup is then used to create and return a list composed entirely of widgets and *ClickableText* instances.

Many other functions call this function directly, passing in the extra `text` argument and leaving all other arguments blank.

See *lookatme.tui.SlideRenderer.do_render* for additional argument and return value descriptions.

lookatme.render.markdown_inline module

Defines render functions that work with mistune's markdown inline lexer render interface

lookatme.render.markdown_inline.**autolink**(*link_uri*, *is_email=False*)

Renders a URI as a link

Returns list of urwid Text markup tuples.

lookatme.render.markdown_inline.**codespan**(*text*, *old_styles*)

Renders inline code using the pygments renderer. This function also makes use of the coding style:

```
style: monokai
```

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**double_emphasis**(*text*, *old_styles*)

Renders double emphasis. Handles both `**word**` and `__word__`

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**emphasis**(*text*, *old_styles*)

Renders double emphasis. Handles both `*word*` and `_word_`

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**escape**(*text*)

Renders escapes

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**expanded_styles**(*fn*)

lookatme.render.markdown_inline.**footnote_ref**(*key*, *index*)
Renders a footnote

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**image**(*link_uri*, *title*, *text*)
Renders an image as a link. This would be a cool extension to render referenced images as scaled-down ansii pixel blocks.

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**inline_html**(*text*)
Renders inline html as plaintext

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**linebreak**()
Renders a line break

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**link**(*link_uri*, *title*, *link_text*)
Renders a link. This function does a few special things to make the clickable links happen. All text in lookatme is rendered using the *ClickableText* class. The ClickableText class looks for urwid.AttrSpec instances that are actually LinkIndicatorSpec instances within the Text markup. If an AttrSpec is an instance of LinkIndicator spec in the Text markup, ClickableText knows to handle clicks on that section of the text as a link.

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**placeholder**()
The starting point of the rendering. The final result will be this returned list with all inline markdown tokens translated into urwid objects

lookatme.render.markdown_inline.**render_no_change**(*text*)
Render inline markdown text with no changes

lookatme.render.markdown_inline.**strikethrough**(*text*, *old_styles*)
Renders strikethrough text (~~text~~)

Returns

list of urwid Text markup tuples.

lookatme.render.markdown_inline.**text**(*text*)
Renders plain text (does nothing)

Returns

list of urwid Text markup tuples.

lookatme.render.pygments module

Pygments related rendering

class lookatme.render.pygments.**UrwidFormatter**(***options*)
Bases: pygments.formatter.Formatter

Formatter that returns [(text,attrspec), . . .], where text is a piece of text, and attrspec is an urwid.AttrSpec

classmethod findclosest(*colstr*, *colors=256*)
Takes a hex string and finds the nearest color to it.

Returns a string urwid will recognize.

findclosestattr(*fgcolstr=None*, *bgcolstr=None*, *othersettings=''*, *colors=256*)
Takes two hex colstring (e.g. 'ff00dd') and returns the nearest urwid style.

format(*tokensource*, *outfile*)
Format tokensource, an iterable of (tokentype, tokenstring) tuples and write it into outfile.

formatgenerator(*tokensource*)
Takes a token source, and generates (tokenstring, urwid.AttrSpec) pairs

style

lookatme.render.pygments.**get_formatter**(*style_name*)

lookatme.render.pygments.**get_lexer**(*lang*, *default='text'*)

lookatme.render.pygments.**get_style**(*style_name*)

lookatme.render.pygments.**render_text**(*text*, *lang='text'*, *style_name=None*, *plain=False*)
Render the provided text with the pygments renderer

Module contents

lookatme.themes package

Submodules

lookatme.themes.dark module

Defines styles that should look good on dark backgrounds

lookatme.themes.light module

Module contents

Defines the built-in styles for lookatme

lookatme.themes.**ensure_defaults**(*mod*)
Ensure that all required attributes exist within the provided module

lookatme.widgets package

Submodules

lookatme.widgets.clickable_text module

This module contains code for ClickableText

class lookatme.widgets.clickable_text.**ClickableText**(*markup*, *align='left'*, *wrap='space'*, *layout=None*)

Bases: urwid.widget.Text

Allows clickable/changing text to be part of the Text() contents

mouse_event(*size*, *event*, *button*, *x*, *y*, *focus*)
Handle mouse events!

signals = ['click', 'change']

class lookatme.widgets.clickable_text.**LinkIndicatorSpec**(*link_label*, *link_target*, *orig_spec*)

Bases: urwid.display_common.AttrSpec

Used to track a link within an urwid.Text instance

lookatme.widgets.table module

Defines a basic Table widget for urwid

class lookatme.widgets.table.**Table**(*rows*, *headers=None*, *aligns=None*)

Bases: urwid.container.Pile

Create a table from a list of headers, alignment values, and rows.

calc_column_maxes()

create_cells(*body_rows*, *modifier=None*)
Create the rows for the body, optionally calling a modifier function on each created cell Text. The modifier must accept an urwid.Text object and must return an urwid.Text object.

render(*size*, *focus=False*)
Do whatever needs to be done to render the table

set_column_maxes()
Calculate and set the column maxes for this table

signals = ['change']

watch(*w*)
Watch the provided widget w for changes

Module contents

Submodules

lookatme.ascii_art module

Misc ASCII art

lookatme.config module

Config module for lookatme

lookatme.exceptions module

Exceptions used within lookatme

exception lookatme.exceptions.**IgnoredByContrib**
Bases: Exception

Raised when a contrib module's function chooses to ignore the function call.

lookatme.log module

Logging module

lookatme.log.**create_log**(*log_path*)
Create a new log that writes to log_path

lookatme.log.**create_null_log**()
Create a logging object that does nothing

lookatme.parser module

This module defines the parser for the markdown presentation file

class lookatme.parser.**Parser**(*single_slide=False*)
Bases: object

A parser for markdown presentation files

parse(*input_data*)
Parse the provided input data into a Presentation object

Parameters **input_data** (*str*) – The input markdown presentation to parse

Returns Presentation

parse_meta(*input_data*)
Parse the PresentationMeta out of the input data

Parameters **input_data** (*str*) – The input data string

Returns tuple of (remaining_data, meta)

parse_slides(*meta*, *input_data*)
Parse the Slide out of the input data

Parameters

- **meta** (*dict*) – The parsed meta values
- **input_data** (*str*) – The input data string

Returns tuple of (remaining_data, slide)

lookatme.pres module

Defines Presentation specific objects

class lookatme.pres.**Presentation**(*input_stream*, *theme*, *style_override=None*, *live_reload=False*, *single_slide=False*, *preload_extensions=None*, *safe=False*, *no_ext_warn=False*, *ignore_ext_failure=False*)

Bases: object

Defines a presentation

reload(*data=None*)

Reload this presentation

Parameters **data** (*str*) – The data to render for this slide deck (optional)

reload_watcher()

Watch for changes to the input filename, automatically reloading when the modified time has changed.

run(*start_slide=0*)

Run the presentation!

warn_exts(*exts*)

Warn about source-provided extensions that are to-be-loaded

lookatme.prompt module

Basic user-prompting helper functions

lookatme.prompt.**yes**(*msg*)

Prompt the user for a yes/no answer. Returns bool

lookatme.schemas module

Defines all schemas used in lookatme

class lookatme.schemas.**BlockQuoteSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**BulletsSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

class Meta

Bases: object

include = {'1': <fields.String(default='•', attribute=None, validate=None, require

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**HeadingStyleSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**HeadingsSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

class Meta

Bases: object

include = {'1': <fields.Nested(default={'fg': '#9fc,bold', 'bg': 'default', 'pre

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**HruleSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**MetaSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

The schema for presentation metadata

class Meta

Bases: object

render_module

alias of *YamlRender*

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**NoDatesSafeLoader**(*stream*)

Bases: yaml.loader.SafeLoader

classmethod remove_implicit_resolver(*tag_to_remove*)

Remove implicit resolvers for a particular tag

Takes care not to modify resolvers in super classes.

We want to load datetimes as strings, not dates, because we go on to serialise as json which doesn't have the advanced types of yaml, and leads to incompatibilities down the track.

yaml_implicit_resolvers = {'': [('tag:yaml.org,2002:null', re.compile('^(?: ~\n |nul

class lookatme.schemas.**NumberingSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

class Meta

Bases: object

include = {'1': <fields.String(default='numeric', attribute=None, validate=<OneOf(

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**SpacingSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**StyleFieldSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**StyleSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

Styles schema for themes and style overrides within presentations

class Meta

Bases: object

render_module

alias of *YamlRender*

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**TableSchema**(**, only: Union[Sequence[str], Set[str]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Dict[KT, VT] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: str = None*)

Bases: marshmallow.schema.Schema

opts = <marshmallow.schema.SchemaOpts object>

class lookatme.schemas.**YamlRender**

Bases: object

dumps()

loads()

lookatme.slide module

Slide info holder

class lookatme.slide.**Slide**(*tokens*, *md=None*, *number=0*)

Bases: object

This class defines a single slide. It operates on mistune's lexed tokens from the input markdown

lookatme.tui module

This module defines the text user interface (TUI) for lookatme

class lookatme.tui.**MarkdownTui**(*pres*, *start_idx=0*)

Bases: urwid.container.Frame

keypress(*size*, *key*)

Handle keypress events

prep_pres(*pres*, *start_idx=0*)

Prepare the presentation for displaying/use

reload()

Reload the input, keeping the current slide in focus

run()

update()

update_body()

Render the provided slide body

update_creation()

Update the author and date

update_slide_num()

Update the slide number

update_slide_settings()

Update the slide margins and paddings

update_title()

Update the title

class lookatme.tui.**SlideRenderer**(*loop*)

Bases: threading.Thread

daemon = True

do_render(*to_render*, *slide_num*)

Perform the actual rendering of a slide. This is done by:

- parsing the slide into tokens (should have occurred already)
- iterating through each parsed markdown token
- calling the appropriately-named render function for the `token["type"]` in *lookatme.render.markdown_block*

Each render function must have the signature:

```
def render_XXX(token, body, stack, loop):
    pass
```

The arguments to the render function are described below:

- `token` - the lexed markdown token - a dictionary
- `body` - the current `urwid.Pile()` that return values will be added to (same as `stack[-1]`)
- `stack` - The stack of `urwid.Pile()` used during rendering. E.g., when rendering nested lists, each nested list will push a new `urwid.Pile()` to the stack, each wrapped with its own additional indentation.
- `loop` - the `urwid.MainLoop` instance being used by lookatme. This won't usually be used, but is available if needed.

Main render functions (those defined in markdown_block.py) may have three types of return values:

- `None` - nothing is added to `stack[-1]`. Perhaps the render function only needed to add additional indentation by pushing a new `urwid.Pile()` to the stack.
- `list(urwid.Widget)` - A list of widgets to render. These will automatically be added to the Pile at `stack[-1]`
- `urwid.Widget` - A single widget to render. Will be added to `stack[-1]` automatically.

flush_cache()

Clea everything out of the queue and the cache.

get_slide(*slide_number*)

Fetch the slide from the cache

queue_render(*slide*)

Queue up a slide to be rendered.

render_slide(*slide*, *force=False*)

Render a slide, blocking until the slide completes. If `force` is True, rerender the slide even if it is in the cache.

run()

Run the main render thread

stop()

lookatme.tui.**create_tui**(*pres*, *start_slide=0*)

Run the provided presentation

Parameters **start_slide** (*int*) – 0-based slide index

lookatme.tui.**root_urwid_widget**(*to_wrap*)
This function is overridable by contrib extensions that need to specify the root urwid widget.

The return value *must* return either the `to_wrap` widget itself, or another widget that wraps the provided `to_wrap` widget.

lookatme.tui.**text**(*style*, *data*, *align='left'*)

lookatme.utils module

lookatme.utils.**can_style_item**(*item*)
Return true/false if `style_text` can work with the given item

lookatme.utils.**dict_deep_update**(*to_update*, *new_vals*)
Deeply update the to_update dict with the new_vals

lookatme.utils.**flatten_text**(*text*, *new_spec=None*)
Return a flattend list of tuples that can be used as the first argument to a new urwid.Text().

Parameters

- **text** (*urwid.Text*) – The text to flatten
- **new_spec** (*urwid.AttrSpec*) – A new spec to merge with existing styles

Returns list of tuples

lookatme.utils.**get_fg_bg_styles**(*style*)

lookatme.utils.**int_to_roman**(*integer*)

lookatme.utils.**listbox_add**(*listbox*, *widgets*)

lookatme.utils.**overwrite_spec**(*orig_spec*, *new_spec*)

lookatme.utils.**pile_add**(*pile*, *widgets*)

lookatme.utils.**pile_or_listbox_add**(*container*, *widgets*)
Add the widget/widgets to the container

lookatme.utils.**resolve_bag_of_text_markup_or_widgets**(*items*)
Resolve the list of items into either contiguous urwid.Text() instances, or pre-existing urwid.Widget objects

lookatme.utils.**row_text**(*rendered_row*)
Return all text joined together from the rendered row

lookatme.utils.**spec_from_style**(*styles*)
Create an urwid.AttrSpec from a {fg:"", bg:""} style dict. If styles is a string, it will be used as the foreground

lookatme.utils.**styled_text**(*text*, *new_styles*, *old_styles=None*, *supplement_style=False*)
Return a styled text tuple that can be used within urwid.Text.

Note: If an urwid.Text instance is passed in as the `text` parameter, alignment values will be lost and must be explicitly re-added by the caller.

---

lookatme.utils.**translate_color**(*raw_text*)

Module contents

CHAPTER 3

Indices and tables

- genindex
- modindex
- search

Python Module Index

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