Moodular

Use Typst's HTML export to generate content for your Moodle courses

v0.0.1

https://github.com/SillyFreak/typst-moodular

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Contents

I Introduction

This package allows you to use Typst's HTML export to generate content for your Moodle courses, but preview them faithfully in Tinymist or the webapp.

This package is somewhat opinionated, as it contains features tailored towards specific Moodle plugins used at our own school:

- Generico: Moodular provides functions to insert Generico tags into your document
- Components for Learning (C4L) (Atto/TinyMCE plugin): Moodular recreates the HTML structure of C4L blocks, and also renders them for PDF export

II Module reference

II.a `moodular`

`setup() -> function`

Moodular's main Template function, to be called as a show rule:

```typ
#show: setup()
```

The function applies the following settings for PDF export:

- sets the page height to `auto` so that all content appears on a single continuous page, like on the web
- sets a sans serif font (Noto Sans is currently hardcoded and therefore needs to be present) and displays links blue and underlined
- shows blockquotes with a gray left border
- show raw blocks with a light beige background

which is a best-effort recreation of Moodle's default style.

For HTML export, the following settings are applied:

- raw blocks are wrapped in `<pre class="language-..."><code>` tags to apply Moodle's syntax highlighting
- `image` elements are transformed into `<img src="@@PLUGINFILE@@/..." class="img-fluid">` tags. The `@@PLUGINFILE@@` prefix is used internally by Moodle to indicate references to uploaded files.

`frame(body: content) -> content`

Conditionally puts content into an `html.frame`, i.e. rendering it as an `<svg>` tag. When exporting to PDF, the content is simply displayed as-is.

Parameters:

`body` (`content`) – the content to put into a frame

II.b c4l

- key-concept()
- tip()
- reminder()
- quote()
- do-dont()
- reading-context()
- example()
- figure()
- attention()
- procedural-context()
- learning-outcomes()
- expected-feedback()
- card()

`key-concept(body: content) -> content`

See https://componentsforlearning.org/components/key-concept/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.key-concept[#lorem(20)]
```
typc

> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`tip(body: content) -> content`

See https://componentsforlearning.org/components/tip/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.tip[#lorem(20)]
```
typc

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`reminder(body: content) -> content`

See https://componentsforlearning.org/components/reminder/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1 c4l.reminder[#lorem(20)]
```
typc

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`quote(body: content) -> content`

See https://componentsforlearning.org/components/quote/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1 c4l.quote[#lorem(20)]
```
typc

> *“Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.”*

`do-dont(do: content, dont: content) -> content`

See https://componentsforlearning.org/components/do-dont-cards/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1 c4l.do-dont[#lorem(20)][#lorem(20)]
```
typc

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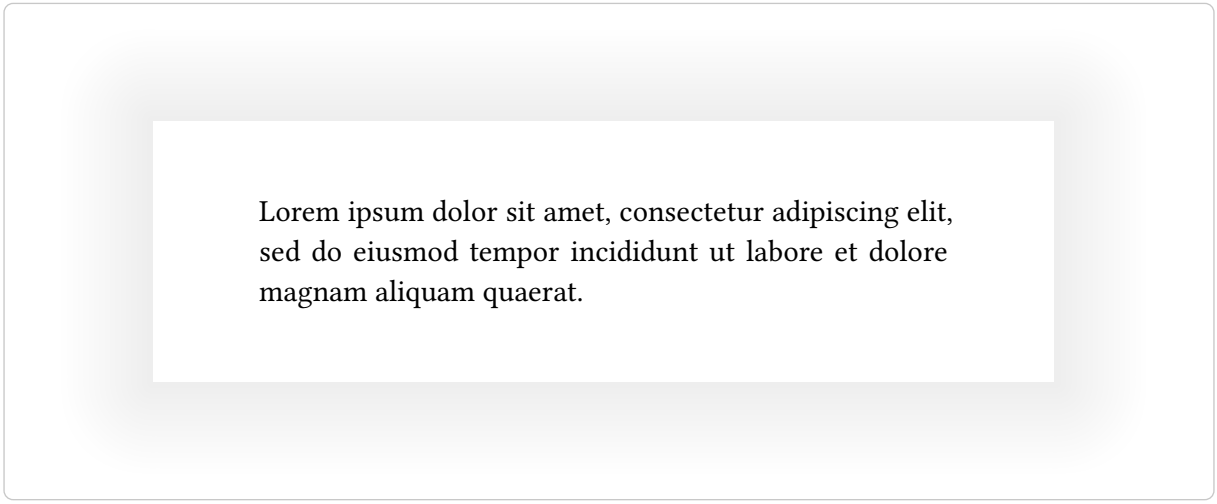
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`reading-context(body: content) -> content`

See https://componentsforlearning.org/components/reading-context/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1 c4l.reading-context[#lorem(20)]
```
typc

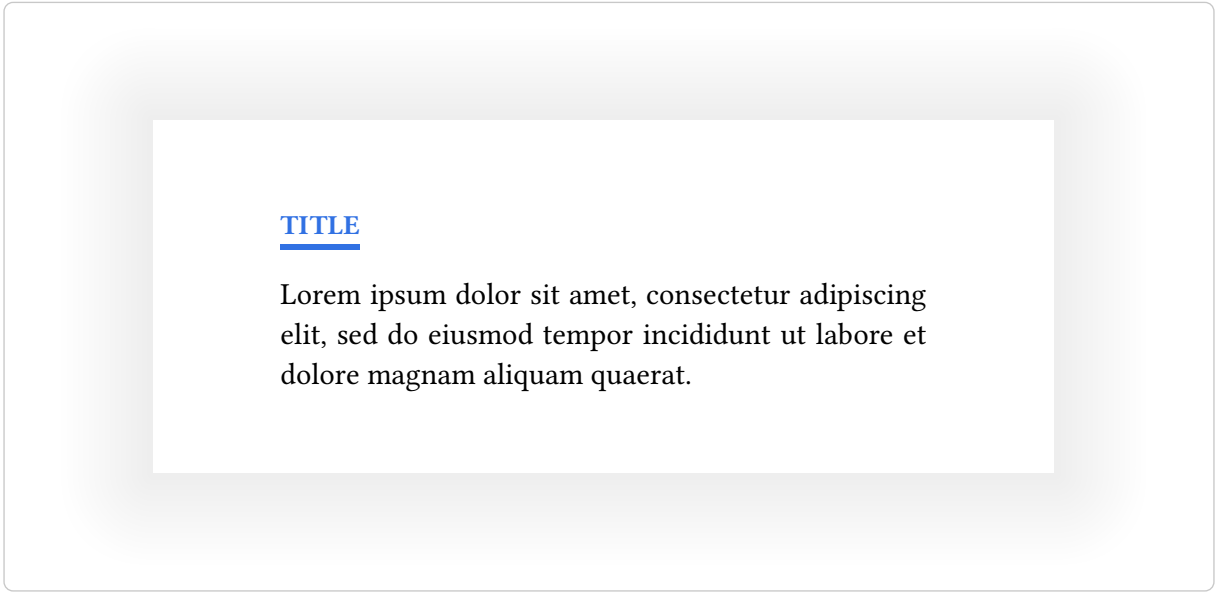


`example(title: content, body: content) -> content`

See https://componentsforlearning.org/components/example/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1 c4l.example[Title][#lorem(20)]
```
typc



`figure(..args) -> content`

See https://componentsforlearning.org/components/figure/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.figure[#lorem(20)]
```
typc

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`attention(body: content) -> content`

See https://componentsforlearning.org/components/attention/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.attention[#lorem(20)]
```
typc

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`procedural-context(body: content) -> content`

See https://componentsforlearning.org/components/procedural-context/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.procedural-context[#lorem(20)]
```
typc

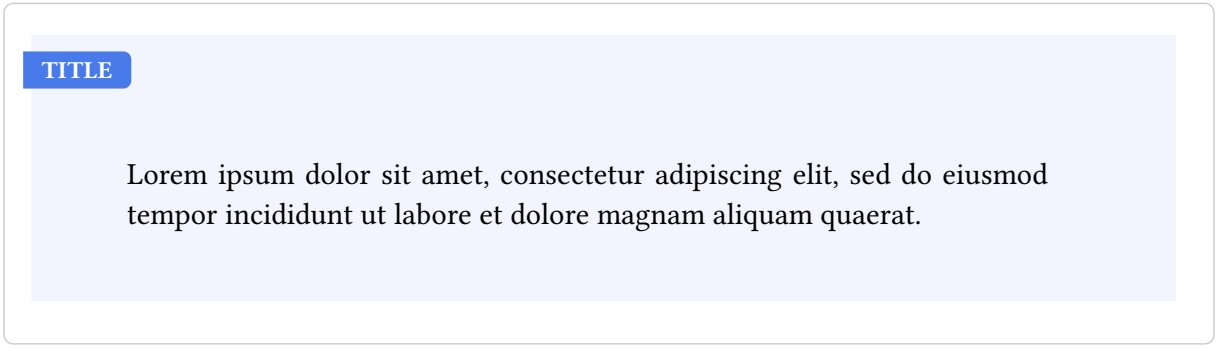
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

`learning-outcomes(title: content, body: content) -> content`

See https://componentsforlearning.org/components/learning-outcomes/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.learning-outcomes[Title][#lorem(20)]                    typc
```

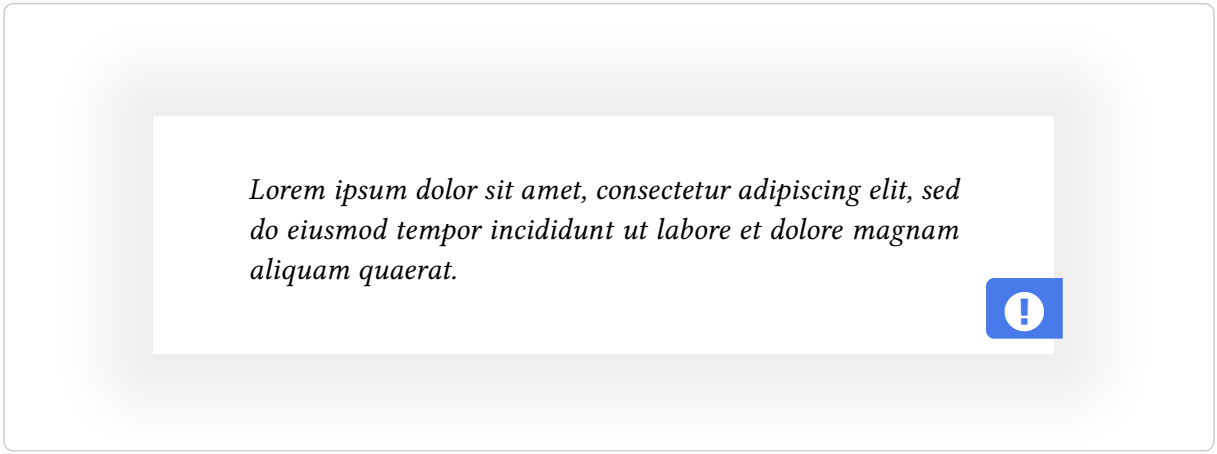


`expected-feedback(body: content) -> content`

See https://componentsforlearning.org/components/expected-feedback/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```
1  c4l.expected-feedback[#lorem(20)]                           typc
```



`card(body: content) -> content`

See https://componentsforlearning.org/components/all-purpose-card/ for details and examples rendered in HTML.

This is how the component looks in PDF preview:

```typc
c4l.card[#lorem(20)]
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

II.c `htmlx`

- `elem()`
- `div()`
- `img()`

`elem(..args: any) -> content`

A thin wrapper around Typst's `html.elem` that collects all named arguments into the `attrs` parameter. For example, these two are equivalent:

```typc
html.elem("div", attrs: (class: "x"))[body]
htmlx.elem("div", class: "x")[body]
```

`div() -> content`

A thin wrapper for creating div html elements. In other words, these two are equivalent:

```typc
htmlx.elem("div", class: "x")[body]
htmlx.div(class: "x")[body]
```

`img(src, ..args) -> content`

A thin wrapper for creating img html elements, making the required `src` attribute positional. In other words, these two are equivalent:

```typc
htmlx.elem("img", src: "example.png", alt: "Example")
htmlx.img("example.png", alt: "Example")
```