$Lecture Doc^2$ Tutorial

LectureDoc is an authoring system for creating lecture slides/notes/exercises.

LectureDoc enables you to write a single (HTML or) reStructuredText document that contains the slides, additional annotations and also exercises.

This tutorial is written in reStructuredText and can be used as a template for creating your own lecture slides.

The *code* of this tutorial is available on GitHub:

Delors/reStructuredTextToLectureDoc2/main/ld_base_example.rst

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Basics

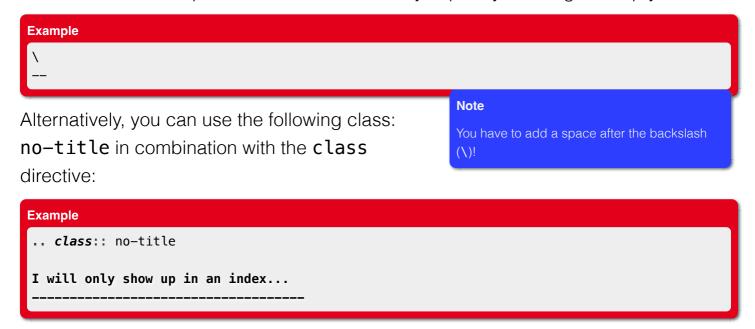
A basic slide consists of a (section) header and some reStructuredText content.

Basics ---- A basic slide consists of a (section) header and some reStructuredText content.

Embedding Formulae

Embed math equations using reStructuredText's default directive (.. math::) and role (:math:`...`).

A slide without an explicit title can be created by explicitly creating an empty title.



Animation

Basic *appear* animations can be created using the (CSS) class **incremental**[1]. You can also define a corresponding custom role (.. role:: incremental) to animate parts of a text.

```
Animation
-----

Basic *appear* animations can be created using the (CSS) class
'incremental'. You can also define a corresponding custom role
('... role:: incremental') :incremental: to animate parts of a text.

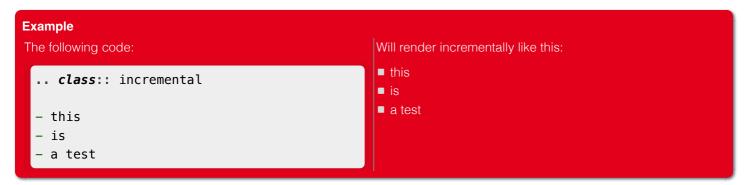
.. admonition:: Example
:class: incremental
```

[1] Animation progress can be reset by pressing the r key.

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Animation of Lists

In case of (un-)ordered lists (ol or ul in HTML) it is sufficient to associate the class incremental using the class directive with the list. It is also possible, to only specify the class attribute for the required list items.



Slide Dimensions

The slide dimensions can be controlled by specifying the corresponding meta information. If not specified, the default dimension is set to 1920×1200 ; i.e., a ratio of 16:10.



Associating a slide set with a unique id

Many functions in LectureDoc2 - e.g. persistence of the slide progress - require that a slide set is associated with a unique id. This id can be set using the meta directive.

```
.. meta::
    :id: lecturedoc2-tutorial
    :description: LectureDoc2 Tutorial
    :author: Michael Eichberg
    :license: Released under the terms of the <u>`2-Clause BSD license`</u>.
```

Adding Supplemental Information

Adding information that should not be on the slides, but provide additional information/explanations, can be added using the **supplemental** directive.

```
.. supplemental::
    **Formatting Slides**
    Formatting slides is done using classes and roles.
```

Alternatively, a container with the class **supplemental** can also be used:

```
Example
.. container:: supplemental
    **Formatting Slides**
```

Formatting Slides

Creating heavily formatted slides is easily possible using rst directives and roles which are mapped to CSS classes.

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1. STRUCTURING DOCUMENTS

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Creating Sections

Creating a slide which marks the beginning of a new section can be done using the **new-section** class.



Slide Transitions

Slide transitions can be controlled using the transition—... classes:

- transition-fade
- transition-move-left
- transition-move-to-top
- transition-scale

```
Example
.. class:: transition-move-to-top
Slide Transitions
-----
```

See the LectureDoc2 Cheat Sheet for a comprehensive list of predefined transitions.

Adding Code

Adding code can be done using reStructuredText's code directive.

```
The following code:
    .. code:: python
    for i in range(0,10):
        print(i)
Will render like this:

for i in range(0,10):
    print(i)
```

Links to External Resources

LectureDoc2 supports links to external resources:

- https://github.com/Delors/LectureDoc2
- LectureDoc2 Sourcecode

Example

LectureDoc2 supports links to external resources:

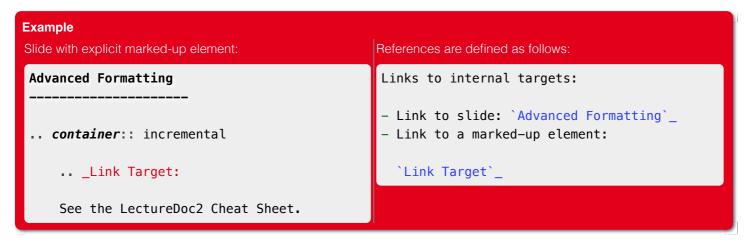
- https://github.com/Delors/LectureDoc2
- `LectureDoc2 Sourcecode <https://github.com/Delors/LectureDoc2>`_

Links to Internal Targets

LectureDoc2 supports links to external resources:

- The title of a slide can be used as a link target: Advanced Formatting
- An element which is explicitly marked as a target can be used as a link target:

Link Target in Incremental Block



Scientific Citations

Citations are fully supported in LectureDoc2.

A reference to a book: [Martin2017] (Details are found in the bibliography (see next slide)).

Example

A reference to a book: [Martin2017]_

Bibliography

[Martin2017] Clean Architecture: A Craftsman's Guide to Software Structure and Design; Robert C. Martin, Addison-Wesley, 2017

...

```
Example
```

.. [Martin2017] Clean Architecture: ...; Robert C. Martin, Addison-Wesley, 2017

Advanced Formatting

LectureDoc comes with a set of predefined (CSS) classes that can be used to format the slides. Some of these classes have explicit support by LectureDoc and will be rendered differently in the different situations (e.g., continuous view vs. slide view will render *stacked layouts* or *supplemental information* differently).

- dhbw-red
- minor
- obsolete

See the LectureDoc2 Cheat Sheet for a comprehensive list of predefined CSS classes.

Stacked layouts

Stacked layouts enables updating parts of a slide by putting the content into layers and then showing the layers incrementally.

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Integrated Exercises



Exercises can be integrated into the slide set.

```
Example

Exercise: 1+1

Compute: \sqrt{2} = ?

To unlock the solution go to the continuous view and enter the password.

Compute: :math:\\sqrt 2 = ?\\.

.. solution::
:pwd: sqrt

Solution: :math:\\1,4142135624\\.
```

If you have multiple exercises, you can define a master password to unlock all solutions at once (press m to open the dialog).

```
.. meta::
    :exercises-master-password: 123456
```

Exercise: 1+1

Compute: $\sqrt{2} = ?$



2. IMAGES

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Command-Query Separation > Command-Query Responsibility Segregation Ports & Adapters