C++20 Ranges und Constrained Algorithms

Felix Racz, Tim Wende

23. Mai 2022

Motivation

This LaTeX Beamer template imitates the layout of the old official RWTH presentation template.

Agenda

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Example slides

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Titel der Folie, der auch in die zweite Zeile laufen darf.

- **Liste mit Aufzählungszeichen**
- **Liste mit Aufzählungszeichen**
  - → Zweite Ebene
    - → Optionale dritte Ebene
- **Liste mit Aufzählungszeichen**
- **Liste mit Aufzählungszeichen**
  - → Zweite Ebene

Noch eine Folie mit Aufzählungen

1. **Erster Punkt**
    1.1 Erster Unterpunkt
    1.2 Zweiter Unterpunkt

2. **Zweiter Punkt**
    → Erster regulärer Unterpunkt
    → Zweiter regulärer Unterpunkt

Titel der Folie mit Absätzen

- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

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Folie mit Boxen

Block 1
Inhalt der ersten Box

weitere Box
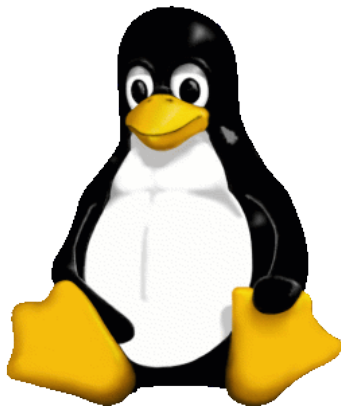Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

more Examples

a Subsection
How to set columns

- **Item 1**
- **Item 2**
- **Item 3**
- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

a Subsection
How to set columns (2)

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

- **cat**
- **dog**
- **mouse**
- **elephant**

- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**
- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

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another subsection

This frame does not contain a (dedicated) frame title.

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Examples with uncovering

Piecewise uncovering using pause

Paragraphs and items can be uncovered easily with \pause.

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- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

Piecewise uncovering using pause

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- **Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.**

Fine grained control

- **First line**

Fine grained control

- **First line**
- **Second line (appears after first line, disappears again)**

Fine grained control

- **First line**

- **Third line (appears before firth one)**

Fine grained control

- **First line**

- **Third line (appears before firth one)**
- **Fouth line**

Fine grained control

- **First line**

- **Fouth line**
- **Fifth line**

Fine grained control

- **First line**

- **Fouth line**
- **Fifth line**

Standard behavior with `\onslide` is to keep its place, even if not displayed.

Fine grained control

- **First line**

- **Fouth line**
- **Fifth line**

Standard behavior with \onslide is to keep its place, even if not displayed.

With \only, the element does not occupy place. This may lead to shifting other elements.

Quellcode

Example-Code: Hallo Welt!

```c
#include <stdio.h>

void main (void) {
  printf("Hallo Welt!\n");
}
```
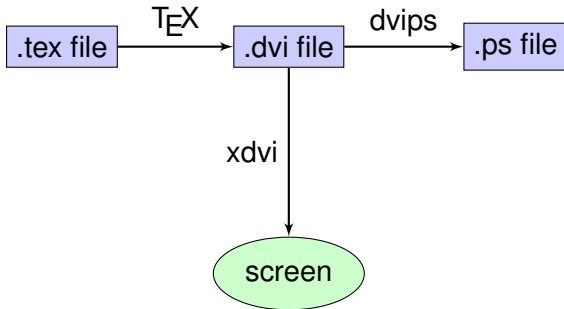
TikZ example

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animated graphics

.tex file

animated graphics

```
         TEX
.tex file ────────▶ .dvi file
```

animated graphics

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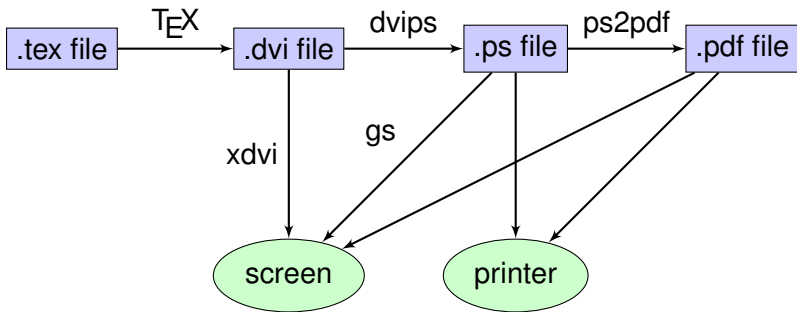Felix Racz, Tim Wende | 23. Mai 2022
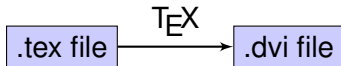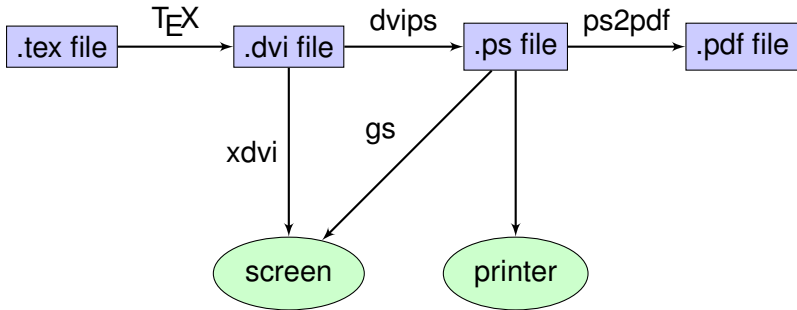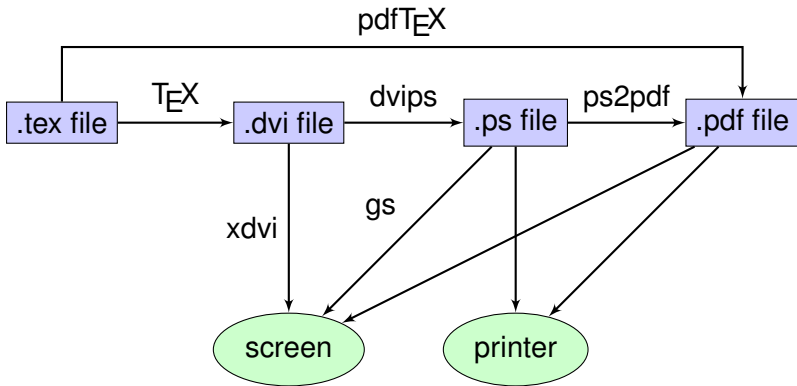
animated graphics

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github.com/tmwnd/adv_cpp_seminar