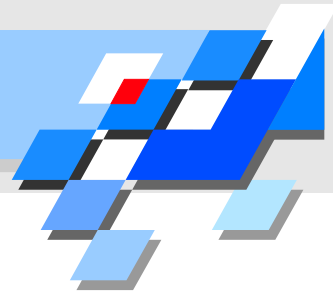

TEXPower

Dynamic Presentations with LATEX

Stephan Lehmke

Lehrstuhl Informatik I

Universität Dortmund

TUG 2003

Hawai'i, Waikoloa Beach, Big Island

July 21, 2003

Here: Presentation = `pdf` file presented with Acrobat™ in full screen mode.

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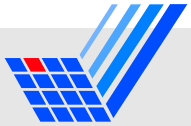
Presentations need dedicated typographic rules, even when compared to printed slides.

Beamer presentations vs. printed slides

	presentation	slide
resolution	low	high



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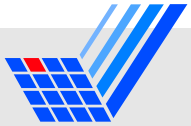

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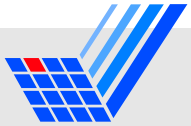

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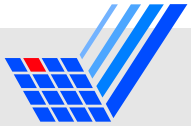
space usage	good	incomplete



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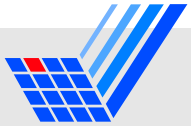

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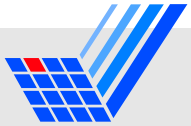
navigation	links, buttons	slide shuffling



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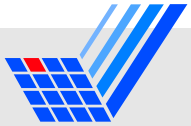

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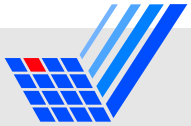

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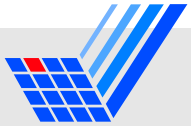

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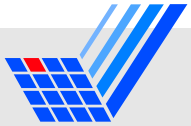

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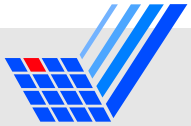

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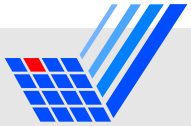

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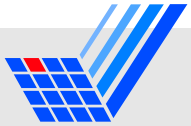

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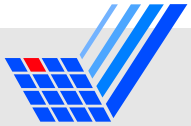

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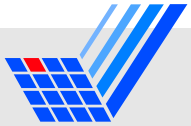

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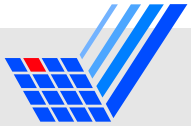

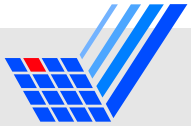

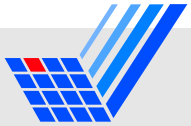

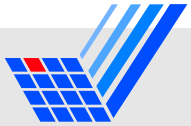

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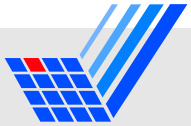

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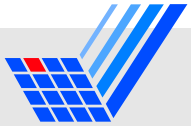
Currently, TEXPower is a SourceForge project in alpha stage, maintained by Hans Fr. Nordhaug — many thanks to him.

Further thanks go to numerous people who have, in different stages of development, reported bugs and provided fixes or extensions.



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The latest released version is also found at CTAN in

`CTAN:macros/latex/exptl/texpower/`

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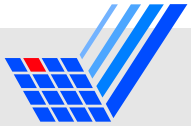

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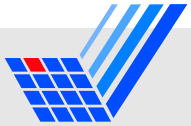

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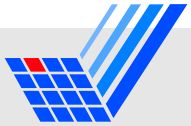

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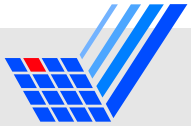

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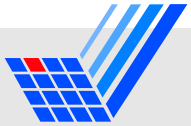

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New option: **display** Sets everything up for incremental display. In particular, seminar is kept from shoving and squeezing things.

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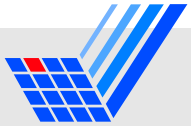

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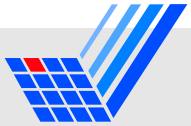

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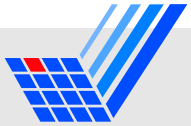

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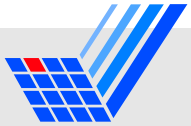

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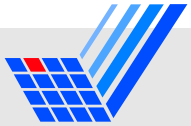

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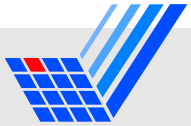

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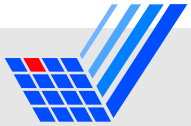
When using ‘standard’ Type1 fonts like Helvetica, there is not much flexibility in font configuration (above the facilities already provided by the mathptmx package).

As (almost) the complete 'larger' family of **Computer Modern** is now available in Type1 format, it is possible to enhance readability by careful choice of design sizes.



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General rule: Never use large design sizes in presentations!

Readability can be much enhanced by restricting the choice of design sizes to low values.

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cmss8: Careful specific font configuration is required.

The sans serif fonts traditionally used for presentations are also enhanced by choosing a lower design size.

cmss17: Careful specific font configuration is required.

cmss10: Careful specific font configuration is required.

cmss8: Careful specific font configuration is required.

Additionally, the cm family contains the "Slifonts" subfamily designed specifically for presentations:

lcmss8: Careful specific font configuration is required.

Furthermore, font configuration should allow ‘smooth scaling’ for all fonts, to avoid size mismatches.

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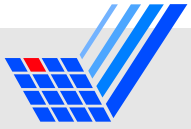
Math fonts are another extremely important topic for font configuration, especially because no existing presentation package gets them even remotely right.



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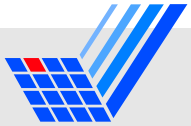
Math fonts are another extremely important topic for font configuration, especially because no existing presentation package gets them even remotely right.

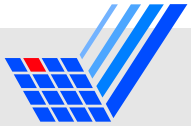
General rule: As math is almost always more important than the surrounding text, math fonts should be more readable than text fonts, not less!

The font family "computer modern math italic" (cmmi) is particularly problematic, especially when combined with sans serif text.



The font family “computer modern math italic” (cmmi) is particularly problematic, especially when combined with sans serif text.

Fortunately, lately the sans serif math font family “computer modern bright” (cmbr) has been made freely available in Type1 format.



seminar
standard
style
(cmr+cmmi)

$$c_k = \frac{1}{2\pi}\int_0^{2\pi} f(x)e^{-\mathrm{i}kx}\,\mathrm{d}x = \frac{1}{2\pi}\sum_{j=1}^{r}\int_{t_{j-1}}^{t_j} f(x)e^{-\mathrm{i}kx}\,\mathrm{d}x$$

$$= \frac{-\mathrm{i}}{2\pi k}\int_0^{2\pi} \varphi(x)e^{-\mathrm{i}kx}\,\mathrm{d}x = \frac{-\mathrm{i}\gamma_k}{k}.$$

As for all $\alpha, \beta \in \mathbb{C}$, $|\alpha\beta| \leq \frac{1}{2}\left(|\alpha|^2 + |\beta|^2\right)$, it holds that

$$|c_k| \leq \frac{1}{2}\left(\frac{1}{|k|^2} + |\gamma_k|^2\right).$$

From the convergence of $\sum_{k=1}^{\infty} \frac{1}{k^2}$ and $\sum_{k=-\infty}^{\infty} |\gamma_k|^2$, it follows that

$$\sum_{k=-\infty}^{\infty} |c_k| < \infty.$$

seminar
standard
style
(cmr+cmmi)
with design
size
restriction

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seminar
with
semlcmss
option
(lcmss+cmmi)

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seminar
with
semhelv
option
(phv+cmmi)

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seminar
with
helvet
and
mathptmx
packages
(phv+ptm)

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seminar
with lcmss
+ cmbright

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foils
standard
style
(cmss+cmmi)

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foils
with
cmbright
math
(cmss+cmbr)

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foils
with
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prosper standard style

math example

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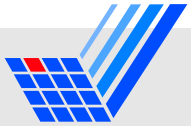
– p. 1



prosper with helvet and mathptmx pack-ages (phv+ptm)

math example

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prosper with lcmss and cm-bright math (lcmss + cmbr)

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– p. 1

The tpslifonts package tries to get all the font stuff ‘right’.

General features:

- Independent of the rest of the TEXPower bundle.
- Supports a wide range of fonts.
- Selects only fonts freely available in Type1 format.
- Presentation-friendly design size selection.
- ‘smooth scaling’ for all fonts.
- Supports OT1 and T1 font encoding.

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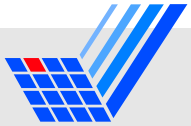

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Font options:

- **cmr** Computer Modern Roman text (default: lcmss).
- cmss Computer Modern Sans Serif text.
- cmbright Computer Modern Bright text.
- concrete Concrete text.
- eulermath Euler math (default: cmmi).
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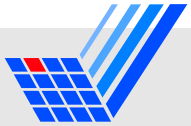

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cmbrightmath,
scaleupmath,
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cmr,
scale7pt

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cmbright,
cmbrightmath

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concrete,
eulermath

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$$\sum_{k=-\infty}^{\infty} |c_k| < \infty.$$

Further development

- Smarter choice of design sizes.
- Make dedicated ‘slifonts’ versions of math and typewriter fonts to avoid scaling.
- Make dedicated versions of cmr and cmmi (darker, different geometry) for slides.

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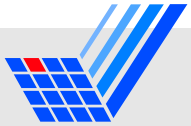
The package texpower is completely independent of the document class used and the method of pdf creation.

General Options:

option: display. Enable 'dynamic' features. If not set, it is assumed that the document is to be printed, and all commands for dynamic presentations have no effect.

option: printout (default). No 'dynamic' features.

option: verbose. Output some administrative info.



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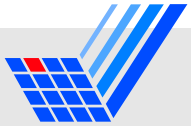

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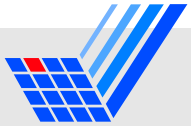
option: `fixcolorstack` switches on color stack correction. Use it if you experience strange color switches in your document.



If a color-related option (see below) is given to the texpower package, TEXPower installs an extensive color management scheme on top of the kernel of the color package.

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5.1 Standard colors

TEXPower maintains a list of standard colors which are recognized and handled by TEXPower's color management. Some commands like \dimcolors affect all standard colors.

There are some predefined colors which are in this list from the outset.

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`\defineTPcolor{⟨name⟩}{⟨model⟩}{⟨def⟩}` acts like `\definecolor` from the `color` package, but the color ⟨name⟩ is also added to the list of standard colors.

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`\defineTPcolor{⟨name⟩}{⟨model⟩}{⟨def⟩}` acts like `\definecolor` from the `color` package, but the color ⟨name⟩ is also added to the list of standard colors.

`\addTPcolor{⟨name⟩}` adds an existing color to the list of standard colors.

5.2 Color sets

Every standard color may be defined in one or several color sets. There are two fundamentally different types of color set:

The current color set. This contains the current definition of every standard color which is actually used at the moment. Every standard color should be defined at least in the current color set. The current color set is not distinguished by a special name.

Named color sets. These are 'containers' for a full set of color definitions (for the standard colors) which can be activated by respective commands.

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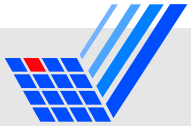
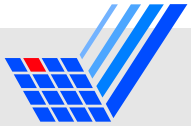
There are four predefined color sets named whitebg, lightbg, darkbg, blackbg.



There are the following commands for manipulating color sets:

`\usecolorset{⟨name⟩}` Make the color set named ⟨name⟩ the current color set. All standard colors in the current color set which are also in color set ⟨name⟩ are overwritten.

`\dumpcolorset{⟨name⟩}` Copy the definitions of all standard colors in the current color set into color set named ⟨name⟩.



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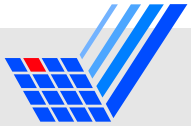

5.3 Color Background Options

For activating the predefined color sets, there are shorthands `\whitebackground`, `\lightbackground`, `\darkbackground`, `\blackbackground` which execute `\usecolorset` and additionally set the background color to its current value.

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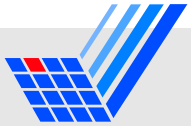
There are package options to set the background color which automatically execute the respective command.

option: whitebackground (default) Set standard colors to match a white background color.

option: lightbackground Set standard colors to match a light (but not white) background color.

option: darkbackground Set standard colors to match a dark (but not black) background color.

option: blackbackground Set standard colors to match a black background color.



5.4 Color variants

In addition to color sets, TEXPower implements a concept of color variant. Currently, every color has three variants: normal, dimmed, and enhanced. The normal variant is what is usually seen, text written in the dimmed variant appears "faded into the background" and text written in the enhanced variant appears to "stick out".

It is possible to predefine a designated color for a color variant.

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For color ⟨color⟩ the designated name of the dimmed variant is d⟨color⟩, the designated name of the enhanced variant is e⟨color⟩.

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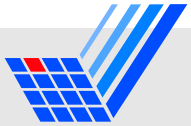
For color ⟨color⟩ the designated name of the dimmed variant is d⟨color⟩, the designated name of the enhanced variant is e⟨color⟩.

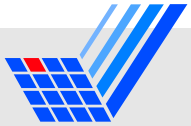
If a color by that name exists at the time the variant is switched to, then variant switching is executed by replacing color ⟨color⟩ with the designated color.

If a color by the designated name does not exist at the time a color variant is switched to, then variant switching is executed by automatically calculating the color variant from the original color.



If a color by the designated name does not exist at the time a color variant is switched to, then variant switching is executed by automatically calculating the color variant from the original color.

The dimmed variant is calculated by interpolating between `pagecolor` and the color to be dimmed, using the `\colorbetween` command.



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The dimmed variant is calculated by interpolating between `pagecolor` and the color to be dimmed, using the `\colorbetween` command.

There is a command `\dimlevel` which contains the parameter ⟨`weight`⟩ given to `\colorbetween` (default: `0.7`).

The enhanced variant is calculated by extrapolating the color to be enhanced (relative to pagecolor).

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There is a command \enhancelevel which gives the extent of the extrapolation (default: 0.5).

The following commands switch color variants:

`\dimcolor[⟨level⟩]{⟨color⟩}` switches color ⟨color⟩ to the dimmed variant. If given, ⟨level⟩ replaces the value of `\dimlevel` in automatic calculation of the dimmed variant.

`\dimcolors[⟨level⟩]` switches all standard colors to the dimmed variant.

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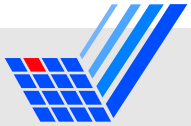
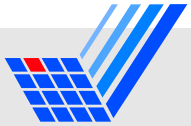


`\enhancecolor[⟨level⟩]{⟨color⟩}` switches color ⟨color⟩ to the enhanced variant.

`\enhancecolors[⟨level⟩]` switches all standard colors to the enhanceed variant.



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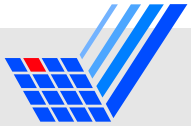
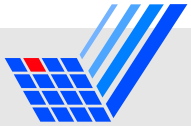


5.5 Miscellaneous color management commands

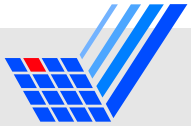
`\replacecolor[⟨tset⟩]{⟨tcolor⟩}[⟨sset⟩]{⟨scolor⟩}`

makes ⟨tcolor⟩ have the same definition as ⟨scolor⟩ (if ⟨scolor⟩ is defined at all), where ⟨tcolor⟩ and ⟨scolor⟩ are color names as given in the first argument of `\definecolor`. If (one of) ⟨tset⟩ and ⟨sset⟩ are given, the respective color is taken from the respective color set, otherwise from the current color set.



`\colorbetween[⟨weight⟩]{⟨src1⟩}{⟨src2⟩}{⟨target⟩}`

calculates a 'weighted average' between two colors. ⟨src1⟩ and ⟨src2⟩ are the names of the two colors. ⟨weight⟩ (default: **0.5**) is a fixed-point number between **0** and **1** giving the 'weight' for the interpolation between ⟨src1⟩ and ⟨src2⟩. ⟨target⟩ is the name to be given to the resulting mixed color.



`\vanishcolors[⟨color⟩]` is similar to the color variant command `\dimcolors`, but instead of dimming colors, all standard colors are replaced by a single color given by the new command `\vanishcolor` (default: `pagecolor`).

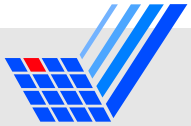
5.6 Color Emphasis and Highlighting

texpower offers some support for text emphasis and highlighting with colors (instead of, say, font changes). These features are enabled by the following options:

option: coloremph Make \em and \emph switch colors instead of fonts.

option: colormath Color all mathematical formulae.

option: colorhighlight Make new highlighting commands defined by texpower use colors.



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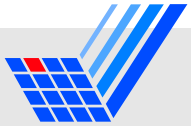

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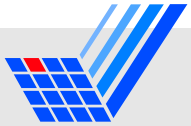

5.7 New emphasis and highlighting elements

`\origmath` works exactly like `\ensuremath` but doesn't color its argument.

`\underl` Additional emphasis command. Defaults to **bold face** if the `colorhighlight` option is not given.

`\concept` Additional emphasis command. Also defaults to **bold face** if the `colorhighlight` option is not given.

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`\inactive` Additional emphasis command, this time for 'de-emphasising'. There is no sensible default if the `colorhighlight` option is not given.

`\present` Highlighting command which puts its argument into a box with colored background. Defaults to an `\fbox` if the `colorhighlight` option is not given.

`\inactive` Additional emphasis command, this time for 'de-emphasising'. There is no sensible default if the `colorhighlight` option is not given.

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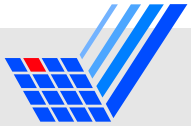


5.8 Predefined standard colors

color: pagecolor Background color of the page.

color: textcolor Color of normal text.

color: emcolor Color used for emphasis if the coloremph option is set.

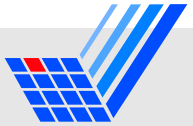
color: altemcolor Color used for double emphasis if the coloremph option is set.

color: mathcolor Color used for math $a^2 + b^2 = c^2$ if the colormath option is set.

color: codecolor Color used by the \code command if the colorhighlight option is set.

color: underlcolor Color used by the \underl command if the colorhighlight option is set.

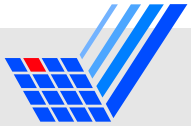
color: conceptcolor Color used by the \concept command if the colorhighlight option is set.



color: inactivecolor Color used by the \inactive command if the colorhighlight option is set.

color: presentcolor Color used as background color by the \present command if the colorhighlight option is set.

color: highlightcolor Color used as background color by the \highlightboxed and \highlighttext commands if the colorhighlight option is set.

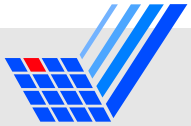


5.9 Gradient rules and boxes

`\vgradrule[⟨str⟩][⟨mod1⟩]{⟨col1⟩}[⟨mod2⟩]{⟨col2⟩}[⟨r⟩]{⟨w⟩}{⟨h⟩}`

creates a rule-like object consisting of a vertical color gradient composed of horizontal stripes. The topmost stripe has color ⟨col1⟩, the bottommost stripe has color ⟨col2⟩. Inbetween, color changes gradually from top to bottom. The colors are specified by the ⟨mod1⟩/⟨col1⟩ and ⟨mod2⟩/⟨col2⟩ pairs exactly as for the `\color` command.

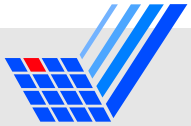
[⟨r⟩]{⟨w⟩}{⟨h⟩} are the usual `\rule` arguments.



The optional argument ⟨str⟩, if given, should contain a number specifying the number of stripes.

\rulefirstgradprogression should expand to an integer. This value (default **1**) controls the 'order' of progression from ⟨col1⟩ to ⟨col2⟩. The default value **1** means linear progression. **2** means quadratic progression, etc. **−2** means quadratic progression "from bottom to top", etc.

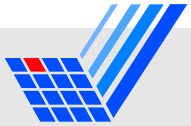
\vgradrule{red}{blue}{10em}{2ex} gives  .



`\hgradrule[⟨str⟩][⟨mod1⟩]{⟨col1⟩}[⟨mod2⟩]{⟨col2⟩}[⟨r⟩]{⟨w⟩}{⟨h⟩}`

is equivalent with `\vgradrule`, but the gradient is composed from vertical stripes progressing horizontally.

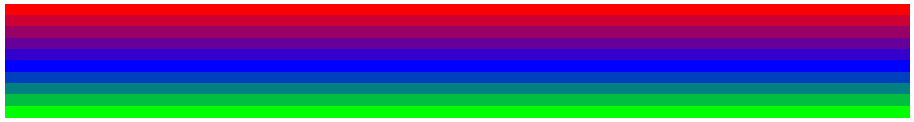
`\hgradrule{red}{blue}{10em}{2ex}` gives  .

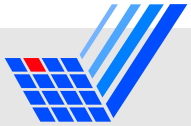


`\dblvgradrule[⟨mid⟩][⟨str⟩][⟨m1⟩]{⟨c1⟩}[⟨m2⟩]{⟨c2⟩}[⟨m3⟩]{⟨c3⟩}[⟨r⟩]`

gives a 'vertically progressing' double-gradient rule which has a start, middle, and end color.

⟨**mid**⟩ should be a fraction between **0** and **1** giving the relative position at which the 'middle' color is located.

`\dblvgradrule{red}{blue}{green}[-1ex]{10em}{3ex}`
gives  .

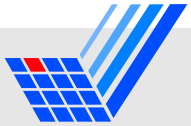


\dblhgradrule[⟨mid⟩][⟨str⟩][⟨m1⟩]{⟨c1⟩}[⟨m2⟩]{⟨c2⟩}[⟨m3⟩]{⟨c3⟩}[⟨r⟩]

is equivalent with \dblvgradrule, but the gradient is composed from vertical stripes progressing horizontally.

\dblhgradrule[.3][100]{red}{blue}{green}[-1ex]{10em}

gives  .

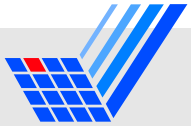


`\vgradbox[⟨str⟩][⟨mod1⟩]{⟨col1⟩}[⟨mod2⟩]{⟨col2⟩}{⟨content⟩}`

creates an mbox containing ⟨content⟩, which has a background made up of a vertical color gradient. In fact, the background exceeds the extent of ⟨content⟩ by the value of `\fboxsep` on every side, just like the `\colorbox` command from the color package. The gradient background is constructed using the `\vgradrule` command.

```
\vgradbox{textcolor}{conceptcolor}{\textcolor{presentcolor}{foo}}
```

gives foo.



```
\hgradbox[⟨str⟩][⟨mod1⟩]{⟨col1⟩}[⟨mod2⟩]{⟨col2⟩}{⟨content⟩}
```

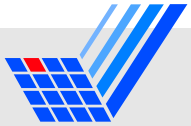
```
\dblvgradbox[⟨mid⟩][⟨str⟩][⟨m1⟩]{⟨c1⟩}[⟨m2⟩]{⟨c2⟩}[⟨m3⟩]{⟨c3⟩}{⟨cont
```

```
\dblhgradbox[⟨mid⟩][⟨str⟩][⟨m1⟩]{⟨c1⟩}[⟨m2⟩]{⟨c2⟩}[⟨m3⟩]{⟨c3⟩}{⟨cont
```

all create boxes the backgrounds of which are made of the respective gradient rules.

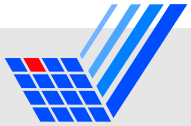
```
\dblhgradbox[][20][rgb]{.8,1,1}[rgb]{1,.8,1}[rgb]{1,1,.6}{jabberwocl
```

gives jabberwocky.



5.10 Further development

- Use 'native' color gradient facilities of the target format (ps, pdf) if available.
- Add facilities to aid in creating presentations which are friendly to color blind people.
- Add facilities for creating several color variants of a presentation simultaneously and swithching between them 'on the fly' based on viewing conditions.
- Make an empiric study on the readability of color combinations.



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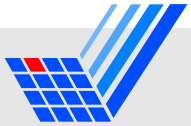

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6.1 Structured page backgrounds

`\backgroundstyle[⟨options⟩]{⟨style⟩}` is the central command for structured page backgrounds. It works like `\pagestyle` and other commands of this type. This means ⟨style⟩ is a symbolic name specifying the general method by which the page background is constructed.

The detailed construction is influenced by parameters which can be set in ⟨options⟩, which should be a comma-separated list of ⟨key⟩=⟨value⟩ pairs.

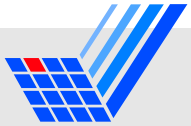
⟨style⟩ may have one of the following values:

Style: none No background.

Options: none.

Style: plain Plain background. In addition to background style **none**, the background style **plain** does produce panel backgrounds.

Options: hpanels, autopanels, toppanelcolor, bottompanelcolor, leftpanelcolor, rightpanelcolor, toppanelcolordef, bottompanelcolordef, leftpanelcolordef, rightpanelcolordef, toppanelheight, bottompanelheight, leftpanelwidth, rightpanelwidth.



Style: vgradient Vertical gradient. The page background is constructed using the `\vgradrule` command. If there are panels, the gradient rule fills the rectangular space left between the specified panels.

Options: `stripes`, `firstgradprogression`, `startcolor`, `startcolordef`, `endcolor`, `endcolordef` in addition to the parameters used for style `plain`.

Style: hgradient Horizontal gradient. The page background is constructed using the `\hgradrule` command.

Style: `doublevgradient` Double vertical gradient.

The page background is constructed using the `\dblvgradrule` command.

Options: `gradmidpoint`, `secondgradprogression`, `midcolor`, `midcolordef` in addition to the parameters used for style `vgradient` (and `plain`).

Style: `doublehgradient` Double horizontal gradient.

The page background is constructed using the `\dblhgradrule` command.

Now, a list of all parameters and their meaning. In the following,

⟨n⟩ denotes a (calc expression for a) nonnegative integer

⟨i⟩ denotes a (calc expression for an) integer

⟨r⟩ denotes a fixed-point number

⟨l⟩ denotes a (calc expression for a) length

⟨c⟩ denotes the name of a defined color

cm⟩ denotes a valid color model name

cd⟩ denotes a valid color definition wrt a given ⟨cm⟩ parameter

⟨t⟩ denotes a 'truth value' in the sense of the ifthen package. If =⟨t⟩ is omitted, the default true is assumed.

Option: stripes=⟨n⟩ Set the ⟨stripes⟩ parameter of gradient rules to ⟨n⟩.

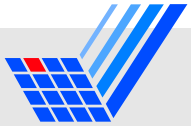
Default: \bgndstripes.
Used by: vgradient, hgradient, doublevgradient, doublehgradient.

Option: gradmidpoint=⟨r⟩ Set the ⟨midpoint⟩ parameter of double gradient rules to ⟨r⟩.

Default: \bgndgradmidpoint
Used by: doublevgradient, doublehgradient

Option: firstgradprogression=⟨i⟩ Set the first gradient progression of gradient rules to ⟨i⟩.

Default: \bgndfirstgradprogression
Used by: vgradient, hgradient, doublevgradient, doublehgradient

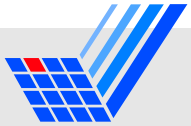


Option: `secondgradprogression=⟨i⟩` Set the second gradient progression of double gradient rules to ⟨i⟩.

Default: `\bgndsecondgradprogression`
Used by: `doublevgradient`, `doublehgradient`

Option: `startcolor=⟨c⟩` Set the ⟨`startcolor`⟩ parameter of gradient rules to ⟨c⟩.

Default: If neither `startcolor` nor `startcolordef` is given, the color `bgndstartcolor` is used as startcolor.
Used by: `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`
Overwrites: `startcolordef`

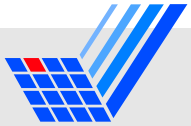


Option: `startcolordef={⟨cm⟩}{⟨cd⟩}` Set the `⟨startcolor⟩` parameter of gradient rules to color `foo`, which is obtained by `\definecolor{foo}{⟨cm⟩}{⟨cd⟩}`. Note that the two pairs of curly braces are mandatory.

Default: If neither `startcolor` nor `startcolordef` is given, the color `bgndstartcolor` is used as startcolor.

Used by: `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`

Overwrites: `startcolor`

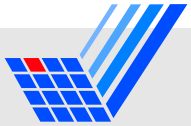


Option: `endcolor=`⟨c⟩ Set the ⟨`endcolor`⟩ parameter of gradient rules to ⟨c⟩.

Default: If neither `endcolor` nor `endcolordef` is given, the color `bgndendcolor` is used as endcolor.

Used by: `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`

Overwrites: `endcolordef`

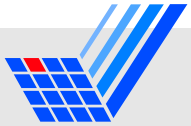


Option: `endcolordef={⟨cm⟩}{⟨cd⟩}` Set the ⟨`endcolor`⟩ parameter of gradient rules to color `foo`, which is obtained by `\definecolor{foo}{⟨cm⟩}{⟨cd⟩}`. Note that the two pairs of curly braces are mandatory.

Default: If neither `endcolor` nor `endcolordef` is given, the color `bgndendcolor` is used as endcolor.

Used by: `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`

Overwrites: `endcolor`



Option: `midcolor=`⟨`c`⟩ Set the ⟨`midcolor`⟩ parameter of double gradient rules to ⟨`c`⟩.

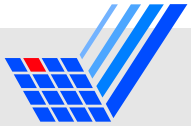
Default: If neither `midcolor` nor `midcolordef` is given, the color `bgndmidcolor` is used as midcolor.

Used by: `doublevgradient`, `doublehgradient`

Overwrites: `midcolordef`

Option: `midcolordef={⟨cm⟩}{⟨cd⟩}` Set the ⟨`midcolor`⟩ parameter of double gradient rules to color foo, which is obtained by `\definecolor{foo}{⟨cm⟩}{⟨cd⟩}`. Note that the two pairs of curly braces are mandatory.

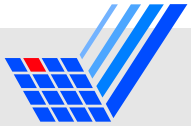
Default: If neither `midcolor` nor `midcolordef` is given, the color `bgndmidcolor` is used as midcolor.
Used by: `doublevgradient`, `doublehgradient`
Overwrites: `midcolor`



Option: `hpanels=⟨t⟩` Specifies the 'direction' of panels produced. `hpanels=true` means the top and bottom panel span the full width of the screen. In the space left in the middle, the left panel, the background itself, and the right panel are displayed. `hpanels=false` means the left and right panel span the full height of the screen.

Default: `hpanels=true` is the default for `plain`, `hgradient` and `doublehgradient`. `hpanels=false` is the default for `vgradient` and `doublevgradient`.

Used by: `plain`, `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`



Option: `autopanels=⟨t⟩` Specifies whether the default values of the parameters `toppanelheight`, `bottompanelheight`, `leftpanelwidth`, `rightpanelwidth` should be calculated automatically from the contents of declared panels, or if the current panel dimensions of declared panels are to be used as defaults.

Default: `true`.

Used by: `plain`, `vgradient`, `hgradient`, `doublevgradient`, `doublehgradient`

Option: ⟨pos⟩panelheight=⟨l⟩ Set the height of space left for the top/bottom panel to ⟨l⟩. The width is calculated automatically, depending on the setting of the hpanels parameter.

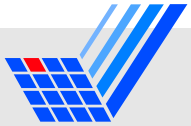
Default: If a panel has been defined using \DeclarePanel, then if autopanels=true, the height is calculated from the contents of the panel. \toppanelheight or \bottompanelheight is overwritten with the result. If autopanels=false, the setting of \toppanelheight or \bottompanelheight is taken as the default. If a panel has not been declared, \bgndtoppanelheight or \bgndbottompanelheight is used as default.

Used by: plain, vgradient, hgradient, doublevgradient, doublehgradient

Option: ⟨pos⟩panelwidth=⟨l⟩ Set the width of space left for the left/right panel to ⟨l⟩. The height is calculated automatically, depending on the setting of the hpanels parameter.

Default: If a panel has been defined using \DeclarePanel, then if autopanels=true, the height is calculated from the contents of the panel. \leftpanelwidth or \rightpanelwidth is overwritten with the result. If autopanels=false, the setting of \leftpanelwidth or \rightpanelwidth is taken as default. If a panel has not been declared, \bgndleftpanelwidth or \bgndrightpanelwidth is used as default.

Used by: plain, vgradient, hgradient, doublevgradient, doublehgradient



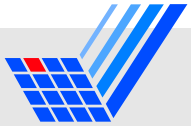
Option: ⟨pos⟩panelcolor=⟨c⟩ Set the background color of the top/bottom/left/right panel to ⟨c⟩.

Default: The standard colors toppanelcolor, bottompanelcolor, leftpanelcolor, rightpanelcolor are used as defaults.
Used by: plain, vgradient, hgradient, doublevgradient, doublehgradient
Overwrites: toppanelcolordef / bottompanelcolordef / leftpanelcolordef / rightpanelcolordef

Option: ⟨pos⟩panelcolordef={⟨cm⟩}{⟨cd⟩} Set the background color of the top/bottom/left/right panel to color foo, which is obtained by \definecolor{foo}{⟨cm⟩}{⟨cd⟩}. Note that the two pairs of curly braces are mandatory.

Used by: plain, vgradient, hgradient, doublevgradient, doublehgradient

Overwrites: toppanelcolor bottompanelcolor leftpanelcolor rightpanelcolor

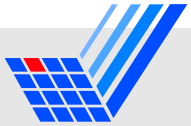


6.2 Panel-specific user level commands

`\DeclarePanel[⟨name⟩]{⟨pos⟩}{⟨contents⟩}`

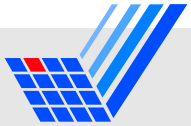
declares the contents ⟨contents⟩ of the panel at position ⟨pos⟩. Afterwards, on every page the panel contents are set in a parbox of dimensions and position specified by `\⟨pos⟩panelwidth`, `\⟨pos⟩panelheight`, `\panelmargin` and `\⟨pos⟩panelshift` for top and bottom panels and `\⟨pos⟩panelraise` for left and right panels.

The parbox is constructed anew on every page, so all changes influencing panel contents or parameters (like a `\thepage` in the panel contents) are respected.



The parbox is constructed anew on every page, so all changes influencing panel contents or parameters (like a `\thepage` in the panel contents) are respected.

The panel contents are set in color `⟨pos⟩paneltextcolor`. There is another standard color `⟨pos⟩panelcolor`, which is however not activated by `\DeclarePanel` but by selecting an appropriate background style.



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The panel contents are set in color `⟨pos⟩paneltextcolor`. There is another standard color `⟨pos⟩panelcolor`, which is however not activated by `\DeclarePanel` but by selecting an appropriate background style.

Note that `\backgroundstyle` must be called after the panel declaration.

Pages are constructed as follows: first the page background, then the panels, and then the page contents. Hence, panels overwrite the background and the page contents overwrite the panels.

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The user is supposed to make sure themselves that there is enough space left on the page for the panels (document class specific settings).

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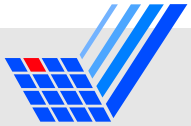
The user is supposed to make sure themselves that there is enough space left on the page for the panels (document class specific settings).

The panel declaration is global. A panel can be 'undeclared' by using `\DeclarePanel{⟨pos⟩}{}`.

If the optional argument ⟨name⟩ is given, the panel contents and (calculated) size will also be stored under the given name, to be restored later with `\restorepanels`. This is nice for switching between different sets of panels.

For an example look at the files `simplepanel.tex` and `panelexample.tex` in the `doc` directory. A simple example follows:

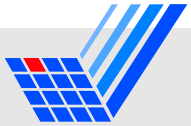
```
\DeclarePanel{left}{%
  \textsf{Your Name}

  \vfill

  \button{\Acrobatmenu{PrevPage}}{Back}
  \button{\Acrobatmenu{NextPage}}{Next} }
```



There is a starred version which will (try to) automatically calculate the ‘flexible’ dimension of each panel. For top and bottom panels this is the height, for left and right panels this is the width. Make sure the panel contents are ‘valid’ at the time `\DeclarePanel*` is called so the calculation can be carried out in a meaningful way.

There is a starred version which will (try to) automatically calculate the 'flexible' dimension of each panel. For top and bottom panels this is the height, for left and right panels this is the width. Make sure the panel contents are 'valid' at the time `\DeclarePanel*` is called so the calculation can be carried out in a meaningful way.

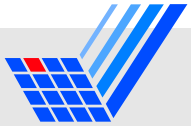
While the automatic calculation of the height of top and bottom panels is trivial (using `\settoheight`), there is a sophisticated procedure for calculating a 'good' width for the parbox containing the panel.



The procedure is not perfect, but if no ‘indigestible’ things crop up (which can result from rules or color changes appearing in the wrong place (vertical mode)), it will reliably make sure that no largish objects like logos or buttons end up sticking out of the panel.

6.3 Further development

- Add more background styles (pictures or tiles).
- Add background styles to panels.
- Define a user interface for easy definition of self-designed ‘fancy’ backgrounds.
- Allow to include `prosper` styles.
- Add an option to scale (instead of overlay) the page to fit the content area left by the panels.
- Allow for more flexible panel layout and placement.



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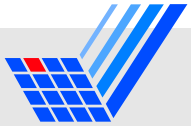

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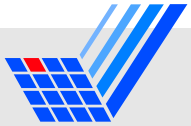

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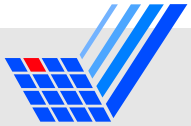

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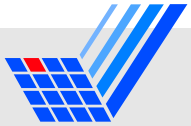
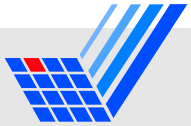
- Add an option to scale (instead of overlay) the page to fit the content area left by the panels.
- Allow for more flexible panel layout and placement.



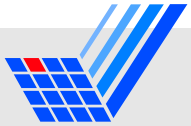
`\button{⟨navcommand⟩}{⟨text⟩}` creates a button labelled ⟨text⟩ which executes ⟨navcommand⟩ when pressed.



`\button{⟨navcommand⟩}{⟨text⟩}` creates a button labelled ⟨text⟩ which executes ⟨navcommand⟩ when pressed.

⟨navcommand⟩ can be for instance `\Acrobatmenu{⟨command⟩}` or `\hyperlink{⟨target⟩}` (note that ⟨navcommand⟩ should take one (more) argument specifying the sensitive area which is provided by `\button`).

`\button` takes four optional arguments (left out above): ⟨`width`⟩, ⟨`height`⟩, ⟨`depth`⟩ and ⟨`alignment`⟩ in that order. If given, ⟨`width`⟩, ⟨`height`⟩, ⟨`depth`⟩ give the dimensions of the framed area comprising the button (excluding the shadow, but including the frame).



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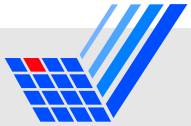
Default are the 'real' width, height and depth, respectively, of ⟨`text`⟩, plus allowance for the frame.



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Default are the 'real' width, height and depth, respectively, of ⟨`text`⟩, plus allowance for the frame.

If given, the optional parameter ⟨`alignment`⟩ (one of `l`,`c`,`r`) gives the alignment of ⟨`text`⟩ inside the button box (makes sense only if ⟨`width`⟩ is given).

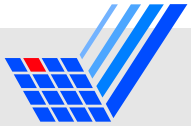
The button appearence is defined by some configurable button parameters:

`\buttonsep` Space between button label and border. (Default: `\fboxsep`)

`\buttonrule` Width of button frame. (Default: `0pt`)

`\buttonshadowhshift` Horizontal displacement of button shadow. (Default: 0.3`\fboxsep`)

`\buttonshadowvshift` Vertical displacement of button shadow. (Default: 0.3`\fboxsep`)

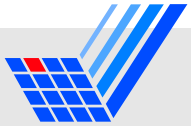


A list of predefined buttons follows:

`\backpagebutton[⟨width⟩]` Last subpage of previous page.

`\backstepbutton[⟨width⟩]` Previous step.

`\gobackbutton[⟨width⟩]` 'Undo action' (go back to whatever was before last action).

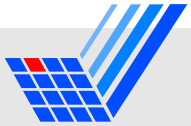


`\nextstepbutton[⟨width⟩]` Next step.

`\nextpagebutton[⟨width⟩]` First subpage of next page.

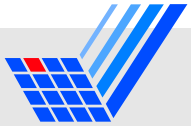
`\nextfullpagebutton[⟨width⟩]` Last subpage of next page.

`\fullscreenbutton[⟨width⟩]` Toggle fullscreen mode.



Further development

- Add more navigation buttons (and a more sensible naming scheme).
- More flexible labelling of standard buttons.
- Add means for inline bookmarks (parts of the table of contents displayed in a panel as a ‘jump table’).
- Sensible handling of thumbnails.
- Provide progress indicators which can also be used to jump to certain parts of the presentation.



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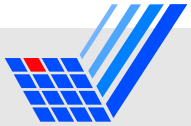

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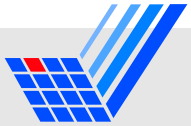

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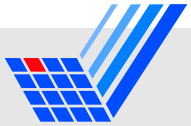
8.1 The \pause command

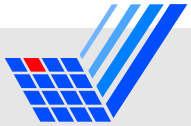
\pause will ship out the current page, start a new page and copy whatever was on the current page onto the new page, where typesetting is resumed.



8.1 The \pause command

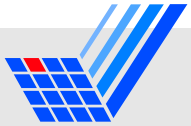
\pause will ship out the current page, start a new page and copy whatever was on the current page onto the new page, where typesetting is resumed.

This will create the effect of a pause in the presentation, i. e. the presentation stops because the current page ends at the point where the \pause command occurred and is resumed at this point when the presenter switches to the next page.



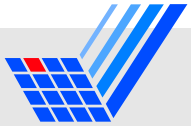
Things to pay attention to

1. `\pause` should appear in vertical mode only, i. e. between paragraphs or at places where ending the current paragraph doesn't hurt.
2. This means `\pause` is forbidden in all boxed material (including `tabular`), headers/footers, and floats.
3. `\pause` shouldn't appear either in environments which have to be closed to work properly, like `picture`, `tabbing`, and (unfortunately) environments for aligned math formulas.



4. `\pause` does work in all environments which mainly influence paragraph formatting, like `center`, `quote` or all list environments.

5. `\pause` doesn't really have problems with automatic page breaking, but beware of overfull pages/slides. In this case, it may occur that only the last page(s)/slide(s) of a sequence are overfull, which changes vertical spacing, making lines 'wobble' when switching to the last page/slide of a sequence.



6. The duplication of page material done by `\pause` can lead to unwanted side effects. In particular, if you should experience strange color switches when using `\pause` (and you are not using `pdftex`), turn on color stack correction with the option `fixcolorstack`.

A lot of the restrictions for the use of pause can be avoided by using `\stepwise` (see next section).

8.2 The \stepwise command

`\stepwise{⟨contents⟩}` is a command for displaying some part of a LaTeX document (which is contained in ⟨contents⟩) 'step by step'. As of itself, `\stepwise` doesn't do very much. If ⟨contents⟩ contains one or more constructs of the form `\step{⟨stepcontents⟩}`, the following happens:

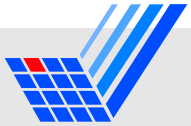
1. The current contents of the page are saved (as with `\pause`).

2. As many pages as there are `\step` commands in ⟨`contents`⟩ are produced.

   Every page starts with what was on the current page when `\stepwise` started.

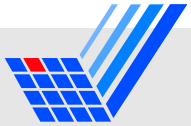
   The first page also contains everything in ⟨`contents`⟩ which is not in ⟨`stepcontents`⟩ for any `\step` command.

   The second page additionally contains the ⟨`stepcontents`⟩ for the first `\step` command, and so on, until all ⟨`stepcontents`⟩ are displayed.



3. When all ⟨`stepcontents`⟩ are displayed, `\stepwise` ends and typesetting is resumed (still on the current page).

This will create the effect that the `\step` commands are executed ‘ ’.



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This will create the effect that the `\step` commands are executed ‘step by step’.

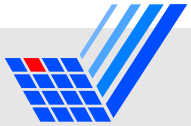
Things to pay attention to

1. `\stepwise` should appear in vertical mode only, i. e. between paragraphs, just like `\pause`.
2. Don't put `\pause` or nested occurrences of `\stepwise` into ⟨`contents`⟩.
3. Structures where `\pause` does not work (like `tabular` or aligned equations) can go completely into ⟨`contents`⟩, where `\step` can be used freely.

4. As ⟨contents⟩ is read as a macro argument, constructs involving catcode changes (like \verb or language switches) won't work in ⟨contents⟩.

5. Several instances of \stepwise may occur on one page, also combined with \pause (outside of ⟨contents⟩).

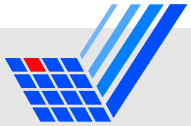
   But beware of page breaks in ⟨contents⟩. This will really mess things up.



6. `\step` can go in ⟨`stepcontents`⟩. The order of execution of `\step` commands is the order in which they appear in ⟨`contents`⟩, independent of nesting.

7. As ⟨`contents`⟩ is executed several times, LaTeX constructs changing global counters, accessing files etc. are problematic. This concerns sections, numbered equations, labels, hyperlinks and the like.

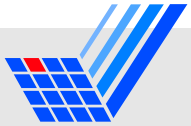
   Some things are taken care of explicitly by `\stepwise`, but others may lead to warnings or strange effects.



8.2.1 \boxedsteps and \nonboxedsteps

By default, ⟨stepcontents⟩ belonging to a \step which is not yet 'active' are ignored altogether. This makes it possible to include e. g. tabulators & or line breaks into ⟨stepcontents⟩ without breaking anything.

Sometimes, however, this behaviour is undesirable, for instance when filling in blanks. Then, the desired behaviour of a \step which is not yet 'active' is to create an appropriate amount of blank space where ⟨stepcontents⟩ can go as soon as it is activated.

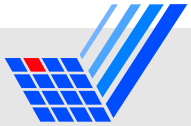


The simplest and most robust way of doing this is to create an empty box (aka \phantom) with the same dimensions as the text to be hidden.

This behaviour is toggled by the following commands.

\boxedsteps makes \step create a blank box the size of ⟨stepcontents⟩ when inactive and put ⟨stepcontents⟩ into a box when active.

\nonboxedsteps activates the default behaviour.

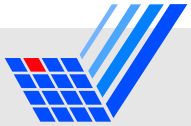


Things to pay attention to

1. The settings effected by `\boxedsteps` and `\nonboxedsteps` are local, i. e. whenever a group closes, the setting is restored to its previous value.

2. Putting stuff into boxes can break things like tabulators (`&`). It can also mess up math spacing, which then has to be corrected manually. Compare:

$$\left(\frac{a+b}{c}\right) \qquad \left(\frac{a}{c}\right) \qquad \left(\frac{a}{c}\right)$$



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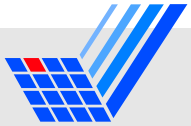
$$\left(\frac{a+b}{c}\right) \qquad \left(\frac{a+b}{c}\right) \qquad \left(\frac{a+b}{c}\right)$$

8.2.2 Custom versions of \stepwise

Sometimes, it might happen that vertical spacing is different on every page of a sequence generated by \stepwise, making lines 'wobble'.

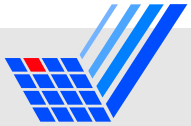
This is caused by interactions between different ways vertical spacing is added to the page. Hopefully, problems caused this way can be reduced until the first beta release.



There are two custom versions of `\stepwise` which should produce better vertical spacing.

`\liststepwise{⟨contents⟩}` works exactly like `\stepwise`, but adds an 'invisible rule' before ⟨contents⟩. Use for list environments and aligned equations.

`\parstepwise{⟨contents⟩}` works like `\liststepwise`, but `\boxedsteps` is turned on by default. Use for texts where `\steps` are to be filled into blank spaces.

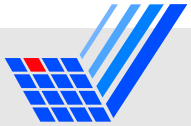


8.2.3 Starred versions of \stepwise commands

Usually, the first page of a sequence produced contains only material which is not part of any ⟨stepcontents⟩. The first ⟨stepcontents⟩ are displayed on the second page of the sequence.

For special effects, it might be desirable to have the first ⟨stepcontents⟩ active even on the first page of the sequence.

All variants of \stepwise have a starred version (e. g. \stepwise*) which does exactly that.



8.2.4 The optional argument of \stepwise

Every variant of \stepwise takes an optional argument, like this: \stepwise[⟨settings⟩]{⟨contents⟩}.

⟨settings⟩ will be placed right before the internal loop which produces the sequence of pages. It can contain settings of parameters which modify the behaviour of \stepwise or \step. ⟨settings⟩ is placed inside a group so all changes are local to this call of \stepwise.

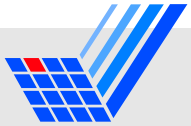
Some internal macros and counters which can be adjusted are explained in the following.

8.2.5 Customizing the way ⟨stepcontents⟩ is diplayed

Internally, there are three macros (taking one argument each) which control how ⟨stepcontents⟩ is displayed: \displaystepcontents, \hidestepcontents, and \activatestep. Virtually, every \step{⟨stepcontents⟩} is replaced by

\hidestepcontents{⟨stepcontents⟩}

when this step is not yet active.



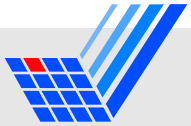
`\displaystepcontents{\activatestep{⟨stepconten`

when this step is activated for the first time.

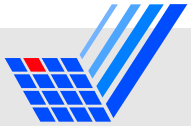
`\displaystepcontents{⟨stepcontents⟩}`

when this step has been activated before.

By redefining these macros, the behaviour of `\step` is changed accordingly. You can redefine them inside `⟨contents⟩` to provide a change affecting one `\step` only, or in the optional argument of `\stepwise` to provide a change for all `\steps` inside `⟨contents⟩`.



\activatestep is set to \displayidentical by default, the default settings of \hidestepcontents and \displaystepcontents depend on whether \boxedsteps or \nonboxedsteps (default) is used.

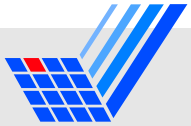


`texpower` offers nine standard definitions.

For interpreting `\displaystepcontents`:

`\displayidentical` Simply expands to its argument. The same as LaTeXs `\@ident`. Used by `\nonboxedsteps` (default).

`\displayboxed` Expands to an `\mbox` containing its argument. Used by `\boxedsteps`.

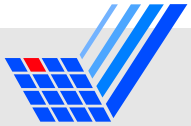


For interpreting `\hidestepcontents`:

`\hideignore` Expands to nothing. Used by `\nonboxedsteps` (default).

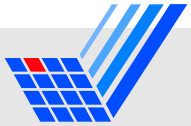
`\hidephantom` Expands to a `\phantom` containing its argument. Used by `\boxedsteps`.

`\hidevanish` In a colored document, makes its argument 'vanish' by setting all colors to `\vanishcolor` (defaults to `pagecolor`). This will give weird results with structured backgrounds.



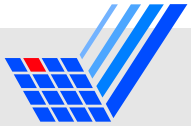
s `\hidetext` Produces blank space of the same dimensions as the space that would be occupied if its argument would be typeset in the current paragraph. Respects automatic hyphenation and line breaks.

This command needs the `soul` package to work, which is not loaded by `texpower` itself. Consult the documentation of `soul` concerning restrictions on commands implemented using `soul`.



`\hidedimmed` In a colored document, displays its argument with dimmed colors. Note that this doesn't make the argument completely invisible.

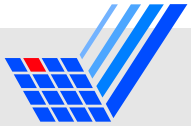
For monochrome documents, there is no useful interpretation for this command, so it is disabled.



For interpreting `\activatestep`:

`\highlightboxed` If the `colorhighlight` option is set, expands to a box with colored background containing its argument. Otherwise, expands to an `\fbox` containing its argument. The resulting box has the same dimensions as the argument (background may overlap surrounding text).

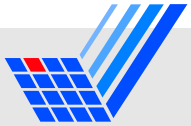
There is a new length register `\highlightboxsep` which acts like `\fboxsep` for the resulting box and defaults to `0.5\fboxsep`.



s `\highlighttext` If the `colorhighlight` option is set, puts its argument on colored background. Otherwise, underlines its argument. The resulting text has the same dimensions as the argument (background may overlap surrounding text).

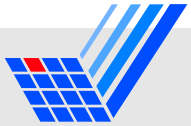
`\highlightboxsep` is used to determine the extent of the coloured box(es) used as background.

This command needs the `soul` package to work (compare the description of `\hidetext`).



`\highlightenhanced` In a colored document, displays its argument with enhanced colors.

For monochrome documents, there is no useful interpretation for this command, so it is disabled.



8.2.6 Variants of \step

There are a couple of custom versions of \step which make it easier to achieve special effects needed frequently.

\bstep Like \step, but is always boxed.

\bstep{⟨stepcontents⟩} is implemented in principle as {\boxedsteps\step{⟨stepcontents⟩}}.

`\switch{⟨ifinactive⟩}{⟨ifactive⟩}` is a variant of `\step` which, instead of making its argument appear, switches between ⟨ifinactive⟩ and ⟨ifactive⟩ when activated.

In fact, `\step{⟨stepcontents⟩}` is in principle implemented by

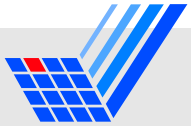
```
\switch{\hidestepcontents{⟨stepcontents⟩}}
       {\displaystepcontents{⟨stepcontents⟩}}
```

Beware of problems when ⟨ifinactive⟩ and ⟨ifactive⟩ have different dimensions.

`\dstep` A variant of `\step` which takes no argument, but simply switches colors to 'dimmed' if not active.

`\vstep` A variant of `\step` which takes no argument, but simply switches all colors to `\vanishcolor` (defaults to `pagecolor`) if not active.

`\steponce` Like `\step`, but goes inactive again in the subsequent step.



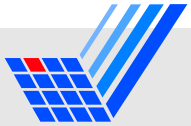
`\multistep` is a shorthand macro for executing several steps successively. The syntax is

`\multistep*[⟨activatefirst⟩]{⟨n⟩}{⟨stepcontents⟩}`

where ⟨n⟩ is the number of steps.

Only one instance of ⟨stepcontents⟩ is displayed at a time. Inside ⟨stepcontents⟩, a counter `substep` can be evaluated which tells the number of the current instance.

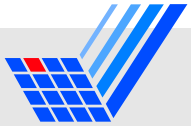
In the starred form the last instance of ⟨stepcontents⟩ stays visible.



`\movie` works like `\multistep`, but between `\steps`, pages are advanced automatically every ⟨dur⟩ seconds. The syntax is

```
\movie{⟨n⟩}{⟨dur⟩}[⟨stop⟩]{⟨stepcontents⟩}
```

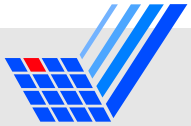
where ⟨n⟩ is the number of steps. The additional optional argument ⟨stop⟩ gives the code (default: `\stopAdvancing`) which stops the animation. (`\movie` accepts the same first optional argument as `\multistep` but it was left out above.)



`\overlays` is another shorthand macro for executing several steps successively. In contrast to `\multistep`, it doesn't print things after each other, but over each other. The syntax is

`\overlays[⟨activatefirst⟩]{⟨n⟩}{⟨stepcontents`

where ⟨n⟩ is the number of steps. Inside ⟨stepcontents⟩, a counter `substep` can be evaluated which tells the number of the current instance.

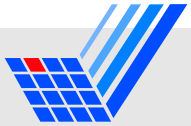


`\restep`, `\rebstep`, `\reswitch`, `\redstep`, `\revstep`.

Frequently, it is desirable for two or more steps to appear at the same time, for instance to fill in arguments at several places in a formula at once.

`\restep{⟨stepcontents⟩}` is identical with `\step{⟨stepcontents⟩}`, but is activated at the same time as the previous occurrence of `\step`.

`\rebstep`, `\reswitch`, `\redstep`, and `\revstep` do the same for `\bstep`, `\switch`, `\dstep`, and `\vstep`.

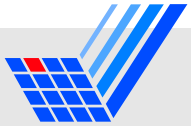


8.2.7 Optional arguments of \step

Sometimes, letting two \steps appear at the same time (with \restep) is not the only desirable modification of the order in which \steps appear. The variants of \step take two optional arguments for influencing the mode of activation, like this:

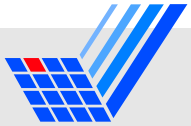
\step[⟨activatefirst⟩][⟨whenactive⟩]{⟨stepcontents⟩}.

Both ⟨activatefirst⟩ and ⟨whenactive⟩ should be conditions in the syntax of the \ifthenelse command.



⟨activatefirst⟩ checks whether this \step is to be activated for the first time. The default value is \value{step}=\value{stepcommand}. By using \value{step}=⟨*n*⟩, this \step can be forced to appear as the *n*th one.

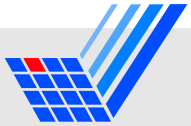
⟨whenactive⟩ checks whether this \step is to be considered active at all. The default behaviour is to check whether this \step has been activated before (this is saved internally for every step).



8.2.8 Finding out what's going on

Inside ⟨settings⟩ and ⟨contents⟩, you can refer to the following internal state variables which provide information about the current state of the process executed by \stepwise:

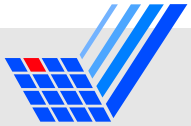
counter: firststep The number from which to start counting steps (see counter step below). Is **0** by default and **1** for starred versions of \stepwise. You can set this in ⟨settings⟩ for special effects.



counter: totalsteps The total number of \step commands occurring in ⟨contents⟩.

counter: step The number of the current iteration, i. e. the number of the current page in the sequence of pages produced by \stepwise. Runs from \value{firststep} to \value{totalsteps}.

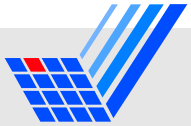
counter: stepcommand The number of the \step command currently being executed.



boolean: `firstactivation` `true` if this `\step` is active for the first time, `false` otherwise.

boolean: `active` `true` if this `\step` is currently active, `false` otherwise.

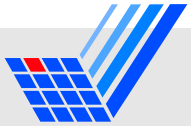
`stepcommand`, `firstactivation`, and `active` are useful only inside ⟨`stepcontents`⟩.



8.2.9 \afterstep

It might be neccessary to set some parameters which affect the appearance of the page (like page transitions) inside ⟨stepcontents⟩. However, the \step commands are usually placed deeply inside some structure, so that all local settings are likely to be undone by groups closing before the page is completed.

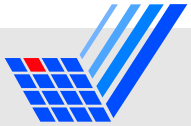
\afterstep{⟨settings⟩} puts ⟨settings⟩ right before the end of the page, after the current step is performed.



Things to pay attention to

1. There can be only one effective value for ⟨`settings`⟩. Every occurrence of `\afterstep` overwrites this value globally.

2. `\afterstep` will not be executed in ⟨`stepcontents`⟩ if the corresponding `\step` is not active, even if ⟨`stepcontents`⟩ is displayed owing to a redefinition of `\hidestepcontents`.



8.3 Page transitions and automatic advancing

8.3.1 Page transitions

These commands work only if the `hyperref` package is loaded.

The following page transition commands are defined:

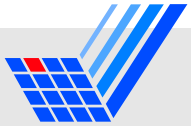
8.3 Page transitions and automatic advancing

8.3.1 Page transitions

These commands work only if the `hyperref` package is loaded.

The following page transition commands are defined:

n `\pageTransitionSplitHO` Split Horizontally to the outside.



8.3 Page transitions and automatic advancing

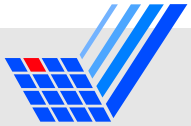
8.3.1 Page transitions

These commands work only if the `hyperref` package is loaded.

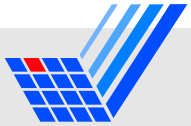
The following page transition commands are defined:

n `\pageTransitionSplitHO` Split Horizontally to the outside.

n `\pageTransitionSplitHI` Split Horizontally to the inside.

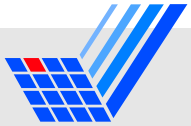


n `\pageTransitionSplitVO` Split Vertically to the outside.



n `\pageTransitionSplitVO` Split Vertically to the outside.

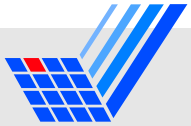
n `\pageTransitionSplitVI` Split Vertically to the inside.



n `\pageTransitionSplitVO` Split Vertically to the outside.

n `\pageTransitionSplitVI` Split Vertically to the inside.

n `\pageTransitionBlindsH` Horizontal Blinds.

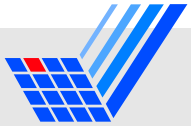


n `\pageTransitionSplitVO` Split Vertically to the outside.

n `\pageTransitionSplitVI` Split Vertically to the inside.

n `\pageTransitionBlindsH` Horizontal Blinds.

n `\pageTransitionBlindsV` Vertical Blinds.



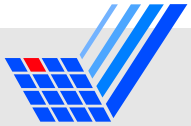
n `\pageTransitionSplitVO` Split Vertically to the outside.

n `\pageTransitionSplitVI` Split Vertically to the inside.

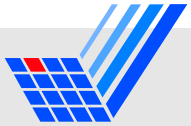
n `\pageTransitionBlindsH` Horizontal Blinds.

n `\pageTransitionBlindsV` Vertical Blinds.

n `\pageTransitionBoxO` Growing Box.



n \pageTransitionBoxI Shrinking Box.



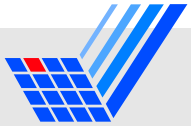
n `\pageTransitionBoxI` Shrinking Box.

n `\pageTransitionWipe{⟨angle⟩}`

Wipe from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** which specifies the direction (in degrees) in which to wipe.

Apparently, only the values **0**,



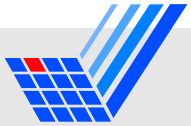
n `\pageTransitionBoxI` Shrinking Box.

n `\pageTransitionWipe{⟨angle⟩}`

Wipe from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** which specifies the direction (in degrees) in which to wipe.

Apparently, only the values **0**, **90**,



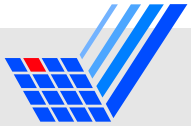
n `\pageTransitionBoxI` Shrinking Box.

n `\pageTransitionWipe{⟨angle⟩}`

Wipe from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** which specifies the direction (in degrees) in which to wipe.

Apparently, only the values **0**, **90**, **180**,



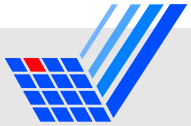
n `\pageTransitionBoxI` Shrinking Box.

n `\pageTransitionWipe{⟨angle⟩}`

Wipe from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** which specifies the direction (in degrees) in which to wipe.

Apparently, only the values **0**, **90**, **180**, **270** are supported.



n `\pageTransitionBoxI` Shrinking Box.

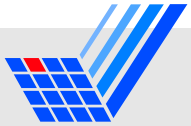
n `\pageTransitionWipe{⟨angle⟩}`

Wipe from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** which specifies the direction (in degrees) in which to wipe.

Apparently, only the values **0**, **90**, **180**, **270** are supported.

n `\pageTransitionDissolve` Dissolve.

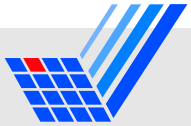


n `\pageTransitionGlitter{⟨angle⟩}`

Glitter from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** giving the direction (in degrees) in which to glitter.

Apparently, only the values **0**,

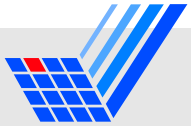


n `\pageTransitionGlitter{⟨angle⟩}`

Glitter from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** giving the direction (in degrees) in which to glitter.

Apparently, only the values **0**, **270**,

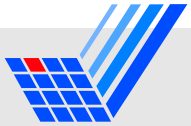


n `\pageTransitionGlitter{⟨angle⟩}`

Glitter from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** giving the direction (in degrees) in which to glitter.

Apparently, only the values **0**, **270**, **315** are supported.



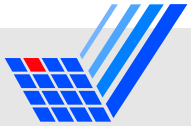
n `\pageTransitionGlitter{⟨angle⟩}`

Glitter from one edge of the page to the facing edge.

⟨angle⟩ is a number between **0** and **360** giving the direction (in degrees) in which to glitter.

Apparently, only the values **0**, **270**, **315** are supported.

n `\pageTransitionReplace` Simple Replace (the default).

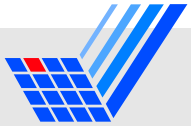


Things to pay attention to

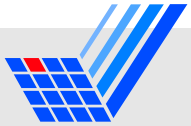
1. The setting of the page transition is a property of the page, i. e. whatever page transition is in effect when a page break occurs, will be assigned to the corresponding pdf page.

2. The page transition setting is local to groups.

   Make sure no LaTeX environment is ended between a `\pageTransition` setting and the next page break. In particular, in ⟨`stepcontents`⟩, `\afterstep` should be used.



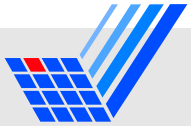
3. Setting page transitions works well with `\pause`. Here, `\pause` acts as a page break, i. e. a different page transition can be set before every occurrence of `\pause`.



8.3.2 Automatic advancing of pages

If you have loaded the `hyperref` package, then the following command is defined which enables automatic advancing of `pdf` pages.

`\pageDuration{⟨dur⟩}` causes pages to be advanced automatically every ⟨dur⟩ seconds. ⟨dur⟩ should be a non-negative fixed-point number.



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Depending on the pdf viewer, this will happen only in full-screen mode.

The same restrictions as for page transitions apply. In particular, the page duration setting is undone by the end of a group, i. e. it is useless to set the page duration if a LaTeX environment ends before the next page break.

There is no 'neutral' value for ⟨dur⟩ (**0** means advance as fast as possible). You can make automatic advancing stop by calling `\pageDuration{}`. `texpower` offers the custom command

h `\stopAdvancing`

to do this.