elpres — electronic presentations with (PDF)LaTeX

Volker Kiefel[*]

v0.4a

January 24, 2018

Contents

1 Introduction

Elpres is a simple class for presentations to be shown on screen or beamer. It is derived from LaTeX's `article` class. Elpres is primarily intended to be used with PDFLaTeX or with LaTeX, `dvips` and Ghostview/Ghostscript. The default "virtual paper size" of documents produced by this class: width=128mm, height=96mm corresponds to a 4:3 aspect ratio. Other aspect ratios for widescreen monitors may be selected by class options. Elpres requires that the `ifthen`,

---

[*]volker dot kiefel at freenet dot de, http://vkiefel.de/elpres.html

`fancyhdr` and `geometry` packages are available on the system. Enhancements to `elpres` are easily made available by other packages, these include overlay support for incremental slides (package `overlays`) hypertext elements (`hyperref` package) and slides with a background from a bitmap (`wallpaper`, `eso-pic` packages).

2   Installation

Copy `elpres.cls` into a directory, where your LATEX-system can find it and update the files database[1].

3   Usage

The class is used with

```
\documentclass[options]{elpres}
```

Options of the `article` class are also available to `elpres`, e. g. 10pt, 11pt, 12pt for selection of font size. **Elpres-specific options** allow selection of the font: `tmrfont` (Times Roman), `helvetfont` (Helevetica), `cmfont` (Computer Modern), `sansfont` (Sans Serif: default). Options for different screen aspect ratios: 4x3 (default), 16x9, 16x10.

A simple example document:

```
\documentclass[12pt,pdftex,helvetfont,4x3]{elpres}
\usepackage[latin1]{inputenc}
\usepackage{color}
\usepackage[document]{ragged2e}
\RaggedRight

\begin{document}
\begin{titlepage}
  \centering
  \distance{1}
  {
    \Huge \bfseries \textcolor{blue}{Title of the presentation} \par
  }
  \vspace{1.3ex} \large
  Author\\[2ex]Institution
  \distance{2}
\end{titlepage}

\begin{psli}[Title of Page]
The first page

\begin{itemize}
    \item first line in an itemized list
```

---

[1] e. g. by using the `mktexlsr` or `texhash` command (TeXlive)

```
    \item second line in an itemized list
\end{itemize}
\end{psli}

\begin{rsli}
The second page
\end{rsli}
\end{document}
```

The title page can be created within the `titlepage` environment, the `\maketitle` command is not available. Slides may be created with the `psli`-environment[2], you may add the title of the slide with the optional parameter. The contents of the slide are centered vertically.

Another environment generating a slide is `rsli`[3]: slides are written without title, contents are not vertically centered.

The `\distance{number}` command allows to introduce vertical space into slides constructed with the `rsli` and `titlepage` environments. You should use pairs of `\distance{}` commands with numbers indicating the relative height of empty space, see the titlepage in the example above.

The use of footnotes on slides is often problematic, if they cannot be avoided, the `footmisc` package is recommended: the `perpage` option resets numbering for each new slide. For a presentation, the `symbol` option allows to use symbols instead of numbers. After inserting a new footnote, numbers or symbols are correctly inserted only after a second run of LaTeX.

3.1 Improving paragraph justification

By default, LaTeX produces justified paragraphs with lines of equal length, this may often not be appropriate for the usually very short lines of text in presentations. The LaTeX `\raggedright` command has its own deficiencies: by inhibiting hypenation, the text at the right margin will often look too ragged. A solution is to use the `\RaggedRight` command of the `ragged2e` package by Martin Schröder.

3.2 Generate vertically compressed lists

The `elpres` package provides a "vertically compressed" `itemize`-environment:

```
\begin{citemize}
  \item  one
  \item  two
\end{citemize}
```

Similarly, a `cenumerate` and a `cdescription` environment may be used.

Another solution for the customization of `itemize` environments is given by the `enumitem` package. Therefore

```
\usepackage{enumitem}
```

---

[2]`psli`: plain slide
[3]`rsli`: raw slide

should be added to the preamble, and a comma-sperated list of parameters parameters can be added in the format:

```
\begin{itemize}[parameter-list]
   ...
\end{itemize}
```

The "vertically compressed" list can then be obtained with

```
\begin{itemize}[nosep]
  \item  one
  \item  two
\end{itemize}
```

The `enumitem` package is also able to modify the `enumerate` and description `environments`.

4 Enhancements to elpres

4.1 Include graphics files

Graphics files/pictures can be included with the `includegraphics`-command of the `graphicx`-package. Please be aware that the dimensions of the pages are 128mm × 96mm and therefore included graphics are scaled appropriately. A safe way to generate a page with a picture could be (with `pict.png` as the name of the graphics file):

```
\usepackage[pdftex]{graphicx} % (in preamble)
...
\begin{rsli}
  \centering
  \distance{1}
  \includegraphics[width=0.9\textwidth,%
                   height=0.9\textheight,%
                   keepaspectratio=true]{pict.png}
  \distance{1}
\end{rsli}
```

The `\includegraphics[]{}` comannd requires to select the correct device driver related option (e. g. `pdftex` or `dvips`) (documentclass).

4.2 Arrange text and pictures in two (or more) columns

Text and graphics may be arranged in two or more columns with `minipage` environments:

```
\begin{minipage}[b][0.8\textheight][t]{0.5\textwidth}
  \colorbox{white}{%
     \includegraphics[width=0.9\textwidth]{graphics-file.png}}
\end{minipage}
```

```
\begin{minipage}[b][0.8\textheight][t]{0.48\textwidth}
\footnotesize
\begin{citemize}
   \item ...
   \item ...
   ...
\end{citemize}
\end{minipage}
```

Details on the minipage environment may be found in the LaTeX documentation.

4.3   Incremental slides (overlays)

If the contents of slides are to be made visible step by step this can be achieved by a series of output PDF or (PS) files (carrying the same page number) usually called *overlays*. It may also be of interest to change a highlighting color in a series of overlays. This is most easily done by using the `overlays` package written by Andreas Nolda together with `elpres`.

To generate a series of four overlays sequentially showing four lines of a list:

1. load the `overlays` package in the preamble

2. put a `psli` or `rsli` slide environment into an `overlays` (or `fragileoverlays`) environment

3. enter the number of overlays as the first parameter to the `overlays` environment

4. enter text contents with the `visible` command with the range of overlays showing this text content

A simple example:

```
% to be added in preamble
\usepackage{overlays}
...
\begin{overlays}{4}
\begin{psli}[Title of slide]
\begin{itemize}
  \visible{1-4}{\item first item of list}
  \visible{2-4}{\item second list item}
  \visible{3-4}{\item 3rd list item}
  \visible{4}{\item final list item}
\end{itemize}
\end{psli}
\end{overlays}
...
```

The following example uses the `alert` command to highlight lines sequentially:

```
\begin{overlays}{4}
```

```
\begin{psli}[Title of slide]
\begin{itemize}
  \alert{1}{\item first item of list}
  \alert{2}{\item second list item}
  \alert{3}{\item 3rd list item}
  \alert{4}{\item final list item}
\end{itemize}
\end{psli}
\end{overlays}
```

The "hidden" text contents are written by `overlays` in the same color as the background, default is white. If you use a different background color, you have to change the color of the hidden text as well by assigning the background color to the color name `background` (understood by the `overlays` package). In the following example you define a light yellow as background:

```
% (in the preamble)
\definecolor{myyellow}{rgb}{0.96,0.98,0.72} % define color
\definecolor{background}{named}{myyellow}   % color assigned to
                                            % hidden text
\pagecolor{myyellow}                        % color of slide background
```

For more details on `overlays`, see the documentation of the package.

4.4   Create a "handout" from a presentation

If you wish to generate a handout from your presentation with more than one pages on a printed page, you may process a PDF presentation file with `pdfjam`[4].
The following command:

```
pdfjam --nup 2x3 --scale 0.9 -o new.pdf  presentation.pdf '1-4,7-17,22'
```

creates a "handout" PDF document (`new.pdf`) with the slides 1-4,7-17 and 22 of `presentation.pdf` arranged in two columns and three rows. With the additional option `--frame true`, `pdfjam` draws a box around each slide. More details can be found in the `pdfjam` man page. On Windows systems Acrobat reader may be helpful to print handout documents with more than one slide per printed page.

4.5   Create presentations with hypertext elements

You may use the hyperref package. As you normally will not insert `\section{}`-like commands, it is easier to define links with

```
\hypertarget{target-name}{text}
```

which can be addressed by

---

[4]which regerettably is only available on Linux or other Unix-like systems

```
\hyperlink{target-name}{text}
```

The hyperref package will produce a warning message, if you use the titlepage-environment (this is inherited from the article class). To avoid the warning you can use the `rsli`-environment for the titlepage and use `\thispagestyle{empty}` to suppress the page number on the title.

4.6 Fill background of a presentation with bitmaps

4.6.1 `Wallpaper` package

To create a slide background with a graphical wallpaper background using bitmap files you may use the `wallpaper` package[5]. Load the `wallpaper` package with

```
\usepackage{wallpaper}
```

in the preamble. In order to generate a background based on bitmap file `background.png`, enter

```
\CenterWallPaper{1}{background.png}
```

before the contents of the presentation[6]. This works best with bitmaps with an appropriate aspect ratio, in the case of an 4x3 screen format a bitmap picture of 640x480 pixel would fit perfectly. Moreover bitmap files may be used as tiles as described in the `wallpaper` documentation like

```
\TileSquareWallPaper{4}{background.png}
```

More details on this topic may be found in the `wallpaper` documentation.

4.6.2 `Eso-pic` package

Another package which allows you to paint the background with a picture is `eso-pic`[7]:

```
\usepackage{eso-pic}

...

\AddToShipoutPicture{
\includegraphics[height=\paperheight]{background.png}
}
```

`\AddToShipoutPicture{}` puts the picture on every page, `\AddToShipoutPicture*{}` puts it on to the current page, `\ClearShipoutPicture` clears the background beginning with the current page. Details of `eso-pic`'s commands can be found in the documentation.

---

[5]written by Michael H.F. Wilkinson and available on CTAN
[6]i. e. following `\begin{document}`
[7]written by Rolf Niepraschk and available on CTAN

5 License

This class is distributed under the *LATEX Project Public License* (LPPL) which may be downloaded from `http://www.latex-project.org/lppl.txt`. No warranty is provided for this work (as stated in the LPPL).

6 Versions

v0.1 (19.6.2004): initial version. **v0.2** (1.9.2004): page numbers now changed to footnotesize, left and right margins slightly changed, 'cenumerate' and 'cdescription' environments added. **v0.2a** (19.9.2004): Section "License" added to the documentation. **v0.2b** (17.10.2004): Documentation completed: description of the `\distance{}` command included. **v0.2c** (28.11.2004): Documentation completed (section 4.5 added). **v0.2d** (25.12.2004): Documentation completed (section 4.6 added). **v0.2e** (15.04.2005): Documentation completed (sections 4.6.2 and 4.4 added). **v0.3** (12.08.2005): new (class) options for font selection: `tmrfont` (Times Roman), `helvetfont` (Helevetica), `cmfont` (Computer Modern), `sansfont` (Sans Serif: default). Documentation updated, sections 4.1 and 4.2 added. **v0.4** (20.01.2018): New class options for different screen aspect ratios `4x3`, `16x9`, `16x10`; "compressed" list environments modified; documentation completed: packages for use with `elpres`: `enumitem` (alternative list environments), `overlays` (overlay support: incremental slides); section 4.4 was completely rewritten. **v0.4a** (24.01.2018): Documentation completed