elpres — electronic presentations
with (PDF)\LaTeX

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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 PDF\LaTeX 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,
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 L\LaTeX-system can find it and update the files database\textsuperscript{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
\end{itemize}
\end{psli}
\end{document}

\textsuperscript{1}e.g. by using the mktexlsr or texhash command (TeXlive)
The title page can be created within the \texttt{titlepage} environment, the \texttt{maketitle} command is not available. Slides may be created with the \texttt{psli}-environment\footnote{\texttt{psli}: plain slide}, 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 \texttt{rsli}\footnote{\texttt{rsli}: raw slide}: slides are written without title, contents are not vertically centered.

The \texttt{distance\{number\}} command allows to introduce vertical space into slides constructed with the \texttt{rsli} and \texttt{titlepage} environments. You should use pairs of \texttt{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 \texttt{footmisc} package is recommended: the \texttt{perpage} option resets numbering for each new slide. For a presentation, the \texttt{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 \LaTeXX.

\subsection*{3.1 Improving paragraph justification}

By default, \LaTeXX 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 \LaTeXX \texttt{raggedright} command has its own deficiencies: by inhibiting hyphenation, the text at the right margin will often look too ragged. A solution is to use the \texttt{RaggedRight} command of the \texttt{ragged2e} package by Martin Schröder.

\subsection*{3.2 Generate vertically compressed lists}

The \texttt{elpres} package provides a “vertically compressed” \texttt{itemize}-environment:

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

Similarly, a \texttt{cenumerate} and a \texttt{cdescription} environment may be used.

Another solution for the customization of \texttt{itemize} environments is given by the \texttt{enumitem} package. Therefore

\begin{verbatim}
\usepackage{enumitem}
\end{verbatim}
should be added to the preamble, and a comma-sperated list of 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 \texttt{enumitem} package is also able to modify the \texttt{enumerate} and description environments.

\section{Enhancements to elpres}

\subsection{Include graphics files}

Graphics files/pictures can be included with the \texttt{includegraphics}-command of the \texttt{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 \texttt{pict.png} as the name of the graphics file):

\begin{verbatim}
\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}
\end{verbatim}

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

\subsection{Arrange text and pictures in two (or more) columns}

Text and graphics may be arranged in two or more columns with \texttt{minipage} environments:

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

```latex
\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:

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

...
\begin{itemize}
\item first item of list
\item second list item
\item 3rd list item
\item final list item
\end{itemize}

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\textsuperscript{4}.

The following command:

\texttt{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 \texttt{\section{}}-like commands, it is easier to define links with

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

which can be addressed by

\textsuperscript{4}which regrettably is only available on Linux or other Unix-like systems
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 \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 \texttt{wallpaper} package\footnote{written by Michael H.F. Wilkinson and available on CTAN}. Load the \texttt{wallpaper} package with

\usepackage{wallpaper}

in the preamble. In order to generate a background based on bitmap file \texttt{background.png}, enter

\CenterWallPaper{1}{background.png}

before the contents of the presentation\footnote{i.e. following \begin{document}}. 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 \texttt{wallpaper} documentation like

\TileSquareWallPaper{4}{background.png}

More details on this topic may be found in the \texttt{wallpaper} documentation.

4.6.2 Eso-pic package

Another package which allows you to paint the background with a picture is \texttt{eso-pic}\footnote{written by Rolf Niepraschck and available on CTAN}:

\usepackage{eso-pic}

...

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

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

\textbf{v0.1} (19.6.2004): initial version. \textbf{v0.2} (1.9.2004): page numbers now changed to footnotesize, left and right margins slightly changed, ‘cenumerate’ and ‘cdescription’ environments added. \textbf{v0.2a} (19.9.2004): Section “License” added to the documentation. \textbf{v0.2b} (17.10.2004): Documentation completed: description of the \texttt{\backslash distance{}} command included. \textbf{v0.2c} (28.11.2004): Documentation completed (section 4.5 added). \textbf{v0.2d} (25.12.2004): Documentation completed (section 4.6 added). \textbf{v0.2e} (15.04.2005): Documentation completed (sections 4.6.2 and 4.4 added). \textbf{v0.3} (12.08.2005): new (class) options for font selection: \texttt{tmrfont} (Times Roman), \texttt{helvetfont} (Helvetica), \texttt{cmfont} (Computer Modern), \texttt{sansfont} (Sans Serif: default). Documentation updated, sections 4.1 and 4.2 added. \textbf{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 \texttt{elpres}: \texttt{enumitem} (alternative list environments), \texttt{overlays} (overlay support: incremental slides); section 4.4 was completely rewritten. \textbf{v0.4a} (24.01.2018): Documentation completed.