

How to add Animations/Videos in 'INTEX'- Documentations

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1 Short animations using "animate" package

With this method, the animation will be embeded in the pdf-file, it can always be played on acroread on linux, or Acrobat Reader on Windows/MacOS. Playing with Okular requires an up-to-date poppler installation and/or an up-to-date qt-version.

1.1 Handling the animation file

The most popular file type of the short animations is the gif. But it is not compatible with the latex environment. It can be transformed to eps file with the convert package in linux:

```
convert input.gif -coalesce output.eps
```

Every single frame of the gif will be transformed to a eps picture, which is automatically enumerated as fig_{name}-i.eps, that can be used in the "animateinline" directly.

1.2 Embedding figures in pdf file with latex in INTES

The "animate" is available package on ds-1. The required "graphicx" package is loaded in intes macros. "dvi2ps" must be specified as option of the document class, because animate can not recognize it automatically. The environment "animateinline" works much more smoothly in the INTES-environment rather than the "animategraphics". A typical example of it looks like:

```
\documentclass[dvips,12pt]{article}
\usepackage[UM2020x]{intes_slide}% Experimental 3:2-Ratio
\usepackage{animate}% Should we include this in intes[_slide].sty ?
\UseContour%Improve title contrast (with \textcb{#}\textCb{#}\textCw{#})
\usepackage{um450}%
\def\TOCslidecolumns{1}
\def\TOCslidewidth{150mm}
\def\TOCslidestretch{1.7}
%-----
\B{DOC}{UC2020_v18web3}{PERMAS, Version 18, Nonlinear Analysis}{ZJ/DW}%

\B{Landscape}{\textCb{Bellow: Animation}}
  \B{picture}(175,150)
    \put(0,10)
    {
      \begin{animateinline}
        [
          autoplay,
          palindrome,
          controls,
          buttonsiz = 5mm,
          width = 185mm,
          keepaspectratio
        ]{1}
        \multiframe{15}{i=1+1}
        {
          \includegraphics{path/to/figures/bellow_video-\i.eps}
        }
      \end{animateinline}
    }
  \E{picture}
\E{Landscape}
```

\E{DOC}

For more infos, see the documentation of "animate".

2 Long videos with sound using "multimedia"

If large videos are going to be played in the documentation, it should be better coded as a video file rather than framewise eps figures. The latter causes large file size and overflow in the memory. The videos compiled in the pdfs with this method is not a part of the file. It must be saved in a separate directory as specified in the tex-code.

2.1 Handling the video clip

It would be better, that the video clip is transformed to a very popular type, like * .mp4 etc.

2.2 Linking video into pdfs

The "multimedia" package is available on ds-1. A typical example of it looks like:

```
\documentclass[12pt]{article}
\usepackage[UM2020x]{intes_slide}
\usepackage{um450}
\usepackage{multimedia}
\def\TOCslidewidth{250mm}
\def\TOCslidestretch{1.2}
\B{DOC}{UC2020_v18web6}{VisPER, Version 18}{}
\B{Landscape}{\textCb{Animation}}
  \B{picture}(175,150)
    \put(0,10)
    {
      \movie[width=185mm,height=120mm,poster,showcontrols]{}{path/to/video/video.mp4}
    }
  \E{picture}
\E{Landscape}
\E{DOC}
```

For more infos, see the documentation of "beamer" package. **Whether the animation can be played in the compiled file, depends on the**

default player in the current system. Please beware of that before compilation. Take a look at the settings of the default video player to get an optimal output of the animation.