LaTeX-cursus 2021
Week 3: Getting started

TeXniCie

26 oktober 2021

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○●○○○○○○○○○○○○○	○○○○○○○	○○○	○○○○○○○	○	○○○○○○○	○○○○

{}

```
Lorem {ipsum \tiny dolor sit ame}t, consectetur
adipiscing elit. Phasellus {elementum}, lacus quis
tempus scelerisque, {elit diam vulputate ex, semper}
elementum massa odio in ante.
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus elementum,
lacus quis tempus scelerisque, elit diam vulputate ex, semper elementum
massa odio in ante.

`Lorem ipsum \textbf dolor sit:` Lorem ipsum **d**olor sit
`Lorem ipsum \textbf{dolor} sit:` Lorem ipsum **dolor** sit

Speciale tekens

Code	Resultaat	Code	Resultaat
\{	{	{	Begin groep
\}	}	}	Eindig groep
\%	%	%	Comment
_	_	_	Betekenis voor wiskunde
\textasciicircum	^	^	Betekenis voor wiskunde
\$	$	$	Wiskundemodus
\textbackslash	\	\	Commando
\&	&	&	Kolomscheiding
\#	#	#	Parameter
\textgreater	>	>	>
\textless	<	<	<

Algemeen
○○○●○○○○○○○○○○

Whitespace
○○○○○○○

Counters
○○○

Pagina
○○○○○○○

Class 'inleveropgave'
○

Boxes
○○○○○○○

Extra's
○○○○

{} | \textbackslash

Comments

```
% Make soul package work in beamer presentations
% Source: https://tex.stackexchange.com/...
\let\UL\ul
\makeatletter
\renewcommand\ul{
    \let\set@color\beamerorig@set@color
    \let\reset@color\beamerorig@reset@color
    \UL
}
...
```

Comments

```
% TODO Translate to English
\section{Nonsense}

%Lorem ipsum dolor sit amet,
%\textfb{ornare} sit amet.
%
%\subsection{About $\sqrt{2}$}
```

<div style="border:1px solid">

1   Nonsense

</div>

Aanhalingstekens

```
'LaTeX' : 'LaTeX'
`LaTeX' : 'LaTeX'
``LaTeX'': "LaTeX"
```

| Algemeen | Whitespace | Counters | Pagina | Class 'inleveropgave' | Boxes | Extra's |
| oooooooo●oooooo | ooooooo | ooo | ooooooo | o | ooooooo | oooo |

| {} | \textbackslash | `.....' | \newcommand |

\newcommand

```
\newcommand\aa{aa: ()}
\newcommand\bb[1]{bb: (#1)}
\newcommand\cc[2]{cc: (#1,#2)}
\newcommand\dd[3]{dd: (#1,#2,#3)}
\newcommand\ee[3][Z]{ee: (#1,#2,#3)}

Lorem \aa, \bb{A}, \cc{A}{B}, \dd{A}{B}{C},
\ee{A}{B}, \ee[A]{B}{C}, \ee ABC. %$ \frac{2}\sqrt{3} $
```

Lorem aa: (), bb: (A), cc: (A,B), dd: (A,B,C), ee: (Z,A,B), ee: (A,B,C), ee: (Z,A,B)C.

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○●○○○○○○	○○○○○○○	○○○	○○○○○○○	○	○○○○○○○	○○○○

{} | \textbackslash | `.....' | **\newcommand**

\newcommand

```
\newcommand\co{CO$_2$}
\newcommand\term[1]{\textcolor{blue}{\textit{#1}}}

Lorem ipsum \co{} dolor sit amet \co.
Duis \term{iaculis} id orci eu mattis.
\term{Suspendisse facilisis.}
```

Lorem ipsum CO_2 dolor sit amet CO_2. Duis *iaculis* id orci eu mattis. *Suspendisse facilisis.*

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○●○○○○○	○○○○○○○	○○○	○○○○○○○	○	○○○○○○○	○○○○

| {} | \textbackslash | `.....' | \newcommand |

\newcommand

```
\newcommand\genummerd[3][.]{\textbf{#2}\leaders
\hbox{#1}\hfill #3}

\genummerd{AA}{6}\par
\genummerd{Lorem ipsum}{12}\par
\genummerd{Amet}{20}\par
\genummerd[-]{Vivamus}{20}
```

AA 6

Lorem ipsum 12

Amet 20

Vivamus-- 20

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's

| {} | \textbackslash | `.....' | \newcommand |

\newcommand

```
\newcommand\genummerd[3][.]{\par\textbf{#2}\hspace{0.2em}
\leaders\hbox{#1}\hfill \hbox to 1.55em{\hfil #3}\par}

\genummerd{AA}{6}
\genummerd{Lorem ipsum}{12}
\genummerd{Amet}{20}
\genummerd[-]{Vivamus}{20}
\genummerd[Hoi!]{Vivamus}{20}
```

AA 6

Lorem ipsum 12

Amet 20

Vivamus --- 20

Vivamus   Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi!Hoi! 20

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○○○●○○	○○○○○○○	○○○	○○○○○○○	○	○○○○○○○	○○○○

| {} | \textbackslash | `.....' | \newcommand |

\renewcommand

```
\renewcommand\thesection{007}
\renewcommand\thesubsection{Yo}
\section{AA}
\subsection{BB}
\subsection{CC}
\subsubsection{DD}
```

007   AA

Yo   BB

Yo   CC

Yo.1   DD

Yo.2   EE

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's

{} | \textbackslash | `.....' | \newcommand

Subscript/superscript: Inzichtsvragen

Foutief	`\vec{F}_{tot}`	$\vec{F}_{tot}$
Correct	`\vec{F}_{\text{tot}}`	$\vec{F}_{\text{tot}}$
Foutief	`\vec{F_{\text{tot}}}`	$\overrightarrow{F_{\text{tot}}}$
Hint	`\vec{abc}`	$\vec{abc}$ $\overrightarrow{abc}$
Correct	`\vec{F}_{\text{tot}}`	$\vec{F}_{\text{tot}}$
Code A	`x_0^2`	x_0^2
Code B	`{x_0}^2`	${x_0}^2$

Footnote

```
Lorem ipsum\footnote{Dit tekstje zie je hier
vaak\textellipsis} dolor sit amet. Nunc metus ...
erat.\footnote{\emph{Zeer} interessant.} Aenean ...
```

Lorem ipsum[1] dolor sit amet. Nunc metus tortor, mattis et velit vitae, convallis hendrerit erat.[2] Aenean est purus, faucibus nec metus nec, ullamcorper mollis augue. Nam ac nibh nec felis semper malesuada. Nullam sit amet turpis risus. Nunc iaculis pharetra velit et vulputate.

---

[1]Dit tekstje zie je hier vaak. . .

[2]*Zeer* interessant.

Algemeen Whitespace Counters Pagina Class 'inleveropgave' Boxes Extra's
○○○○○○○○○○○○○○ ●○○○○○○ ○○○ ○○○○○○○ ○ ○○○○○○○ ○○○○

{} | \textbackslash | `.....' | \newcommand | \footnote | witregel

Alinea's

```
Lorem ipsum dolor sit amet,
... ornare sit amet.
In ipsum ante, sollicitudin
... sit amet augue.
```

```
Lorem ipsum dolor sit amet,
... ornare sit amet.

In ipsum ante, sollicitudin
... sit amet augue.
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id erat leo. Suspendisse sit amet ligula turpis. Duis congue turpis odio, non ornare elit ornare sit amet. In ipsum ante, sollicitudin at euismod vitae, tincidunt vitae massa. Aenean metus lectus, porta at tempor at, dapibus sit amet augue.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id erat leo. Suspendisse sit amet ligula turpis. Duis congue turpis odio, non ornare elit ornare sit amet.
In ipsum ante, sollicitudin at euismod vitae, tincidunt vitae massa. Aenean metus lectus, porta at tempor at, dapibus sit amet augue.

Algemeen	**Whitespace**	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
000000000000	0●00000	000	0000000	○	0000000	0000

| {} | \textbackslash | `.....' | \newcommand | \footnote | **witregel** | \noindent |

Alinea's

```
\noindent Lorem ipsum dolor
sit amet, ... ornare sit
amet.

In ipsum ante, sollicitudin
... sit amet augue.
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id erat leo. Suspendisse sit amet ligula turpis. Duis congue turpis odio, non ornare elit ornare sit amet.

In ipsum ante, sollicitudin at euismod vitae, tincidunt vitae massa. Aenean metus lectus, porta at tempor at, dapibus sit amet augue.

Alinea's

```
Lorem ipsum dolor sit amet,
... ornare sit amet.
\vspace{1cm}

In ipsum ante, sollicitudin
... sit amet augue.
```
(Steeds parskip vanaf nu)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id erat leo. Suspendisse sit amet ligula turpis. Duis congue turpis odio, non ornare elit ornare sit amet.

In ipsum ante, sollicitudin at euismod vitae, tincidunt vitae massa. Aenean metus lectus, porta at tempor at, dapibus sit amet augue.

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○○○○○	○○○○●○○○	○○○	○○○○○○○	○	○○○○○○○	○○○○

| \footnote | witregel | \noindent | \vspace | parskip |

Alinea's

```
...
\usepackage{parskip}
\begin{document}
Lorem ipsum dolor sit amet,
... ornare sit amet.

In ipsum ante, sollicitudin
... sit amet augue.
\end{document}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id erat leo. Suspendisse sit amet ligula turpis. Duis congue turpis odio, non ornare elit ornare sit amet.

In ipsum ante, sollicitudin at euismod vitae, tincidunt vitae massa. Aenean metus lectus, porta at tempor at, dapibus sit amet augue.

Algemeen | Whitespace | Counters | Pagina | Class 'inleveropgave' | Boxes | Extra's
○○○○○○○○○○○○○○ ○○○○●○○ ○○○ ○○○○○○○ ○ ○○○○○○○ ○○○○

\footnote | witregel | \noindent | \vspace | parskip

Spaties en overzichtelijke code: de verkeersregels

Nope: `\includegraphics[width=0.9\textwidth]{ afbeelding.jpg }`

Ok

```
\includegraphics [
    width=    0.9 \textwidth
]{ afbeelding . jpg }
```

Nope

```
\includegraphics [
    width=    0.9 \textwidth

]{ afbeelding . jpg }
```

Spaties en overzichtelijke code: de verkeersregels

Ok

```
\usepackage{
    parskip,
    hyperref
}
```

Ok

```
\begin{center}
    AA
\end{center}
\begin{center}
BB
\end{center}
\begin{center}CC\end{center}
```

| Algemeen | **Whitespace** | Counters | Pagina | Class 'inleveropgave' | Boxes | Extra's |
| 000000000000 | 0000000 | 000 | 0000000 | 0 | 0000000 | 0000 |

| **\footnote** | **witregel** | **\noindent** | **\vspace** | **parskip** |

Spaties

- a␣␣␣␣b␣c   a b c.

- a\␣\␣\␣\␣b␣c   a   b c.

- a\quad b c\,d\;e   a   b c d e

- a\hspace{2cm}b   a   b

- Ik kan \LaTeX schrijven!   Ik kan LATEXschrijven!

- Vincent is lid van de \TeX niCie. Vincent is lid van de TEXniCie.

- Ik kan \LaTeX{} schrijven!   Ik kan LATEX schrijven!

- ```
  Hallo␣ik
  ben␣\textellipsis .
  ```
  Hallo ik ben . . . .

- ```
  Hallo␣ik%
  ben␣\textellipsis .
  ```
  Hallo ikben . . . .

\setcounter

1	AA
5	BB
5.8	CC
6	DD
6.1	EE

```latex
\section{AA}
\setcounter{section}{4}
\section{BB}
\setcounter{subsection}{7}
\subsection{CC}
\section{DD}
\subsection{EE}
```

Counter-inspectie

1   AA

Counters: 1.0, 0,

1.1   BB

Counters: 1.1, 1, i

1.2   CC

Counters: 1.2, 2, ii

```
\section{AA}
Counters: \thesubsection,
\arabic{subsection},
\roman{subsection}

\subsection{BB}
Counters: \thesubsection,
\arabic{subsection},
\roman{subsection}

\subsection{CC}
Counters: \thesubsection,
\arabic{subsection},
\roman{subsection}
```

Algemeen | Whitespace | **Counters** | Pagina | Class 'inleveropgave' | Boxes | Extra's
○○○○○○○○○○○○○ | ○○○○○○○ | ○○● | ○○○○○○○ | ○ | ○○○○○○○ | ○○○○
\footnote | witregel | \noindent | \vspace | parskip

Counter-formattering

1   AA
(1)a   BB
(1)b   CC
(1)c   DD
2   EE
(2)a   FF

```
\renewcommand\thesubsection
{(\thesection)\alph{subsection}}

\section{AA}
\subsection{BB}
\subsection{CC}
\subsection{DD}
\section{EE}
\subsection{FF}
```

Pagina lay-out en dimensies

```
\usepackage{geometry}
\usepackage{fancyhdr}

\geometry{
    a6paper,
    landscape,
    margin=2cm,
    left=1cm,
    paperheight=12cm
}
\pagestyle{fancy}
\fancyhead[L]{Linksboven!}
```

twocolumn

Kom bij de TeXniCie! *3 SETUP AND METHOD*

Nunc feugiat purus lorem, in pulvinar leo accumsan quis. Maecenas tristique sollicitudin venenatis. Phasellus imperdiet urna quis augue ornare condimentum. Cras euismod nisi convallis ipsum ultricies aliquet. Suspendisse accumsan vulputate accumsan. Aliquam vehicula sapien quis egestas venenatis. Nam suscipit imperdiet eros eget finibus. Interdum et malesuada fames ac ante ipsum primis in faucibus. Quisque porta ultricies eros nec po-

tas. Cras a convallis mi, a finibus felis. Nunc quis nisi non magna tincidunt tincidunt. Maecenas cursus, velit non dapibus gravida, quam dui condimentum leo, ac egestas tellus sem a est. Pellentesque convallis sollicitudin commodo. Nulla non viverra sapien.

Etiam sit amet neque rutrum, semper ex et, vehicula diam. Aliquam iaculis dignissim accumsan. Integer vel suscipit ligula, at efficitur nulla. Proin iaculis quam at

```
\documentclass[a4paper,twocolumn]{article}
\usepackage[margin=2.54cm]{geometry}
\usepackage{fancyhdr}
\pagestyle{fancy}
```

| Algemeen | Whitespace | Counters | **Pagina** | Class 'inleveropgave' | Boxes | Extra's |
| ○○○○○○○○○○○○○○○ | ○○○○○○○ | ○○○ | ○○●○○○○○ | ○ | ○○○○○○○ | ○○○○ |

| \footnote | witregel | \noindent | \vspace | parskip | twocolumn |

Standalone

```
% Bestand: prachtigeformule.tex
\documentclass{standalone}
\usepackage{amsmath,amssymb}

\begin{document}
    $\displaystyle\sum_{k=0}^{\infty}
    \frac{x^k}{k!}=e^{x}$
\end{document}
```
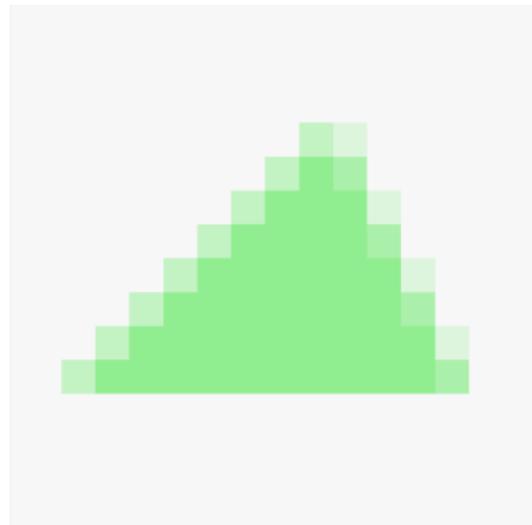
\includegraphics[...]{prachtigeformule.pdf}

$$\sum_{k=0}^{\infty} \frac{x^k}{k!} = e^x$$

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's

| \footnote | witregel | \noindent | \vspace | parskip | twocolumn |

Raster vs vector graphics

Raster (.png, .jpg, .jpeg, .bmp)   **Vector** (.pdf, .svg, .dvi, .ps)

Algemeen   Whitespace   Counters   **Pagina**   Class 'inleveropgave'   Boxes   Extra's
○○○○○○○○○○○○○○   ○○○○○○○○   ○○○   ○○○○○●○○   ○   ○○○○○○○   ○○○○
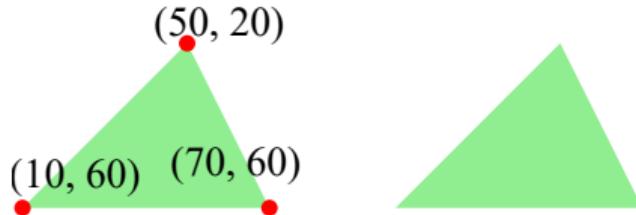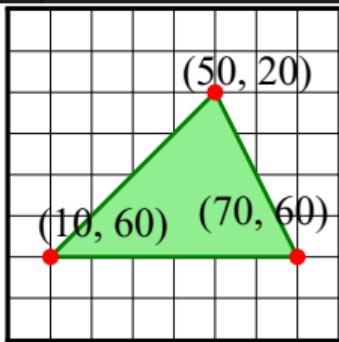
| \footnote | witregel | \noindent | \vspace | parskip | twocolumn |

Raster vs vector graphics

```
assets > images > 🐦 vector_vs_raster-vector.svg
1  ∨ <svg version="1.1"
2       width="80" height="80"
3       xmlns="http://www.w3.org/2000/svg">
4       <path d="M50 20 L70 60 L10 60 Z" fill="lightgreen" />
5  </svg>
6
```
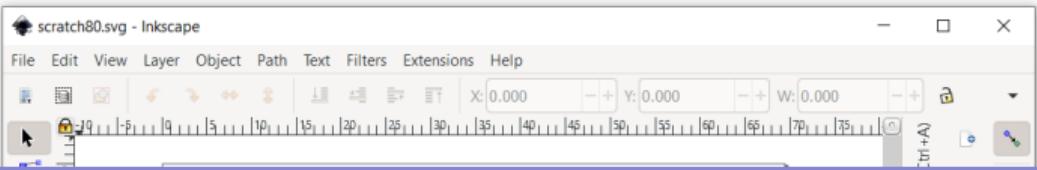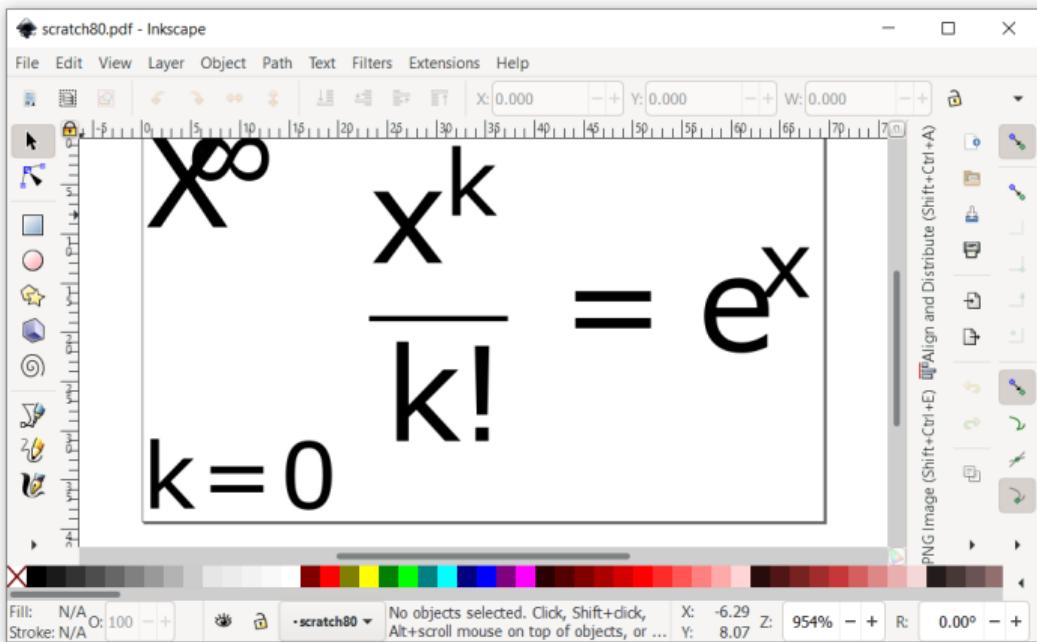
Algemeen	Whitespace	Counters	**Pagina**	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○○○○○○	○○○○○○○○	○○○	○○○○○○●○	○	○○○○○○○○	○○○○
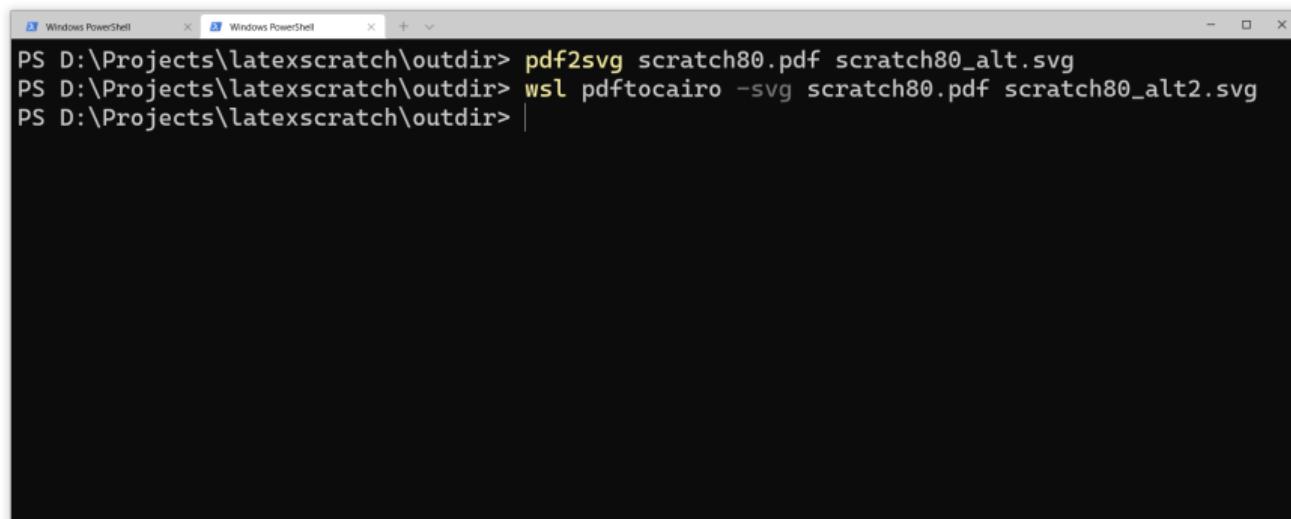
\footnote	witregel	\noindent	\vspace	parskip	twocolumn

```
PS D:\Projects\latexscratch\outdir> pdf2svg scratch80.pdf scratch80_alt.svg
PS D:\Projects\latexscratch\outdir> wsl pdftocairo -svg scratch80.pdf scratch80_alt2.svg
PS D:\Projects\latexscratch\outdir>
```

Converteren van pdf naar svg met `pdf2svg` of met package `pdftocairo`.
Voor laatste is Linux/Mac nodig of Windows Subsystem for Linux.

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○○○○○	○○○○○○○	○○○	○○○○○○○	●	○○○○○○○	○○○○

| \footnote | witregel | \noindent | \vspace | parskip | twocolumn |

Class

```
% Bestand: inleveropgave.cls
\NeedsTeXFormat{LaTeX2e}
\ProvidesClass{inleveropgave}
[2021/10/26 inleveropgave v1.0]

\LoadClass[a4paper]{article}
\RequirePackage{amsmath,amssymb,amsthm}
\RequirePackage[margin=2.54cm]{geometry}
...
```

```
% Bestand: document.tex
\documentclass{inleveropgave}
\begin{document}
    Hey!
\end{document}
```

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's

\footnote | witregel | \noindent | \vspace | parskip | twocolumn | \adjustbox

Adjustbox

```
\usepackage{adjustbox,xcolor}
```

```
\adjustbox{
    cframe=blue!50!white 1pt 6pt 3pt,
    bgcolor=blue!10!white
}{%
    Hey!%
}
```

Hey!

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	Boxes	Extra's
○○○○○○○○○○○○○○	○○○○○○○	○○○	○○○○○○○	○	○●○○○○○	○○○○

| \footnote | witregel | \noindent | \vspace | parskip | twocolumn | \adjustbox |

Adjustbox

```
\usepackage{adjustbox,xcolor}

Lorem ipsum.

\adjustbox{
cframe=blue!50!white 1pt 6pt 3pt,
bgcolor=blue!10!white,
}{%
    Quisque porta feugiat tortor
    tristique porta.
}
```

Lorem ipsum.

Quisque porta feugiat tortor tr

Adjustbox

```
\usepackage{adjustbox,xcolor}
```

```
Lorem ipsum.

\adjustbox{
cframe=blue!50!white 1pt 6pt 3pt,
bgcolor=blue!10!white,
}{%
 \parbox
 {\dimexpr\linewidth - 20pt\relax}
 {%
    Quisque porta feugiat tortor
    tristique porta.
 }%
}
```

Lorem ipsum.

Quisque porta feugiat tortor tristique porta.

Adjustbox

```
\adjustbox{right=\linewidth}{Heeeei!}

Lorem ipsum

\adjustbox{right=0pt}{(4 pt) }%
Beschrijf \textellipsis

\adjustbox{scale={2.5}{1},rotate=20}
{Hallo!}%
\adjustbox{scale={-1}{1}}{Hallo!}
```

Phantom

```
$ \displaystyle\sqrt{\phantom{\frac{2}{3}}} $

$ \displaystyle\sqrt{\frac{2}{3}} $
```

$$\sqrt{\phantom{\frac{2}{3}}}$$

$$\sqrt{\frac{2}{3}}$$

Adjustbox

```
\usepackage{adjustbox,xcolor}
```

```
Lorem ipsum.

\adjustbox{
cframe=blue!50!white 1pt 6pt 3pt,
bgcolor=blue!10!white,
}{%
 \parbox
 {\dimexpr\linewidth - 20pt\relax}
 {%
    Quisque porta feugiat tortor
    tristique porta.
 }%
}
```

Lorem ipsum.

Quisque porta feugiat tortor tristique porta.

Algemeen	Whitespace	Counters	Pagina	Class 'inleveropgave'	**Boxes**	Extra's
○○○○○○○○○○○○○○	○○○○○○○	○○○	○○○○○○○	○	○○○○○○●	○○○○

| **parskip** | **twocolumn** | **\adjustbox** | **\phantom** |

Adjustbox

```
\usepackage{environ}

\NewEnviron{important}{
 \par
 \adjustbox{
 cframe=blue!50!white 1pt 6pt 3pt,
 bgcolor=blue!10!white,
 }{%
 \parbox
 {\dimexpr\linewidth - 20pt\relax}
 {\BODY}%
 }
}
```

```
\begin{important}
    Lorem ipsum ...
\end{important}
```

| Algemeen | Whitespace | Counters | Pagina | Class 'inleveropgave' | Boxes | Extra's |
| ooooooooooooo | ooooooo | ooo | ooooooo | o | ooooooo | ●ooo |

| parskip | twocolumn | \adjustbox | \phantom |

Referenties en meermaalse compilatie

```
\begin{equation}\label{eq:wortel2}
    \sqrt{2}
\end{equation}
Kijk in \eqref{eq:wortel2}.
```

```
% document.aux gedeeltelijk:
\newlabel{eq:wortel2}{{1}{1}{BB}{equation.2.1}{}}
\newlabel{eq:wortel3}{{2}{1}{BB}{equation.2.2}{}}
\newlabel{eq:wortel4}{{3}{1}{BB}{equation.2.3}{}}
```

```
% document.toc
\contentsline {section}{\numberline {1}AA}{1}{section.1}%
\contentsline {section}{\numberline {2}BB}{1}{section.2}%
```

https://tex.stackexchange.com/a/597678/242407

Kom bij de TEXniCie! :)

Το τέλος

Vragen?

Loop je vast? Mail ons op
`texnicie@a-eskwadraat.nl`

Licentie

Contributors

Copyright (c) 2021 Vincent Kuhlmann