LaTeX-cursus week 4 (Manuel)

TeXniCie

Committee of A–Eskwadraat

December 1, 2014

Contents

1 Introduction

This is the manual belonging to the LaTeX course of A–Eskwadraat. Start with looking through the manual, including the bron code. There you will find most of the answers on the exercises and it gives you a look at how LaTeX-code looks like. Then start with the exercises. It is the idea that you use the broncode of this file and perhaps also the internet. Probably you will make some small mistakes which will lead to errors when generating your pdf-file. This will happen many times when you are working with LaTeX, so here you will learn how to handle this kind of problems. Then, last but not least, just like with a lot of things, there is not just one way to make a layout, but many more. After some time you will know what you like best.

2 Vector Graphics

Latex also supports vector graphics. Vector graphics are pictures which consists of vectors rather then pixels. The precise way how this happens is not important, but it results in a nice picture. The main feature is that one can zoom in as much as one wants and the picture will continue to look good. If you have saved a vector graphic as a PDF and you give it to LaTeX, for instances a plot from Mathematica, LaTeX will do all automatically.

3 External packages

To get extra functionality for LaTeX one often needs some extra packages. We have already seen this with*graphicx*. One can simple put `\usepackage{}` in the preamble with the package you want. If you wan more then one package you can juse usepackage many times or separate the packages you want with commas in one usepackage.

4 Beamer presentaties

Just like with Microsoft PowerPoint you can make presentations in LaTeX. This is simply done by setting your documentclass to *beamer*. After that you can start by using a *frame* wight `\begin{frame}` and `\end{frame}`. Then you can give the frame a title with`\frametitle{your title}`. The rest works somewhat the as with an article.

Animations

You can also add animations in your presentation. You will often do this in combination with itemize. The most simple option is putting $< +- >$ after `\begin{itemize}`. This will effect in one extra item at every slide. If you want to dot his different you can tell LaTeX to show which items when by hand. One writes this behind the seperate items in the itemize. For instance `\item<n-m>`. This item will be visible from the n-th slide till the m-th. If you want to put animations between different parts of you slide you can use the command `\pause`. This will split up the slide in two parts, one before the `\pause` and one after.
You can make the parts of the slides which aren't visible yet transparent or completely invisible.

This is doen with the command `\setbeamercovered.\setbeamercovered{dynamic}` makes it transparent and `\setbeamercovered{invisible}` makes it invisible. You put this command in your preamble.

Handouts

You can make your presentation in a handout by putting this as an option in your documentclass. So `\documentclass[handout]{beamer}`. All animations will be ignored so you can print your slides.

Extra lay-out

Just like an article one can add sections in a beamer. These will be shown nicely above every slide so you have an overview of what is coming. You can also give a frame a title. This is done by putting the command `\frametitle{Your title}` ad the top of your frame. You can also turn a frame in a titleframe. This is done by putting only the command `\titlepage` on a frame. Also the table of contents works the same, just put `\tableofcontents` on a frame.

Blocks

For extra lay-out one can also use blocks to put in text and formulae. This is done with `\begin{block}{Titel}` en `\end{block}}`. Don't forget the title otherwise weird things will happen. You can experiment with the colours by changing block into exampleblock or alertblock.

Kolommen

you can also give a horizontal lay-out. This is done with the environments `\begin{columns}` and `\begin{column}`. You start with a *columns* environment in which you put one or more environments `\begin{columns}` en `\begin{column}`s. You can change the alignment by given this as an option to a column for central alignment this is `\begin{column}[c]`. You can adjust the lenght by hand, for instance `\begin{column}[c]{10cm}`.

5   A-eskwadraat packages

A-Eskwadraat also has some home made packages. You can find these on `https://www.a-eskwadraat.nl/Vereniging/Commissies/hektex/`. Here there is also an elaboration on how to install these and how they work.

6   Subbigures

Sometimes you want to put some pictures next to eacht other. For this one can use subfigures. The idea is simple, you begin a figure environment and add a few `\begin{subfigure}`. You can

do pretty much the same as with normal pictures. If you want to give your subfiures separate caption one has to load the package *subcaption*. For a change one has to take care of the white space in the code. If you put an enter between different subfigures they will be placed below each other, otherwise they will stand next to each other. For examples and more elaboration, as always WikiBooks: `http://en.wikibooks.org/wiki/LaTeX/Floats,_Figures_and_Captions`