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A LaTeX package for drawing gantt plots using pgf

Introduction

I was searching for a LaTeX package or macros for drawing gantt charts. I found the pst-gantt package but it was nasty using PS Tricks together with pdflatex. So I wrote a small package using pgf/tikz.

Download gantt.sty package

Note: The gantt package is also available in the Arch Linux distribution

For package information, look here: https://aur.archlinux.org/packages/texlive-gantt/

Note: It seems that the gantt package inspired the development of the CTAN pgfgantt package

The CTAN package can be found here: https://www.ctan.org/pkg/pgfgantt?lang=de

Update 20.03.2011, Version 1.3

Andrés Silva Marambio (see his BLOG) enhanced the package by adding milestones (\ganttmilestone and \ganttmilestonecon) and a fixed a bug using \ganttbarcon (thanks to Andrés!)

Update 15.03.2011, Version 1.2

Some problems of the package has been discussed and identified at tex.stackexchange.com and fixed by Alan Munn. Theese changes are:

- px sizes has ben changed ot pt due to problems with some LaTeX distributions (thanks to Michael Kubovy, Loïc Le Guyader)
- Correction of the text aligned in \titleelement (thanks to Josh Hykes!)
- \unitlength was changed to \ganttunitlength
- \RequirePackage was added

Update 05.08.2010, Version 1.1

\ganttbar and \ganttbarcon have been extended with the xkeyval syntax
The pattern of the bar is now independent of the color and can be set by
e.g. \ganttbar[pattern=horizontal lines,color=blue] $\{...\}\{1\}\{1\}$ This syntax is now incompatible with the previous ones! Replace \ganttbar[] with \ganttbar[pattern=]!

Old Versions: gantt_v1.0.sty, gantt_v1.1.sty, gantt_v1.2.sty.

Package Description

In the following you will find a short description of environments and commands:

The **gantt** environment draws the canvas of a gantt figure (realized as tikzpicture)

The usage is \begin{gantt}[...]{no of Tasks to plot}{no of time slots}

The optional argument [...] can be filled in a key=value syntax, using one or more of the following keys:

xunitlength - length of one time slot (default: 1 cm) fontsize - fontsize of labels (default: \normalsize) titlefontsize - fontsize of title section (default: \small)

drawledgerline - Switch to enable/disable the drawing of horizontal ledger lines (default value: false)

ganttitle is the environment for drawing the title section

\titleelement draws one element of the title

usage: \titleelement{label}{length}

\numtitle draws a numbered sequence of title elements

usage: \numtitle{start number}{increment}{end number}{length of each title element}

\quad \quad

usage: \qanttbar[pattern=<pattern>,color=<color>]{label}{start}{length}

where the optional comma separated arguments are:

<pattern> - is a tikz pattern (e.g. north west lines (default), north east lines, crosshatch, crosshatch dots,
grid, ...)

<color> - a tikz color of the pattern (e.g. black (default), red, green blue gray, dark gray)

for more information see the tikz documentation

\ganttcon draws an arrow between to bars with specified coordinates

usage: \ganttbar{startx}{starty}{endx}{endy}

\ganttbarcon draws a single bar *and* connects the bar with the previous bar (or milestone) for consecutive tasks

usage: \ganttbar[pattern=<pattern>,color=<color>]{label}{start}{length}

where the optional pattern argument are the same as for \ganttbar

```
\ganttgroup draws a bar to group tasks usage: \ganttgroup{label}{start}{length}
```

```
\ganttmilestone draws a milestone using a diamond usage: \ganttmilestone[color=<color>]{label}{start} where the optional color argument argument is: <color> - a tikz color of the pattern (e.g. black (default), red, green blue gray, dark gray)
```

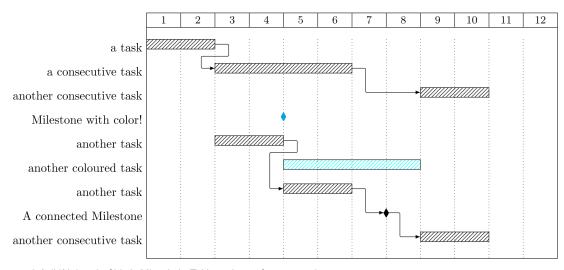
\ganttmilestonecon draws a milestone using a diamond *and* connects the milestone with the previous bar or milestone usage: \ganttmilestonecon[color=<color>]{label}{start} where the optional color argument argument is: <color> - a tikz color of the pattern (e.g. black (default), red, green blue gray, dark gray)

Examples

```
The usage is best explained by some examples. Here is a minimal example:
```

```
\documentclass{article}
\usepackage{tikz}
\usepackage{gantt}
\begin{document}
 \begin{ganttitle}
  \end{ganttitle}
  \ganttbar{a task}{0}{2}
  \ganttbarcon{a consecutive task}{2}{4}
  \ganttbarcon{another consecutive task}{8}{2}
  \qanttmilestone[color=cyan]{Milestone with color!}{4}
  \ganttbar{another task}{2}{2}
  \ganttbar[color=cyan]{another coloured task}{4}{4}
  \ganttbar{another task}{4}{2}
  \gamma{4}{5}{4}{7}
  \qanttmilestonecon{A connected Milestone}{7}
  \ganttbarcon{another consecutive task}{8}{2}
 \end{gantt}
\end{document}
```

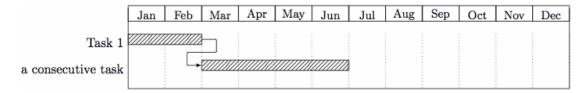
leading to the result:



Here is a similar example using the names of the month's:

```
\left( \frac{7}{12} \right)
 \begin{ganttitle}
  \titleelement{Jan}{1}
  \titleelement{Feb}{1}
  \titleelement{Mar}{1}
  \titleelement{Apr}{1}
  \titleelement{May}{1}
  \titleelement{Jun}{1}
  \titleelement{Jul}{1}
  \titleelement{Aug}{1}
  \titleelement{Sep}{1}
  \titleelement{Oct}{1}
  \titleelement{Nov}{1}
  \titleelement{Dec}{1}
 \end{ganttitle}
 \gamma Task 1{0}{2}
 \ganttbarcon{a consecutive task}{2}{4}
\end{gantt}
```

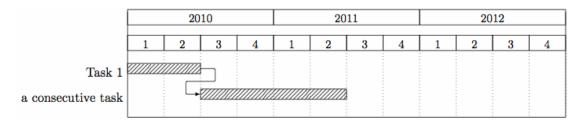
leading to the result:



You can use more titles with diffent length' to divide the time axis:

```
...
\begin{gantt}{7}{12}
\begin{ganttitle}
\numtitle{2010}{1}{2012}{4}
\end{ganttitle}
\begin{ganttitle}
\numtitle{1}{1}{4}{1}
\numtitle{1}{1}{4}{1}
\numtitle{1}{1}{4}{1}
\numtitle{1}{1}{4}{2}
\andfanttitle}
\ganttbar{Task 1}{0}{2}
\ganttbarcon{a consecutive task}{2}{4}
\end{gantt}
```

leading to the result:



Here is a more complex example using groups, different patterns and the optional arguments:

\documentclass{article}

```
\usepackage{gantt}
\usepackage{pdflscape}
\begin{document}
         \begin{landscape}
         \scalebox{0.8}{
         \begin{gantt}[xunitlength=0.5cm,fontsize=\small,titlefontsize=\small,drawledgerline=true]{10}{48}
                 \begin{ganttitle}
                         \titleelement{2009}{7}
                         \numtitle{2010}{1}{2012}{12}
                         \titleelement{2013}{5}
                  \end{ganttitle}
                  \begin{ganttitle}
                          \numtitle{6}{1}{12}{1}

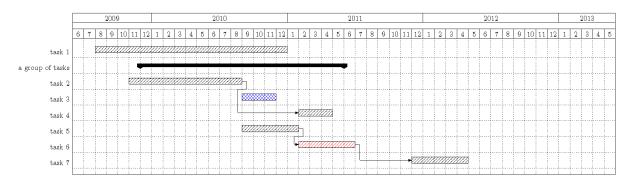
\left(1\right)^{1}^{1}^{12}^{1}

                         \numtitle{1}{1}{12}{1}

\left(1\right)^{1}^{1}^{1}^{1}

  \left( 1 \right) \left
                  \end{ganttitle}
                  \ganttbar{task 1}{2}{17}
                 \ganttgroup{a group of tasks}{6}{18}
                 \ganttbar{task 2}{5}{10}
                 \ganttbar[pattern=crosshatch,color=blue]{task 3}{15}{3}
                 \ganttbar{task 4}{20}{3}
                 \ganttcon{15}{4}{20}{6}
                 \ganttbar{task 5}{15}{5}
                 \ganttbarcon[color=red]{task 6}{20}{5}
                 \ganttbarcon{task 7}{30}{5}
          \end{gantt}
         \end{landscape}
\end{document}
```

leading to the result:



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