Abstract

pgf-pie is a LaTeX package for drawing pie chart (and variant charts). As stated by its name, it is based on a very popular graphic package PGF/TikZ. This document presents the usage of pgf-pie and collects some pie charts as examples. pgf-pie can be downloaded from https://github.com/pgf-tikz/pgf-pie.

1 Usage

1.1 First Pie

\pie is the only comand that provided by pgf-pie. The argument is a list of number and text combination in the format of number/text, i.e. 10/A, 20/B, 30/C, 40/D. The result is shown in figure 1.

1.2 Position, Rotation, Size

The center of chart can be set by pos, default is (0,0). The chart can be rotated by setting rotate (in degrees). The size of chart can be set by radius, default is 3.

\begin{tikzpicture}
\pie{10/, 20/, 30/, 40/}
\pie[pos=(8,0), rotate=180]{10/, 20/, 30/, 40/}
\pie[pos=(17,0), radius=4]{10/, 20/, 30/, 40/}
\end{tikzpicture}
1.3 Color

The color can be specified by `color`, the default color wheel is shown in figure 2.

1.4 Explode
1.5 Angle of slices

The value of \texttt{sum} indicates the sum of all data in the chart, it is 100 by default. It can be calculated automatically when \texttt{auto} is set. Then the angle of slices are determined by number value and \texttt{sum}.

\begin{tikzpicture}
\pie[\texttt{sum=auto}, \texttt{after number=}, \texttt{radius=2}]{33/Boys, 7/Girls}
\end{tikzpicture}

1.6 Text

1.6.1 Number

Two parameters can be used to decorate number: \texttt{before number} and \texttt{after number}. Both are empty by default, but if \texttt{sum=100}, \texttt{after number} will be set to $\%$ automatically if user doesn’t set it.

\begin{tikzpicture}
\pie[\texttt{before number=\£}, \texttt{after number=}]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

The number also can be hide by \texttt{hide number}:

\begin{tikzpicture}
\pie[\texttt{hide number}]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

Scale font  The size of font in size pie can be scaled according to how big the part is automatically.

\begin{tikzpicture}
\pie[\texttt{scale font}]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
1.6.2 Label text

The value of `text` can be `label` (default), `pin`, `inside` or `legend`.

\begin{tikzpicture}
\pie[text=pin]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

\begin{tikzpicture}
\pie[text=inside]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

\begin{tikzpicture}
\pie[text=legend]{10/First, 20/Second, 30/Third, 40/Fourth}
\end{tikzpicture}

1.7 More about style

1.7.1 shadow

% \usetikzlibrary(shadows)
\begin{tikzpicture}
\begin{tikzpicture}
\pie[style=drop shadow]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
\end{tikzpicture}
2 Variant Charts

2.1 Polar area diagram

The polar area diagram is similar to a usual pie chart, except sectors are equal angles and differ rather in how far each sector extends from the center of the circle.

\begin{tikzpicture}
\pie[polar]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

2.2 Square

\begin{tikzpicture}
\pie[square]{40/A, 30/B, 20/C, 10/D}
\end{tikzpicture}

Note: \texttt{explode} has no affects in square chart.

2.3 Clouds

\begin{tikzpicture}
\pie[cloud, text=inside, scale font]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}

3 Examples

4 Acknowledgements

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