I'm trying to reproduce this table:

(apologies for the terrible cameraphone pic)

I don't know how to get the slightly thicker leftmost and topmost line.

Here's a minimal example of what I have so far:

```
\documentclass[a4paper,12pt]{article}

\begin{document}

\begin{tabular}{c|c|c|c|c|c}
    $*$ & $a$ & $b$ & $c$ & $d$ & $e$ \\\hline
    $a$ & $a$ & $b$ & $c$ & $b$ & $d$ \\\hline
    $b$ & $b$ & $c$ & $a$ & $e$ & $c$ \\\hline
    $c$ & $c$ & $a$ & $b$ & $b$ & $a$ \\\hline
    $d$ & $b$ & $e$ & $b$ & $e$ & $d$ \\\hline
    $e$ & $d$ & $b$ & $a$ & $d$ & $c$
\end{tabular}

\end{document}
```

Is there an easy way to make the leftmost and topmost lines thicker?

edited Feb 16 '13 at 15:36

lockstep
187k ● 50 ● 578 ● 713

asked Jan 20 '12 at 18:24

Harold
709 ● 1 ● 6 ● 16

3 well your cam pic does have some nice colors! – flow Aug 28 '13 at 13:10 ✎

@flow ... none of which appear on the page! Lovely, (: – Harold Aug 28 '13 at 21:32 ✎

Eh...finite groupoids! – MattAllegro Apr 26 '14 at 8:01

Sorry, edit went in wrong place. – Francis Davey Nov 10 '14 at 15:00 ✎

2 Answers

You could define a thick version of `\hline` and a thick `|` as new column type as I did below. Both are based on the original code, only the thickness got changed from `\arrayrulewidth` to `1pt`.

```
\documentclass[a4paper,png]{standal
\usepackage{array}

\makeatletter
\newcommand{\thickhline}{%
    \noalign {\ifnum 0=`}\fi \hrule
    \futurelet \reserved@a \@xhline
}
\newcolumntype{"}{@{\hskip\tabcolse
\makeatother


\begin{document}

\begin{tabular}{c"c|c|c|c|c}
    $*$ & $a$ & $b$ & $c$ & $d$ & $
    $a$ & $a$ & $b$ & $c$ & $b$ & $
    $b$ & $b$ & $c$ & $a$ & $e$ & $
    $c$ & $c$ & $a$ & $b$ & $b$ & $
    $d$ & $b$ & $e$ & $b$ & $e$ & $
```

```
      $e$ & $d$ & $b$ & $a$ & $d$ & $
\end{tabular}

\end{document}
```

$*$	a	b	c	d	e
a	a	b	c	b	d
b	b	c	a	e	c
c	c	a	b	b	a
d	b	e	b	e	d
e	d	b	a	d	c

On request here a definition of a thick version of `\cline` :

```
\newcommand{\thickcline}[1]{%
    \@thickcline #1\@nil%
}

\def\@thickcline#1-#2\@nil{%
  \omit
  \@multicnt#1%
  \advance\@multispan\m@ne
  \ifnum\@multicnt=\@ne\@firstofone
  \@multicnt#2%
  \advance\@multicnt-#1%
  \advance\@multispan\@ne
  \leaders\hrule\@height1pt\hfill
  \cr
  \noalign{\vskip-1pt}%
}
```

answered Jan 20 '12 at 19:00

Martin Scharrer ♦
195k ● 44 ● 626 ● 810

I truly love this answer, however, what if I want a thick line but from certain position on the table to another one (not coordinates, good idea anyway) like the usage of `cline` . – Hans Apr 25 '14 at 23:21

I mean partial horizontal thick lines. – Hans Apr 25 '14 at 23:34

2   @Hans: I added a definition for a `\thickcline` now. Note that if you mix it with normal `\cline` or

`\hline` the lines will be top aligned, which doesn't look that good. – Martin Scharrer ♦ Apr 26 '14 at 7:55

I'd really like to use this, but when I do there is a gap between the *leftmost* line and the left edge of the table and the *rightmost* line and the right edge of the table so the top line overhangs the lines going down and this looks terrible. What do I do to fix that? – Francis Davey Nov 10 '14 at 15:01

2 @MartinScharrer Your definition of `"` gives me display problems when I try to place it as the left and right edge lines, e.g. `\begin{tabular}{"c"c"}` `...` will make the horizontal lines go beyond the vertical ones at the edges. I made the following modification: `\newcolumntype{[}{@{\vrule width 1pt\hspace{6pt}}}` `\newcolumntype{]}` `{@{\hspace{6pt}\vrule width 1pt}}` `\newcolumntype{!}` `{@{\hskip\tabcolsep\vrule width 1pt\hskip\tabcolsep}}` which seems to get rid of the problem used as `\begin{tabular}{[c!c]}` `...`. My `!` is the same as your `"`: for people using Kile the latter might be annoying. – Miguel Jul 21 '15 at 9:11

The package `tabu` provides such a modification by the optional arguments of the vertical line and the command `\tabucline`

```
\documentclass[a4paper,12pt]{articl
\usepackage{tabu}
\begin{document}

\begin{tabu}{c|[2pt]c|c|c|c|c}
    $*$ & $a$ & $b$ & $c$ & $d$ & $
    $a$ & $a$ & $b$ & $c$ & $b$ & $
    $b$ & $b$ & $c$ & $a$ & $e$ & $
    $c$ & $c$ & $a$ & $b$ & $b$ & $
    $d$ & $b$ & $e$ & $b$ & $e$ & $
    $e$ & $d$ & $b$ & $a$ & $d$ & $
\end{tabu}

\end{document}
```

$*$	a	b	c	d	e
a	a	b	c	b	d
b	b	c	a	e	c
c	c	a	b	b	a
d	b	e	b	e	d
e	d	b	a	d	c

However to produce nice tables avoid vertical lines and be spare with horizontal lines. For all this I recommend the package booktabs. Via google you will find a lot of examples.

answered Jan 20 '12 at 18:36

Marco Daniel
77k ● 13 ● 215 ● 380

Thank you for the super-fast and cogent response. I'm going to be typesetting a fair number of these tables which define binary operations on finite sets. Can you elaborate on how you think the appearance could be improved? Should this be a separate question? – Harold Jan 20 '12 at 18:49

3   This is possibly one case where rules may remain, as it's really a lattice and not a formal table. But I would avoid thick rules anyway. – egreg Jan 20 '12 at 18:56

@Harold: My note depends on normal tables. For your binary tables I would work in the same way but I would also increase the space between the cells. – Marco Daniel Jan 20 '12 at 21:18

@MarcoDaniel, good. Thanks. – Harold Jan 20 '12 at 23:27

Dear @MarcoDaniel, how can I color one table box in tabu environment? Thanks for help, R. – user51937 Apr 7 '15 at 16:27

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