

bridge — Typesetting bridge-related stuff*

Antony Lee[†]

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1 Commands

Commands and environments are provided to typeset diagrams and auctions.

<code>\spade</code>	A spade.
<code>\heart</code>	A heart.
<code>\diamond</code>	A diamond.
<code>\club</code>	A club.

`\board` The `\board` command takes six arguments: `{\top-left}` (vulnerability and dealer), `{\top-right}` (lead), `{\north}` (north hand), `{\west}` (west hand), `{\east}` (east hand) and `{\south}` (south hand). Each hand should be given in comma-separated format.

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[†]E-mail: [anntzer.lee\(at\)gmail.com](mailto:anntzer.lee(at)gmail.com)

None	♠ Axxx	
South	♥ Kxx	
	♦ Qxx	
	♣ Jxx	

♠ Jxx	N W E S	♠ Kxx
♥ Axx		♥ Qxxx
♦ Kxx		♦ Jxx
♣ Qxxx		♣ Axx

♠ Qxx	
♥ Jxx	
♦ Axxx	
♣ Kxx	

```
\board{None South}{}%
{Axxx,Kxx,Qxx,Jxx}%
{Kxx,Qxxx,Jxx,Axx}%
{Qxx,Jxx,Axxx,Kxx}%
{Jxx,Axx,Kxx,Qxxx}
```

auction (*env.*) The environment **auction** takes an optional comma-separated argument list, [*bidder-names*] (defaulting to W,N,E,S). The contents of the environment itself should be a comma-separated list of bids, and can contain alert explanations introduced by the **\alerts** macro. To start the auction not in the first column, “empty” bids are input with {}.

W N E S	
1♠(1) – 1♥ –	
1♠(1) – 2♦ ap	

```
\begin{auction}
  {}, {}, 1H, --, 1S(1), --, 2D, ap
  \alerts
  (1) Kaplan inversion.
\end{auction}
```

(1) Kaplan inversion.

auctiontwo (*env.*) The environment **auctiontwo** is the same as **auction** but typesets its contents in two columns (i.e. for uncontested auctions). [*bidder-names*] defaults to S,N.

Me You	
1N 2♥	
2♠ 4♠	
ap	

```
\begin{auctiontwo}[Me, You]
  1N, 2H, 2S, 4S, ap
\end{auctiontwo}
```

2 Options

Options can be passed when loading the package (**\usepackage**[key,key=val]{bridge}) or with the **\bridgeset** command (**\bridgeset**{key,key=val}).

color **color** selects how the suit symbols are colorized: the possible values are **bw** (default), **two** and **four**.

♠♥♦♣;	♠♥♦♣;	♠♥♦♣;
-------	-------	-------

```
\bridgeset{color=bw}
\spade\heart\diamond\club;
\bridgeset{color=two}
\spade\heart\diamond\club;
\bridgeset{color=four}
\spade\heart\diamond\club;
```

shownames With **shownames=true** (the default), names (or N/S/E/W) are typeset in diagrams and in auctions, otherwise they are omitted.

W	N	E	S
1♣	X	P	1♥
ap			

1♣	X	P	1♥
ap			

```
\bridgeset{shownames}
\begin{auction}
  1C,X,P,1H,ap
\end{auction}
\bigskip
\bridgeset{shownames=false}
\begin{auction}
  1C,X,P,1H,ap
\end{auction}
```

framedauction With **framedauction=true** (the default), a box is drawn around the auction (not including the alerts).

W	N	E	S
1♣	X(1)	P	1♥
ap			

(1) T/O

W	N	E	S
1♣	X(1)	P	1♥
ap			

(1) T/O

```
\bridgeset{framedauction}
\begin{auction}
  1C,X(1),P,1H,ap
  \alerts
  (1) T/O
\end{auction}
\bigskip
\bridgeset{framedauction=false}
\begin{auction}
  1C,X(1),P,1H,ap
  \alerts
  (1) T/O
\end{auction}
```

vertauction With **vertauction=true** (the default), the alerts are typeset below the auction. Otherwise, they are typeset next to the auction; however if there is not enough room the result may be ugly!

N	S
1♣(1)	1♥
1N	ap

(1) Polish

N	S
1♣(1)	1♥
1N	ap

(1) Polish

```
\bridgeset{vertauction}
\begin{auctiontwo}
  1C(1),1H,1N,ap
  \alerts
  (1) Polish
\end{auctiontwo}
\bigskip
\bridgeset{vertauction=false}
\begin{auctiontwo}
  1C(1),1H,1N,ap
  \alerts
  (1) Polish
\end{auctiontwo}
```

3 Implementation

1 `\package`

3.1 Dependencies

```
2 \RequirePackage{booktabs} % for auction environment
3 \RequirePackage{environ} % for \collect@body
4 \RequirePackage{etoolbox} % for \ifnumequal
5 \RequirePackage{pgfkeys}
```

```

6 \RequirePackage{pgfopts}
7 \RequirePackage{multicol}
8 \RequirePackage{x11names}{xcolor}
9 \RequirePackage{xstring} % for \StrBefore/Between/Behind
10

```

3.2 Options

```

11 \def\bridgeset#1{\pgfqkeys{/bridge}{#1}}
12 % color = bw | two | four
13 \bridgeset{color/.is choice}
14 \DeclareSymbolFont{extraup}{U}{zavm}{m}{n}
15 \DeclareMathSymbol{\@varheart}{\mathalpha}{extraup}{86}
16 \DeclareMathSymbol{\@vardiamond}{\mathalpha}{extraup}{87}
17 \bridgeset{color/bw/.code={%
18   \def\spade{\textcolor{black}{\ensuremath{\spadesuit}}}%
19   \def\heart{\textcolor{black}{\ensuremath{\heartsuit}}}%
20   \def\diamond{\textcolor{black}{\ensuremath{\diamondsuit}}}%
21   \def\club{\textcolor{black}{\ensuremath{\clubsuit}}}%
22 \bridgeset{color/two/.code={%
23   \def\spade{\textcolor{black}{\ensuremath{\spadesuit}}}%
24   \def\heart{\textcolor{red}{\ensuremath{\@varheart}}}%
25   \def\diamond{\textcolor{red}{\ensuremath{\@vardiamond}}}%
26   \def\club{\textcolor{black}{\ensuremath{\clubsuit}}}%
27 \bridgeset{color/four/.code={%
28   \def\spade{\textcolor{blue}{\ensuremath{\spadesuit}}}%
29   \def\heart{\textcolor{red}{\ensuremath{\@varheart}}}%
30   \def\diamond{\textcolor{orange}{\ensuremath{\@vardiamond}}}%
31   \def\club{\textcolor{Green2}{\ensuremath{\clubsuit}}}%
32 \bridgeset{color=bw}
33 % shownames = true | false
34 \newif\ifshownames
35 \bridgeset{shownames/.is if=shownames}
36 \bridgeset{shownames=true}
37 % framedauction = true | false
38 \newif\ifframedauction
39 \bridgeset{framedauction/.is if=framedauction}
40 \bridgeset{framedauction=true}
41 % vertauction = true | false
42 \newif\ifvertauction
43 \bridgeset{vertauction/.is if=vertauction}
44 \bridgeset{vertauction=true}
45
46 \newcommand*{\@decorateauction}[1]{%
47   \ifframedauction\framebox{#1}\else#1\fi%
48 }
49
50 \ProcessPgfOptions*
51

```

3.3 Board and hands

```

52 % Print a hand over 4 lines
53 \newcommand*{\@hand}[4]{%
54   \vtop{%
55     \hbox{\strut\spade\enspace#1}%

```

```

56      \hbox{\strut\heart\enspace#2}%
57      \hbox{\strut\diamond\enspace#3}%
58      \hbox{\strut\club\enspace#4}%
59  }%
60 }%
61
62 % User-friendly hand input
63 \newcommand*{\hand}[1]{%
64   \@hand{\StrBefore{#1}{,}}{\StrBetween[1,2]{#1}{,}{,}}%
65   {\StrBetween[2,3]{#1}{,}{,}}{\StrBehind[3]{#1}{,}}%
66 }%
67
68 % Pretty-print vulnerability and dealer
69 \newcommand*{\@extrainfo}[1]{%
70   \vtop{\raggedright\parindent=0pt\hsize=3\baselineskip #1}
71 }%
72
73 % Draw a table
74 \newcommand*{\@tablebox}{%
75   \hbox{%
76     \vrule
77     \vbox to 3\baselineskip{%
78       \hrule\vfill%
79       \hbox to 3\baselineskip{\hfil\ifshownames N\fi\hfil}%
80       \hbox to 3\baselineskip{\hskip.5em\ifshownames W\fi\hfil%
81         \ifshownames E\fi\hskip.5em}%
82       \hbox to 3\baselineskip{\hfil\ifshownames S\fi\hfil}%
83       \vfill\hrule%
84     }\vrule%
85   }%
86 }%
87
88 % Draw a board with all the information
89 \newcommand*{\board}[6]{%
90   \vtop{\halign{%
91     ## & ## & ## \cr
92     \@extrainfo{#1} & \hand{#3} & \@extrainfo{#2} \cr
93     $\vcenter{\hand{#6}}$ & $\vcenter{\@tablebox}$ & $\vcenter{\hand{#4}}$ \cr
94     & \hand{#5} & \cr
95   }}%
96 }%
97

```

3.4 Bidding

```

98 \def\@suitsymbol#1#2#3\stop{%
99   #1%
100  \if#2S\spade\else%
101  \if#2H\heart\else%
102  \if#2D\diamond\else%
103  \if#2C\club\else%
104  #2%
105  \fi\fi\fi\fi%
106  #3%
107 }%

```

```

108
109 \newcounter{col}%
110 \newbool{empty}%
111
112 \def\@printauctionfour#1\stop{%
113   \renewcommand*{\do}[1]{%
114     \ifnumequal{\value{col}}{4}{\setcounter{col}{0}\}%
115     \expandafter\@suitsymbol#1{}{}\stop%
116     \stepcounter{col}%
117     \ifnumequal{\value{col}}{4}{}{&}%
118   }%
119   \@decorateauction{%
120     \begin{tabular}{cccc}
121       \ifshownames%
122       \setcounter{col}{0}%
123       \@for\bidder:=\@bidders\do{%
124         \stepcounter{col}%
125         \bidder%
126         \ifnumequal{\value{col}}{4}{}{&}%
127       }%
128       \\%
129       \midrule%
130       \fi%
131       \setcounter{col}{0}%
132       \expandafter\docsvlist\expandafter{#1}
133     \end{tabular}%
134   }%
135 }%
136
137 \def\@printauctiontwo#1\stop{%
138   \renewcommand*{\do}[1]{%
139     \ifnumequal{\value{col}}{2}{\setcounter{col}{0}\}%
140     \expandafter\@suitsymbol#1{}{}\stop%
141     \stepcounter{col}%
142     \ifnumequal{\value{col}}{2}{}{&}%
143   }%
144   \@decorateauction{%
145     \begin{tabular}{cc}
146       \ifshownames%
147       \setcounter{col}{0}%
148       \@for\bidder:=\@bidders\do{%
149         \stepcounter{col}%
150         \bidder%
151         \ifnumequal{\value{col}}{2}{}{&}%
152       }%
153       \\%
154       \midrule%
155       \fi%
156       \setcounter{col}{0}%
157       \expandafter\docsvlist\expandafter{#1}
158     \end{tabular}%
159   }%
160 }%
161

```

```

162 \def\@splitauctionbody#1\@alerts#2\stop{%
163     \ifvertauction%
164         \expandafter\@printauction#1\stop\\%
165         \def\@alerts{}%
166         #2%
167     \else%
168         \begin{multicols}{2}%
169         \expandafter\@printauction#1\stop\\%
170         \def\@alerts{}%
171         #2%
172         \end{multicols}%
173     \fi%
174 }%
175
176 \def\alerts{\noexpand\@alerts}%
177
178 \def\@auction#1{%
179     \edef\body{#1}
180     \vtop{%
181         \parindent=0pt%
182         \expandafter\@splitauctionbody\body\@alerts\stop%
183     }%
184 }%
185
186 \NewEnviron{auction}[1][W,N,E,S]{%
187     \def\@bidders{#1}%
188     \let\@printauction\@printauctionfour
189     \@auction{\BODY}%
190 }{}%
191
192 \NewEnviron{auctiontwo}[1][N,S]{%
193     \def\@bidders{#1}%
194     \let\@printauction\@printauctiontwo
195     \@auction{\BODY}%
196 }{}%
197 </package>

```

4 Change History

v0.1

General: First public release 1

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