

bridge — Typesetting bridge-related stuff*

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Contents

1 Commands	1
2 Options	2
3 Implementation	3
3.1 Dependencies	3
3.2 Options	3
3.3 Board and hands	4
3.4 Bidding	5

1 Commands

Commands and environments are provided to typeset diagrams and auctions.

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

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None	\spadesuit Axxx		
South	\heartsuit Kxx		
	\diamondsuit Qxx		
	\clubsuit Jxx		
\spadesuit Jxx	\spadesuit Kxx	$\backslash board\{None\ South\}\%$	
\heartsuit Axx	N	{Axxx,Kxx,Qxx,Jxx} %	
\diamondsuit Kxx	W E	{Kxx,Qxxx,Jxx,Axx} %	
\clubsuit Qxxx	S	{Qxx,Jxx,Axxx,Kxx} %	
	\spadesuit Qxx	{Jxx,Axx,Kxx,Qxxx}	
	\heartsuit Jxx		
	\diamondsuit Axxx		
	\clubsuit Kxx		

auction (*env.*) The environment **auction** takes an optional comma-separated argument list, [$\langle bidder-names \rangle$] (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 \heartsuit	–	
1 \spadesuit (1)	–	2 \diamondsuit	ap
(1) Kaplan inversion.			

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

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

Me	You
1N	2 \heartsuit
2 \spadesuit	4 \spadesuit
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\bridge{\pgfqkeys{/bridge}{#1}}
12 % color = bw | two | four
13 \bridge{color/.is choice}
14 \DeclareSymbolFont{extraup}{U}{zavm}{m}{n}
15 \DeclareMathSymbol{@varheart}{\mathalpha}{extraup}{86}
16 \DeclareMathSymbol{@vardiamond}{\mathalpha}{extraup}{87}
17 \bridge{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 \bridge{color/two/.code={%
23   \def\spade{\textcolor{black}{\ensuremath{\spadesuit}}}}%
24   \def\heart{\textcolor{red}{\ensuremath{\varheartsuit}}}}%
25   \def\diamond{\textcolor{red}{\ensuremath{\vardiamond}}}}%
26   \def\club{\textcolor{black}{\ensuremath{\clubsuit}}}}}
27 \bridge{color/four/.code={%
28   \def\spade{\textcolor{blue}{\ensuremath{\spadesuit}}}}%
29   \def\heart{\textcolor{red}{\ensuremath{\varheartsuit}}}}%
30   \def\diamond{\textcolor{orange}{\ensuremath{\vardiamond}}}}%
31   \def\club{\textcolor{Green2}{\ensuremath{\clubsuit}}}}}
32 \bridge{color=bw}
33 % shownames = true | false
34 \newif\ifshownames
35 \bridge{shownames/.is if=shownames}
36 \bridge{shownames=true}
37 % framedauction = true | false
38 \newif\ifframed auction
39 \bridge{framed auction/.is if=framed auction}
40 \bridge{framed auction=true}
41 % vert auction = true | false
42 \newif\ifvert auction
43 \bridge{vert auction/.is if=vert auction}
44 \bridge{vert auction=true}
45
46 \newcommand*{@decorate auction}[1]{%
47   \ifframed \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\hspace=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%
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}\relax}{%
115             \expandafter\@suitssymbol##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\docslist\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}\relax}{%
140             \expandafter\@suitssymbol##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\docslist\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 
```

4 Change History

v0.1

General: First public release 1

5 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols <i>\@bidders</i> <i>\@alerts</i> 162, <i>\@auction</i> . . 178, 189, 195	<i>165, 170, 176, 182</i>	<i>\@bidders</i> <i>. 123, 148, 187, 193</i>
--	---------------------------	---

\@decorateauction	1, 102	M
... 46, 119, 144	20, 25, 30, 57, 102	
\@extrainfo	20	
\@for	123, 148	
\@hand	53, 64	
\@printauction	132, 157	N
... 164, 169, 188, 194		
\@printauctionfour	179	
... 112, 188	\edef	E
\@printauctiontwo	167	
... 137, 194	\else	
\@splitauctionbody	167	
... 162, 182	\end	
\@suitsymbol 98, 115, 140	133, 158, 172	
\@tablebox	55, 56, 57, 58	
\@vardiamond	\enspace	
\@varheart	18, 19, 20,	
\\"	21, 23, 24, 25,	
... 114, 128,	26, 28, 29, 30, 31	
... 139, 153, 164, 169	\ensuremath	
A	environments:	
\alerts	auction	1
auction (env.)	auctiontwo	2
auctiontwo (env.)	\expandafter	
B	115, 132, 140,	
\baselineskip	157, 164, 169, 182	
... 70, 77, 79, 80, 82	F	
\begin	\fi	47, 79, 80, 81, 82,
\bidder	105, 130, 155, 173	
\board	\framebox	47
\BODY	\framedauction	2
\body	H	
\bridgeset	\halign	90
... 11, 13, 17,	\hand	63, 92, 93, 94
... 22, 27, 32, 35,	\hbox	55, 56, 57,
... 36, 39, 40, 43, 44	58, 75, 79, 80, 82	
C	\heart	1, 19, 24, 29, 56, 101
\club	\heartsuit	19
\clubsuit	\hfil	79, 80, 82
\collect@body	\hrule	78, 83
\color	\hsize	70
\cr	\hskip	80, 81
D	I	
\DeclareMathSymbol	\if	100, 101, 102, 103
... 15, 16	\ifframedauction	38, 47
\DeclareSymbolFont	\ifnumequal	
... 14	... 4, 114, 117,	
\def	126, 139, 142, 151	
... 11, 18, 19, 20,	\ifshownames	34, 79,
... 21, 23, 24, 25,	80, 81, 82, 121, 146	
... 26, 28, 29, 30,	\ifvertauction	42, 163
... 31, 98, 112, 137,	L	
... 162, 165, 170,	\let	188, 194
... 176, 178, 187, 193	N	
\mathalpha	\newbool	110
\midrule	\newcommand	46,
\newline	53, 63, 69, 74, 89	
\newcounter	\newcounter	109
\NewEnviron	\newif	186, 192
\noexpand	\noexpand	34, 38, 42
\parindent	\ProcessPgfOptions	176
\pgfkeys	P	
\ProcessPgfOptions	\raggedright	70
R	\renewcommand	113, 138
\RequirePackage	\RequirePackage	2,
... 3, 4, 5, 6, 7, 8, 9	S	
\setcounter	\setcounter	114, 122,
... 131, 139, 147, 156	\shownames	2
\spade	\spade	1,
... 18, 23, 28, 55, 100	\spadesuit	18, 23, 28
\stepcounter	\stepcounter	116, 124, 141, 149
\stop	\stop	98, 112,
... 115, 137, 140,	162, 164, 169, 182	
\StrBefore	\StrBehind	115, 137, 140,
... 9, 64	\StrBetween	64, 65
\StrBehind	\strut	55, 56, 57, 58
V	T	
\textcolor	\textcolor	18, 19, 20,
... 21, 23, 24, 25,	21, 23, 24, 25,	
... 26, 28, 29, 30, 31	26, 28, 29, 30, 31	
\value	V	
... 114, 117,	\value	114, 117,
... 126, 139, 142, 151	\vbox	126, 139, 142, 151
\vcenter	\vcenter	77
\vertauction	\vfill	93
\vrule	\vrule	3
\vtop	\vrule	78, 83
... 54, 70, 90, 180	\vtop	76, 84