

ConTEXTt

The background of the page is a dense, overlapping pattern of stylized document icons. Each icon is a rectangle with a white border and a gray fill, containing several horizontal lines representing text. The icons are arranged in a way that they appear to be floating and overlapping each other, creating a sense of depth and a busy, document-oriented environment.

title : ConTEXTt User Module
subtitle : Go Module
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```
1 \writestatus{loading}{Context User Module / Go Module}
```

```
2 \unprotect
```

The dead stone calculator, the board background and the stones are saved in two extra modules. The third module contains two extra conversion commands and the default setup.

```
3 \usemodule[deadstone]
  \usemodule[sgf-generic]
  \usemodule[sgf-library]
```

```
4 \useJSscripts[fld][FieldStack]
```

```
5 \setuppagenumbering[\c!location=,\c!state=\v!stop]
```

```
6 \setupcolors[\c!state=\v!start]
  \definecolor[boardbackground][r=1,g=.625,b=.0625]
  \definecolor[deadstonebackground][r=1,g=1,b=1]
```

```
7 \setupinteraction
  [\c!state=\v!start,
   \c!focus=\v!height,
   \c!page=\v!yes,
   \c!openaction=\v!firstpage,
   \c!click=\v!off]
```

```
8 \newcounter\thegame
  \newcounter\thestep
```

```
9 \definesymbol[\v!empty][ ]%
```

```
10 \newdimen\stoneunit \stoneunit=.5632cm
    \newdimen\boardunit \boardunit=.6cm
    \newdimen\captureunit \captureunit=.4cm
```

```
11 \defineoverlay[board][{\useMPgraphic{board}}]
```

```
12 \setupinterlinespace
  [\c!height=0,
   \c!depth=1,
   \c!top=0,
   \c!bottom=0,
   \c!line=\boardunit]
```

\drawboard The main loop to draw the board with all stones and the stone numbers. The number color depends on the current stone color and on the currently placed stone.

```
13 \def\drawboard
  {\vbox{\dorecurse\boardsize
    {\edef\boardrow{\recurselevel}%
      \hbox{\dorecurse\boardsize
        {\edef\boardcolumn{\recurselevel}%
          \hbox{!!to\boardunit
            {\hss\vbox{!!to\boardunit
              {\vss
                \ifcase\currentstone
                \or\convertnumber\@@@bdconversion\currentstone
```

```

        \or\convertnumber\@@@bdconversion\currentstone
        \fi
        \vss}\hss}%
\hskip-\boardunit
\hbox\!!to\boardunit
  {\vbox\!!to\boardunit
    {\hsize\boardunit
      \vss
      \ifhighlightlabel
        \ifnum\currentstonenumber=\stonecount
          \def\@@@bdblackcolor{red}% I overload the preset values
          \def\@@@bdwhitecolor{red}% from the setupboard settings!
        \fi
      \fi
      \ifcase\currentstone
        \or\hbox\!!to\hsize
          {\hss\doattributes{\????bd\v!black}\c!style\c!color\currentstonenumber\hss}
        \or\hbox\!!to\hsize
          {\hss\doattributes{\????bd\v!white}\c!style\c!color\currentstonenumber\hss}
        \fi
      \vss}}}}}}

```

\drawboa.. The next three macros take care of the three board alternatives and put the area for the removed stones on the left and right side or at the bottom.

```

\drawboa..
\drawboa..
\drawboa..
14
\def\drawboarda
  {\increment\thestep
   \definesymbol
   [stone:\thegame:\thestep]
   [{\vbox
     {\offinterlineskip
      \framed
      [\c!offset=\boardunit,\c!frameoffset=\!!zeropoint,\c!strut=\v!no,
       \c!top=\!!zeropoint,\c!bottom=\!!zeropoint,\c!depth=\!!zeropoint,
       \c!frame=\v!off]
      {\offinterlineskip
       \drawboard}
     \framed
     [\c!frame=\v!off,
      \c!width=\dimexpr\boardsize\boardunit+\plustwo\boardunit\relax,
      \c!height=\numexpr\@@@bdn*\plustwo\relax\boardunit,
      \c!background=color,
      \c!backgroundcolor=deadstonebackground]
     {\vbox\!!to\vsiz
      {\vbox\!!to.5\vsiz{\processdeadstones[\deadblackstones]\vfill}
       \vbox\!!to.5\vsiz{\processdeadstones[\deadwhitestones]\vfill}}}}}}
15
\def\drawboardb
  {\increment\thestep
   \definesymbol
   [stone:\thegame:\thestep]
   [{\hbox
     {\framed
      [\c!frame=\v!off,

```

```

        \c!width=\numexpr\@@@bdn*\plustwo\relax\boardunit,
        \c!height=\dimexpr\boardsize\boardunit+\plustwo\boardunit\relax,
        \c!background=color,
        \c!backgroundcolor=deadstonebackground]%
    {\vbox\!!to\vsizel{\processdeadstones[\deadblackstones]\vfill}}}%
\framed
    [\c!offset=\boardunit,\c!frameoffset=\!!zeropoint,\c!strut=\v!no,
    \c!top=\!!zeropoint,\c!bottom=\!!zeropoint,\c!depth=\!!zeropoint,
    \c!frame=\v!off]%
    {\offinterlineskip
    \drawboard}%
\framed
    [\c!frame=\v!off,
    \c!width=\numexpr\@@@bdn*\plustwo\relax\boardunit,
    \c!height=\dimexpr\boardsize\boardunit+\plustwo\boardunit\relax,
    \c!background=color,
    \c!backgroundcolor=deadstonebackground]%
    {\vbox\!!to\vsizel
    {\processdeadstones[\deadwhitestones]\vfill}}}}]}

16 \def\drawboardc
    {\increment\thestep
    \definesymbol
    [stone:\thegame:\thestep]
    [{\framed
    [\c!offset=\boardunit,\c!frameoffset=\!!zeropoint,\c!strut=\v!no,
    \c!top=\!!zeropoint,\c!bottom=\!!zeropoint,\c!depth=\!!zeropoint,
    \c!frame=\v!off]%
    {\offinterlineskip
    \drawboard}}]}

```

`\process..` The removed stones in the interactive version are placed with the `\processdeadstones` command. It is called twice, once for the black stones and a second time for the white stones.

```

17 \def\processdeadstones[#1]%
    {\def\dodoprocessdeadstones##1:##2:##3:##4\relax
    {\hbox\!!to\boardunit
    {\hss\vbox\!!to\boardunit{\convertnumber\@@@bdconversion{##3}}\hss}%
    \hskip-\boardunit
    \hbox\!!to\boardunit
    {\vbox\!!to\boardunit
    {\hsize\boardunit
    \vss
    \ifcase##3
    \or\hbox\!!to\hsize{\hss\doattributes{\????bd\v!black}\c!style\c!color{##4}\hss}
    \or\hbox\!!to\hsize{\hss\doattributes{\????bd\v!white}\c!style\c!color{##4}\hss}
    \fi
    \vss}}}%
    \hbox\!!to\boardunit
    {\vbox\!!to\boardunit
    {\vfill
    \smallbodyfont % problems in mkiv
    \hbox\!!to\hsize{\doattributes{\????bd\c!style\c!color

```

```

        {\sgfcharacter{##2}\Numbers{\numexpr\boardsize-
##1+\plusone\relax}}\hss}
        \vfill\vfill}}}%
\def\doprocessdeadstones##1%
  {\ifdim\wd\scratchbox>\hsize
    \hbox\!!to\hsize{\box\scratchbox\hss}%
    \setbox\scratchbox\hbox
    {\box\scratchbox\hbox\!!to\plustwo\boardunit{\@EA\doprocessdeadstones##1\relax}}%
  \else
    \setbox\scratchbox\hbox
    {\box\scratchbox\hbox\!!to\plustwo\boardunit{\@EA\doprocessdeadstones##1\relax}}%
  \fi}%
\processcommaccommand[#1]\doprocessdeadstones
\hbox\!!to\hsize{\box\scratchbox\hss}}

```

`\flushboard`. After `\drawboard` with its three alternatives had drawn a board and saved it in a field we flush it with the `\flushboard` command.

```

18 \def\flushboard
   {\ifnum\thestep=\@fdstart\relax
    \definefield
    [\v!game:\thegame:\thestep] [\s!check] [\v!game:\thegame]
    [\v!stone:\thegame:\thestep,\v!empty]
    [\v!stone:\thegame:\thestep]%
  \else
    \definefield
    [\v!game:\thegame:\thestep] [\s!check] [\v!game:\thegame]
    [\v!stone:\thegame:\thestep,\v!empty] [\v!empty]%
  \fi
  \removeunwantedspaces
  \vbox\!!to\!!zeropoint
  {\vskip-\plusone\points\hbox\!!to\!!zeropoint
   {\fitfield[\v!game:\thegame:\thestep]\hss}\vss}%
  \vskip-\baselineskip}

19 \def\clearoverlapstatus
   {\dorecurse\boardsize
    {\edef\boardrow{\recurselevel}%
     \dorecurse\boardsize
     {\edef\boardcolumn{\recurselevel}%
      \presetcurrentstatus{\zerocount}}}%
    \global\let\overlaplist\empty}

20 \def\presetcurrentstatus#1%
   {\setxvalue{status:\boardrow:\boardcolumn}{#1}%
    \resetvalue{overlap:\boardrow:\boardcolumn}}

21 \def\makeoverlaplist#1%
   {\appendtocommalist{#1}\overlaplist}

22 \def\stonecolor#1%
   {\@EA\@EA\@EA\@EA\@EA\@EA\firstofcurrentstone\getvalue{field:#1}\relax}

```

```

23 \def\stonestep#1%
    {\@EA\@EA\@EA\@EA\@EA\@EA\secondofcurrentstone\getvalue{field:#1}\relax}

24 \def\currentstatus
    {\getvalue{status:\boardrow:\boardcolumn}}

25 \def\setstatus#1#2%
    {\setevalue{status:\number#1:\number#2}}

26 \def\setcurrentstatus
    {\setstatus\boardrow\boardcolumn}

27 \def\currentoverlap
    {\getvalue{overlap:\boardrow:\boardcolumn}}

28 \def\setoverlap#1#2%
    {\setevalue{overlap:\number#1:\number#2}}

29 \def\setcurrentoverlap
    {\setoverlap\boardrow\boardcolumn}

30 \def\dummystonebox
    {\hbox\!!to\boardunit
     {\hss\vbox\!!to\boardunit
      {\vss
       \ifcase\currentstone
        \or\convertnumber\@@@bdconversion\currentstone
        \or\convertnumber\@@@bdconversion\currentstone
        \fi
       \vss}%
      \hss}%
     \hskip-\boardunit
    \hbox\!!to\boardunit
     {\vbox\!!to\boardunit
      {\hsize\boardunit
       \vss
       \ifcase\currentstone
        \or\hbox\!!to\hsize
         {\hss\doattributes{\????bd\v!black}{\c!style}{\c!color}{\currentstonenumber}\hss}
        \or\hbox\!!to\hsize
         {\hss\doattributes{\????bd\v!white}{\c!style}{\c!color}{\currentstonenumber}\hss}
        \fi
       \vss}}}}

```

\addumm.. This is a alternative for the \addstone command in the dead stone calculator. It saves only the position and states of every field in a macro and make a listentry if there is already a stone on the position and we replace it.

```

31 \def\adddummystone(#1:#2:#3)%
    {\global\advance\stonecount\plusone
     \edef\boardrow{\number#1}%
     \edef\boardcolumn{\number#2}%
     \ifcase\currentstatus
       \setcurrentstatus{\plusone}%
     \or

```

```

    \setcurrentstatus{\plustwo}%
    \makeoverlaplist\currentstonenumber
    \setvalue{overlaplist:\currentstonenumber}{\csname overlap:#1:#2\endcsname}%
    \setcurrentoverlap{\dummystonebox}%
  \else
    \setcurrentstatus{\plusthree}%
  \fi
  \setevalue{field:\number#1:\number#2}%
  {\ifx#3B
    \plusone
  \else\ifx#3W
    \plustwo
  \fi\fi:\number\stonecount}%
  \ifcase\currentstatus\or\else
    \setcurrentoverlap
    {\hbox
      {\currentoverlap
        \vbox\!!to\boardunit{\vss\hbox\!!to\boardunit{\hss$\mathstrut{}={}\hss}\vss}%
        \dummystonebox}}%
    \fi}

```

`\process..` This is the alternative to `\processdeadstones` for the printable version. The stones are sorted from the lowest number to the highest.

```

32 \def\processoverlappedstones
    {\scratchdimen\hsize
    \def\doprocessoverlappedstones##1%
      {\setbox\globalscratchbox\hbox{\getvalue{overlaplist:##1}}%
      \ifdim\wd\globalscratchbox>\scratchdimen
        \scratchdimen\dimexpr\hsize-\wd\globalscratchbox\relax
        \hbox\!!to\hsize{\box\scratchbox\hfill}%
        \box\scratchbox\box\globalscratchbox
      \else
        \scratchdimen\dimexpr\scratchdimen-\wd\globalscratchbox-
        \@@@bddistance\relax
        \setbox\scratchbox\hbox{\box\scratchbox\box\globalscratchbox\hskip\@@@bddistance}%
      \fi}%
    \sortcommacommand[\overlaplist]\donumericcompare
    \processcommacommand[\sortedcommalist]\doprocessoverlappedstones
    \hbox\!!to\hsize{\box\scratchbox\hss}}

33 \bgroup
\catcode`\;=13
\gdef\dostartSGFbox
  {\setupboard[\c!alternative=\v!c]%
  \switchtobodyfont[\the\dimexpr.45\boardunit\relax]%
  \doglobal\increment\thegame
  \clearboard\clearoverlapstatus
  \doglobal\let\thestep\zerocountvalue
  \global\stonecount\!!zerocount
  \def;##1[##2##3]%
    {\adddummystone(\characteronumber##2:\characteronumber##3:##1)}%
  \catcode`\^M=\@@ignore}
\egroup

```



```

34 \def\stopSGFbox
    {\framed
     [\c!offset=\v!overlay,\c!strut=\v!no,
      \c!top=\!!zeropoint,\c!bottom=\!!zeropoint,\c!depth=\!!zeropoint,
      \c!frame=\v!on]
     {\vbox
      {\offinterlineskip
       \framed
        [\c!offset=\boardunit,\c!frameoffset=\!!zeropoint,\c!strut=\v!no,
         \c!top=\!!zeropoint,\c!bottom=\!!zeropoint,\c!depth=\!!zeropoint,
         \c!width=\dimexpr\boardsize\boardunit+2\boardunit\relax,
         \c!frame=\v!on,\c!background={color,board},
         \c!backgroundcolor=boardbackground]%
        {\dontcomplain
         \offinterlineskip
         \highlightlabelfalse
         \drawboard}
       \framed
        [\c!frame=\v!on,
         \c!width=\dimexpr\boardsize\boardunit+\plustwo\boardunit\relax,
         \c!height=\numexpr\@@@bdn*\plustwo\relax\boardunit,
         \c!offset=.2\boardunit]%
        {\vbox\!!to\vsizel{\processoverlappedstones}}}}}}

35 \bgroup
    \catcode\;=13
    \gdef\dostartSGFpage
      {\startTEXpage
       [\c!width=\dimexpr\boardsize\boardunit
        \if\@@@bdalternative\v!a
          +\plustwo\boardunit
        \else\if\@@@bdalternative\v!b
          +\numexpr\@@@bdn*\plustwo\relax\boardunit
        \else
          +\plustwo\boardunit
        \fi\fi\relax,
       \c!height=\dimexpr\boardsize\boardunit
        \if\@@@bdalternative\v!a
          +\numexpr\@@@bdn*\plustwo+\plustwo\relax\boardunit
        \else\if\@@@bdalternative\v!b
          +\plustwo\boardunit
        \else
          +\plustwo\boardunit
        \fi\fi\relax,
       \c!background={color,board},
       \c!backgroundcolor=boardbackground]%
      \switchtobodyfont [\the\dimexpr.45\boardunit\relax]%
      \doglobal\increment\thegame
      \clearboard
      \getparameters
      [\??fd]
      [\c!start=1,\c!width=\v!fit,\c!height=\c!fit,\c!offset=\v!overlay,\c!frame=\v!off]%
      \doglobal\let\thestep\zerocountervalue

```

```

\global\stonecount\!!zerocount
\setupfield
  [\v!game:\thegame]
  [\v!reset]%
\setupfield
  [\v!game:\thegame]
  [\c!option=\v!readonly,
  \c!frameoffset=\!!zeropoint,
  \c!strut=\v!no,
  \c!top=\!!zeropoint,
  \c!bottom=\!!zeropoint,
  \c!depth=\!!zeropoint,
  \c!width=\v!fit,
  \c!height=\v!fit,
  \c!offset=\v!overlay,
  \c!frame=\v!off]%
\definefield
  [\v!game:\thegame:\thestep] [\s!check] [\v!game:\thegame]
  [\v!empty,\v!empty] [\v!empty]%
\cleardeadstonelist
\executeifdefined{drawboard\@@@bdalternative}\drawboarda
\flushboard
\def;##1[##2##3]%
  {\addstone(\characteronumber##2:\characteronumber##3:##1)%
  \doif\@@@bdcalculate\v!yes\processtones
  \executeifdefined{drawboard\@@@bdalternative}\drawboarda
  \flushboard}%
\catcode\~M=\@@ignore}
\egroup

```

`\starSGF` The two macros `\startSGF` and `\stopSGF` begin and end the parser for the go stones saved with the `sgf` syntax.

`\stopSGF`

```

36 \def\stopSGFpage
    {\startoverlay{\overlaybutton{JS(Walk_Field{\v!game:\thegame})}}\stopoverlay
    \stopTEXpage}

37 \def\startSGF
    {\bgroup
    \catcode\;=13
    \dosingleempty\dostartSGF}

38 \def\dostartSGF[#1]%
    {\iffirstargument
    \setupboard[#1]%
    \fi
    \doif\@@@bdcalculate\v!no
    {\setupboard[\c!alternative=\v!c]}%
    \doifelse\@@@bdprintable\v!no
    \dostartSGFpage
    \dostartSGFbox}

```

```
39 \def\stopSGF
    {\doifelse\@@@bdprintable\v!no
     \stopSGFpage
     \stopSGFbox
     \egroup}
40 \protect \endinput
```

Go Module

\adddummystone 5

\drawboarda 2

\drawboardb 2

\drawboardc 2

\drawboard 1

\flushboard 4

\processdeadstones 3

\processoverlappedstones 6

\starSGF 8

\stopSGF 8