

ConTeXt

Presentation Environment 19

category: ConTeXt Style File

author: Hans Hagen

date: August 7, 2001

This style is made in the process of writing the MetaFun manual. It exploits a few tricks, like graphics calculated using positional information. It also uses the (at that moment) new menu list placement alternative. If you forget about the definition of the button shapes, which is complicated in any system, this style is not even that hard to follow. Watch how the left side of the buttons follow the right side of the text graphic.

While playing bit with this style, the random alternative made me think of those organic building with non equal windows (we have a few in The Netherlands), so I decided to label this style as **pre-organic**.

At the end of this file, there is a small test file, so when you process this file with T_EXEXEC and the options `--mode=demo` and `--pdf`, you will get a demo document.

We use one of the standard screen ‘paper’ sizes, and map it onto the same size, so that we get a nicely cropped page.

```
1 \setuppapersize
   [S6] [S6]
```

Like in the MetaFun manual, we use the Palatino as main bodyfont. This font is quite readable on even low resolution screens, although I admit that this style is developed using an 1400 × 1050 pixel LCD screen, so I may be biased.

```
2 \startmode[asintended] \setupbodyfont[ppl] \stopmode
```

The layout specification sets up a text area and a right edge area where the menus will go. Watch the rather large edge distance. By setting the header and footer dimensions to zero, we automatically get rid of page body ornaments, like the pagenumber.

```
3 \setuplayout
   [topspace=48pt,
    backspace=48pt,
    cutspace=12pt,
    width=400pt,
    margin=0cm,
    rightedge=88pt,
    rightedgedistance=48pt,
    header=0cm,
    footer=0cm,
    height=middle]
```

We use a moderate, about a line height, interparagraph white space.

```
4 \setupwhitespace
   [big]
```

Of course we use colors, since on computer displays they come for free.

```
5 \setupcolors
   [state=start]

6 \definecolor [red] [r=.75]
  \definecolor [yellow] [r=.75,g=.75]
  \definecolor [gray] [s=.50]
  \definecolor [white] [s=.85]
```

```

7 \definecolor [PageColor]      [yellow]
  \definecolor [TextColor]      [white]
  \definecolor [OrnamentColor]  [red]
  \definecolor [InteractionColor] [red]
  \definecolor [ContrastColor]  [gray]

```

This is an interactive document, so we enable interaction. In this style, we disable the viewer's 'highlight a hyperlink when it's clicked on' feature. We will use a menu, so we enable menus. Later we will see the contract color —hyperlinks gets that color when we are already on the location— in action.

```

8 \setupinteraction
  [state=start,
   click=off,
   color=InteractionColor,
   contrastcolor=ContrastColor,
   menu=on]

```

The menu itself is set up as follows. Because we will calculate menubuttons based on their position on the page, we have to keep track of the positions. Therefore, we set the `position` variable to `yes`.

```

9 \setupinteractionmenu
  [right]
  [frame=off,
   position=yes,
   align=middle,
   topoffset=-.75cm,
   bottomoffset=-.75cm,
   color=gray,
   contrastcolor=gray,
   style=bold,
   before=,
   after=]

```

The menu content is rather sober: a list of topics (later we will define the command that generates topic entries), and a close button.

```

10 \startinteractionmenu[right]
    \placelist [Topic] [alternative=right]
    \vfill
    \but [CloseDocument] close \\
\stopinteractionmenu

```

We have now arrived at the more interesting part of the style definition: the graphic that goes in the page background. Because this graphic will change, we define a usable `METAPOST` graphic. Page backgrounds are recalculated each page, opposite to the other backgrounds that are calculated when a new background is defined, or when repetitive calculation is turned on.

```

11 \setupbackgrounds
    [page]
    [background=page]

```

```

12 \defineoverlay
    [page]
    [\useMPgraphic{page}]

13 \setupMPvariables
    [page]
    [alternative=3]

14 \startuseMPgraphic{page}

15 \includeMPgraphic{rightsuperbutton}

16 StartPage ;

17 path p, q ; pickup pencircle scaled 3pt ;

18 p := Field[Text][Text] enlarged 36pt superellipsed .90 ;

19 fill Page withcolor \MPcolor{PageColor} ;
    fill p withcolor \MPcolor{TextColor} ;
    draw p withcolor \MPcolor{OrnamentColor} ;

20 p := Field[Text][Text] enlarged 48pt superellipsed .90 ;

21 def right_menu_button (expr nn, rr, pp, xx, yy, ww, hh, dd) =
    if (pp>0) and (rr>0) :
        q := rightsuperbutton(p,xx,yy,RightEdgeWidth,hh) ;
        fill q withcolor \MPcolor{TextColor} ;
        draw q withcolor if rr=2 : \MPcolor{ContrastColor}
            else : \MPcolor{InteractionColor} fi ;
    fi ;
enddef ;

22 \MPmenubuttons{right}

23 StopPage ;
\stopuseMPgraphic

24 \startuseMPgraphic{page}

25 \includeMPgraphic{rightsuperbutton}

26 StartPage ;

27 numeric alternative, seed, superness, squeezezness, randomness ;
    path p, q ; transform t ;

28 alternative := \MPvar{alternative} ;
    seed := uniformdeviate 100 ;

29 if alternative > 10 :
    superness := .85 + ((\realfolio-1)/\lastpage) * .15 ;
    squeezezness := 12pt - ((\realfolio-1)/\lastpage) * 10pt ;
else :
    superness := .90 ;
    squeezezness := 12pt ;
fi ;

```

```

30     randomness := squeezezeness ;
31     alternative := alternative mod 10 ;
32     t := identity if alternative=3: shifted (9pt,-9pt) fi ;
33     % first we draw the shape that surrounds the text
34     randomseed := seed ;
35     p := Field[Text][Text] enlarged if
        alternative = 1 : 36pt superellipsed  superness   elseif
        alternative = 2 : 36pt squeezed      squeezezeness elseif
        alternative = 3 : 36pt randomized    randomness   else
                        : 36pt                                     fi ;
36     pickup pencircle scaled 3pt ;
37     fill Page withcolor \MPcolor{PageColor} ;
38     fill p     withcolor \MPcolor{TextColor} ;
39     draw p     withcolor \MPcolor{OrnamentColor} ;
40     % we set p to the wider shape from which we will chip off pieces
41     randomseed := seed ;
42     p := ( Field[Text][Text] enlarged if
        alternative = 1 : 48pt superellipsed  superness   elseif
        alternative = 2 : 48pt squeezed      squeezezeness elseif
        alternative = 3 : 36pt randomized    randomness   else
                        : 48pt                                     fi ) transformed t ;
43     % calls to * _menu_button are generated automatically ...
44     def right_menu_button (expr nn, rr, pp, xx, yy, ww, hh, dd) =
        if (pp>0) and (rr>0) :
            q := rightsuperbutton(p,xx,yy,RightEdgeWidth,hh) ; % \MPw{menu:right:\realfolio}
            fill q withcolor \MPcolor{TextColor} ;
            draw q withcolor if rr=2 : \MPcolor{ContrastColor}
                               else : \MPcolor{InteractionColor} fi ;
        fi ;
        enddef ;
45     % ... and inserted when the graphic data is flushed here ...
46     \MPmenubuttons{right}
47     StopPage ;
48     \stopuseMPgraphic
49     \startuseMPgraphic{rightsuperbutton}
50     vardef rightsuperbutton (expr pat, xpos, ypos, wid, hei) =

```

```

48   save p, ptop, pbot, t, b, edge, shift, width, height ;
    path p, ptop, pbot ; pair t, b ; numeric edge, shift, width, height ;

49   edge := xpos + wid ; shift := ypos + hei ;

50   p := rightpath pat ;

51   ptop := ((-infinity,shift)--(edge,shift)) ;
    pbot := ((-infinity,shift-hei)--(edge,shift-hei)) ;

52   t := p intersectionpoint ptop ;
    b := p intersectionpoint pbot ;

53   p := subpath(0,xpart (p intersectiontimes ptop)) of p ;
    p := subpath(xpart (p intersectiontimes pbot),length(p)) of p ;

54   (p --
      t -- point 1 of ptop &
      point 1 of ptop -- point 1 of pbot &
      point 1 of pbot -- b
      -- cycle)

55   enddef ;

56   \stopuseMPgraphic

```

Topics are identified with `\Topic`, which is an instance of chapter headings. The number is made invisible. Since it still is a numbered section header, `CONTEXT` will write the header to the table of contents.

```

57   \definehead
      [Topic]
      [chapter]

58   \setuphead
      [Topic]
      [number=no]

```

We will use a bold font in the table of contents. We also force a complete list.

```

59   \setuplist
      [Topic]
      [criterium=all,
      style=bold,
      before=,
      after=]

```

The `\TitlePage` macro looks horrible, because we want to keep the interface simple: a list of small sentences, separated by `\\`.

```

60   \def\StartTitlePage%
      {\startstandardmakeup
      \switchtobodyfont[big]
      \def\\{\vfill\bfb\let\\=\par}
      \bfd\setupinterlinespace\gray
      \vskip.5cm}

```

Presentation Environment 19

```
61 \def\StopTitlePage
    {\vskip.5cm % the \v is really needed
    \stopstandardmakeup}

62 \def\TitlePage#1%
    {\StartTitlePage#1\StopTitlePage}

A couple of goodies:

63 \def\Subject  {\Topic}
    \def\Topics  #1{}
    \def\Subjects {}

For those who want to test:

64 \doifnotmode{demo}{\endinput}

65 \starttext

66 \setupMPvariables[page][alternative=3]

67 \TitlePage
    {A Few Nice Quotes\
    A Simple Style Demo\
    Hans Hagen, August 2000}

68 \Topic {Douglas R. Hofstadter} \input douglas \page
    \Topic {Donald E. Knuth}     \input knuth   \page
    \Topic {Edward R. Tufte}     \input tufte  \page
    \Topic {Hermann Zapf}       \input zapf   \page

69 \stoptext
```