

ConTeXt

Presentation Environment 22

category: ConTeXt Style File

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date: August 7, 2001

This style was made on behalf of the PDF_TE_X presentation at TUG 2000. It cycled a summary of each talk, with name and title. When documenting this style, I changed reprocessing into pushing on layers.

A ‘problem’ like this can be solved in several ways:

- writing a lot of semi-complex T_EX code as shown
- keeping track of positions and draw everything on the page layer
- defining an overlay for each summary and changing the order when flushing
- maintaining a so called field stack

We go for the first method. We assume that summaries are simple text snippets.

```
1 \startmode[asintended] \setupbodyfont[lbr] \stopmode
2 \setupbodyfont[14.4pt]
```

We use the whole page area.

```
3 \setuppapersize
   [S6] [S6]
4 \setuplayout
   [topspace=0cm,
    backspace=0cm,
    header=0pt,
    footer=0pt,
    width=middle,
    height=middle]
```

We define a couple of matching colors and gray scales. Watch out, some are really meant to look dim.

```
5 \setupcolors
   [state=start]
6 \definecolor[PageColor] [s=.50]
  \definecolor[TextColor] [s=.80]
  \definecolor[DoneColor] [s=.65]
7 \definecolor[TopColor] [r=.5,g=.6,b=.7]
  \definecolor[BotColor] [r=.6,g=.7,b=.5]
  \definecolor[DotColor] [r=.7,g=.5,b=.6]
```

We will use foreground colors. Because these can interfere with the colors they overload, we can bet make sure that we don’t have local colors.

```
8 \setupinteraction
   [state=start,
    color=,
    contrastcolor=]
```

The presentation is supposed to cycle automatically.

```

9 \setupinteractionscreen
  [option=max,
  delay=5]

```

```

10 \setuppagetransitions

```

We will use random positioning of objects.

```

11 \setupsystem
  [random=medium]

```

We have two kind of graphics: the page background and the shape around the textual elements.

```

12 \defineoverlay [shape] [\uniqueMPgraphic{shape}]
\defineoverlay [page] [\reuseMPgraphic{page}]

```

```

13 \startreusableMPgraphic{page}
  StartPage ;
  filldraw Page withcolor \MPcolor{PageColor} ;
  pickup pencircle scaled .375cm ;
  for i=1 upto 200 :
    drawdot center Page randomized (PaperWidth,PaperHeight)
      withcolor \MPcolor {DotColor} ;
  endfor ;
  StopPage ;
\stopreusableMPgraphic

```

```

14 \startuniqueMPgraphic{shape}
  path p ;
  p := unitsquare xyscaled(OverlayWidth,OverlayHeight) superellipsed .90 ;
  draw p withpen pencircle scaled .50cm withcolor \MPcolor{PageColor} ;
  fill p withcolor OverlayColor ;
  draw p withpen pencircle scaled .25cm withcolor OverlayLineColor ;
  currentpicture := currentpicture xysized(OverlayWidth,OverlayHeight) ;
\stopuniqueMPgraphic

```

The resizing at the end is needed to get a nice inverted hyperlink when we click on it in a browser.

Behind the page we put a forward button:

```

15 \defineoverlay [forward] [\overlaybutton{forward}]

```

The content will be managed by means of two layers.

```

16 \definelayer [main] \defineoverlay [main] [\composedlayer{main}]
\definelayer [temp] \defineoverlay [temp] [\composedlayer{temp}]

```

The first layer will hold everything to be shown, while the second one gets the data we currently focus on. Therefore the first layer will not be flushed each page.

```

17 \setuplayer
  [main]
  [state=repeat]

```

All the overlays go onto the page area.

```

18 \setupbackgrounds
    [page]
    [background={page,forward,main,temp}]

```

We have to collect all data before we typeset it. Each element will be typeset dim and bright. The dim alternatives will be collected on the main layer, but each bring one goes onto a box stack.

```

19 \initializeboxstack{Summary}
    \initializeboxstack{Subtext}

```

The macros that take care of all this manipulations look more complicated than they actually are. We use a scratchbox to collect and inspect data. Also, because we typeset each element twice, we need to make sure that we use the same random seed for both.

```

20 \doglobal\newcounter\CurrentSummary
21 \def\StartSummary% bottom bot-title top-title
    {\dodoublegroupempty\doStartSummary}
22 \def\doStartSummary#1#2%
    {\doglobal\increment\CurrentSummary
     \setbox\scratchbox=\hbox{\strut#1}
     \getrandomseed\RandomSeed
     \setlayer [main]
       {\RandomSubtextBox{DoneColor}{BotColor}{BotColor}}
     \setrandomseed\RandomSeed
     \savebox{Subtext}{\CurrentSummary}
       {\RandomSubtextBox{TextColor}{BotColor}{black}}
     \setbox\scratchbox=\hbox \bgroup
       \setbox\scratchbox=\hbox{\bfb\setstrut\strut\quad#2\quad}%
       \SetAcceptableWidth
       \framed [offset=0pt,width=fit,frame=off,align=middle, strut=no]
         \bgroup \setupwhitespace[big]
           \doifsomething{#2}{\noindent\box\scratchbox\blank}}
23 \def\StopSummary
    {\egroup \egroup
     \getrandomseed\RandomSeed
     \setlayer [main]
       {\RandomSummaryBox{DoneColor}{TopColor}{TopColor}}
     \setrandomseed\RandomSeed
     \savebox{Summary}{\CurrentSummary}
       {\RandomSummaryBox{TextColor}{TopColor}{black}}}

```

A `\doStartSummary#1#2#3\StopSummary` could have been used too but this one is less sensitive for catcode changes (not that we expect problems like this in this kind of application).

The width is either derived from the width of the title or at random. The final width of the box is determined by the content.

```

24 \def\SetAcceptableWidth
    {\scratchdimen=.5\makeupwidth
     \ifdim\wd\scratchbox>.5\makeupwidth
       \getrandomdimen\hsize{\wd\scratchbox}{.8\makeupwidth}%
     \else

```

```

\getrandomdimen\hsize{.5\makeupwidth}{.7\makeupwidth}%
\fi}

```

The subtext box goes at the bottom, somewhere in the right corner.

```

25 \def\RandomSubtextBox#1#2#3%
    {\vbox to \makeupheight
     {\vfill
      \hbox to \makeupwidth
       {\hfill
        \button
         [offset=2ex,frame=off,background=shape,strut=no,
          backgroundcolor=#1,framecolor=#2,foregroundcolor=#3]
         {\copy\scratchbox}%
         [previouspage]%
        \getrandomdimen\scratchdimen{.5cm}{2.5cm}%
        \hskip\scratchdimen}
       \getrandomdimen\scratchdimen{.5cm}{1.5cm}
       \vskip \scratchdimen}}}

```

The main text goes in the top half of the page, not too far from the center. The last `\vskip` makes sure that we don't clash with the subtexts.

```

26 \definereference[thispage] [page(\CurrentSummary)]
27 \def\RandomSummaryBox#1#2#3%
    {\vbox to \makeupheight
     {\getrandomdimen\scratchdimen{.5cm}\makeupheight
      \vskip Opt plus \scratchdimen
      \hbox to \makeupwidth
       {\getrandomdimen\scratchdimen{.5cm}\makeupwidth
        \hskip Opt plus \scratchdimen
        \button
         [offset=3ex,frame=off,background=shape,strut=no,
          backgroundcolor=#1,framecolor=#2,foregroundcolor=#3]
         {\copy\scratchbox}%
         [thispage]%
        \getrandomdimen\scratchdimen{.5cm}\makeupwidth
        \hskip Opt plus \scratchdimen}
      \getrandomdimen\scratchdimen{.5cm}\makeupheight
      \vskip Opt plus \scratchdimen
      \vskip.2\makeupheight}}

```

Because we only collect data, we have to make sure that at some moment it is processed and flushed. The following loop does this.

```

28 \def\BuildPage
    {\dorecurse{\CurrentSummary}
     {\startstandardmakeup
      \setlayer[temp]{\foundbox{Summary}\recurselevel}
      \setlayer[temp]{\foundbox{Subtext}\recurselevel}
      \stopstandardmakeup}}

```

We hook this macro into the `\stoptext` macro.

```

29 \appendtoks \BuildPage \to \everystoptext
    We still need a title page.
30 \def\TitlePage%
    {\dodoublegroupempty\doTitlePage}
31 \long\def\doTitlePage#1#2%
    {\ifsecondargument
     \MakeTitlePage{#1}{#2}
     \else\iffirstargument
     \MakeTitlePage{\currentdate}{#1}
     \else
     \MakeTitlePage{\currentdate}{Welcome}
     \fi\fi}
32 \def\MakeTitlePage#1#2%
    {\StartSummary{#1}{#2}\StopSummary}

    For old times sake:
33 \def\StartTopic#1\StopTopic{\StartSummary#1\StopSummary}
34 \doifnotmode{demo}{\endinput}

    The demo text.
35 \starttext
36 \TitlePage{Indeed}{The Title Page}
37 \StartSummary{Alpha}{Title}
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    \StopSummary
38 \StartSummary{Beta and Gamma}{Another Title}
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    \StopSummary
39 \StartSummary{Delta}{Some Title}
    A simple and not too long text just to show the topic.
    \StopSummary
40 \StartSummary{Epsilon}{What A Title}
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    \StopSummary
41 \StartSummary{Zeta, Eta and Theta}{Eh, A Title}
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    \StopSummary

```

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```
42 \StartSummary{Omega}
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    A simple and not too long text just to show the topic.
    \StopSummary
43 \stoptext
```