ConTeXt

Presentation Environment 8

category: ConTeXt Style File

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This is one of the 6 styles made for the NTS presentation at EUROTEX 1999. The idea was to demonstrate a couple of nasty things that one can do with PDFTEX, being an example of an extension. Afterwards it was provded that this could also be done using traditional TEX.

This version is nearly the same as the original, although since then the METAPOST related macro have become more smooth. The original used a couple of boxes, skipt and fills, while this version uses the layer mechanism that came available in fall 2000. This style is actually more a demonstration gimmick than a real useful one.

You may want to turn on layer tracing:

> `\tracelayerstrue`

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

2 `\setupbodyfont`
     `[pos,10pt]`

We use the whole page and have no margins.

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

4 `\setupcolors`
     `[state=start]`

5 `\definecolor[TextColor][s=.9]`
   `\definecolor[PageColor][r=.5,g=.4,b=.3]`
   `\definecolor[LineColor][r=.7,g=.6,b=.5]`

6 `\definecolor[ColorPage][r=.5,g=.6,b=.7]`
   `\definecolor[ColorLine][r=.3,g=.4,b=.5]`

7 `\setupinteraction`
     `[state=start,`
      `display=new]`

8 `\setupinteractionscreen`
     `[option=max]`

The page, sample text and pagenumber will have a background graphic.

9 `\defineoverlay [page]        [\uniqueMPgraphic{page}]`
   `\defineoverlay [graphic]     [\uniqueMPgraphic{graphic}]`
   `\defineoverlay [number]      [\uniqueMPgraphic{number}]`

Each element will also be a button.

10   `\defineoverlay [nextpage]     [\overlaybutton{nextpage}]`
`\defineoverlay [previouspage] [\overlaybutton{previouspage}]`
`\defineoverlay [forward]      [\overlaybutton{forward}]`

We are going to put all three elements on a layer.

11   `\definelayer   [main]`

12   `\defineoverlay [main] [\composedlayer{main}]`

The page backgrounds are as follows:

13   `\setupbackgrounds`
`   [page]`
`   [background={previouspage,page}]`

We could have put the main layer on the page overlay, but the next solution makes us independent of the back and top margins. The `idea` layer is for user purposes.

14   `\setupbackgrounds`
`   [text]`
`   [background={main,idea}]`

The page number, sample text and explanation all have associated framed texts. The two overlays `sample` and `text` and there for special (user) purposes.

15   `\defineframedtext`
`   [PageText]`
`   [width=fit,offset=.5cm,`
`    before=,after=,frame=off,background={number,forward}]`

16   `\defineframedtext`
`   [SampleText]`
`   [width=.6\makeupwidth,height=fit,offset=2cm,align=middle,`
`    before=,after=,frame=off,background={graphic,sample,nextpage}]`

17   `\defineframedtext`
`   [TextText]`
`   [width=.6\makeupwidth,height=fit,offset=2cm,align=middle,`
`    before=,after=,frame=off,background={text,nextpage}]`

Nothing goes on the page directly, since we use layers. The `\null` command makes sure that at least something is on the page so that the page is flushed. Here we also take care of placing the page number.

18   `\def\StartIdea%`
`   {\null \dontcomplain}`

19   `\def\StopIdea%`
`   {\setlayer`
`      [main]`
`      [x=\makeupwidth,y=.5cm,hoffset=-.5cm,location=lb]`
`      {\PageText{\pagenumber}}`
`    \page}`

Both texts get their position registered.

```
20   \def\StartSample%
       {\setlayer
          [main]
          [hoffset=.75cm,voffset=.75cm]
          \bgroup \hpos {SampText:\realfolio} \bgroup \startSampleText [none]}
```

```
21   \def\StopSample%
       {\stopSampleText \egroup \egroup }
```

Here the position of the sample text and explanationary text are passed on to the graphic that concerns the latter.

```
22   \def\StartText%
       {\setMPpositiongraphic
          {TextText:\realfolio}{text}{other=SampText:\realfolio}
        \setlayer
          [main]
          [x=\makeupwidth,y=\makeupheight,hoffset=-.75cm,voffset=-.75cm,location=lt]
          \bgroup \hpos {TextText:\realfolio} \bgroup \startTextText [none]}
```

```
23   \def\StopText%
       {\stopTextText \egroup \egroup}
```

The graphics that encircle the two texts are related to their position. This is because when they overlay, a shine through is shown. This only shows up when there is enough text to make them overlap.

```
24   \startuniqueMPgraphic{page}
       StartPage ;
         pickup pencircle scaled .5cm ;
         fill Page withcolor \MPcolor{PageColor} ;
         draw Page withcolor \MPcolor{LineColor} ;
       StopPage ;
     \stopuniqueMPgraphic
```

```
25   \startuniqueMPgraphic{number}
       path p ; p := fullcircle xscaled OverlayWidth yscaled OverlayHeight;
       pickup pencircle scaled .25cm ;
       fill p withcolor \MPcolor{TextColor} ;
       draw p withcolor (white-\MPcolor{PageColor}) ;
     \stopuniqueMPgraphic
```

```
26   \startuniqueMPgraphic{graphic}
       path p ; p := fullcircle xscaled OverlayWidth yscaled OverlayHeight;
       pickup pencircle scaled .5cm ;
       fill p withcolor \MPcolor{TextColor} ;
       draw p withcolor \MPcolor{LineColor} ;
     \stopuniqueMPgraphic
```

This graphic is calculated when a position is flushed that has this graphics as attached. The `self` reference is provided by CONTEXT itself.

```
27   \startMPpositiongraphic{text}
       initialize_box(\MPpos{\MPvar{other}}) ;
       path p ; p := fullcircle xscaled wxy yscaled hxy shifted cxy ;
       initialize_box(\MPpos{\MPvar{self}}) ;
```

```
    path q ; q := fullcircle xscaled wxy yscaled hxy shifted cxy ;
    pickup pencircle scaled .5cm ;
    fill q withcolor \MPcolor{TextColor} ;
    draw p withcolor (white-\MPcolor{PageColor}) ;
    clip currentpicture to q ;
    draw q withcolor \MPcolor{LineColor} ;
    anchor_box(\MPanchor{\MPvar{self}}) ;
\stopMPpositiongraphic
```

In order to be complete, we also define a title page. Here suddenly the text background shows up.

```
28  \def\StartTitlePage%
      {\startstandardmakeup
       \dontcomplain
       \setupframedtexts[TextText][width=fit]
       \StartText
       \bfd\setupinterlinespace
       \def\\{\blank\bfc\setupinterlinespace\def\\{\blank}}}

29  \def\StopTitlePage%
      {\StopText
       \stopstandardmakeup}

30  \def\TitlePage#1%
      {\StartTitlePage#1\StopTitlePage}
```

For this purpose, we redefine the position graphic to handle a text only case:

```
31  \startMPpositiongraphic{text}
      if box_found(\MPpos{\MPvar{other}}) :
        initialize_box(\MPpos{\MPvar{other}}) ;
        path p ; p := fullcircle xscaled wxy yscaled hxy shifted cxy ;
      fi ;
      initialize_box(\MPpos{\MPvar{self}}) ;
      path q ; q := fullcircle xscaled wxy yscaled hxy shifted cxy ;
      pickup pencircle scaled .5cm ;
      fill q withcolor \MPcolor{TextColor} ;
      if box_found(\MPpos{\MPvar{other}}) :
        draw p withcolor (white-\MPcolor{PageColor}) ;
        clip currentpicture to q ;
        draw q withcolor \MPcolor{LineColor} ;
      else :
        draw q withcolor (white-\MPcolor{PageColor}) ;
      fi ;
      anchor_box(\MPanchor{\MPvar{self}}) ;
\stopMPpositiongraphic

32  \doifnotmode{demo}{\endinput}

33  \starttext

34  \TitlePage
      {Fancy Styles:\\layers}
```

```
35  \StartIdea
      \StartSample
        \input tufte
      \StopSample
      \StartText
        \input reich
      \StopText
    \StopIdea

36  \StartIdea
      \StartSample
        \input knuth
      \StopSample
      \StartText
        \input reich
      \StopText
    \StopIdea

37  \stoptext
```