

Meta Graphics

fun for non-wizzards

a demonstration



What I will discuss

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Including MetaPost code

```
\startMPgraphic  
  path p ;  
  p := fullcircle scaled 100 ;  
  fill p withcolor .5white ;  
  draw p withcolor .3white withpen pencircle scaled 10 ;  
  path p ;  
  
\loadcurrentMPgraphic  
  
\placeMPgraphic  
  
\end
```



Defining a Meta-Graphic

```
\startuseMPgraphic{circle}  
  path p ;  
  p := fullcircle scaled 100 ;  
  fill p withcolor .5white ;  
  draw p withcolor .3white withpen pencircle scaled 10 ;  
  path p ;  
  
\hbox  
  {\useMPgraphic{circle}  
   \useMPgraphic{circle}  
   \useMPgraphic{circle}}  
  
\end
```



Reusing a graphic

```
\startreusableMPgraphic{circle}  
  path p ;  
  p := fullcircle scaled 100 ;  
  fill p withcolor .5white ;  
  draw p withcolor .3white withpen pencircle scaled 10 ;  
  path p ;  
  
\hbox  
  {\reuseMPgraphic{circle}  
   \reuseMPgraphic{circle}  
   \reuseMPgraphic{circle}}  
  
\end
```



Hooking into T_EX

```
\def\Ellipse#1%  
  {\startMPgraphic  
   path p ;  
   p := fullcircle xscaled (#1*100) yscaled 100;  
   fill p withcolor .5white ;  
   draw p withcolor .3white withpen pencircle scaled 10 ;  
   path p ;  
  \loadcurrentMPgraphic  
  \placeMPgraphic}  
  
\hbox {\Ellipse{0.4} \Ellipse{0.8} \Ellipse{1.5}}  
  
\end
```



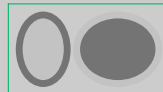
Communicating color

```
\setupcolors[state=start]
\definecolor [one] [r=.3,g=.6,b=.1]
\definecolor [two] [c=.4,m=.1,y=.5]
\def\Elipse#1#2#3%
  {\startMPgraphic
   path p ;
   p := fullcircle xscaled (#1*100) yscaled 100;
   fill p withcolor \MPcolor{#2} ;
   draw p withcolor \MPcolor{#3} withpen pencircle scaled 10 ;
   path p ;
   \loadcurrentMPgraphic
   \placeMPgraphic}
\hbox {\Elipse{0.7}{two}{one} \Elipse{1.2}{one}{two}}
\end
```



Color conversion

```
\setupcolors[state=stop]
\definecolor [one] [r=.3,g=.6,b=.1]
\definecolor [two] [c=.4,m=.1,y=.5]
\def\Elipse#1#2#3%
  {\startMPgraphic
   path p ;
   p := fullcircle xscaled (#1*100) yscaled 100;
   fill p withcolor \MPcolor{#2} ;
   draw p withcolor \MPcolor{#3} withpen pencircle scaled 10 ;
   path p ;
  \loadcurrentMPgraphic
  \placeMPgraphic}
\hbox {\Elipse{0.7}{two}{one} \Elipse{1.2}{one}{two}}
\end
```



Graphic conversion / pdfT_EX

```
\setupoutput[pdftex] \setupcolors[state=start]
\definecolor [one] [r=.3,g=.6,b=.1]
\definecolor [two] [c=.4,m=.1,y=.5]
\def\Elipse#1#2#3%
  {\startMPgraphic
   path p ;
   p := fullcircle xscaled (#1*100) yscaled 100;
   fill p withcolor \MPcolor{#2} ;
   draw p withcolor \MPcolor{#3} withpen pencircle scaled 10 ;
   path p ;
  \loadcurrentMPgraphic
  \placeMPgraphic}
\Elipse{0.85}{one}{two}
\end
```



Graphic conversion / dviVIEW

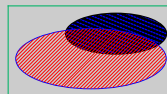
```
\setupcolors[state=start]
\definecolor [one] [r=.3,g=.6,b=.1]
\definecolor [two] [c=.4,m=.1,y=.5]
\def\Elipse#1#2#3%
  {\startMPgraphic
   path p ;
   p := fullcircle xscaled (#1*100) yscaled 100;
   fill p withcolor \MPcolor{#2} ;
   draw p withcolor \MPcolor{#3} withpen pencircle scaled 10 ;
   path p ;
   \loadcurrentMPgraphic
   \placeMPgraphic}
\Elipse{0.35}{one}{two}
\end
```



Preambles

```
\setupcolors[state=start]
\startMPinclusions input mp-tool \stopMPinclusions
\startMPgraphic
  stripe_path_n (dashed evenly withcolor blue) (filldraw)
    fullcircle xscaled 200 yscaled 80 shifted (50,50)
    withpen pencircle scaled 4 ;

  stripe_path_a (withpen pencircle scaled 2 withcolor red) (draw)
    fullcircle xscaled 300 yscaled 120
    withcolor blue ;
\stopMPgraphic
\loadcurrentMPgraphic
\placeMPgraphic
\end
```

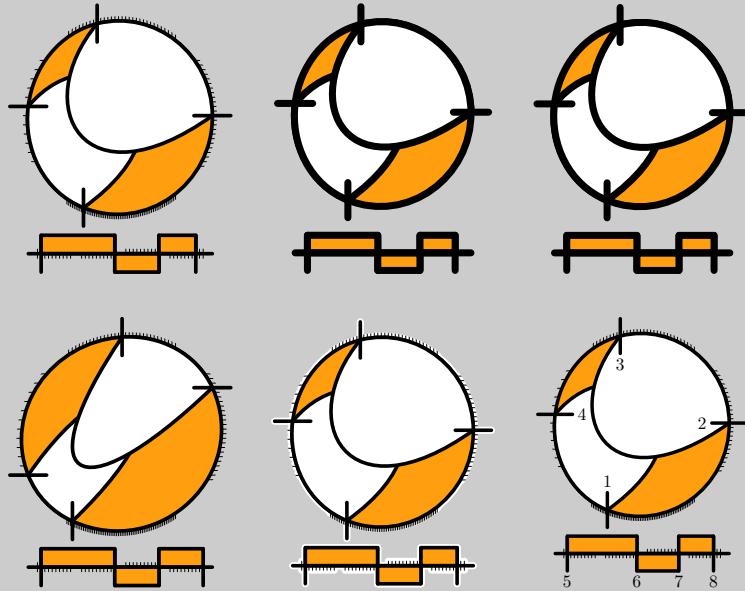


Tricky runs

```
\startMPrun  
  logo_type := 212 ;  
  mpgraph := 212 ;  
  input mp-prag ;  
\stopMPrun  
  
\externalfigure[mprun.212][height=3cm]
```



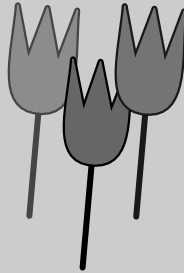
Logos



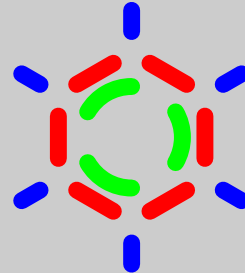
More logos



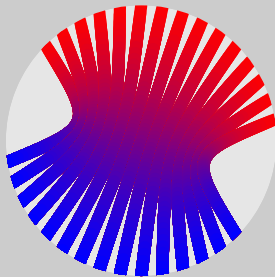
modules



CONTEXT



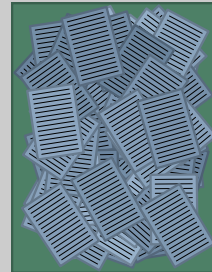
PPCHTEX



TEXUTIL



version



TEXEXEC



P_TCT_EX replacement

```
\usemodule[pictex,chemic]
\startchemical[scale=small,width=6000,top=3000,bottom=3000]
  \chemical[SIX,SB2356,DB14,Z2346,SR3,RZ3,-SR6,+SR6,-RZ6,+RZ6]
    [C,N,C,C,H,H,H]
  \chemical[PB:Z1,ONE,Z0,DIR8,Z0,SB24,DB7,Z27,PE][C,C,CH_3,0]
  \chemical[PB:Z5,ONE,Z0,DIR6,Z0,SB24,DB7,Z47,PE][C,C,H_3C,0]
  \chemical[SR24,RZ24][CH_3,H_3C]
  \bottext{Compound A}
\stopchemical
\end
```



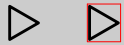
Inline graphics

system	%	n 8
Atari	10.4	
MSDOS	49.1	
OS/2	9.4	
MacOS	5.7	
UNIX	51.9	
WINDOWS	64.2	



Symbol sets

```
\usesymbols[tst] \showsymbolset[navigation 3][n=4]
```



previouspage



nextpage



firstpage



lastpage



PreviousJump



NextJump



CloseDocument



PauseMovie



previoussubpage



nextsubpage



firstsubpage



lastsubpage

```
\startsymbolset [navigation 3]
```

```
\definefiguresymbol [....] [mp-symb.1]
```



```
\definefiguresymbol [...] [mp-symb.9]  
\stopsymbolset
```



Movies and animations

We can use `METAPOST` to generate a sequence of slightly different pictures, that are first converted to bitmaps and next combined into a movie.

Figure 16.1 Just a movie.



Covers and fun

```
\useexternalfigure  
  [whatever] [mp.100]  
  [width=\overlaywidth,height=\overlayheight]  
  
\defineoverlay  
  [identifier]  
  [{\externalfigure[whatever]}]  
  
\setupbackgrounds  
  [page]  
  [background=identifier]
```





ConTeXt commands

EN

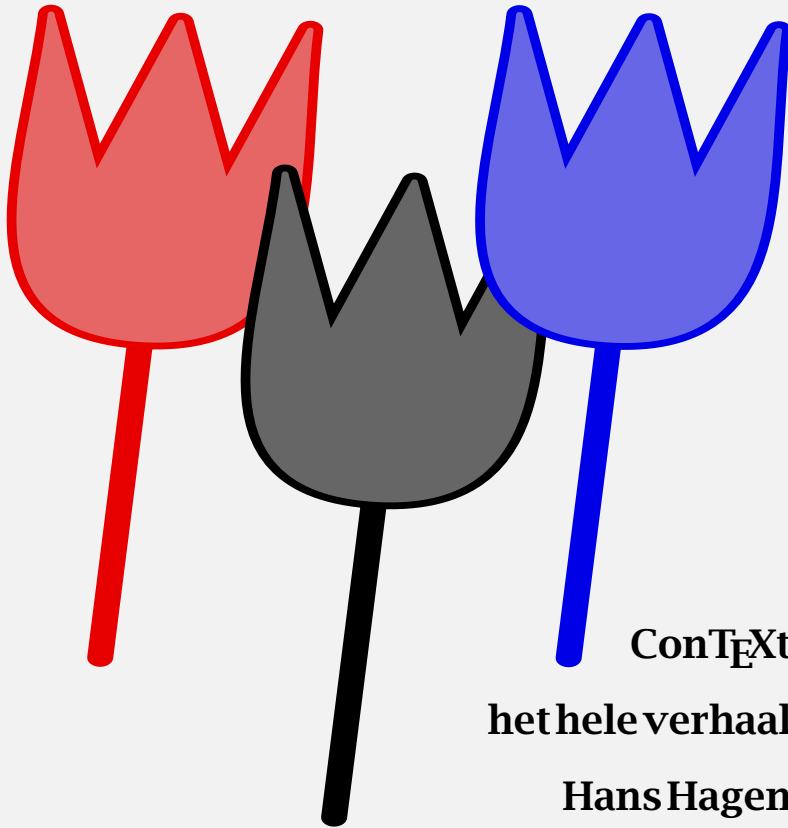


Getting Started with CONTEXT

English
Version

Ton Otten & Hans Hagen
PRAGMA ADE
maandjaar






ConTExT

het hele verhaal

Hans Hagen





Experiences in T_EX
learning by trial and error

Hans Hagen



Reporting Manual

NV Nederlandse Spoorwegen

4 augustus 1998

inleiding
inhoud
register
afkortingen

a cyclus
b accounting
c inrichting
d opzet FDC
e definities
f handleiding
g businessplan
h budgetplan
i rapportages
j jaarverslag
k belastingen
l financiering
m investeringen
n regelingen
o organisatie

helpinformatie

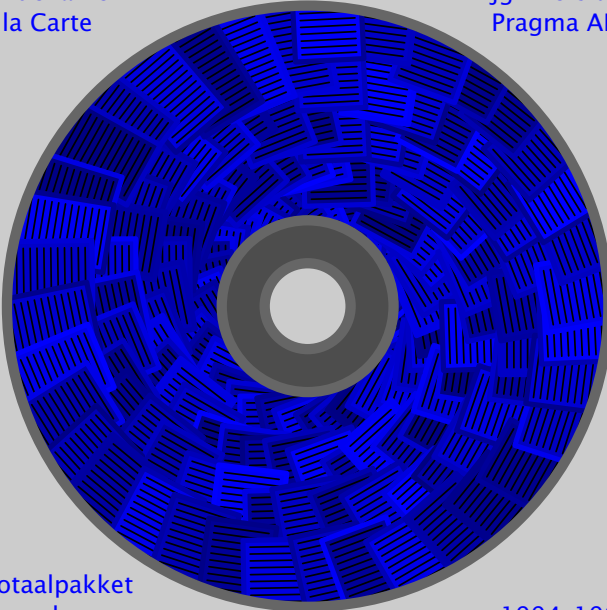


1

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Eindexamen
à la Carte

Nijgh Versluys
Pragma ADE



Totaalpakket
mavo havo vwo

1994-1997

1

1



ConTEXt

METAPOST Inclusion

category: ConTEXt Support Macros

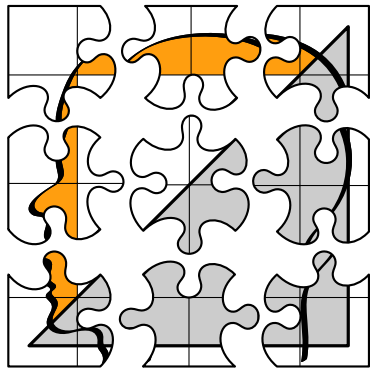
version: 1997.07.05

date: August 10, 1998

author: Hans Hagen

copyright: PRAGMA / Hans Hagen & Ton Otten





Wij wensen u een jaar zonder kopzorgen toe!

PRAGMA | Postbus 125 | 8000AC Zwolle | 038 - 4229775



Charts

```
\startFLOWchart[process]
  \startFLOWcell
    \name      {database}
    \location  {1,1}
    \shape     {action}
    \text      {database}
    \connection [bt] {source}
  \stopFLOWcell
  ...
\stopFLOWchart
```



