AcroTEX.Net

GraphicxSP
Demonstration File

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Prepared: August 17, 2007

http://www.acrotex.net
Published: August 17, 2007

The package, tentatively named graphicxsp and which is still under development, attempts to use the PostScript operators **BP**, **EP** and **SP** to embed graphics in the document once, then use and re-use them by emitting the **SP** operator. Though this document was created using AeB Pro, the package only requires the graphicx and eso-pic packages.
We begin by embedding out graphics in the preamble of the document using the `\embedEPS` command. The command takes one optional argument and two required. We can not only use these graphics over again, the package does support transparency as well, as this file also demonstrates.

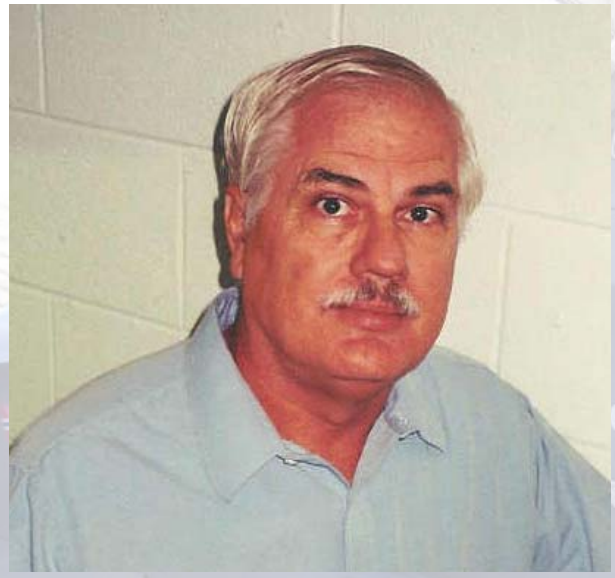
```
\embedEPS[hiresbb,transparencyGroup]{AdobeDon}{AdobeDon}
\embedEPS[hiresbb,transparencyGroup]{Airplane}{000_0151}
\embedEPS[hiresbb]{AdobeDon_full}{AdobeDon_full}
\embedEPS[transparencyGroup]{ex}{example}
```

I'll use the `Airplane` photo as a background. The EPS file of this photo is 550KB, and we will use it multiple times. We declared `Airplane` to be a `transparencyGroup`, which means we can now set the transparency of the background.

```
\template[name=Airplane,transparency={/ca .3/BM/Normal}]{000_0151}
```

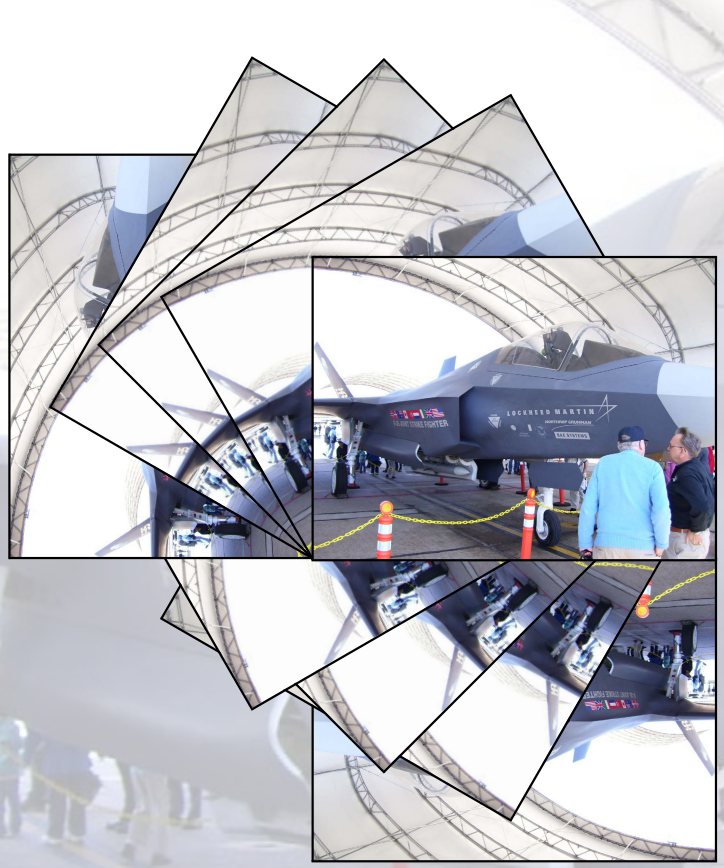
The package attempts to blend in with the graphicx package, and uses the `\includegraphics` command, with a few extra optional key-value pairs.

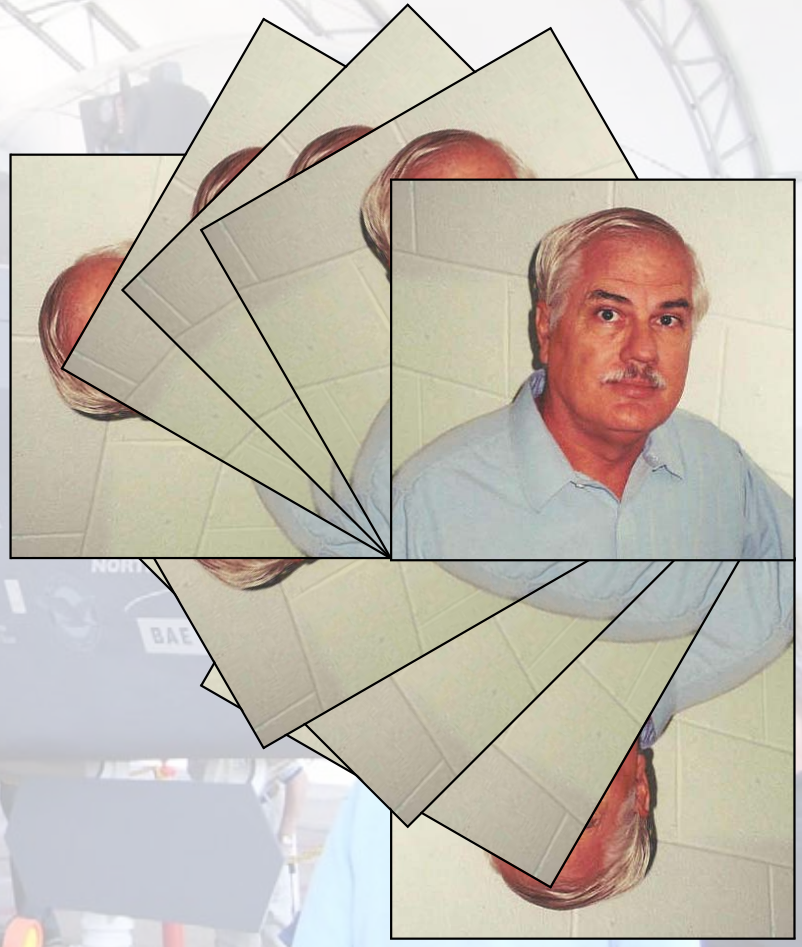
```
\insertEPS[hiresbb,width=1.5in]{AdobeDon}
\includegraphics[name=AdobeDon,angle=45,
    width=1.5in,bb=30 50 150 100]{AdobeDon}
```



The second command is in the form of `\includegraphics`, the first one, `\embedEPS`, is a shortened version. After embedding, the file name is no longer used, only the symbolic name.

Let's have some fun with two of these images.





Wow! That would normally take up gobs of file space. This file is about 180 KB.

Let's try some clipping with some transparency settings.

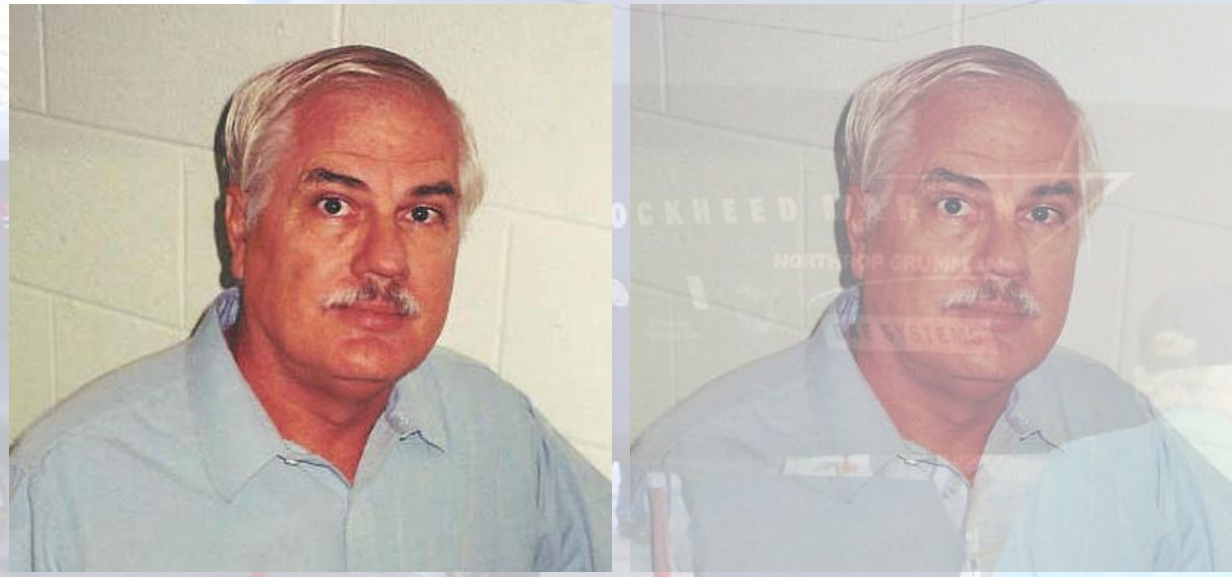
```
\includegraphics[name=AdobeDon_full,width=1.5in,
    presp={\mypreSP{AdobeDon_full}},
    postsp={\mypostSP{AdobeDon_full}},
    hiresbb]{AdobeDon_full}
```

where

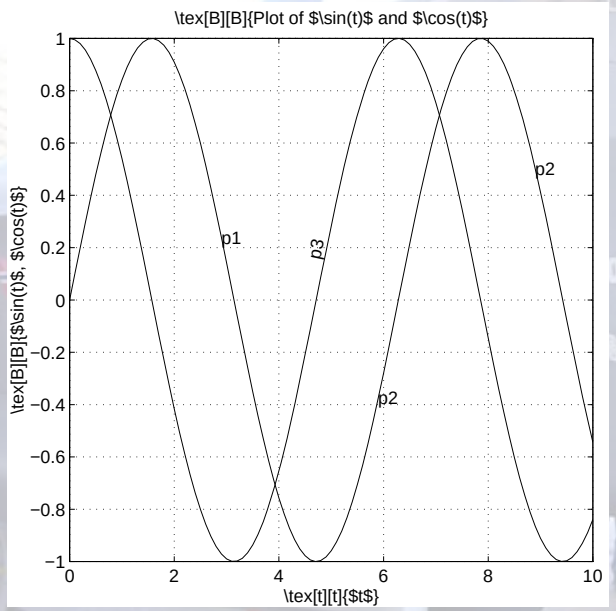
```
\def\mypreSP#1{%
    newpath
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    Draw_Ellipse clip newpath
}
\def\mypostSP#1{%
    gsave
    [ /ca .6 /CA .3 /BM/Screen /SetTransparency pdfmark
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    Draw_Ellipse 0.4 0.7 1 setrgbcolor fill
    grestore gsave
    [ /CA .5 /BM /Normal /SetTransparency pdfmark
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    \widthOf{#1}\space 2 div \heightOf{#1}\space 2 div
    Draw_Ellipse 40 setlinewidth
    0.4 0.7 1 setrgbcolor stroke
    grestore
}
```

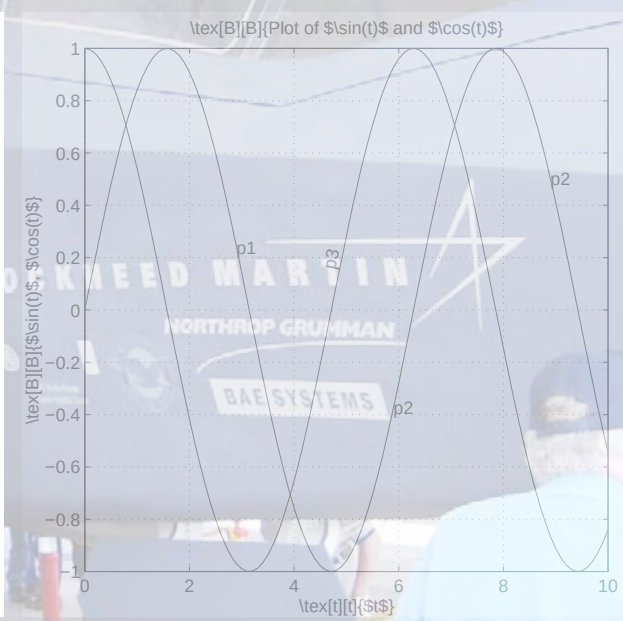
Demonstrating some transparent special effects. Swave!

AdobeDon and Adobe Don with 50% opacity



MathLab Graphics





The figure on the right has 30% opacity.