

Making Vectorized Figures in Latex using MS Office 2007

The Problem

You often want to draw figures to put in your LaTeX document. The obvious thing to draw it in Office, take a screenshot, and insert the screenshot. If you do that, you end up with something like this:

window of recent activity



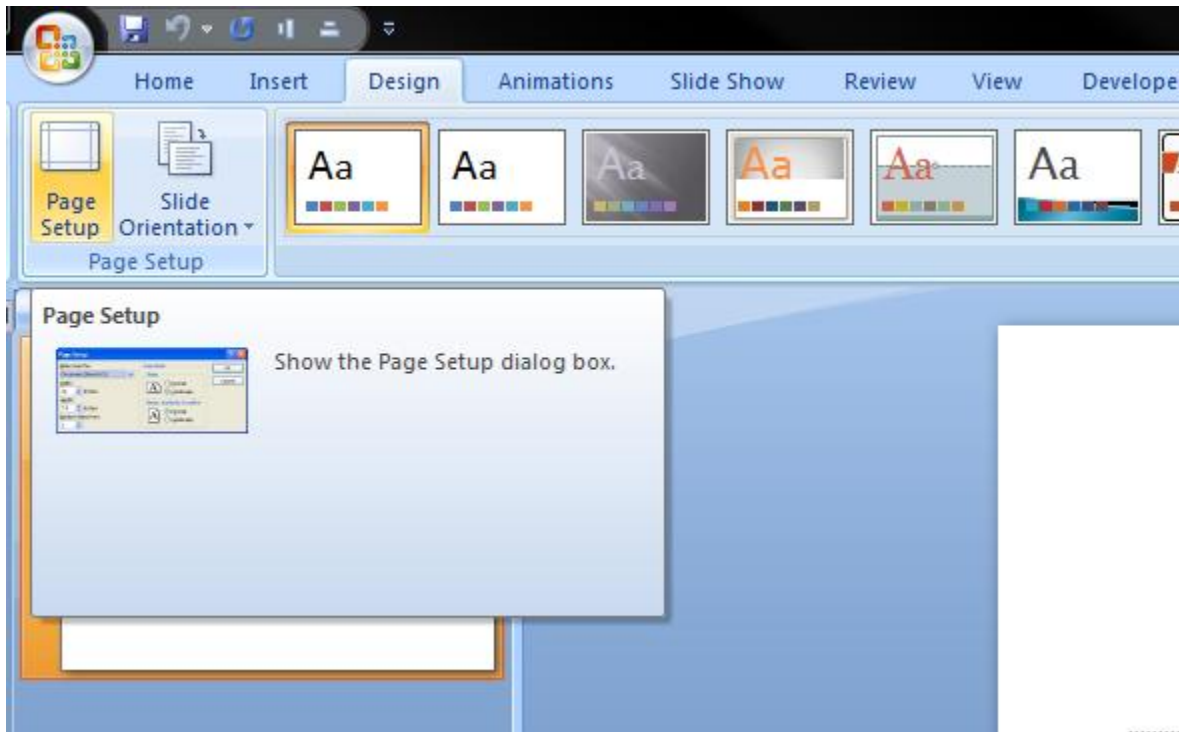
Figure 2. Inferring Navigation

If you look carefully, you'll notice that the circles look fuzzy when compared to the caption text. Why? Because the figure is not vectorized.

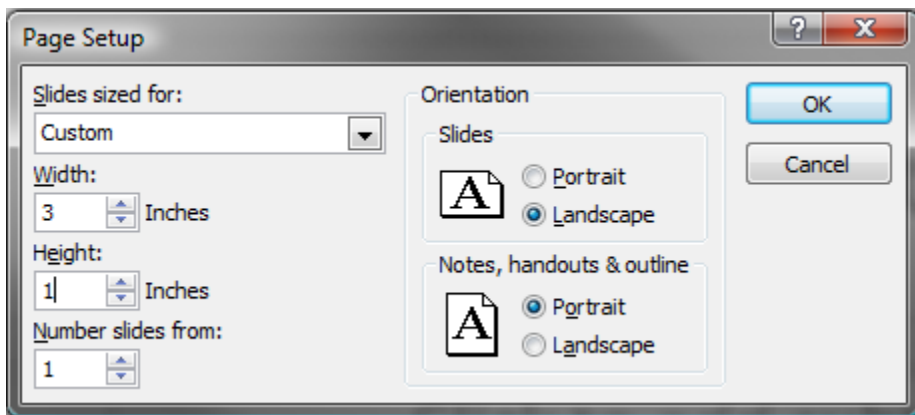
Making a vectorized figure is more complicated, but definitely worth doing. The resulting paper will look crisper and more professional, and will have better archival value.

The Solution

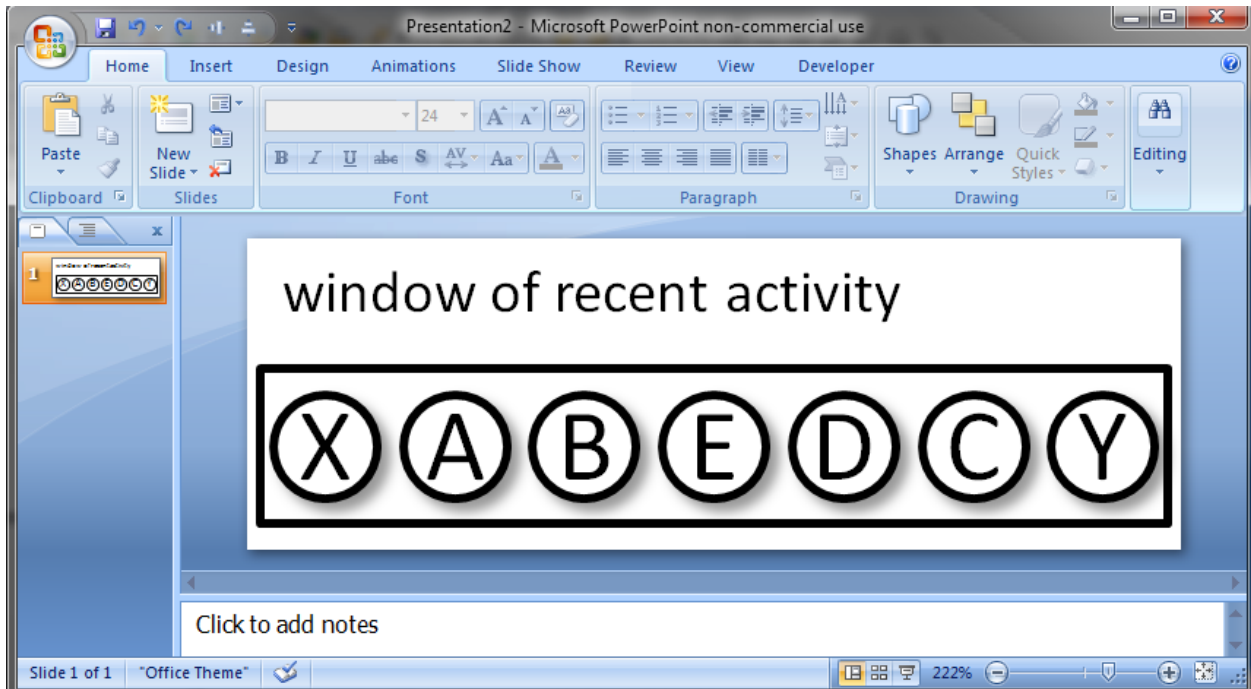
For simplicity, we'll do this in Microsoft Powerpoint 2007 (PP). You can do it in just about any program, but PP07 will make this simpler. First, open up PP and change your page setup:



Change the dimensions to some aspect that you want your final figure to be. The actual size doesn't matter much:



Now, draw your figure as you normally would:

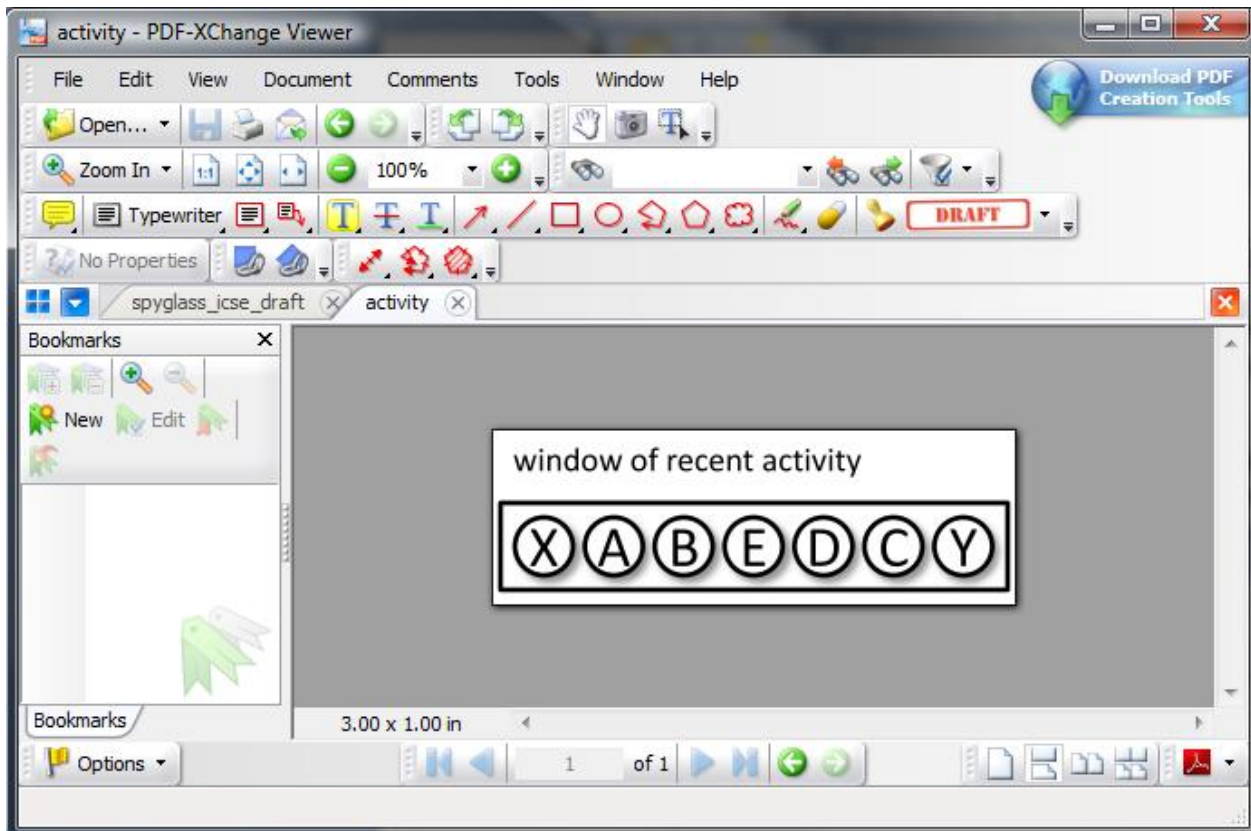


Now, go to Save As → PDF. There may be a special plugin for PP 2007 for this; I don't remember. If you don't see this option, look here:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=4d951911-3e7e-4ae6-b059-a2e79ed87041&displaylang=en>

If you don't have office 2007, you can also use a free pdf print driver: <http://www.primopdf.com/>

In any case, let's call this "activity.pdf". Now you have a vectorized image:



Now, time to insert it into your pdf document. Here's the code for it:

```
\documentclass[twocolumn]{article}

\usepackage[pdftex]{graphicx}

\DeclareGraphicsExtensions{.pdf, .png, .ps}

\begin{document}

\begin{figure}
  \centering
  \includegraphics[width=0.75\linewidth]{activity}
  \caption{Inferring Navigation}
\end{figure}

\end{document}
```

And here's the output:

window of recent activity

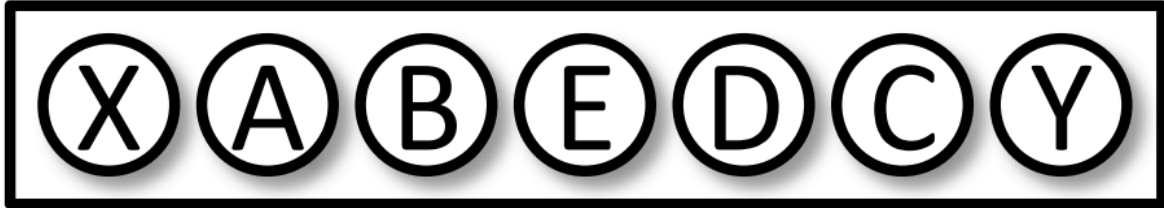


Figure 1: Inferring Navigation

Much cleaner, right?