Creating Large-Format Posters using PowerPoint

The process of creating files that can be printed on large format printers (larger than 11"x17") goes beyond the familiar tools and techniques many of us are used to. This document describes a particular process and set of procedures that we've found to work well. In our experience people who don't follow this process routinely end up with documents that look fine on screen but are un-printable. Invariably this discovery is made at the last, worst possible moment.

The ensuing tears, panic and failure far outstrip the initial boredom reading this document may invoke. So try to stay with us. Also note that in some places we've glossed over exact step-by-step details. This is not to imply that you don't need to figure out and follow all the steps yourself – it's simply that time and space don't permit all the gory details to appear here. As always, if you have questions call the appropriate computer support person (you can start with the Helpdesk at *x5999*).

A quick overview

The general procedure is to create the document using MS PowerPoint, taking pains to make sure all possible text and graphics are as small (in computer storage terms) as feasible.

Before you begin

You'll first need to determine the size of your final poster. Our printer (as with many others) prints on 36" rolls of paper. So at least one of the dimensions of your poster should be no more than 36" (e.g. 24"x36" and 36"x48" are fine-48"x48" won't work). Keep in mind that the larger the poster the more care will be required in keeping your file size small so that the final result is printable. Also keep in mind that just because you've been given an 8 foot by 8 foot space at the conference doesn't mean your poster has to fill it. Few people will read your important title 8' above the floor or your important conclusions 1' above the floor. In this case, Quantity does NOT equal Quality.

Let the printer people know

Before you commit too much time to creating your masterpiece get in touch with the folks at Print Services, *x4186*. Let them know when you expect to send them your poster, and the date you need it by. Make sure your timeline is reasonable, and that when you're done, they'll have enough time to do their thing (including ordering more paper and ink and such...).

Get your content all ready to go

Next gather the text and figures for your poster. You can compose the text in a word processor and cut and paste it in when it's nicely polished. You can also add text directly in PowerPoint. ***Note – In PowerPoint, all text needs to go into a text box.***

If you're adding figures or pictures make sure you have the (digital) originals. For instance, if you're inserting a graph from an Excel spreadsheet make sure you have the original spreadsheet in hand. If you're creating other graphical output make sure you have the original file and access to the software used to create the graphic. Simply having a copy of the file is often not good enough. Frequently the file that you have, though it looks fine, may be inappropriate for large format printing. Expect to have to recreate some of your graphics from the original program (unless you've had the forethought to create your graphics with this purpose in mind). Which brings us to a pedantic yet painfully necessary discussion.

Graphics

Most of the familiar 'graphics' formats are raster: jpeg, gif, tiff, bmp. To confuse things further most "vector" file formats are capable of holding raster as well as vector bits within them. Current versions of PowerPoint can use native Illustrator files, PDFs and EPS files.

Here are some practical suggestions. If you're getting graphics out of a drawing or plotting programs (SPSS, ArcGIS, Kaleidagraph, Mathematica), get them out in Encapsulated Postscript format (EPS) or PDF. (Sometimes you can copy/paste from the drawing program right into PowerPoint, but be aware that sometimes PowerPoint will "link" the graphic, which can result in the graphic being "missing" when you print it from a different computer than the computer on which you create the poster.) Some programs have a "Save As" or "Export" function with EPS or PDF format as an option. If so, use it. If not, there's a fairly universal trick that should work in most cases-print it to a file.

If you've selected a postscript printer (as most of the networked laser printers on campus are) then using the "print to a file" option within the operating systems will give you an EPS file if you flip the appropriate toggle to change the Postscript format to Encapsulated Postscript. These options are generally buried within the guts of the Print dialog box. For example on a Mac, you'd choose the "PDF" or "Save as PDF ..." button on the print panel. On Windows, you'd choose the "print to file" checkbox on the main print window and then look for the EPS option under the postscript tab under the properties button (possibly digging through an advanced settings menu on the way). The result should be a file (which you should name with a .eps or .pdf extension) which contains vector information-essentially the same mathematical description that the printer would have used to print that particular graphic.

What about pictures?

Pictures-taken with a digital camera, or scanned, are fundamentally raster. As such they can be quite large. It's entirely possible that a reasonable collection of raster pictures may simply be too large to print even if they can all be successfully brought into PowerPoint. So you'll need to be extra careful in choosing and sizing the raster images you decide to include.

Using Photoshop or another image-management tool, set the picture resolution for each picture to about 150 dpi (dots per inch) and the size (in inches) to the exact size you want it in the final poster. This combination of settings (the right size in inches and 150 dpi) will get the best possible results out of the printer. So for example if you're using Photoshop (though many different tools could do this) you go to the "Image" menu and choose "Image Size …". In the "Document Size" section, set the resolution to 150 dpi and uncheck the "Resample Image" checkbox. (Check your image size in Inches - If your image is smaller (in inches) than your desired final size, then your image doesn't have enough information (too few pixels) to get the maximum quality. In this case, reset the resolution to its previous value. The resolution will be below 150 dpi, but it will still be as good as it will get (given what you're starting with)). Next, check the "Resample Image" checkbox, and change the image size (in inches) to match the desired size on your poster. Hit "OK" when you have finished.

Finally save your image in jpeg format with default compression before you insert it into PowerPoint. As a final check look at the size of your jpeg file. If it's a 1"x1" image it should be about 70k. A 4" by 5" image would be 1,400k (4 x 5 x 70k). If it's significantly bigger than this (a factor of 2 or more) than something has gone wrong.

Working with PowerPoint

Now it's time to fire up PowerPoint. You will be working all in one "slide" only. Make the slide blank – that is, remove any text boxes from the slide. In the "Page Setup …" dialog box, set the page size to match the final size of your poster. (If you get a message about the size of your poster being larger than the paper size, choose "Don't Fix".) Now save your document on the computer. (If you're using a public lab computer, save it to the "Scratch Disk".)

Use Text boxes to add text to your poster, or to import text from Word. Make the text readable — body text should be about 24 pt or higher on a 48" x 36" poster. Don't use too many fonts in your poster – consider one Sans Serif font for titles and headings, and one Serif font for the bulk of your paragraphs. Bring in charts and graphs from Excel or other graphing applications. Arrange your work for "flow" – help guide the reader through your poster. Align your paragraphs and blocks to each other – it keeps your poster from looking sloppy. Edit your text as much as possible – **few people will read a long poster**. And remember – one of the best ways to edit is to focus on just your main point. *Don't try to put all your research notes and ideas into this one poster. Better to choose one finding (the one you consider most important) and build your entire poster around that!*

Save your file often as you are working on it. Save with the PowerPoint extension, ".ppt" or ".pptx". If you are working on a public lab computer, please SAVE your file to the Scratch Disk on that local computer. You can COPY your file to a network drive once you have finished your work for that session. You can also COPY your file to a flash drive or other media. (In these last 3 sentences, I am distinguishing between SAVE and COPY. "Save" is what you do when you are in Microsoft PowerPoint. Please "Save" to the Scratch Disk. "Copy" is what you do when you are in the Mac OS X Finder, or the Windows Explorer. This is a minor but important distinction.)

Send it to the Printer

When the final version looks perfect and you're sure there are no typos, mistyped references or upside-down figures, it's time to hand the file off to the printers. **Save it one last time as a PowerPoint file (.ppt or .pptx) for yourself, then do a "Save As" and choose PDF (.pdf) for the printers. Please send the PDF file to the printers, the good folks in Print Services**. They are located in the basement of Leighton, and they are the on-campus keepers of the large-format printer: http://apps.carleton.edu/campus/print/

Click on the link for: the Internal Print Submission site.

You may need to create an account if you have never used their print submission forms before.
Contact your instructor or Print Services if you have any trouble with the submission site.

Cost

The cost is $3.00 per foot, printed on plain paper. Remember, you get paper that is 36" wide.
So, for $3.00, you get a printout that's 36" x 12", for $6.00, you get a printout that's 36" x 24", and so on. A poster that is 36" x 48" will cost $12.

You can also have your poster printed at Kinko's or Graphic Mailbox, if you have access to a car. You'll want to make sure you have these arrangements (including cost and timing) worked out well in advance. Be aware that printing costs at those businesses may be higher than at Print Services.

Best wishes!

df, Sept 2021 *Credit to Sean Fox, who wrote the original draft*