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Ordering Posters

Please read completely before you start your poster!

This document and the Illustrator document only apply to making poster artwork. These directions do not apply to producing 4-color process offset or digitally printed collateral or web and video graphics. For information on producing graphics for other mediums, contact Carol Grosvenor.

Submitting your artwork for printing

Send your poster PDF to the Publications office at pubs@cs.utexas.edu a minimum of 48 hours prior to your deadline. We cannot take walk-in traffic. You need to order online through the pubs alias — pubs@cs.utexas.edu. The main contact person is Carol Grosvenor at carolg@cs.utexas.edu or call 471-9753. Pubs is located in TAY 2.116C, two doors down from the main office.

We need to know the following information:

1. *When do you need it?*
2. *Do you want it mounted?*
3. *What is the finished size?*
4. *Do you want glossy or uncoated paper?* We do most posters on uncoated stock, but for posters being used for important meetings and events, we can print on glossy stock.
5. *What is the percentage of enlargement?* If artwork is not the same ratio of width to height as the board (3x4 or 2x3), then what is the percent of enlargement of the smallest side?

Who can order Poster Printing

This service is for the Computer Sciences department only. We do not service the rest of the University. In most cases, there is no charge to students, staff or faculty members for posters produced, but they must be used for presentations and university-related events and functions. They cannot be produced for personal use.

Paper Sizes and Bleeds

Our posters are printed on a postscript laser printer off of a 36" roll of paper. 36" is the maximum short side we can print. We also need .5" on each side of the live area (main part of the image) that is blank. We cannot print all the way up to the edge of the sheet. When you design your 30" x 40" poster, your artwork's maximum live area should be 29" x 39" inches, or 19" x 29" for the 20" x 30" poster size.

Horizontal or Vertical (page orientation)

You can make your poster either horizontal or vertical, although most technical posters are horizontal.

Poster Board Sizes

We have two sizes of poster board—30" x 40" and 20" x 30." Please size your artwork to those dimensions (3x4, or 2x3), so that it will fit nicely on the art boards. Most programs have some way of setting up dimensions in the document—see the document and page set up windows. If using all vector graphics in a vector program like Adobe Illustrator, you may do it smaller than 100% scale and just tell us the percentage of enlargement, but making your art at 100% scale is preferred.

Mounting & Mailing tubes

We use a light weight .25" foamcore board for mounting. Mounting is optional. We do not supply mailing tubes, so you'll need to buy one elsewhere. We will roll it up for you with a rubber band.

GradFest Posters

For GradFest posters, we require students to have their professors sign off on a full scale hard copy of the poster before submitting it to Pubs. If your printer doesn't print full size PDF files, then students should email a full size PDF file to their professor for sign-off and submit a letter-sized signed version.

Provide a Hard Copy of your Artwork

Please provide a hardcopy proof of your poster. A full-size tiled version is not required, but it is always a good idea when proofing your artwork.

Basic Instructions for Making a Poster

File format and size

Final files should be delivered in PDF (portable document format), preferably at 100% scale, with all fonts embedded.

File format and Modes for Images inside your Document

Our printer is a postscript printer and will accept either RGB (three channel red/green/blue) or CMYK (four channel cyan/magenta/yellow/black) format files. All files in the document should be one or the other. Do not use files in .GIF format in your document because they will not have enough color information for the printer to render them correctly.

File formats for images used in your documents should be TIFF, JPEG, or EPS. JPEG files are a lossy compression file format, so you do not want to save, change, and keep resaving a JPEG file, as it will continue to lose data. If you are working on an image file, save it in another format (such as .AI in Illustrator, .TIF or .PSD in Photoshop), and convert it to .JPG after it is completed and sized appropriately for the document.

Proofing your document in advance

Proof your document carefully before you submit it. Because of the amount of resources involved in poster printing, we are only able to print your poster once. It is your responsibility to send a proofed, final, print-ready file. Proof it first on a letter-size sheet to a desktop inkjet or laser printer in color. If printing to a non-postscript printer such as many inkjets, you may not get an accurate printout, because they do not render postscript files very well. If you are doing that, proof the file in a native format, such as Illustrator's .AI format, or the .TIF or .JPG format in Photoshop. EPS files are postscript file formats and may render poorly on non-postscript printers. Most inkjet printers will print a PDF file, though.

When you have everything proofed and corrected, print it at 100% scale (final size) and tile it on small sheets. Then make your PDF file at 100% scale (the size it will be on the final poster). Print that out on a regular printer tiled, if you can. Tape the tiled pages together to make sure everything is clear and easy to read. *You, not OEA, will be proofing it for these things:*

1. **Colors.** We cannot guarantee exact color, though—colors will vary from printer to printer, but it should be easy to read.
2. **Spelling**
3. **Font substitution or other problems with fonts not printing properly**
4. **Line width** on embedded graphics, points on arrows, etc.
5. **Missing or poorly rendered graphic elements**
6. **Resolution** of graphics at 100% scale
7. **Borders and lines**

If you have any of these problems, correct them, and check the file again. **If you see an error on the screen, it will be there when printed it!** Sometimes the conversion to PDF doesn't work correctly, even though you did everything right. In that case, often converting the file again may solve the problem. If it still doesn't work, simplify the file by taking out gradations or any very complex graphics. Consider converting fonts to paths/outlines, and avoid using the autotrace tool (in Illustrator). Remember pixel-generated images from a paint program like Photoshop, are much bigger files than vector images, so use them sparingly.

Common problems and fixes for files

Fuzzy, low resolution graphics

Low resolution files are generated if you use programs like PowerPoint, Excel, Word, Flash, Fireworks, or Image Ready that were not designed for high-end print production. If you must use PowerPoint, make sure images are large enough to print properly. Test them at 100% scale before you send them in. Images should be at least 150 dpi (dots per inch), and up to 300 dpi (if using the glossy paper) for photo-sharp resolution. See directions below on how to set up a PowerPoint file for poster output.

Avoid embedding EPS files inside EPS Documents

Embedded EPS files in EPS documents can cause printing errors. To avoid this, try to save any photos or pixel-generated graphics out as JPEF or TIFF files, instead of EPS files. Avoid saving your final file as an EPS file. You can safely embed an EPS file in another file if the second file is not an EPS file itself. It will

work fine if it is inside a Quark, InDesign, PageMaker or Illustrator AI file, for example. Do not embed in EPS into an Illustrator or Photoshop document, and then save it as an EPS.

Dealing with Dot Gain and Dot loss

Dot gain occurs when the ink hits the paper and spreads out via osmosis. All printing presses and copiers will show some dot gain (amounts vary drastically due to type and age of press or copier) as well as some loss of a very small dot on light, ghosted images. Files made of colors under about 4% -7% opacity may drop all the way out to 0%, so proof background colors carefully. Midrange and darker tones will gain—sometimes up to 20% opacity. To avoid having your gray drop shadows look solid black, make them about 35% opacity (of black). Screens above about 85% will print very close to the solid color. You will see more dot gain on the uncoated paper than on the glossy paper. Avoid using thin type on very dark areas because dot gain will cause the ink to fill in part of the letters. If you have to do that, you can add a thin outline to the type in Freehand or Illustrator, or use a bolder font to make it print better.

Using Common Applications & Making PDF files

Note Regarding Directions in File production

If the command starts from the top menu of the program, you will see the word (*menu*) after the main heading— example: File (menu). This indicates to look at the top of the screen in the main program menu. If the tool or command comes from a palette, it will note it is a palette, and usually where to find it via the main menu.

Making PowerPoint PDF Files

If using PowerPoint, produce your original file at 100% scale. ***Do not plan to have it enlarged later by Pubs, because the resolution of graphics in the file will be too low.***

To set up an oversized PowerPoint file, use the navigation as follows:

Open a new document. Select “New presentation.” Select “Blank” slide. Then the program opens up. Go to File (menu) → Page Set up → A dialog box appears called “Slides sized for” as a pull-down menu. Select “Custom.” In the bottom part of the dialog box, enter the height and width of your poster (30 x 40 or 20 x 30). Select proper orientation of paper (landscape or portrait). Click o.k. Do not hit the “fix” option, which would make it smaller. Check to make sure you’ve got it set up correctly by showing the rulers under View (menu) → Rulers.

Saving your PowerPoint poster as a PDF file.

When finished with the document, go to File (menu) → Print → Save as PDF.

Saving PowerPoint graphics into Illustrator

It is possible to pull a graphic file out of PowerPoint and save it into Illustrator. The reason to do this would be use it as a vector image without having to redraw an existing graphic. If the original file was a vector image, it should work, although sometimes parts of files do not transfer properly. You may have to recreate a missing element of the graphic if the transfer reports an error.

The Process:

Open the PP presentation and navigate to the slide with the graphic you need.

Select it by clicking on it.

Then either cut and paste it into an Illustrator document, or click and drag it into Illustrator.

Check it in Illustrator to make sure you have selected a vector image, by using the View (menu) → Outline or Command Y. If you can see the graphic in outline form, you have a vector image which is scaleable.

You can also select type the same way—cut and paste text into Illustrator, or drag it in, using the Pointer tool in PowerPoint. See Editing Type in Illustrator, in the section “Trouble-shooting Font Problems” in this document.

About Vector Drawing Programs — Illustrator and Freehand

Use vector programs such as Adobe Illustrator and Macromedia’s Freehand, if possible. Both programs can produce images that can be blown up infinitely without loss of clarity. Illustrator has the built-in ability to make several types of graphics inside the program. It has a spreadsheet option, much like Excel, where you fill in the data and select the type of graph you want to generate. The files print very well. We will have one copy of Illustrator in a computer in the GRACS lounge. The program comes with an embedded tutorial program with is easy to follow. We also have three copies of [Adobe Illustrator CS Classroom in a Book](#) available to check out from the Pubs office, TAY 2.116C, and one will be with the workstation. In addition, we have prepared a document for you on producing a poster using Illustrator with

some basics you'll need to know to use the program. You can access that document at the link below, or download it from the poster help page of the OEA web site. This document and the Illustrator Help document are available on the Poster Help page, with link below.

<http://oea.cs.utexas.edu/pdfs/illustratorcs.pdf> (direct link to the Illustrator poster tutorial)

<http://oea.cs.utexas.edu/pdfs/makingposters.pdf> (direct link to this document)

<http://oea.cs.utexas.edu/posterhelp.shtml> (link to Poster Help page)

Setting up your poster page size in Adobe Illustrator

File (menu) → New → This opens a dialog box. Type in the poster size, 30" x 40" or 20" x 30."

Select "Unit:" inches. "Color mode:" RGB.

Saving your Adobe Illustrator poster as a PDF file

File (menu) → Save as → Name the file and select PDF as the file format from the pull-down menu. When working in Illustrator, the file will be smallest in .AI format, so use that format until you are ready to make your final file.

Saving your Corel Draw Poster as a PDF file

File (menu) → Save as → Select Adobe Illustrator format (.AI). Open the file in Adobe Illustrator and save out as PDF as noted above.

Programs you can also use

Adobe PageMaker, Quark Express, Adobe InDesign and LaTeX can be used. Older versions of Quark require the use of Acrobat Distiller and a virtual or networked laser printer to generate the PDF file. The first three are layout programs, so you'd have to do your graphics in another program and import it into the file. For information on using LaTeX, see the following link.

Latex poster Instructions

<http://nn.cs.utexas.edu/twiki/bin/view/NNWiki/LaTeXPoster>

Programs to Avoid

Do not use Macromedia Flash, Macromedia Fireworks (web only programs), Microsoft Word, Excel or PowerPoint* (unless produced as described at 100% scale) or Adobe Photoshop. Photoshop will produce files that are too large to easily print. You can use it to make graphic elements, but import them into another program.

In Illustrator: File (menu) → Place. You would then put each imported file on its own layer (layers menu).

Resolution and File Size for Pixel-based Images

Pixel-based graphic programs such as Adobe Photoshop are fine for photographs, but will have to be 150 to 300 dpi at 100% scale to print reasonably well. If your document is 6" x 9" and you want to blow it up to 20 x 30" poster size, your Photoshop or other pixel-generated image will need to be big enough to end up at 150 dpi at 333.33%-- or 500 dpi at the 6 x 9" size.

Here's the math.

Figure the percentage of enlargement of your original file to 20" x 30" or 30" x 40" — in this case 333.33%. To compute your DPI at the smaller file size multiply 333.33% (or 3.33) x 150 dpi = approx 500 dpi.

Obviously, these files are going to be very large, so using the vector program will work better in most cases. We don't recommend using 300 DPI files unless you are producing something that has to be very sharp. Extremely large files are difficult to work with, and print very slowly.

Using Colors Properly

Using Color

Please try not to use large gradations or huge areas of solid color on your posters. Gradations often do not print well at this size, and use a lot of ink. Open your files in RGB mode. If you must change the mode to CMYK, do so after your graphic is finished being edited because the RGB spectrum is larger than the CMYK spectrum. Once you change it to CMYK, some colors will get grayer because they cannot be duplicated in CMYK. Changing back to RGB will not restore that lost data. For this printer, either mode is fine, but RGB files are smaller, so use them if you can. Using an indexed color file (Compuserve GIF format) is not recommended because it is only a one channel 256-color image, and is not suitable for use in

print. Once a file is converted to .GIF format, it cannot be converted back to its previous mode or file format.

Selecting the right color swatches

Many graphic programs include different color swatch libraries. Default colors are in RGB mode in most programs. If you print with these colors, they will probably be a little bit duller on paper than they look on screen, but for the poster printer, they are fine to use. You may also load the swatch libraries, and for the poster printer, most colors are fine to use. Metallic colors will not look metallic, and fluorescent colors will be duller. If you are planning to use glossy paper, try to use the coated paper color swatches (CVC). If you are using the uncoated paper, use the uncoated color swatches (U). There are options for PMS, Toyo, CMYK and other palettes. For poster printing, you can use any of them, although Pantone Colors are most commonly used. If loading a swatch library (from a program like Illustrator), it would be best to use **PANTONE solid uncoated** or **PANTONE solid coated**, depending on your choice of paper.

Color Swatch for UT Burnt Orange

If using the UT burnt orange, the PMS color is different on coated and uncoated stock. It is PMS 159 CVC for coated paper, and PMS U 166 for uncoated paper. The web hexadecimal number for UT orange is CC5500, should you need to match it online.

Illustrator Compatible UT Swatch Library on PosterHelp page

An Illustrator Swatch library of the UT color palette can be imported into your Illustrator document from the Poster Help page. This will give you access to the official UT color palette, without having to find all these colors in the Pantone palettes yourself. You'll find two options for the orange, so use the one appropriate for your paper stock. Access this palette in your own Illustrator document Swatch palette with the Import Swatch option. Download the file. To use it with your poster, you must be working in Illustrator.

To import them select Window (menu) → Swatches. The default swatch palette will open. Click on the small black arrow at the top of the palette to open the options. Select "Open Swatch Library." Select "Other Library" at the bottom of the list. Navigate to the downloaded file "ut-logos-rgb-swatches.ai" that you have already downloaded from "PosterHelp" and select it. A new swatch library will open. Just select the colors and use as you would any other color swatch. A CMYK palette is also available for CMYK documents.

Trouble-shooting Font Problems

Font Substitution

Sometimes when a file is converted to PDF format, there will be problems with your fonts, especially those inside imported image files. You can do several things to fix this.

You can replace the font with another font, or if using Illustrator or Freehand, you can convert the type to paths or outlines before you import it.

In Illustrator: Type (menu) → Create Outlines. Then immediately group the text element— Object (menu) → Group (or Command G).

Editing Type in Illustrator

When type is imported into Illustrator, use the text tool (T) from the Tools palette to edit it. Use the Character and Paragraph palettes — Window (menu) → Type → Character and or Paragraph — to change the size, typeface, alignment, leading and kerning. Use Command I (found under Edit (menu) → Check Spelling to check your spelling.

Converting type to paths or outlines

This isn't necessary for most PDF files, but if a file is problematic, try it. Once type has been converted to paths or outlines, it no longer works as type in the file and is difficult to edit. It becomes a vector image. Save a copy of the file before you convert it, in case you need to edit it later. If you look at the file in keyline or outline view mode, the type will look black before conversion.

In Illustrator: View (menu) → View Outline

If it has been converted to paths (or outlines), you will see it with an outline around it. Then in the file with paths/outlines, group every section (each element of text). You can then group multiple elements again so that you can move them in unison. If you need to edit them, simply apply the ungroup command. It will ungroup them, one level at a time so that you don't end up with everything ungrouped at once.

Embedding fonts in PDFs

Always select the option to embed all fonts. If you have Acrobat Professional, check to make sure all fonts are embedded. Sometimes there are postscript errors and they won't all work. Look at your file and printout

carefully. If the fonts don't look crisp when enlarged, then they may not have been embedded properly, and will not print right on the final poster. If this happens, try making the PDF again, or use another font and try it again.

File Tricks to make production easier

Layers, history & undos

Most graphic programs allow you to work in layers so that you more easily organize things. Putting each graphic element on a different layer while you are working makes it much easier to work with the file, especially when creating complicated charts, or other complex graphics. Most programs also let you specify the number of undos you can make and /or have a history palette, which you can use, in case you make a mistake and need to go revise your file. If you have enough memory, set your undos higher (around 10 steps) so you can reconstruct your file while you learn the program, as you will make mistakes.

About Undos and Reverting on Adobe Illustrator Graphs

Adobe Illustrator has a graphing component built into the program. However, it doesn't work exactly like the rest of the program. The undo command doesn't work for graph production. If you start making a graph and want to change it, the only way out, is generally to start over. So, make all your graphs as separate documents and get them just right before you put them into your main poster document. Each graph will need to go on its own layer. See the Illustrator instructions for more information.

Suggested Program to learn: Adobe Illustrator

We suggest the use of a newer version of Adobe Illustrator so that you can work with all these different type of files and compile them into your main poster file. The program isn't difficult, but it also isn't completely intuitive, so please read the Illustrator poster help notes, as well as the online help menus and possibly check out a manual from Pubs while you work. If you've worked with other Adobe programs such as Photoshop, it will seem very familiar.

If you have additional questions, contact Carol Grosvenor at carol@cs.utexas.edu