

# *Cofrin Center for Biodiversity*

## **Using The HP Model 800ps Large-Format Printer To Make Maps and Posters**

Revised 21 October, 2005

### **Access To The Printer:**

The printer is located in the MAC Hall 212 Office Suite – room 212B. The area is not open on evenings and week-ends and even when it's open, there is not always someone around to help. If you would like to make use of the service, and especially if you will need some technical help, please look ahead as far as possible and coordinate your schedule with Kim McKeefry (Center for Biodiversity Program Assistant) and/or Mike Stiefvater (the designated printer-helper-outer):

- If you are not trained in operating the printer, you should alert both Kim and Mike several days ahead of time so a date/time that works for everyone can be selected.
- Even if you are pretty confident that you can run the printer without help, please try to schedule for when Kim or Mike is around. You can easily run into a situation where the paper roll needs to be changed and we really want to limit the number of people doing that task. And you will save money if you get your questions answered before pressing any buttons. A spoiled print job chews up as much paper and ink as a good one.
- Your print job should be placed on the University network (M-drive or email) or brought to the printer workstation on portable media such as a cd or jump drive.
- Users should not expect to do any file editing on the printer workstation. The job should be fully composed beforehand.

### **Composition Tips:**

There are some easy measures you can take during composition to minimize printing cost and hassle:

- Confirm that your finished product needs to be larger than 13" by 19" (there are many printers on campus that go up to a 13x19 sheet size)
- Confirm that the quality needs of your end product are within reach of the HP 800ps printer (weight and finish of paper, color control, etc)
- Composing your job as a PowerPoint slide appears to produce the best results. The Adobe pdf format is a distant second. Printing from applications other than these two is experimental for us.
- When composing, set the page size for the exact height and width you want the finished product to be. If practical, set one of the dimensions to coincide with one of our standard roll widths of 24, 36 or 42 inches (this is optional but if you can do it you wind up with less hand trimming)
- Do not go to the edge of the paper with content of any kind including background colors. Include at least one-inch of white space all around.
- Use a white or tinted background where possible (large areas of intense color not only increase ink cost, they result in the paper getting wet and stretching).
- If your graphic design involves photographs, verify that the originals are resolute enough to be blown up to poster size. Jpegs that look great on the web can look pretty awful on a poster.

**Printing Tips:**

Users must be logged on to machine #2410 in order to send a job to the printer. From inside PowerPoint or Acrobat Reader, the printer looks like and behaves like a standard Windows device. However there are quite a few configuration options, all of which have to be right to avoid spoiling the print job:

- Make sure the printer is turned on, the correct paper is loaded and the status indicator says "Ready".
- Click on File-Print, select the HP DesignJet 800ps 42, click the "Properties" button and work through the tabs in the given order.
- On the "Finishing" tab, select portrait or landscape
- On the "Paper/Quality" tab, set the paper size to the dimensions that the job is composed at. In almost all cases you will need to click on Custom and type in your desired width and height.
- On the "Paper/Quality" tab, confirm that paper source has defaulted to "Roll".
- On the "Paper/Quality" tab, check "Autorotate" and select the roll width.
- On the "Paper/Quality" tab, select the desired print quality. "Fast" is for drafts and also produces the best result on USGS topo maps. "Normal" is fine for all-vector jobs (text and drawings). "Best" is needed when the layout includes digital photographs.
- On the "Paper/Quality" tab, leave Optimize for and Maximum Detail settings at their defaults. More trials are needed before we'll have recommendations on these.
- On the "Effects" tab, select "% of Normal Size". Leave the value at 100%.
- Send the job to the printer

Once the job has been sent, watch the status indicator to make sure the job has gotten to the printer. It will take some time before actual printing begins. Don't walk away until 3" or so of paper are sticking out. Give the leading edge of the sheet a thorough inspection. Most problems can be detected in this way and cancelling the job at this stage ("Cancel" button on the printer's control panel) will prevent further waste of ink and paper. When a job is cancelled, the printer needs to be reset as follows:

- Let the printer go all the way through its cancel routine as indicated by the reappearance of the "Ready" indicator.
- Turn off the printer, wait 10 seconds and turn it back on.
- Resend the job when the "Ready" indicator reappears. It takes a while.

**Payment:**

The policy regarding payment is best explained by the following excerpt from Dr. Howe's email of September 6, 2005:

Last year, NAS purchased an HP Model 800PS Plotter, which is housed in the Biodiversity Center Office Suite in MAC 212B and is maintained by Biodiversity Center funds. This is a high quality and fast plotter that is great for research posters and other applications. In order to recover some of the printing costs and to minimize waste, we are implementing a charge-back policy for use by other departments. A cost sheet is attached. Until something more official is enacted, here is the policy that we will use for NAS faculty, staff, and students:

- NAS faculty can print posters, etc. free of charge as long as the use is modest (e.g., < 5 posters or major jobs each year). If you have more needs, we hope that you will have grant money to re-imburse the costs.
- Students in NAS courses that require a research poster will have the opportunity to print 1 poster free of charge. Any additional posters will be charged at the non-departmental rate. This will minimize waste (e.g., re-printing of poorly edited drafts).

***Cofrin Center for Biodiversity***  
**Printing Charges - HP Model 800PS Plotter**  
**2005-06**

Description of work: \_\_\_\_\_

Student/Department: \_\_\_\_\_

Faculty/Staff Advisor: \_\_\_\_\_ Date: \_\_\_\_\_

Size	Paper – white bond - cut sheets or roll stock  Ink – text and/or tinted background and/or small images  Basic technical help including paper setup  \$1 per sq. ft + \$2	Paper – white bond - cut sheets or roll stock  Ink – text and/or colored background and/or large images and/or intense images  Basic technical help including paper setup  \$1.50 per sq ft + \$2	Paper – photo papers - other special papers  Ink – all images  Basic technical help including paper setup  \$2 per sq ft + \$2
Up to 3 sq ft	<b>\$5</b> X	<b>\$7</b> X	<b>\$8</b> X
Up to 6 sq ft	<b>\$8</b> X	<b>\$11</b> X	<b>\$14</b> X
Up to 9 sq ft	<b>\$11</b> X	<b>\$16</b> X	<b>\$20</b> X
Up to 12 sq ft	<b>\$14</b> X	<b>\$20</b> X	<b>\$26</b> X
Up to 15 sq ft	<b>\$17</b> X	<b>\$25</b> X	<b>\$32</b> X

Base amount from above: \_\_\_\_\_

Technical assistance @ \$10 (if applicable): \_\_\_\_\_

Other Charges: \_\_\_\_\_

Total: \_\_\_\_\_