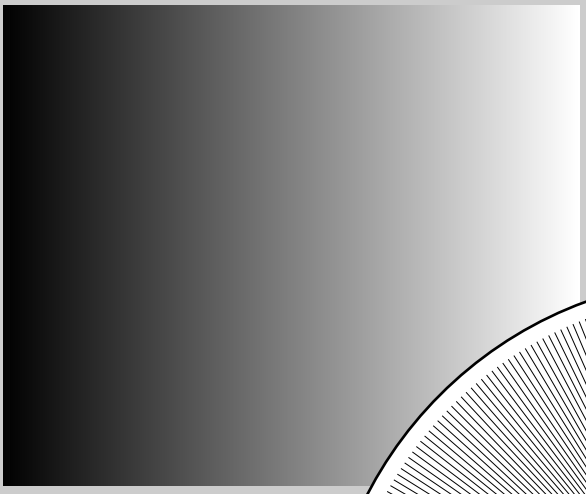
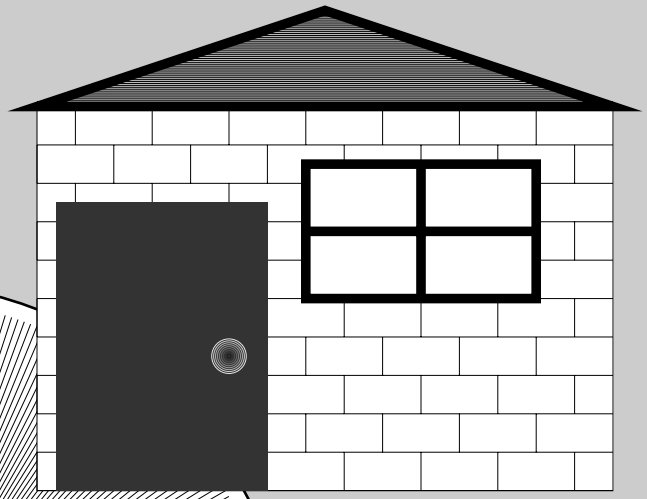
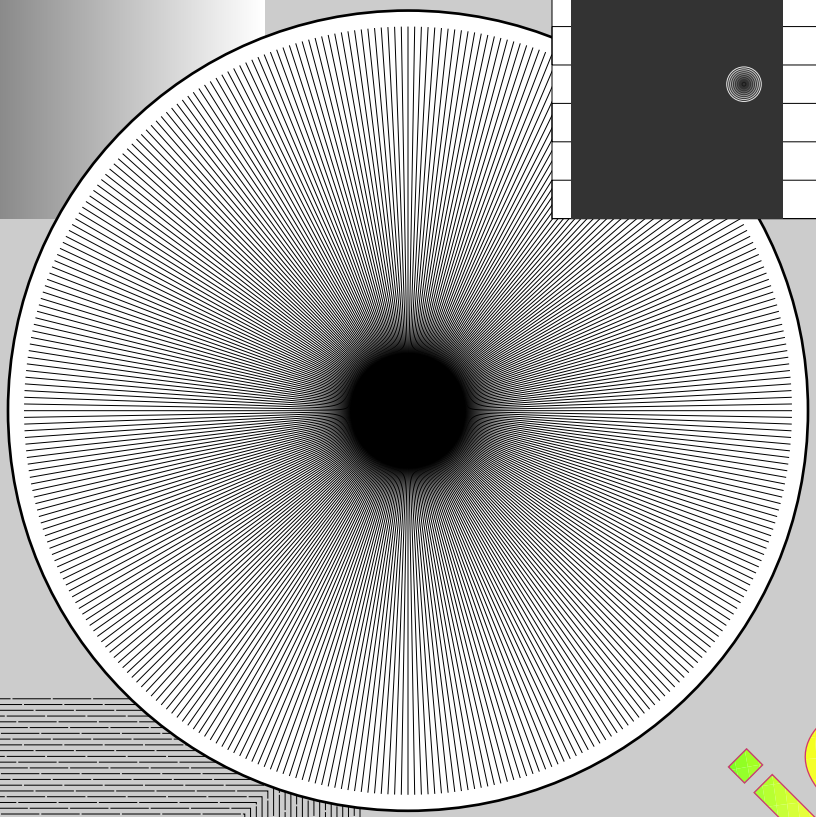
Katia-Anne at 9 months old

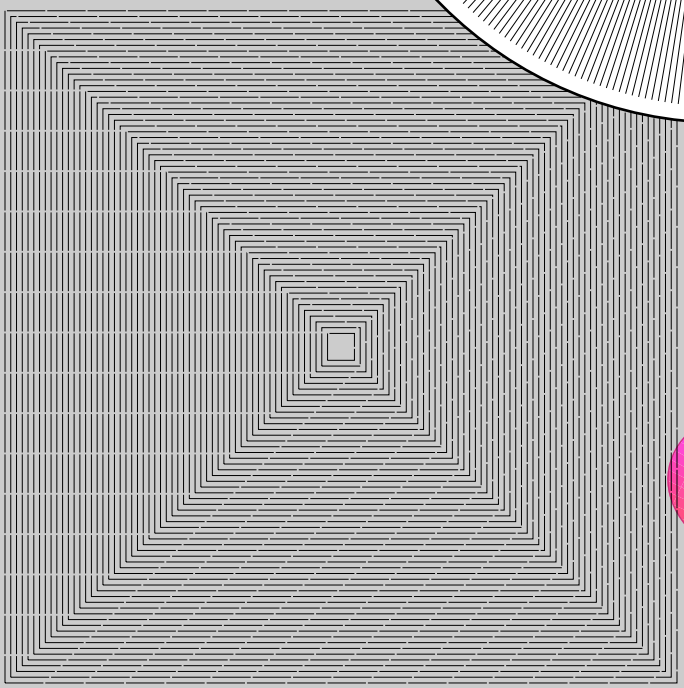
Katia-Anne at 2 years old

Corissa-Renée at 5 months old









Graphics
Test

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890!@#$

VM Status at start:
1330782 bytes left
out of 2528128 bytes.

VM Status in loop:
1321962 bytes left
out of 2548328 bytes.
8706000 bytes written to.

VM status after loop:
1330614 bytes left
out of 2528128 bytes.

The memory test performs very basic functions designed to fill a part of the device's RAM (or as it is refered to in Postscript, VM). On some systems (like GhostScript), VM is constantly being re-allocated and consequently changes to permit more and more definitions, but on standard printers, total VM is constant and therefore can become full. This test does not take over all of VM, but just enough to see how fast data can be manipulated in RAM.

Although this test does not have anything to display, I can still explain what it does. For starters it is basicly a loop within a loop with each iteration having a varied real number. For each iteration of each loop, a series of mathematical operations are performed, like addition, subtraction, division, cosine, tangent, logarithmic, square root, etc...

What is the Postscript Processing Speed Test?

If you've always wondered how well your printer compared to the rest of the printers out there and you have a Postscript printer, then this is what you need! The Postscript Processing Speed Test (or PPST for short) was, in it's infancy, a simple benchmarking program, but now, it has become one of the most advanced technical benchmarking programs available for Postscript printers (for freeware at least). It is not an application benchmarking program to compare how well a printer deals with, let's say, Microsoft Word documents or Corel Draw documents, but rather is a testing program that actually runs a suite of commands for each of the major functions a printer is used for, independantly of the application that may be used. For that reason, you must keep in mind that a printer with a higher PPST index result will only be faster for the exact same file using the exact same printer driver. For example, if you print a Word document from Windows to two different printers and select their respective drivers from the printer manufacturer, you may get results inconsistent with the PPST index results, but on the other hand, if you chose the same driver for both printers, like the standard windows Postscript driver and tell it you have an Apple LaserWriter, then the results will probably be consistent. The reason is simple: each driver supplied by the manufacturer uses different Postscript commands and consequently has different results.

Now that that's out of the way, you may like to know that there will be an other 6 pages to be printed by the printer, one for each test performed and the final results page. Here is what each of the tests do...

PPST mailing list:

To subscribe to the PPST mailing list send a note to ppst-request@glyphic.com and you will start receiving interesting notes about PPST, like updated results and advanced notices of new versions. You will also get a chance to participate in beta testing of new versions.

Image test:

The bitmap image test is pretty simple; at the end of this file is a series of hex digits. When the test is first sent to the printer, all those digits are stored in RAM and later put on the page. There are three images in all, and all are low resolution images because of programming constraints and memory limitations. Before you ask, I can not make a higher resolution test without making the PPST file jump from about 200-300K to about 2 to 3Megs!!! Also, keep in mind that the way the test is designed (because it's low resolution) lets you see how your device deals with low resolution images. Of the three pictures on the page, two are in color (256 colors) and the top one is B&W. The test simply puts those pictures on the page and prints the page. Keep in mind that PPST doesn't print the bitmap as it receives it which is the case with most bitmap printing, so you get the "real" bitmap image speed, not something dependant on the data reception time!

Graphics test:

You will see a little house, a circle of lines, the words "Graphics" and "Test" with special effects and a funny type of box printed. The house is simply a series of lines programed manualy. The circle is a series on "lineto"s with a "translate" between each. The box is just some "lineto"s with a different "dash" pattern. Finally, the word "graphics" has an hsb color variance in it with a loop that sets those colors in a varying circle and the word "Test" uses the same algorithm as the big circle. To make the graphics in the two words only inside of them, the operators "charpath" and "clip" were used, for you PS gurus.

Fonts test:

The printed page is simply a page filled with a font on top and a series of different fonts on the bottom. Prior to that, the test prints (in memory) 3 pages of the same text 3 times with 3 different fonts. This test will not tell you how fast the printer is for Word Processing, but how fast it is at accessing fonts.

Memory test:

Simply tests the speed of the RAM by copying string variables from one part of memory to an other. You will notice that the number of bytes written to will change from one device to the other and that is simply because of the different ways in which the interpreter stores strings and variables.

Math test:

The math test runs most math operators (see a more complete explanation on that output page).

Final page:

The final page is not taken into account for the PPST index results. I must indicate that the specifications paragraph can't easily be explained because it is hardware and printer dependant and are only values available from the "statusdict" which are non-standard from one printer to the next. If you have any questions, please feel free to contact me via e-mail at <jsg@achilles.net>. Enjoy!

About Port/Data reception/interpretation time:

The numbers indicated in the "port data reception" column are based on the same (or closely matched) system printing on those three different devices using those types of ports. Your system on the same printer using the same port may not get the exact same results.

Additional notes:

One of the most common questions I get asked is whether the print engine speed is taken into account for the PPST index numbers. Well, the answer is yes, but only for the final PPST index number. In all the other numbers, the index doesn't take that into account. Besides, if you take a printer that has the exact same processing power, you expect the image speed to be the same, but you want to see that the overall speed is faster too! Keep in mind that the type of paper will make the speed results vary and that is why I recomend testing on letter or A4 paper for consistent results. One last thing; keep in mind that the math test (PPST-M) and probably most every other test, can be dependant on the floating point precision of the interpreter, so take a close look at the "specifications" paragraph on the final page.

If you are running PPST on many printers and want to disable this page on the printout, just look for the following code and put a Postscript comment (%) in front of the line that says "description_page".

```
        isvalidversion                  % Check if the version is valid.
        allpages {dotests} if           % Do all the speed tests.
        allpages {description_page} if  % Print description page.
        calctimes                       % Calculate all speed times.
        initgraphics                    % Make sure graphics are default.
        setpagesize                     % Set coordinate for 8.5x11" page.
...
```

On letter paper, lines in graphics on top part of page are 1/2 of a point thick

Postscript Processing Speed Test version 5.5

April 26th, 1996

Test executed on: GPL Ghostscript Running Postscript Level 2 version 3010

PPST index results

index name	Apple LaserWriter II NTX 300dpi	HP LJ 5SiMX 300dpi	HP LJ 5SiMX 600dpi	QMS 2425Ex 300dpi	QMS 2425Ex 600dpi	This device 720dpi
PPST-I	1.0	80.8	80.8	53.8	14.0	>1000!
PPST-G	1.0	41.3	34.2	126.7	130.2	9247.0
PPST-F	1.0	21.4	11.2	19.6	12.6	467.2
PPST-R	1.0	4.0	2.6	8.8	8.8	>1000!
PPST-M	1.0	5.0	4.8	38.5	30.3	>1000!
PPST	1.0	27.2	20.2	51.2	33.5	2131.8

Port data reception from a QMS 3825 II Print System and an AST PowerExec 4/25 laptop

Port data reception	Serial 9600b	Parallel	CrownNet	this port
	1.0	11.5	205.6	>1000!

PPST is now officially used by:

The German GKSS research center at http://www.gkss.de/W3/index_e.html
NASA for RFP purposes at http://sewp.nasa.gov:8000/rfc5entry.tab.html
The Business Equipment Users' Association at 101356.2643@Compuserve.Com
The German Mac MAGAZIN at http://www.maz.net/macmagazin

GKSS, NASA and BEUA have helped a great deal with PPST's acceptance.

See comments in postscript file with text editor for more information.

GPL Ghostscript (4M,720,fm.10071) 3010 2131.8 >1000! 9247.0 467.2 >1000! >1000! 3000

Make sure PPST was the first and only file sent to the device just after power on.

Please send above results line to the address below if your device isn't listed in the PPSTxx.RES file that's included with the archive

Specifications: Resolution is 720x720dpi. Floating point precision is 6 digits. Ram size 4 Megs. Postscript is Level 2, version 3010. Firmware revision 10071. Page count 4711. Printer name is "GPL Ghostscript". Product name is "GPL Ghostscript". The logical engine speed (according to "between" time) is 3000 page(s) per minute.

You can get the latest version of PPST on the Web at "http://www.achilles.net/~jsg/ppst/" or by FTP at ftp.gkss.de in /pub/PPST or from many popular BBS's. It's always free! Look for a file called PPSTxx.ZIP and don't forget; distribute like crazy!

Also, evaluate The PostScript Utility Package at

http://www.achilles.net/~jsg/psup/

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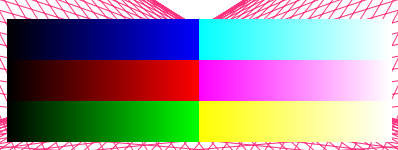
by Jean-Serge Gagnon
<jsg@achilles.net>
cellular: (613)791-0785
please call only from
9am to 9pm EST



Lines in graphics on bottom part of page are the smallest possible

The white area around the border shows where your device can't image data.