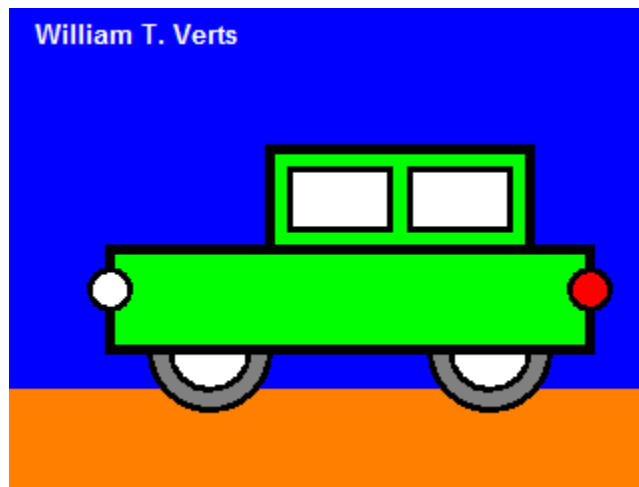


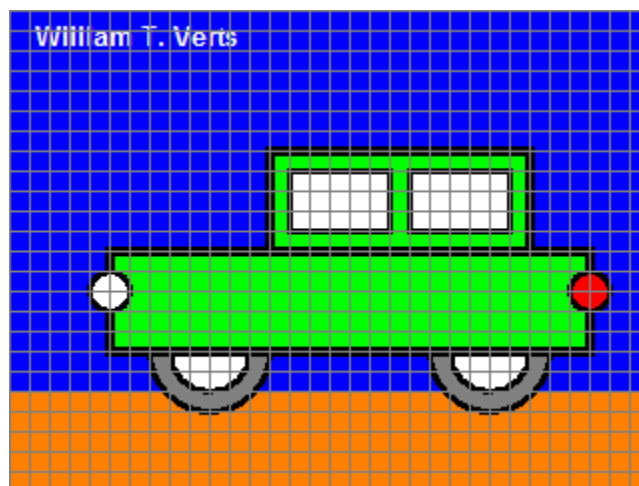
COMPSCI 120
Lab Extra Credit #2 – SVG Image
Professor William T. Verts

Setting Up

In this assignment you are to create an SVG (Scalable Vector Graphics) file. You will not be required to create a separate Web page – we will be able to check the SVG file directly. As you know, an SVG file is a text file that describes a graphic image. It has a specific XML format to follow that is similar to HTML. The image that you are to create is that of a simple car, made up entirely of rectangles and circles and one line of text, as shown below:



Here is the same image, showing a 10×10 grid laid over top so you can figure out the coordinates of all the objects:



All items are on a 10-pixel boundary. For example, the small white circle that represents the head light is at coordinates $\langle 50,140 \rangle$ with a radius of 10 pixels and a **stroke-width** (thickness of the surrounding circle) of 3 pixels.

Specifics

1. The image is 320 pixels wide by 240 pixels tall.
2. The **fill** color of the sky is blue.
3. The **fill** color of the ground is **#FF8000** (dark orange).
4. The **fill** color of the car body is lime.
5. The **fill** color of the head light is white (the car is driving to the left).
6. The **fill** color of the tail light is red.
7. The **fill** color of the windows is white.
8. The **fill** color of the hubcaps is white.
9. The **fill** color of the tires is **#808080** (a medium gray).
10. The **fill** color of the text is white.
11. All **stroke** colors are black.
12. All **stroke-width** values are either 3 (thin lines) or 5 (thick lines).
13. You must use your own name instead of mine in the image.
14. Your name must appear in the upper-left corner of the image, but you may adjust its location slightly for a good appearance. A few pixels either way won't matter.

Using any (manual) technique you know, create a file called **car.svg** in your **public_html/cmpsci120** folder. That is, you may use emacs on UNIX to create the SVG file directly, or you may create the file in a text editor on your local computer and FTP it over to the server. Make sure that the permissions on **car.svg** are 644 (rw-r--r--).

Hints

The Computer Science Companion can be a lot of help for this assignment. In particular, please refer to pages 212-217 (4TH Edition) for the specifics of the SVG file format.

What To Turn In

When your image is correct, send an email to the **literacy@cs.umass.edu** account. The subject line must be set to the exact phrase **COMPSCI 120 EXTRA CREDIT #2**, and the body of the message must contain your name, your username, and your fully specified URL: **http://elsrv3.cs.umass.edu/~_____/cmpsci120/car.svg** (with your own user name in the blank). We will grade the assignment based on whether the SVG image can be displayed, and on how closely you follow the directions. You will lose points for any geometry in the wrong place or any incorrect colors. You will receive NO CREDIT if your name isn't part of the SVG file.

Grading

You can get as much as 10 points extra credit on this assignment. Points will be removed for the following infractions (what is left over will be added to your lab score as extra credit):

- A: -10 **Link Fails.** When we attempt to load your image we get either a “File Not Found” or “Permissions Denied” error. **NO CREDIT IF WE CAN’T LOAD THE IMAGE!**
- B: -10 **Code Broken.** The SVG code does not work. There are significant syntax errors that prevent the image from being rendered in a browser. It’s got to work, or there is no point to turning it in! **NO CREDIT IF THE IMAGE IS BROKEN!**
- C: -10 **Student name missing.** Your name (not mine) must be part of the SVG code and must appear on screen in the image. **NO CREDIT IF STUDENT’S NAME IS MISSING!**
- D: -8 **Minor Syntax Errors.** The SVG code still has to work, but if we determine that a very minor and easily fixed syntax error prevents the image from being rendered in a browser we’ll give you a couple of pity points.
- E: -8 **SVG Generators.** There are several third party SVG generator programs that greatly ease the effort in building an SVG file. That’s not the point. The point is to emphasize that the SVG format uses a language that you can write manually. You must create the SVG code in a text editor.
- F: -1...-5 **Minor errors.** Getting some of the attributes wrong can cause the appearance of the image to be incorrect (lines in the wrong place, wrong colors, etc.) but do not prevent the image from being rendered on screen.
- G: -1 **Wrong size.** The image must be exactly 320×240 pixels in size.
- H: -1 **Not claimed.** The SVG file exists but was not turned in (no email to the literacy account).
- I: -1 **Embedded HTML.** The SVG code must stand alone and must not be part of a Web page. That is, it cannot contain any HTML tags.