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To whom it may concern,

This open letter is to explain where my expertise has been focusing nowadays. I am exploiting vector graphics as a metalanguage for designing and implementing Graphics User Interfaces (GUIs) particularly in the area of innovative GUIs. I am not using mainstream technologies but offering a different positioning concerning various aspects of GUIs, particularly in their long-term usability as well as machine and computer language independence. Current technologies are overemphasizing the use of browsers and web programming which indeed correspond to an immediate need or at least to a certain perception of this need. Unfortunately, these technologies are all based in languages and other technologies that are quite verbose and not very efficient. JavaScript, for example, has never been designed to function as a full programming language, much less as a sort of low level language that other higher level languages are compiled to. On the other hand, Java is and it was designed as a full programming language in which the low level language that it is compiled to is also used by other high level languages. Above all, however the technologies that I use are available to be used in the web too through SVG, they are not efficient enough to guarantee total resolution independence. The bottleneck is the middleware used and this is a known fact among developers that are obliged to bypass the bottleneck with hacks or simplifications that compromise the usefulness of vector graphics on the web. They are under the impression that these technologies are going to be used forever while the hardware will increase in power to be able to reduce the efficiency bottleneck. The problem is that I have been hearing all this for more than 30 years and the problem is always the same. Nowadays, raw hardware increases in performance are exclusively used in games, and they are never enough, but in the everyday applications it is rarely used because most commercial machines are not at the performance level of the machines used in games. Also, at the same time that hardware performance increases, operating systems complexity also increases which have the tendency to consume computing power and memory which would be of value if used by the applications instead. As one can easily see this can be seen as a snake eating its own tail.

On the other hand, I am recently exploiting new ways to develop GUI using vector graphics and to subcontract its development to graphics designers, which are much less expensive and best suited for creative artwork. The big deal with vector graphics GUIs is that they are machine independent and above all resolution independent. With new very high resolution screens arriving, most GUIs developed nowadays will probably be obsolete then. Vector graphics is completely insensitive to screen resolution. Actually, the highest the resolution is the better the quality that the GUI on the screen will have.

I have been also seeing false ideas circulating such as that OpenGL is vector graphics. OpenGL is not vector graphics, since vector graphics also represent curves and gradients as vector information.

We will soon be invaded by a huge variety of extremely different resolution displays that will be hard to manage without using vector graphics. Vector graphics will be an elegant solution to the problem as well as to the problem of multiplatform, multiple OS and multiple languages environments.

Nilo Stolte