



Mobile graphics on PDA – Introduction to SVG

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What's SVG?

SVG (Scalable Vector Graphics), which has been developed by W3C, is a new standard for two dimensions vector graphics. SVG was written in XML and usable as an XML namespace. SVG contains six main types of graphic object: vector graphic shapes (include line, polyline, polygon, path, ellipse, circle, rectangle), images, gradient fills, filters, reusable components such as symbols and markers, and text. “Graphical objects can be grouped, styled, transformed and composited into previously rendered objects. The feature set includes nested transformations, clipping paths, alpha masks, filter effects, template objects and both procedural and declarative animation”.

Why should we choose SVG?

SVG is scalable, Because SVG is scalable, it can be enlarged or shrunked without losing detail. This is very useful for mobile devices, especially for palm size devices, which screen is limited. People needs to enlarge or shrink the graphics for detail information every now and then. Other graphics such as bmp or jpeg can't give you that details, When you scale an image, the image become jagged and blurred.

SVG is rich content, As we known, SVG support six main types of graphics and advance graphics features such as gradient and animation. So, SVG can be used for graphic design, advertising, clip art, business presentations and general Web use.

SVG drawings can be dynamic and interactive, The Document Object Model (DOM) for SVG allows for straightforward and efficient vector graphics animation. It also has a rich set of event handlers, such as onmouseover and onclick. This is very useful for user interactive or engineering design.

SVG is small, SVG define a graphic by using script. Compare with other graphics, SVG files is relatively small. It is very suitable for small memory devices such as PocketPc. Except this. W3C developed two profiles especially for small, resource-constrained devices. One is SVG tiny for smart cellphone, the other is SVG Basic for palm size PDA.



SVG is the next generation internet graphics standard, “SVG 1.0, a W3C Recommendation since September 2001, has seen enthusiastic adoption and can now be exported from many content creation tools. The modularized SVG 1.1 and the SVG Basic and SVG Tiny profiles (for pocket computers and cellphones respectively) are now in Candidate Recommendation. Work continues on SVG 1.2 and SVG 20, on profiles for printers, and on further integration with other XML technologies such as SMIL 2.0, XHTML, MathML and Xforms.”

Usage Scenarios

Graphics Design. SVG is vector graphics format make it very suitable for vector graphics design.

Location-Based Services. Location-based services will be a default service in future systems. With location-based information and applications, mobile subscribers can access a wide range of services, such as traffic and weather reports, restaurant, theatre or movie ticket bookings. Interactive maps, representing points of interest, will be an important part of these services.

Mapping and Positioning. GPS Transceivers make sense on mobile devices, SVG is a vector graphics format perfect for mapping. SVG and Positioning will be a powerful combination on mobile devices.

Animated Picture Messaging. Messaging is a popular service on cellular phones, which lets mobile phone users send and receive ring tones, picture messages, operator logos, business cards, calendar requests, Internet settings, etc., over wireless messaging transports.

Multimedia Messaging. Multimedia Messaging is a continuation of SMS and Picture Messaging. MMS will let users exchange messages with rich content types including natural images, voice clips, video clips, and animated, interactive graphics.

Entertainment. Interactive applications, such as games, cartoon animations, can be developed using mobile SVG profiles.

Industrial Applications. Field engineers locating and dealing with time critical construction and maintenance problems will be able to view maps and engineering plans in the field, on demand.

eCommerce. Graphical views of stock data available on mobile devices will allow day traders to leave their desks, receive intelligent stock data and trade online, on the go.

User Interfaces. SVG markup used to define look and feel for user interface controls will be used to allow vendors and users to add flexibility and accessibility to mobile device graphical user interfaces.