

Available and Upcoming Web Graphics Standards

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General 2D/3D Graphics APIs

- *HTML Canvas: www.w3.org/TR/2dcontext/*
- *WebGL: www.khronos.org/registry/webgl/specs/1.0/*
- Consider using SVG instead when retained graphics are needed
- Consider using CSS Animations/Transitions to reduce battery consumption caused by complex JavaScript processing

2D/3D Transformation and Transitions

- CSS Transforms: www.w3.org/TR/css3-transforms/
- CSS Transitions: www.w3.org/TR/css3-transitions/
- Useful for 2.5D user interface design like “Cover Flow”
- CSS Transforms is a unified specification applicable to both HTML and SVG

Background Graphics and Borders

- CSS Backgrounds and Borders:
www.w3.org/TR/css3-background/
- Flexible background and border manipulation without complex DOMs
- Defines rounded corners, image slicing, and drop shadows as well

Media Adaptation

- Media Queries: www.w3.org/TR/css3-mediaqueries/
- Selects style sheets based on dimension, orientation, or color of output media
- Key features to achieve “Responsive Web Design”

Web Fonts

- WOFF File Format: www.w3.org/TR/WOFF/
- A new compressed font packaging format specifically designed for downloadable fonts
- Alternative to OpenType or TrueType fonts where licensing considerations make their use less acceptable

Image References and Gradients

- CSS Image Values and Replaced Content:
www.w3.org/TR/css3-images/
- Provides native CSS support for sprites
- Clip referenced images by using the ‘#xywh=’ spacial fragment
- Defines linear and radial gradients as well

Text Layout across Multiple Regions

- CSS Regions: www.w3.org/TR/css3-regions/
- CSS Exclusions and Shapes: www.w3.org/TR/css3-exclusions/
- Essential to support high-design text contents like magazine
- Currently discussed as Advanced Adaptive Layout Extension proposal to EPUB 3

Compositing and Blending

- Compositing and Blending: dvcs.w3.org/hg/FXTF/raw-file/82ac2d2fe099/compositing/index.html
- Porter-Duff compositing operators from SVG
- Compositing and Blending is a unified specification applicable to both HTML and SVG

Filter Effects

- Filter Effects: dvcs.w3.org/hg/FXTF/raw-file/82ac2d2fe099/filters/index.html
- Raster image filter effects from SVG
- Filter Effects is a unified specification applicable to both HTML and SVG

Web Animation

- Web Animation: dvcs.w3.org/hg/FXTF/raw-file/593e1ac28b20/web-animations/index.html
- An effort to combine two different animation models, CSS Animation and SVG Animation
- Web Animation is a unified specification applicable to both HTML and SVG

Scalable Vector Graphics

- SVG 1.1: www.w3.org/TR/SVG11/
- SVG 2.0: svgwg.org/svg2-draft/
- SVG 2.0 adds new features including advanced gradients, canned filters, and new animation
- Scheduled to be Candidate Recommendation around March 2014