SVG Cheat Sheet Cheat Sheet

by beccam via cheatography.com/33170/cs/10320/

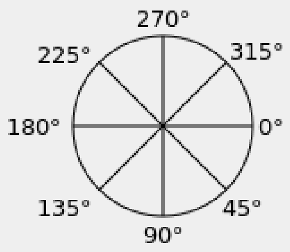
Basic Shapes

line	`<line x1="start-x" y1="start-y" x2="end-x" y2="end-y"/>`
rectangle	`<rect x="left-x" y="top-y" width="width" height="height"/>`
circle	`<circle cx="center-x" cy="center-y" r="radius"/>`
ellipse	`<ellipse cx="center-x" cy="center-y" rx="x-radius" ry="y-radius"/>`
polygon	`<polygon points="points-list"/>`
polyline	`<polyline points="points-list"/>`

Transformations

`translate(x, y)`	moves *x* horizontally, *y* vertically
`scale(xFactor, yFactor)`	multiplies by `xFactor` and `yFactor`
`scale(factor)`	equivalent to `scale(factor, factor)`
`rotate(angle, centerX, centerY)`	rotates by `angle` degrees with center of rotation `(centerX, centerY)`
`rotate(angle)`	equivalent to `rotate(angle, 0, 0)`
`skewX(angle)`	skews *x*-coordinates by `angle` degrees
`skewY(angle)`	skews *y*-coordinates by `angle` degrees
`matrix(a b c d e f)`	specifies a transformation matrix of six values

Angle Measurements



Angle measurements increase clockwise, starting from the positive*x*-axis.

Grouping and Referencing Objects

grouping	`<g id="id" style="attributes">`
	`</g>`

use a group	`<use xlink:href="#id" x="x1" y="y1"/>`

defining groups without displaying	`<defs>`
	`</defs>`

symbol	`<symbol id="id" style="attributes" preserveAspectRatio="attributes" viewBox="x1 y1 x2 y2">`
	`</symbol>`

Clipping and masking

clipping	
`<clipPath>`	`id`, `clipPathUnits`
`<use xlink:href="#imageid" style="clip-path: url(#pathid);"/>`	
masking	
`<mask>`	`id`, `x`, `y`, `width`, `height`

`clipPathUnits`
`maskUnits`
`maskContentUnits`
	`objectBoundingBox`, `userSpaceOnUse`

`style`	`mask: url(#maskid)`
	`fill-opacity: 0.0-1.0`
	`fill: color`; white specified for opacity only

Filters

`<filter>`	`x`, `y`, `width`, `height`
`filterUnits` `primitiveUnits`	`objectBoundingBox`, `userSpaceOnUse`
`<feGaussianBlur>`	can create a drop shadow
`in`	`SourceAlpha`, `SourceGraphic`
`stdDeviation`	`blur` or `x-blur y-blur`

Gradients

attributes	
`spreadMethod`	`pad`
	`repeat`
	`reflect`
`gradientTransform`	`skewX`
	`skewY`
	`rotate`
`<linearGradient>` attributes	
`x1 y1 x2 y2`	`="`*0-100%*`"`
`<radialGradient>` attributes	
`cx cy r fx fy`	`="`*0-100%*`"`
elements	
`<stop>`	`offset="`*0-100%*`"`
	`stop-color:`
	`stop-opacity:` *0.0-1.0*

Stroke Attributes

`style="`*attribute*`:`*value*`"`	specify stroke attributes in `style`
`stroke`	stroke color; default is `none`
`stroke-width`	width of stroke; default is `one`
`stroke-opacity`	a value between `0.0` (transparent) and `1.0` (opaque, the default)
`stroke-dasharray`	a list of the lengths of dashes and gaps; default is `none`
`stroke-linecap`	specifies shape of endpoints: `butt` (default), `round`, or `square`
`stroke-linejoin`	specifies shape of corners: `miter` (pointed, the default), `round`, or `bevel` (flat)
`stroke-miterlimit`	maximum ratio of length of the miter point to width of the lines; default is `4`

Fill Attributes

`style="`*attribute*`:`*value*`"`	specify fill attributes in `style`
`fill`	fill color; default is `black`
`fill-opacity`	a value between `0.0` (transparent) and `1.0` (opaque, the default)
`fill-rule`	determines whether a point is inside a shape; `nonzero` (default) or `evenodd`

Paths

`<path d="`*command arguments*`"/>`		
uppercase commands: absolute coordinates		
lowercase commands: relative coordinates		
Command	Arguments	Effect
`M m`	*x y*	move to (*x*, *y*)
`L l`	*x y*	line to (*x*, *y*)
`Z`		close path
`H h`	*x*	horizontal line to *x*
`V v`	*y*	vertical line to *y*
`A a`	*rx ry x-axis-rotation large-arc sweep x y*	elliptical arc to (*x*, *y*); points lie on ellipse with *x*-radius *rx*, *y*-radius *ry*, rotated *x-axis-rotation* degrees; if arc < 180°, *large-arc* is `0`; if arc direction is positive, *sweep* is `1`
`Q q`	*x1 y1 x y*	quadratic Bézier curve to (*x*, *y*) using control point (*x1*, *y1*)

Paths (cont)

T t	*x y*	quadratic Bézier curve to (*x*, *y*) using reflection of previous Q's control pt
C c	*x1 y1* *x2 y2 x y*	cubic Bézier curve to (*x*, *y*) using control pt 1 (*x1*, *y1*) and control pt 2 (*x2*, *y2*)
S s	*x2 y2 x y*	cubic Bézier curve to (*x*, *y*) using reflection of previous C's control pt for control pt 1 and (*x2*, *y2*) for control pt 2

Text

<text x="*x*" y="*y*"> displayed</text>	"d" baseline (*x*, *y*)
font-family	serif, sans-serif, monospace, fantasy, cursive
font-size	pt, em, ex, %
font-weight	bold, normal
font-style	italic, normal
text-decoration	none, underline, overline, line-through
word-spacing	+*length*, normal, −*length*
letter-spacing	+*length*, normal, −*length*
text-anchor	start, middle, end
textLength	*value*
lengthAdjust	spacing (def), spacingAndGlyphs
writing-mode	tb
glyph-orientation-vertical	0 (letter-spacing:−#), 90 (def)
direction	rtl, ltr

Text (cont)

unicode-bidi	bidi-override
<text> <textPath xlink:href="#*path-id*">text</textPath> </text>	
startOffset=""	*val*, *val*%
<tspan style="*attributes*">spanned text</tspan>	
dx="*x*" or dy="*y*"	offset chars by *x* or *y*
x="*x*" or y="*y*"	place chars at *x* or *y*
rotate="*angle*"	rotate chars by *angle*
baseline-shift	super, sub, em, %
xml:space=""	default, preserve