Cheatography

SVG Filters Cheat Sheet

by beccam via cheatography.com/33170/cs/11085/

The <filter> element attributes

id =	"*name*"
filterUnits =	"userSpaceOnUse" **"objectBoundingBox"**
primitiveUnits =	**"userSpaceOnUse"** "objectBoundingBox"
x = | y =	"*coordinate* | **-10%**"
width = | height =	"*length* | **120%**"
xlink:href =	"*iri*" inherit any attributes of <filter> element *iri* that are not defined in this element
color-interpolation-filters = "sRGB"	

Common filter primitive attributes

result =	"*filter-primitive-reference*"
in =	**"SourceGraphic"** default for first filter primitive
	"SourceAlpha"
	"BackgroundImage | BackgroundAlpha" filtered object must be within a container element specifying enable-background="new"

Common filter primitive attributes (cont)

"FillPaint \| StrokePaint"

"*filter-primitive-reference*"

specfied by a previous result

default input for non-first filter primitives is the output from the previous filter primitive

Simpler filter primitives

<feGaussianBlur>	
stdDeviation =	"*blur spread* | **0**" larger is blurrier
<feImage>	
xlink:href =	"*image source*"
preserveAspectRatio =	"*align* [meet | slice] none | **xMidYMid meet**"
<feMorphology>	
operator =	"erode | dilate"
radius =	"x-radius y-radius" "radius | **0**"

Utility filters

<feTile>	tiles the in layer
<feOffset>	
dx = | dy =	"*x offset*" | "*y offset*" | "**0**"
<feFlood>	
flood-color =	"*color specification*"
flood-opacity =	"*value*" 0 - 1

Lighting effects

containers for light source elements

lighting-color =	"*color specification*"
surfaceScale =	"*height* | **1**"
<feDiffuseLighting>	
diffuseConstant =	"*factor* | **1**" must be nonnegative
<feSpecularLighting>	
specularConstant =	"*factor* | **1**" must be nonnegative
specularExponent =	"*exponent* | **1**" (1 - 128)

light source elements

<feDistantLight>	
azimuth = | elevation =	"*degrees* | **0**"
<fePointLight>	
x = | y = | z =	"*coordinate* | **0**"
<feSpotLight>	
x = | y = | z =	"*coordinate* | **0**"
pointsAtX = pointsAtY = pointsAtZ =	"*coordinate* | **0**"
specularExponent =	"*focus control* | **1**"
limitingConeAngle =	"*degrees*"

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Combining filter primitives

<feMerge>	container for stacking <feMergeNode> elements
<feMergeNode>	
in =	"*intermediate result*"
<feBlend>	
in2 =	"*second input*"
mode =	"normal | multiply screen | darken | lighten"
<feComposite>	
in2 =	"*second input*"
operator =	"over | in | out | atop xor | arithmetic"

attributes used with "arithmetic"

k1 =	"*factor for in1 × in2*" | 0"
k2 =	"*factor for in1*" | 0"
k3 =	"*factor for in2*" | 0"
k4 =	"*additive offset*" | 0"
<feDisplacementMap>	
scale =	"*displacement factor*" | 0"
xChannelSelector =	"R | G | B | **A**"
yChannelSelector =	"R | G | B | **A**"
in2 =	"*second input*"

More filter primitives

<feColorMatrix>	
type =	"matrix | saturate | hueRotate | luminanceToAlpha"
values =	"*matrix values*" "*saturation value*" 0 - 1 "*rotate degrees*"

<feComponentTransfer>

container for <feFuncR>, <feFuncG>, <feFuncB>, and <feFuncA> elements.

<feFuncX>	
type =	"identity | table | discrete | linear | gamma"
tableValues =	"*intervals for table; steps for discrete*"
slope =	"*linear slope*"
intercept =	"*linear intercept*"
amplitude =	"*gamma amplitude*"
exponent =	"*gamma exponent*"
offset =	"*gamma offset*"
<feConvolveMatrix>	
order =	"*columns rows*" ***"3 by 3"***
kernel =	"*values*"
bias =	"*offset value*"
<feTurbulence>	
type =	"turbulence" | "fractalNoise"
baseFrequency =	"*x-frequency y-frequency*"

More filter primitives (cont)

baseFrequency =	"*frequency*"
numOctaves =	"*integer*"
seed =	"*number*"

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