

HTML Canvas Reference

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Description

The HTML5 <canvas> tag is used to draw graphics, on the fly, via scripting (usually JavaScript).

However, the <canvas> element has no drawing abilities of its own (it is only a container for graphics) - you must use a script to actually draw the graphics.

The getContext() method returns an object that provides methods and properties for drawing on the canvas.

This reference will cover the properties and methods of the getContext("2d") object, which can be used to draw text, lines, boxes, circles, and more - on the canvas.

Browser Support

The numbers in the table specify the first browser version that fully supports the element.

Element					
<canvas>	4.0	9.0	2.0	3.1	9.0

Internet Explorer 9, Firefox, Opera, Chrome, and Safari support <canvas> and its properties and methods.

Note: Internet Explorer 8 and earlier versions, do not support the <canvas> element.

Colors, Styles, and Shadows

Property	Description
fillStyle (canvas_fillstyle.asp)	Sets or returns the color, gradient, or pattern used to fill the drawing
strokeStyle (canvas_strokestyle.asp)	Sets or returns the color, gradient, or pattern used for strokes

shadowColor (canvas_shadowcolor.asp)	Sets or returns the color to use for shadows
shadowBlur (canvas_shadowblur.asp)	Sets or returns the blur level for shadows
shadowOffsetX (canvas_shadowoffsetx.asp)	Sets or returns the horizontal distance of the shadow from the shape
shadowOffsetY (canvas_shadowoffsety.asp)	Sets or returns the vertical distance of the shadow from the shape

Method	Description
createLinearGradient() (canvas_createlineargradient.asp)	Creates a linear gradient (to use on canvas content)
createPattern() (canvas_createpattern.asp)	Repeats a specified element in the specified direction
createRadialGradient() (canvas_createradialgradient.asp)	Creates a radial/circular gradient (to use on canvas content)
addColorStop() (canvas_addcolorstop.asp)	Specifies the colors and stop positions in a gradient object

Line Styles

Property	Description
lineCap (canvas_linecap.asp)	Sets or returns the style of the end caps for a line
lineJoin (canvas_linejoin.asp)	Sets or returns the type of corner created, when two lines meet
lineWidth (canvas_linewidth.asp)	Sets or returns the current line width
miterLimit (canvas_miterlimit.asp)	Sets or returns the maximum miter length

Rectangles

Method	Description
rect() (canvas_rect.asp)	Creates a rectangle
fillRect() (canvas_fillrect.asp)	Draws a "filled" rectangle
strokeRect() (canvas_strokerect.asp)	Draws a rectangle (no fill)
clearRect() (canvas_clearrect.asp)	Clears the specified pixels within a given rectangle

Paths

Method	Description
fill() (canvas_fill.asp)	Fills the current drawing (path)
stroke() (canvas_stroke.asp)	Actually draws the path you have defined
beginPath() (canvas_beginpath.asp)	Begins a path, or resets the current path
moveTo() (canvas_moveto.asp)	Moves the path to the specified point in the canvas, without creating a line
closePath() (canvas_closepath.asp)	Creates a path from the current point back to the starting point
lineTo() (canvas_lineto.asp)	Adds a new point and creates a line from that point to the last specified point in the canvas
clip() (canvas_clip.asp)	Clips a region of any shape and size from the original canvas
quadraticCurveTo() (canvas_quadraticcurveto.asp)	Creates a quadratic Bézier curve
bezierCurveTo() (canvas_beziercurveto.asp)	Creates a cubic Bézier curve

<code>arc()</code> (canvas_arc.asp)	Creates an arc/curve (used to create circles, or parts of circles)
<code>arcTo()</code> (canvas_arcto.asp)	Creates an arc/curve between two tangents
<code>isPointInPath()</code> (canvas_ispointinpath.asp)	Returns true if the specified point is in the current path, otherwise false

Transformations

Method	Description
<code>scale()</code> (canvas_scale.asp)	Scales the current drawing bigger or smaller
<code>rotate()</code> (canvas_rotate.asp)	Rotates the current drawing
<code>translate()</code> (canvas_translate.asp)	Remaps the (0,0) position on the canvas
<code>transform()</code> (canvas_transform.asp)	Replaces the current transformation matrix for the drawing
<code>setTransform()</code> (canvas_settransform.asp)	Resets the current transform to the identity matrix. Then runs <code>transform()</code> (canvas_transform.asp)

Text

Property	Description
<code>font</code> (canvas_font.asp)	Sets or returns the current font properties for text content
<code>textAlign</code> (canvas_textalign.asp)	Sets or returns the current alignment for text content
<code>textBaseline</code> (canvas_textbaseline.asp)	Sets or returns the current text baseline used when drawing text

Method	Description
<code>fillText()</code>	Draws "filled" text on the canvas

(canvas_filltext.asp)	
strokeText() (canvas_stroketext.asp)	Draws text on the canvas (no fill)
measureText() (canvas_measuretext.asp)	Returns an object that contains the width of the specified text

Image Drawing

Method	Description
drawImage() (canvas_drawimage.asp)	Draws an image, canvas, or video onto the canvas

Pixel Manipulation

Property	Description
width (canvas_imagedata_width.asp)	Returns the width of an ImageData object
height (canvas_imagedata_height.asp)	Returns the height of an ImageData object
data (canvas_imagedata_data.asp)	Returns an object that contains image data of a specified ImageData object

Method	Description
createImageData() (canvas_createimagedata.asp)	Creates a new, blank ImageData object
getImageData() (canvas_getimagedata.asp)	Returns an ImageData object that copies the pixel data for the specified rectangle on a canvas
putImageData() (canvas_putimagedata.asp)	Puts the image data (from a specified ImageData object) back onto the canvas

Compositing

Property	Description
globalAlpha (canvas_globalalpha.asp)	Sets or returns the current alpha or transparency value of the drawing
globalCompositeOperation (canvas_globalcompositeoperation.asp)	Sets or returns how a new image are drawn onto an existing image

Other

Method	Description
save()	Saves the state of the current context
restore()	Returns previously saved path state and attributes
createEvent()	
getContext()	
toDataURL()	

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