Drawing on the Web
CSCI-UA 380

CSS
Transforms, Transitions, and Animation
CSS3 Transforms
2D Transforms

With CSS3 transforms, we can move, scale, turn, spin, and stretch elements.

A transform is an effect that lets an element change shape, size and position.

Chrome (36), Firefox (16), IE (10), Opera (23), and Safari (9) support 2D transforms.

2D transform methods include: translate, rotate, scale, skew, matrix.

W3Schools
CSS3 2D Transforms
www.w3schools.com/css/css3_2dtransforms.asp
CSS3 Transforms

3D Transforms

CSS3 allows you to format your elements using 3D transforms

Chrome (36), Firefox (16), IE (10), Opera (23), and Safari (9) support 3D transforms

With 3D transforms, an element can rotate around an X-, Y-, or Z-axis at a given degree

3D transform methods include: translate, rotate, scale, and matrix

W3Schools
CSS3 3D Transforms
www.w3schools.com/css/css3_3dtransforms.asp
CSS3 Transforms Properties

- transform
- transform-origin
- transform-style
- perspective
- perspective-origin
- backface-visibility

W3Schools
CSS3 3D Transforms
www.w3schools.com/css/css3_3dtransforms.asp
CSS3 Transitions

CSS3 transitions are effects that let an element gradually change from one style to another.

Chrome (26), Firefox (16), IE (10), Opera (12.1), and Safari (6.1) support the transition property.

To apply a transition, you must specify two things:

• The CSS property you want to add an effect to
• The duration of the effect

W3Schools CSS3 Transitions
www.w3schools.com/css/css3_transitions.asp
CSS3 Transitions
Properties

- transition
- transition-property
- transition-duration
- transition-timing-function
- transition-delay

W3Schools
CSS3 Transitions
www.w3schools.com/css/css3_transitions.asp
CSS3 Animation

With CSS3, we can create animations in Web pages.

The `@keyframes` rule is where the animation is created.

Specify a CSS style inside the `@keyframes` rule and the animation will gradually change from the current style to the new style.

Chrome (43), Firefox (16), IE (10), Opera (30), and Safari (9) support the `@keyframes` rule and animation property.

W3Schools
CSS3 Animations
www.w3schools.com/css/css3_animations.asp
CSS3 Animation Properties

@keyframes
animation
animation-name
animation-duration
animation-timing-function
animation-delay
animation-iteration-count
animation-direction
animation-fill-mode
animation-play-state

W3Schools
CSS3 Animations
www.w3schools.com/css/css3_animations.asp
CSS3
Vendor Prefixes

-webkit-
-moz-
-ms-
-o-

The purpose of vendor prefixes was to allow browser-makers to support experimental CSS declarations. Even if details were not standardized, a new property could be implemented. All of the experimental features we explore in this class are standardized in the latest browsers.
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