

# Borders and Shadows in CSS3

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CSS3 introduced several new properties and enhancements to create borders and shadows, providing web developers with more flexibility and control over the appearance of their web pages. Here's a detailed discussion on borders and shadows in CSS3:

## ### Borders in CSS3

### #### 1. Border Properties:

CSS3 offers various properties to style borders:

- **border**: Shorthand for setting the width, style, and color of all four borders of an element.

```
```css
```

```
border: 2px solid black;
```

```
```
```

- **border-width**: Specifies the width of the border. Can be set individually for each side.

```
```css
```

```
border-width: 2px 4px 6px 8px; /* top, right, bottom, left */
```

```
```
```

- **border-style**: Specifies the style of the border (solid, dotted, dashed, double, groove, ridge, inset, outset, none, hidden).

```
```css
```

```
border-style: solid;
```

```
```
```

- **`border-color`**: Specifies the color of the border. Can be set individually for each side.

```
```css
```

```
border-color: red green blue yellow; /* top, right, bottom, left */
```

```
```
```

- **`border-radius`**: Allows rounding of the border corners. Can create circles or ellipses if different values are specified.

```
```css
```

```
border-radius: 10px; /* for all four corners */
```

```
border-radius: 10px 20px 30px 40px; /* top-left, top-right, bottom-right, bottom-left */
```

```
```
```

## #### 2. Border Images:

CSS3 introduced the ``border-image`` property, which allows using an image as a border.

- **`border-image-source`**: Specifies the path to the image to be used as the border.

```
```css
```

```
border-image-source: url(border.png);
```

```
```
```

- **`border-image-slice`**: Specifies how to slice the image for use in the border.

```
```css
```

```
border-image-slice: 30; /* slices the image into 30 units */
```

```
```
```

- **`border-image-width`**: Specifies the width of the border image.

```
```css
```

```
border-image-width: 10px;
```

```
```
```

- **`border-image-outset`**: Specifies the amount by which the border image area extends beyond the border box.

```
```css
```

```
border-image-outset: 5px;
```

```
```
```

- **`border-image-repeat`**: Specifies whether the border image should be repeated, rounded, or stretched.

```
```css
```

```
border-image-repeat: round;
```

```
```
```

- **`border-image`**: Shorthand property for all the above border-image properties.

```
```css
```

```
border-image: url(border.png) 30 stretch;
```

```
```
```

### ### Shadows in CSS3

#### #### 1. Box Shadow:

The ``box-shadow`` property allows you to add shadows to elements. It supports multiple shadows separated by commas.

- **Syntax**: `box-shadow: [horizontal offset] [vertical offset] [blur radius] [spread radius] [color] [inset];`

```
```css
```

```
box-shadow: 10px 10px 5px #888888; /* x-offset, y-offset, blur radius, color */
```

```
box-shadow: 10px 10px 5px 0px #888888 inset; /* x-offset, y-offset, blur radius, spread radius, color, inset */
```

```
```
```

- **Example**:

```
```css
```

```
.box {
```

```
width: 100px;
```

```
height: 100px;
```

```
background-color: lightblue;
```

```
box-shadow: 10px 10px 5px #888888; /* Simple shadow */
```

```
}
```

```
.inset-box {
```

```
width: 100px;
```

```
height: 100px;
```

```
background-color: lightblue;
```

```
box-shadow: inset 5px 5px 10px #000000; /* Inset shadow */
```

```
}
```

```
```
```

#### 2. Text Shadow:

The `text-shadow` property adds shadows to text. It can also support multiple shadows.

- **Syntax**: `text-shadow: [horizontal offset] [vertical offset] [blur radius] [color];`

```
```css
```

```
text-shadow: 2px 2px 5px red; /* x-offset, y-offset, blur radius, color */
```

```
```
```

- **Example**:

```
```css
```

```
.text {
```

```
font-size: 20px;
```

```
text-shadow: 2px 2px 5px red; /* Simple text shadow */
```

```
}
```

```
```
```

### ### Combining Borders and Shadows

You can combine borders and shadows to create various effects. For instance:

```
```css
```

```
.combined {
```

```
width: 150px;
```

```
height: 150px;
```

```
background-color: lightblue;
```

```
border: 5px solid black;
```

```
border-radius: 15px;
```

```
box-shadow: 10px 10px 5px #888888;
```

```
}  
...  

```

This will create a light blue box with a black border, rounded corners, and a shadow.

### ### Conclusion

CSS3 has significantly enhanced the capabilities for styling borders and shadows, allowing for greater creativity and flexibility in web design. By understanding and utilizing these properties, developers can create visually appealing and dynamic web elements.