

Shorthand properties

◆ CSS: Cascading Style Sheets

English (US)

Change language

Jump to section

Shorthand properties are CSS properties that let you set the values of multiple other CSS properties simultaneously. Using a shorthand property, you can write more concise (and often more readable) style sheets, saving time and energy.

The CSS specification defines shorthand properties to group the definition of common properties acting on the same theme. For instance, the CSS background property is a shorthand property that's able to define the values of background-color, background-image, background-repeat, and background-position. Similarly, the most common font-related properties can be defined using the shorthand font, and the different margins around a box can be defined using the margin shorthand.

Tricky edge cases

Even if they are very convenient to use, there are a few edge cases to keep in mind when using them:

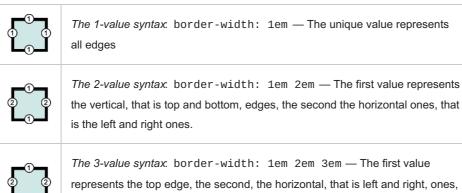
1. A value which is not specified is set to its initial value. That sounds anecdotal, but it really means that it **overrides** previously set values. Therefore:

```
background-color: red;
background: url(images/bg.gif) no-repeat left top;
```

will not set the color of the background to red but to background-color's default, transparent, as the second rule has precedence.

- 2. Only the individual properties values can inherit. As missing values are replaced by their initial value, it is impossible to allow inheritance of individual properties by omitting them. The keyword inherit can be applied to a property, but only as a whole, not as a keyword for one value or another. That means that the only way to make some specific value to be inherited is to use the longhand property with the keyword inherit.
- 3. Shorthand properties try not to force a specific order for the values of the properties they replace. This works well when these properties use values of different types, as the order has no importance, but this does not work as easily when several properties can have identical values. Handling of these cases are grouped in several categories:

1. Shorthands handling properties related to edges of a box, like border-style, margin or padding, always use a consistent 1-to-4-value syntax representing those edges:

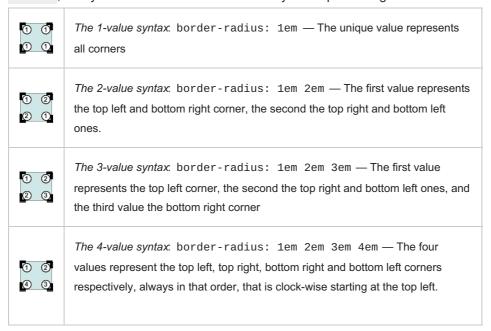


represents the top edge, the second, the horizontal, that is left and right, ones, and the third value the bottom edge



The 4-value syntax: border-width: 1em 2em 3em 4em — The four values represent the top, right, bottom and left edges respectively, always in that order, that is clock-wise starting at the top (The initial letter of Top-Right-Bottom-Left matches the order of the consonant of the word trouble: TRBL) (You can also remember it as the order that the hands would rotate on a clock: 1em starts in the 12 o'clock position, then 2em in the 3 o'clock position, then 3em in the 6 o'clock position, and 4em in the 9 o'clock position).

2. Similarly, shorthands handling properties related to corners of a box, like borderradius, always use a consistent 1-to-4-value syntax representing those corners:



Background properties

A background with the following properties ...

```
background-color: #000;
background-image: url(images/bg.gif);
background-repeat: no-repeat;
background-position: left top;
```

... can be shortened to just one declaration:

```
background: #000 url(images/bg.gif) no-repeat left top;
```

(The shorthand form is actually the equivalent of the longhand properties above plus background-attachment: scroll and, in CSS3, some additional properties.)

See background for more detailed information, including CSS3 properties.

Font properties

The following declarations ...

```
font-style: italic;
font-weight: bold;
font-size: .8em;
line-height: 1.2;
font-family: Arial, sans-serif;
```

... can be shortened to the following:

```
font: italic bold .8em/1.2 Arial, sans-serif;
```

This shorthand declaration is actually equivalent to the longhand declarations above plus font-variant: normal and font-size-adjust: none (CSS2.0/CSS3), font-stretch: normal (CSS3).

Border properties

With borders, the width, color, and style can be simplified into one declaration. For example, the following CSS \dots

```
border-width: 1px;
border-style: solid;
border-color: #000;
```

... can be simplified as:

```
border: 1px solid #000;
```

Margin and padding properties

Shorthand versions of margin and padding values work similarly; the margin property allows for shorthand values to be specified using one, two, three, or four values. The following CSS declarations ...

```
margin-top: 10px;
margin-right: 5px;
margin-bottom: 10px;
margin-left: 5px;
```

... are the same as the following declaration using the four value shorthand. Note that the values are in clockwise order, beginning at the top: top, right, bottom, then left (TRBL, the consonants in "trouble").

```
margin: 10px 5px 10px 5px;
```

Margin shorthand rules for one, two, three and four value declarations are:

- When one value is specified, it applies the same margin toall four sides.
- When two values are specified, the first margin applies to thetop and bottom, the second to the left and right.
- When three values are specified, the first margin applies to thetop, the second to the left and right, the third to the bottom.
- When **four** values are specified, the margins apply to the**top**, **right**, **bottom**, and **left** in that order (clockwise).

The universal shorthand property

CSS provides a universal shorthand property, all, which applies its value to every property in the document. Its purpose is to change the properties' inheritance model to one of:

CSS provides four special universal property values for controlling inheritance. Every CSS property accepts these values.

inherit

Sets the property value applied to a selected element to be the same as that of its parent element. Effectively, this "turns on inheritance".

initial

Sets the property value applied to a selected element to theinitial value of that property.

Resets the property to its natural value, which means that if the property is naturally inherited it acts like inherit, otherwise it acts like initial.

Note: There is also a newer value, <u>revert</u>, which has limited browser support.

Note: See <u>Origin of CSS declarations</u> in <u>Introducing the CSS Cascade</u> for more information on each of these and how they work.

We can look at a list of links and explore how universal values work. The live example below allows you to play with the CSS and see what happens when you make changes. Playing with code really is the best way to get to grips with HTML and CSS.

For example:

- 1. The second list item has the class my-class-1 applied. This sets the color of the <a> element nested inside to inherit. If you remove the rule how does it change the color of the link?
- 2. Do you understand why the third and fourth links are the color that they are? Check the description of the values above if not.
- 3. Which of the links will change color if you define a new color for the <a> element for example a { color: red; }?

- Default link color
- Inherit the link color
- Reset the link color
- Unset the link color

```
body {
    color: green;
}
.my-class-1 a {
    color: inherit;
}
.my-class-2 a {
    color: initial;
}
.my-class-3 a {
    color: unset;
}
```

```
     >ul>
          >Default <a href="#">link</a> color
          class="my-class-1">Inherit the <a href="#">link</a> color
          class="my-class-2">Reset the <a href="#">link</a> color
          class="my-class-3">Unset the <a href="#">link</a> color
```

Reset

See Cascade and inheritance or Introducing the CSS Cascade for more information about how inheritance works in CSS.

See also

- CSS Key Concepts: CSS syntax, at-rule, comments, specificity and inheritance, the box, layout modes and visual formatting models, and margin collapsing, or the initial, computed, resolved, specified, used, and actual values. Definitions of value syntax, shorthand properties and replaced elements.
- Shorthand properties: all, animation, background, border, border-block-end, border-block-start, border-bottom, border-color, border-image, border-inline-end, border-inline-start, border-left, border-radius, border-right, border-style, border-top, border-width, column-rule, columns, flex, flex-flow, font, gap, grid, grid-area, grid-column, grid-row, grid-template, list-style, margin, mask, offset, outline, overflow, padding, place-content, place-items, place-self, scroll-margin, scroll-padding, text-decoration, text-emphasis, transition

Related Topics

CSS

CSS Reference

Shorthand properties

Found a problem with this page?

- Source on GitHub
- Report a problem with this content on GitHub
- Want to fix the problem yourself? Seeour Contribution guide.

Last modified: Dec 17, 2020, by MDN contributors

