Chapter 22: Positioning

Parameter	Details
static	Default value. Elements render in order, as they appear in the document flow. The top, right, bottom, left and z-index properties do not apply.
relative	The element is positioned relative to its normal position, so $left$:20px adds 20 pixels to the element's LEFT position
fixed	The element is positioned relative to the browser window
absolute	The element is positioned relative to its first positioned (not static) ancestor element
initial	Sets this property to its default value.
inherit	Inherits this property from its parent element.
sticky	Experimental feature. It behaves like $position$: $static$ within its parent until a given offset threshold is reached, then it acts as $position$: $fixed$.
unset	Combination of initial and inherit. More info here.

Section 22.1: Overlapping Elements with z-index

To change the default stack order positioned elements ($position$ property set to $relative$, $absolute$ or $fixed$), use the z-index property.

The higher the z-index, the higher up in the stacking context (on the z-axis) it is placed.

Example

In the example below, a z-index value of 3 puts green on top, a z-index of 2 puts red just under it, and a z-index of 1 puts blue under that.
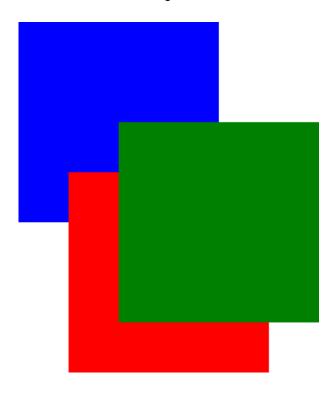
HTML

```html
<div id="div1"></div>
<div id="div2"></div>
<div id="div3"></div>
```

CSS

```css
div {
    position: absolute;
    height: 200px;
    width: 200px;
}
div#div1 {
    z-index: 1;
    left: 0px;
    top: 0px;
    background-color: blue;
}
div#div2 {
    z-index: 3;
    left: 100px;
    top: 100px;
    background-color: green;
}
div#div3 {
    z-index: 2;
    left: 50px;
```

```
    top: 150px;
    background-color: red;
}
```

This creates the following effect:

See a working example at JSFiddle.

Syntax

```
z-index: [ number ] | auto;
```

Parameter	Details
number	An integer value. A higher number is higher on the z-index stack. 0 is the default value. Negative values are allowed.
auto	Gives the element the same stacking context as its parent. (**Default**)

Remarks

All elements are laid out in a 3D axis in CSS, including a depth axis, measured by the z-index property. z-index only works on positioned elements: (see: Why does z-index need a defined position to work?). The only value where it is ignored is the default value, static.

Read about the z-index property and Stacking Contexts in the CSS Specification on layered presentation and at the Mozilla Developer Network.

Section 22.2: Absolute Position

When absolute positioning is used the box of the desired element is taken out of the *Normal Flow* and it no longer affects the position of the other elements on the page. Offset properties:

1. top
2. left
3. right

4. bottom

specify the element should appear in relation to its next non-static containing element.

```css
.abspos{
    position:absolute;
    top:0px; left:500px;
}
```

This code will move the box containing element with attribute class="abspos" down 0px and right 500px relative to its containing element.

Section 22.3: Fixed position

Defining position as fixed we can remove an element from the document flow and set its position relatively to the browser window. One obvious use is when we want something to be visible when we scroll to the bottom of a long page.

```css
#stickyDiv {
    position:fixed;
    top:10px;
    left:10px;
}
```

Section 22.4: Relative Position

Relative positioning moves the element in relation to where it would have been in *normal flow* .Offset properties:

1. top
2. left
3. right
4. bottom

are used to indicate how far to move the element from where it would have been in normal flow.

```css
.relpos{
    position:relative;
    top:20px;
    left:30px;
}
```

This code will move the box containing element with attribute class="relpos" 20px down and 30px to the right from where it would have been in normal flow.

Section 22.5: Static positioning

The default position of an element is static. To quote MDN:

> This keyword lets the element use the normal behavior, that is it is laid out in its current position in the flow. The top, right, bottom, left and z-index properties do not apply.

```css
.element{
    position:static;
```