

# Chapter 29: IFrames

Attribute	Details
<code>name</code>	Sets the element's name, to be used with an <code>a</code> tag to change the iframe's <code>src</code> .
<code>width</code>	Sets the element's width in pixels.
<code>height</code>	Sets the element's height in pixels.
<code>src</code>	Specifies the page that will be displayed in the frame.
<code>srcdoc</code>	Specifies the content that will be displayed in the frame, assuming the browser supports it. The content must be valid HTML.
<code>sandbox</code>	When set, the contents of the iframe is treated as being from a unique origin and features including scripts, plugins, forms and popups will be disabled. Restrictions can be selectively relaxed by adding a space separated list of values. See the table in Remarks for possible values.
<code>allowfullscreen</code>	Whether to allow the iframe's contents to use <code>requestFullscreen()</code>

## Section 29.1: Basics of an Inline Frame

The term "IFrame" means Inline Frame. It can be used to include another page in your page. This will yield a small frame which shows the exact contents of the `base.html`.

```
<iframe src="base.html"></iframe>
```

## Section 29.2: Sandboxing

The following embeds an untrusted web page with all restrictions enabled

```
<iframe sandbox src="http://example.com/"></iframe>
```

To allow the page to run scripts and submit forms, add `allow-scripts` and `allow-forms` to the `sandbox` attribute.

```
<iframe sandbox="allow-scripts allow-forms" src="http://example.com/"></iframe>
```

If there is untrusted content (such as user comments) on the same domain as the parent web page, an iframe can be used to disable scripts while still allowing the parent document to interact with it's content using JavaScript.

```
<iframe sandbox="allow-same-origin allow-top-navigation"
src="http://example.com/untrusted/comments/page2">
```

The parent document can add event listeners and resize the IFrame to fit its contents. This, along with `allow-top-navigation`, can make the sandboxed iframe appear to be part of parent document.

This sandbox is not a replacement for sanitizing input but can be used as part of a [defense in depth](#) strategy.

Also be aware that this sandbox can be subverted by an attacker convincing a user to visit the iframe's source directly. The [Content Security Policy](#) HTTP header can be used to mitigate this attack.

## Section 29.3: Setting the Frame Size

The IFrame can be resized using the `width` and `height` attributes, where the values are represented in pixels (HTML 4.01 allowed percentage values, but HTML 5 only allows values in CSS pixels).

```
<iframe src="base.html" width="800" height="600"></iframe>
```

## Section 29.4: Using the "srcdoc" Attribute

The `srcdoc` attribute can be used (instead of the `src` attribute) to specify the exact contents of the `iframe` as a whole HTML document. This will yield an `IFrame` with the text "IFrames are cool!"

```
<iframe srcdoc="<p>IFrames are cool!</p>"></iframe>
```

If the `srcdoc` attribute isn't supported by the browser, the `IFrame` will instead fall back to using the `src` attribute, but if both the `src` and `srcdoc` attributes are present and supported by the browser, `srcdoc` takes precedence.

```
<iframe srcdoc="<p>IFrames are cool!</p>" src="base.html"></iframe>
```

In the above example, if the browser does not support the `srcdoc` attribute, it will instead display the contents of the `base.html` page.

## Section 29.5: Using Anchors with IFrames

Normally a change of webpage within an `Iframe` is initiated from within the `Iframe`, for example, clicking a link inside the `Iframe`. However, it is possible to change an `IFrame`'s content from outside the `IFrame`. You can use an anchor tag whose `href` attribute is set to the desired URL and whose `target` attribute is set to the `iframe`'s `name` attribute.

```
<iframe src="webpage.html" name="myIframe"></iframe>  
<a href="different_webpage.html" target="myIframe">Change the Iframe content to  
different_webpage.html</a>
```