

# JavaScript Events

## HTML DOM Event Object

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### *Event Object*

The event object gives you information about an event that has occurred.

The Event object represents the state of an event, such as the element in which the event occurred, the state of the keyboard keys, the location of the mouse, and the state of the mouse buttons.

Events are normally used in combination with functions, and the function will not be executed before the event occurs!

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### *Event Handlers*

New to HTML 4.0 was the ability to let HTML events trigger actions in the browser, like starting a JavaScript when a user clicks on an HTML element. Below is a list of the attributes that can be inserted into HTML tags to define event actions.

**IE:** Internet Explorer, **F:** Firefox, **O:** Opera, **W3C:** W3C Standard.

Attribute	The event occurs when...	IE	F	O	W3C
<a href="#">onblur</a>	An element loses focus	3	1	9	Yes
<a href="#">onchange</a>	The content of a field changes	3	1	9	Yes
<a href="#">onclick</a>	Mouse clicks an object	3	1	9	Yes
<a href="#">ondblclick</a>	Mouse double-clicks an object	4	1	9	Yes
<a href="#">onerror</a>	An error occurs when loading a document or an image	4	1	9	Yes
<a href="#">onfocus</a>	An element gets focus	3	1	9	Yes
<a href="#">onkeydown</a>	A keyboard key is pressed	3	1	No	Yes
<a href="#">onkeypress</a>	A keyboard key is pressed or held down	3	1	9	Yes
<a href="#">onkeyup</a>	A keyboard key is released	3	1	9	Yes
<a href="#">onmousedown</a>	A mouse button is pressed	4	1	9	Yes
<a href="#">onmousemove</a>	The mouse is moved	3	1	9	Yes
<a href="#">onmouseout</a>	The mouse is moved off an element	4	1	9	Yes
<a href="#">onmouseover</a>	The mouse is moved over an element	3	1	9	Yes

<a href="#">onmouseup</a>	A mouse button is released	4	1	9	Yes
<a href="#">onresize</a>	A window or frame is resized	4	1	9	Yes
<a href="#">onselect</a>	Text is selected	3	1	9	Yes
<a href="#">onunload</a>	The user exits the page				

## onblur Event

The onblur event occurs when an object loses focus.

### Syntax

onblur="SomeJavaScriptCode"

```
<html>
<head>
<script type="text/javascript">
function upperCase()
{
var x=document.getElementById("fname").value;
document.getElementById("fname").value=x.toUpperCase();
}
</script>
</head>

<body>
Enter your name: <input type="text" id="fname" onblur="upperCase()" />
<br />
Enter your age: <input type="text" id="age" onblur="alert(this.id)" />
</body>

</html>
```

## onchange Event

### Definition and Usage

The onchange event occurs when the content of a field changes.

### Syntax

onchange="SomeJavaScriptCode"

**Supported by the following HTML tags:**

<input type="text">, <select>, <textarea>

```
<html>
<head>
<script type="text/javascript">
function upperCase(x)
{
var y=document.getElementById(x).value;
document.getElementById(x).value=y.toUpperCase();
}
</script>
</head>

<body>
Enter your name: <input type="text" id="fname" onchange="upperCase(this.id)" />
</body>

</html>
```

## onclick Event

### *Definition and Usage*

The onclick event occurs when an object gets clicked.

### **Syntax**

onclick="SomeJavaScriptCode"

**Supported by the following HTML tags:**

<a>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>, <caption>, <cite>, <code>, <dd>, <dfn>, <div>, <dl>, <dt>, <em>, <fieldset>, <form>, <h1> to <h6>, <hr>, <i>, <img>, <input>, <kbd>, <label>, <legend>, <li>, <map>, <object>, <ol>, <p>, <pre>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

```

<html>
<body>

Field1: <input type="text" id="field1" value="Hello World!" />
<br />
Field2: <input type="text" id="field2" />
<br /><br />
Click the button to copy the content of Field1 to Field2.
<br />
<button
onclick="document.getElementById('field2').value=document.getElementById('field1').v
alue">Copy Text</button>

</body>
</html>

```

# ondblclick Event

## *Definition and Usage*

The ondblclick event occurs when an object gets double-clicked.

## *Syntax*

```
ondblclick="SomeJavaScriptCode"
```

## Supported by the following HTML tags:

```

<a>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>,
<caption>, <cite>, <code>, <dd>, <dfn>, <div>, <dl>, <dt>, <em>, <fieldset>, <form>,
<h1> to <h6>, <hr>, <i>, <img>, <input>, <kbd>, <label>, <legend>, <li>, <map>,
<object>, <ol>, <p>, <pre>, <samp>, <select>, <small>, <span>, <strong>, <sub>,
<sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>,
<var>

```

```

<html>
<body>

```

```

Field1: <input type="text" id="field1" value="Hello World!" />
<br />
Field2: <input type="text" id="field2" />
<br /><br />

```

Click the button to copy the content of Field1 to Field2.

```
<br />
<button
ondblclick="document.getElementById('field2').value=document.getElementById('field1
').value">Copy Text</button>

</body>
</html>
```

## onerror Event

### *Definition and Usage*

The onerror event is triggered when an error occurs loading a document or an image.

### **Syntax**

```
onerror="SomeJavaScriptCode"
```

**Supported by the following HTML tags:**

```
<img>, <object>, <style>
```

```
<html>
```

```
<body>
```

```

```

```
<p>In this example we refer to an image that does not exist, therefore we will get the
alert box.</p>
```

```
</body>
```

```
</html>
```

## onfocus Event

### *Definition and Usage*

The onfocus event occurs when an object gets focus.

## **Syntax**

onfocus="SomeJavaScriptCode"

### **Supported by the following HTML tags:**

<a>, <acronym>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <button>, <caption>, <cite>, <dd>, <del>, <dfn>, <div>, <dl>, <dt>, <em>, <fieldset>, <form>, <frame>, <frameset>, <h1> to <h6>, <hr>, <i>, <iframe>, <img>, <input>, <ins>, <kbd>, <label>, <legend>, <li>, <object>, <ol>, <p>, <pre>, <q>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

```
<html>
<head>
<script type="text/javascript">
function setStyle(x)
{
document.getElementById(x).style.background="yellow";
}
</script>
</head>
<body>
```

First name: <input type="text" onfocus="setStyle(this.id)" id="fname" />

<br />

Last name: <input type="text" onfocus="setStyle(this.id)" id="lname" />

```
</body>
</html>
```

# **onkeydown Event**

## ***Definition and Usage***

The onkeydown event occurs when a keyboard key is pressed.

## **Syntax**

onkeydown="SomeJavaScriptCode"

### **Supported by the following HTML tags:**

<a>, <acronym>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>, <caption>, <cite>, <code>, <dd>, <del>, <dfn>, <div>, <dt>, <em>, <fieldset>, <form>, <h1> to <h6>, <hr>, <i>, <input>, <kbd>, <label>, <legend>, <li>, <map>, <object>, <ol>, <p>, <pre>, <q>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

## onmousemove Event

### *Definition and Usage*

The onmousemove event occurs when the mouse pointer is moved.

### *Syntax*

onmousemove="SomeJavaScriptCode"

### **Supported by the following HTML tags:**

<a>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>, <caption>, <cite>, <code>, <dd>, <dfn>, <div>, <dl>, <dt>, <em>, <fieldset>, <form>, <h1> to <h6>, <hr>, <i>, <img>, <input>, <kbd>, <label>, <legend>, <li>, <map>, <ol>, <p>, <pre>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

<html>

<body>



<p onmousemove="document.images['mousetest'].src='image\_w3default2.gif'">When you move the mouse pointer over this paragraph, the image changes.</p>

</body>

</html>

## onKeyUp Event

## ***Definition and Usage***

The onkeyup event occurs when a keyboard key is released.

## ***Syntax***

onkeyup="SomeJavaScriptCode"

## **Supported by the following HTML tags:**

<a>, <acronym>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>, <caption>, <cite>, <code>, <dd>, <del>, <dfn>, <div>, <dt>, <em>, <fieldset>, <form>, <h1> to <h6>, <hr>, <i>, <input>, <kbd>, <label>, <legend>, <li>, <map>, <object>, <ol>, <p>, <pre>, <q>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

<html>

<head>

<script type="text/javascript">

function upperCase(x)

{

var y=document.getElementById(x).value;

document.getElementById(x).value=y.toUpperCase();

}

</script>

</head>

<body>

Enter your name: <input type="text" id="fname" onkeyup="upperCase(this.id)" />

</body>

</html>

# **onmouseout Event**

## ***Definition and Usage***

The onmouseout event occurs when the mouse pointer moves away from a specified object.



## **Syntax**

onmouseout="SomeJavaScriptCode"

### **Supported by the following HTML tags:**

<a>, <address>, <area>, <b>, <bdo>, <big>, <blockquote>, <body>, <button>, <caption>, <cite>, <code>, <dd>, <dfn>, <div>, <dl>, <dt>, <em>, <fieldset>, <form>, <h1> to <h6>, <hr>, <i>, <img>, <input>, <kbd>, <label>, <legend>, <li>, <map>, <ol>, <p>, <pre>, <samp>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <table>, <tbody>, <td>, <textarea>, <tfoot>, <th>, <thead>, <tr>, <tt>, <ul>, <var>

<html>

<body>

```

```

</body>

</html>

# **onresize Event**

## ***Definition and Usage***

The onresize event occurs when a window or frame is resized.

## **Syntax**

onresize="SomeJavaScriptCode"

<html>

```
<body onresize="alert('You have changed the size of the window')">
<p>Try to resize the browser window.</p>
</body>
```

</html>

# onselect Event

## *Definition and Usage*

The onselect event occurs when text is selected in a text or textarea field.

## **Syntax**

onselect="SomeJavaScriptCode"

**Supported by the following HTML tags:**

<input type="text">, <textarea>

<html>

<body>

<form>

Select text: <input type="text" value="Hello world!" onselect="alert('You have selected some of the text.')" />

<br /><br />

Select text: <textarea cols="20" rows="5" onselect="alert('You have selected some of the text.')">

</form>

</body>

</html>

# onunload Event

## *Definition and Usage*

The onunload event occurs when a user exits a page.

## **Syntax**

onunload="SomeJavaScriptCode"

**Supported by the following JavaScript objects:**

window

```
<html>
```

```
<body onunload="alert('The onunload event was triggered')">
```

```
<p>Close the page to trigger the onunload event.</p>
```

```
</body>
```

```
</html>
```