

Script

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Introduction to Script

A **client-side script** is a program that may **accompany** an HTML document or be **embedded** directly in it.

The program executes on the client's machine.

HTML's support for scripts is **independent** of the scripting language.

Scripts offer authors a means to extend HTML documents

- to modify the contents of the document dynamically
- may accompany a form to process input as it is entered
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Introduction to Script

There are two types of scripts authors may attach to an HTML document:

- Scripts that appear within a **script** element are executed **one time** when the document is loaded.
- Those that are executed **every time** a specific event occurs. These scripts may be assigned to a number of elements via the intrinsic **event attributes**.



The script element

Some attributes

- **src**
to specify the location of an external script
- **type**
to specify the scripting language (e.g., "text/javascript")

```
<script type="text/javascript">  
    alert("You are welcome!");  
</script>
```



- **onload**
occurs when the user agent finishes loading a window or all frames within a **frameset**.
used with **body** and **frameset** elements.
- **onunload**
occurs when the user agent removes a document from a window or frame.
used with **body** and **frameset** elements.



- **onclick**

occurs when the pointing device button is clicked over an element.
used with most elements.

- **ondblclick**

occurs when the pointing device button is double clicked over an element.
used with most elements.



- `onmousedown`

occurs when the pointing device button is pressed over an element.
used with most elements.

- `onmouseup`

occurs when the pointing device button is released over an element.
used with most elements.



Intrinsic Events

- **onmouseover**

occurs when the pointing device is moved onto an element.
used with most elements.

- **onmousemove**

occurs when the pointing device is moved while it is over an element.
used with most elements.

- **onmouseout**

occurs when the pointing device is moved away from an element.
used with most elements.



- **onfocus**

occurs when an element receives focus either by the pointing device or by tabbing navigation.

used with the following elements: `a`, `area`, `label`, `input`, `select`, `textarea`, and `button`.

- **onblur**

occurs when an element loses focus either by the pointing device or by tabbing navigation.

used with the same elements as **onfocus**.



- **onkeypress**
occurs when a key is pressed and released over an element.
used with most elements.
- **onkeydown**
occurs when a key is pressed down over an element.
used with most elements.
- **onkeyup**
occurs when a key is released over an element.
used with most elements.



Intrinsic Events

- **onsubmit**
occurs when a form is submitted.
only applies to the **form** element.
- **onreset**
occurs when a form is reset.
only applies to the **form** element.



- **onselect**

occurs when a user selects some text in a text field.

used with the `input` and `textarea` elements.

- **onchange**

occurs when a control loses the input focus and its value has been modified since gaining focus.

applies to the following elements: `input`, `select`, and `textarea`.



Intrinsic Events

```
<script type="text/javascript">
  function checkNum(curV, minV, maxV) {
    if (curV >= minV && curV <= maxV)
      return true;
    else
      return false;
  }

  function thanks() {
    alert("Thank you very much!");
  }
</script>

<input name="num"
  onchange="if (!checkNum(this.value, 1, 10)) {
    this.focus();
    this.select(); }
    else {
      thanks() }"
  value="0">
```



Dynamic modification of documents

```
<script type="text/javascript">  
    document.write("<p><b>Hello World!</b></p>")  
</script>
```



Thank You!
Any Questions?

