

Cross Browser Javascript

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Why bother?

- If you don't have to, don't.
- If you think you might have to, it's better to do it up front.

What are the big differences?

- DOM (Document Object Model) support
 - How to get a reference to an element.

What are the big differences?

- DOM support
 - How to get a reference to an element.
 - Cross Browser

```
document.getElementById( id );  
document.getElementsByTagName  
( name );
```
 - IE 5.5+, Mozilla

What are the big differences?

- DOM support
 - How to get a reference to an element.
- IE only
 - `document.elementName;`
 - `document.all[name];`

What are the big differences?

- DOM support
 - How to get a reference to an element.
 - Netscape only.
`document.layers[name];`

What are the big differences?

- DOM Support
- Navigating the DOM
 - IE and Mozilla support the standard methods

What are the big differences?

- DOM Support
- Event Model
 - IE uses `window.event`
 - Mozilla passes an event argument to the event handler.

What are the big differences?

- Event model
- Cross browser way to handle events

```
<a href="" onclick="handleEvent(event);"/>
<script>
function handleEvent(aEvent)
{
    var theEvent = aEvent ? aEvent : window.event;
}
</script>
```

Common Tips

- Don't test for specific browsers, test for functionality.

```
this.ie      = ((agt.indexOf("msie") != -1) && (agt.indexOf("opera") == -1));
this.ie3     = (this.ie && (this.major < 4));
this.ie4     = (this.ie && (this.major == 4) && (agt.indexOf("msie 4") != -1) );
this.ie4up   = (this.ie && (this.major >= 4));
this.ie5     = (this.ie && (this.major == 4) && (agt.indexOf("msie 5.0") != -1) );
this.ie5_5   = (this.ie && (this.major == 4) && (agt.indexOf("msie 5.5") != -1));
this.ie5up   = (this.ie && !this.ie3 && !this.ie4);
this.ie5_5up = (this.ie && !this.ie3 && !this.ie4 && !this.ie5);
this.ie6     = (this.ie && (this.major == 4) && (agt.indexOf("msie 6.") != -1) );
this.ie6up   = (this.ie && !this.ie3 && !this.ie4 && !this.ie5 && !this.ie5_5);
```

Common Tips

- Quirks mode vs Standards mode
 - Mozilla will adapt based on the DOCTYPE

- The many modes of Mozilla
 - Standards Mode
 - Almost Standards mode
 - Quirks mode

The many modes of Mozilla

- Standards Mode
 - `text/xml (xhtml)`
 - Unknown doctype
 - Doctype html system

The many modes of Mozilla

- Almost Standards mode
 - Any “loose” doctype
 - The IBM doctype

The many modes of Mozilla

- Quirks mode
 - emulates some IE “quirks”
 - triggered by no doctype or a doctype without “system”

Common Tips

- Whitespace nodes
 - Mozilla skips some whitespace nodes
 - Check “nodeType” property and only process type 1 nodes.

Common Tips

- OuterHTML and InnerText
 - only supported in IE
 - solution: roll your own using `__defineGetter__` and `__defineSetter__` in Mozilla.

InnerText for Mozilla

```
<script language="JavaScript">
<!--
if (HTMLElement.prototype.innerText == undefined)
{
    HTMLElement.prototype.__defineGetter__(
        "innerText", function () {
            var r = this.ownerDocument.createRange();
            r.selectNodeContents(this);
            return r.toString();
        });
}
//-->
</script>
```

Common Tips

- `getFullYear() == getFullYear()` in IE
- `getFullYear() != getFullYear()` in Mozilla
 - Mozilla returns 1900 - the current year. IE for 2005 it returns “105”.

Public cross browser APIs

- DynAPI - <http://dynapi.sourceforge.net/>
- Xlib, XC - <http://cross-browser.com/>