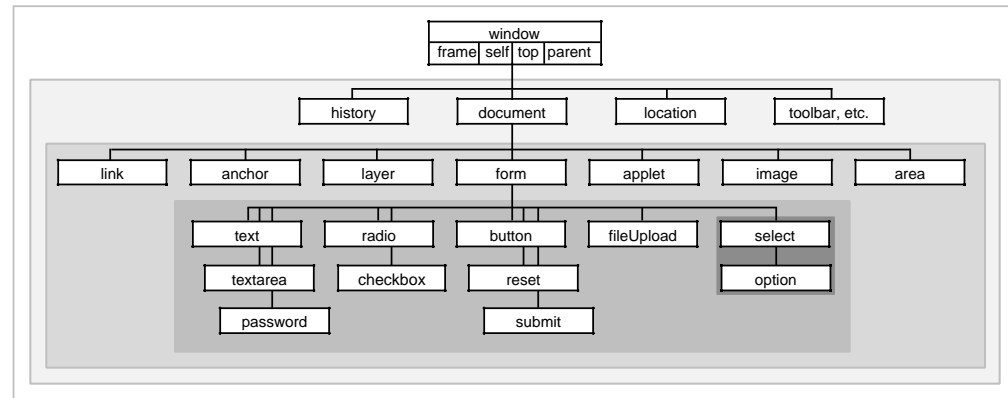


# Netscape Navigator 4 Object Road Map

Learn how to create  
"Web Pages That Think"™

window		
closed <sup>N3,M4</sup>	alert("msg")	onBlur= <sup>N3,M4</sup>
defaultStatus	back() <sup>N4</sup>	onDragDrop= <sup>N4,(S)</sup>
document	blur() <sup>N3,M4</sup>	onFocus= <sup>N3,M4</sup>
frames[i]	captureEvents( <i>type</i> ) <sup>N4</sup>	onLoad=
history	clearInterval( <i>ID</i> ) <sup>N4,M4</sup>	onMove= <sup>N4</sup>
innerHeight <sup>N4,(S)</sup>	clearTimeout( <i>ID</i> )	onResize= <sup>N4,M4</sup>
innerWidth <sup>N4,(S)</sup>	close()	onUnload=
location	confirm("msg")	
locationbar <sup>N4,(S)</sup>	disableExternalCapture() <sup>N4,(S)</sup>	
menubar <sup>N4,(S)</sup>	enableExternalCapture() <sup>N4,(S)</sup>	
name	find(["str"][, <i>case</i> , <i>bkwd</i> ]) <sup>N4</sup>	
onerror <sup>N3,M4</sup>	focus() <sup>N3,M4</sup>	
opener <sup>N3,M3</sup>	forward() <sup>N4</sup>	
outerHeight <sup>N4,(S)</sup>	handleEvent( <i>event</i> ) <sup>N4</sup>	
outerWidth <sup>N4,(S)</sup>	home() <sup>N4</sup>	
pageXOffset <sup>N4</sup>	moveBy( <i>x</i> , <i>y</i> ) <sup>N4,(S)</sup>	
pageYOffset <sup>N4</sup>	moveTo( <i>x,y</i> ) <sup>N4,(S)</sup>	
parent	open( <i>URL</i> , " <i>name</i> ", " <i>specs</i> ") <sup>(1),(S)</sup>	
personalbar <sup>N4,(S)</sup>	print() <sup>N4</sup>	
scrollbars <sup>N4,(S)</sup>	prompt("msg", " <i>reply</i> ")	
self	releaseEvents( <i>type</i> ) <sup>N4</sup>	
status	resizeBy( <i>x</i> , <i>y</i> ) <sup>N4,(S)</sup>	
statusbar <sup>N4,(S)</sup>	resizeTo( <i>width,height</i> ) <sup>N4,(S)</sup>	
toolbar <sup>N4,(S)</sup>	routeEvent( <i>event</i> ) <sup>N4</sup>	
top	scroll( <i>x,y</i> ) <sup>N3,M4</sup>	
window	scrollBy( <i>x</i> , <i>y</i> ) <sup>N4</sup>	
	scrollTo( <i>x,y</i> ) <sup>N4</sup>	
	setInterval( <i>func</i> , <i>msec</i> [, <i>args</i> ]) <sup>N4,M4,(2)</sup>	
	setTimeout( <i>func</i> , <i>msec</i> [, <i>args</i> ]) <sup>N4,M4,(3)</sup>	
	stop() <sup>N4</sup>	

(1)New window specs for all browsers: height, width, toolbar, location, directories, status, menubar, scrollbars, resizable, copyhistory. Add'l specs for Navigator 4: alwaysLowered(S), alwaysRaised(S), dependent, hotkeys, innerHeight, innerWidth, outerHeight, outerWidth, screenX, screenY, titlebar(S), z-lock(S).  
(2)Optional args parameter added to N4; 3rd parameter in M4 is for scripting language.  
(3)Third parameter in N4 for args; in M4 for scripting language.



Netscape Navigator 4 Document Object Model Containment Hierarchy

locationbar <sup>N4</sup> , menubar <sup>N4</sup> , personalbar <sup>N4</sup> , scrollbars <sup>N4</sup> , statusbar <sup>N4</sup> , toolbar <sup>N4</sup>
visible (None) (None)

history		
length	back()	(None)
current(S),(1)	forward()	
next(S),(1)	go(int   "URL")	
previous(S),(1)		

(1)Introduced in Navigator 3.0 for use with a trial security method no longer in use. Available in Navigator 4 with signed scripts.

document		
alinkColor	captureEvents( <i>type</i> ) <sup>N4</sup>	(None)
anchors[i]	clear()	
applets[i] <sup>N3,M4</sup>	close()	
bgColor	getSelection() <sup>N4,(2)</sup>	
cookie	handleEvent( <i>event</i> ) <sup>N4</sup>	
domain <sup>N3,M4</sup>	open("mimetype" [,replace]) <sup>(3)</sup>	
embeds[i] <sup>N3,M4</sup>	releaseEvents( <i>type</i> ) <sup>N4</sup>	
fgColor	routeEvent( <i>event</i> ) <sup>N4</sup>	
forms[i]	write("string")	
images[i] <sup>N3,M4</sup>	writeln("string")	
lastModified		
layers[i] <sup>N4</sup>		
linkColor		
links[i]		
location <sup>(1)</sup>		
referrer		
title		
URL <sup>N3,M4</sup>		
vlinkColor		

(1)Replaced by the URL property in Navigator 3.  
(2)M4 has a document.selection property to retrieve the currently selected text.  
(3)mimetype parameter new in M4, but only "text/html" type supported.

location		
hash	assign("URL")	(None)
host	reload([ <i>unconditional</i> ]) <sup>N3,M4</sup>	
hostname	replace("URL") <sup>N3,M4</sup>	
href		
pathname		
port		
protocol		
search		

layer <sup>N4</sup>		
above	load("filename", <i>y</i> )	onBlur=
background	moveAbove( <i>layerObj</i> )	onFocus=
below	moveBelow( <i>layerObj</i> )	onLoad=
bgColor	moveBy( <i>x</i> , <i>y</i> )	onMouseOut=
clip.top	moveTo( <i>x</i> , <i>y</i> )	onMouseOver=
clip.left	moveToAbsolute( <i>x</i> , <i>y</i> )	onMouseUp=
clip.right	resizeBy( <i>x</i> , <i>y</i> )	
clip.bottom	resizeTo( <i>width</i> , <i>height</i> )	
clip.width		
clip.height		
document		
left		
name		
pageX		
pageY		
parentLayer		
siblingAbove		
siblingBelow		
src		
top		
visibility		
zIndex		

## How to Use This Map

The hierarchy diagram shows the relationships among various HTML-generated objects in Netscape Navigator 4.

Follow the dark lines to create references to objects:  
window.document.formName.textName.value

The three columns in the individual object listings show the Properties, Methods, and Event Handlers for the object.

image <sup>N3,(1),M4</sup>		
border	(None)	onAbort=
complete		onError=
height		onLoad=
hspace		
lowsrc		
name		
src		
vspace		
width		
x <sup>N4</sup>		
y <sup>N4</sup>		

(1)Implemented in MSIE 3 for Macintosh, but not Windows.

link (<A HREF=...></A>)		
hash	(None)	onClick=
host		onDbClick= <sup>N4,(1),M4</sup>
hostname		onMouseDown= <sup>N4,M4</sup>
href		onMouseOut= <sup>N3,M4</sup>
pathname		onMouseOver=
port		onMouseUp= <sup>N4,M4</sup>
protocol		
search		
target		
text <sup>N4</sup>		
x <sup>N4</sup>		
y <sup>N4</sup>		

(1)Not implemented for Macintosh Navigator 4.

area <sup>N3,M4</sup>		
hash	(None)	onClick= <sup>N4</sup>
host		onMouseOut=
hostname		onMouseOver=
href		
pathname		
port		
protocol		
search		
target		

applet <sup>N3,M3</sup>		
(Java vars)	(Java methods)	(None)

## Browser Compatibility Guide

This map is a Netscape-centric view of JavaScript. No items unique to Microsoft Internet Explorer (MSIE) are listed, but Netscape-only items are.

Items that have no superscript notation are available to all JavaScript-enabled browsers, including Navigator 2 and MSIE 3. Superscript notations are keyed as follows:

- N3 -- New in Netscape 3
- N4 -- New in Netscape Navigator 4
- M3 -- New in Netscape 3 and MSIE 3
- M4 -- New in MSIE 4
- J2 -- New in MSIE 3, JScript.dll Version 2
- (S) -- Requires Netscape Navigator 4 Signed Scripts

If an item shows N3 or N4 but not M3 or M4, it means that the feature is Netscape-only, and is not available in MSIE.

select		
length	blur() <sup>N3,M4</sup>	onBlur=
name	focus() <sup>N3,M4</sup>	onChange=
options[i]	handleEvent(evt) <sup>N4</sup>	onFocus=
options[i].defaultSelected		
options[i].index		
options[i].selected		
options[i].text		
options[i].value		
selectedIndex		
type <sup>N3,M4</sup>		

button, reset, submit		
name	click()	onClick=
type <sup>N3,M4</sup>	handleEvent(evt) <sup>N4</sup>	onMouseDown= <sup>N4,M4</sup>
value		onMouseUp= <sup>N4,M4</sup>

anchor (<A NAME=...></A>)		
name <sup>N4,M4</sup>	(None)	(None)
text <sup>N4</sup>		
x <sup>N4</sup>		
y <sup>N4</sup>		

form		
action	handleEvent(evt) <sup>N4</sup>	onReset= <sup>N3,M4</sup>
elements[i]	reset() <sup>N3,M4</sup>	onSubmit=
encoding	submit()	
length		
method		
name		
target		

text, textarea, password, hidden		
defaultValue	blur()	onBlur=
form	focus()	onChange=
name	handleEvent(evt) <sup>N4</sup>	onFocus=
type <sup>N3,M4</sup>	select()	onKeyDown= <sup>N4,M4</sup>
value <sup>(1)</sup>		onKeyPress= <sup>N4,M4</sup>
		onKeyUp= <sup>N4,M4</sup>
		onSelect=

(1)Password value returns empty string in Navigator 2.

checkbox		
checked	click()	onClick=
defaultChecked	handleEvent(evt) <sup>N4</sup>	onMouseDown= <sup>N4,M4</sup>
name		onMouseUp= <sup>N4,M4</sup>
type <sup>N3,M4</sup>		
value		

## JavaScript Levels

JavaScript has gone through three versions. The following browsers support features from the corresponding JavaScript level:

Browser	JavaScript Level
Netscape Navigator 2.0x	1.0
MS Internet Explorer 3.0x	1.0
Netscape Navigator 3.0x	1.1
Netscape Navigator 4.0x	1.2
MS Internet Explorer 4.0x	1.2

No other mainstream browsers support JavaScript.

radio		
checked	click()	onClick=
defaultChecked	handleEvent(evt) <sup>N4</sup>	onMouseDown= <sup>N4,M4</sup>
length		onMouseUp= <sup>N4,M4</sup>
name		
type <sup>N3,M4</sup>		
value		

fileUpload <sup>N3,M4,(1)</sup>		
name	blur()	onBlur=
value	focus()	onFocus=
	handleEvent(evt) <sup>N4</sup>	onSelect=
	select()	

(1)IE4 does not use Netscape's "fileUpload" terminology, but both objects refer to the same kind of <INPUT type="file"> tag.

# Netscape Navigator 4 Global Objects

## Math

E abs(*val*)  
 LN2 acos(*val*)  
 LN10 asin(*val*)  
 LOG2E atan(*val*)  
 LOG10E atan2(*val1*, *val2*)  
 PI ceil(*val*)  
 SQRT1\_2 cos(*val*)  
 SQRT2 exp(*val*)  
 floor(*val*)  
 log(*val*)  
 max(*val1*, *val2*)  
 min(*val1*, *val2*)  
 pow(*val1*, *power*)  
 random()  
 round(*val*)  
 sin(*val*)  
 sqrt(*val*)  
 tan(*val*)

## Date

prototype<sup>N3</sup> get/set[UTC]Date()  
 get/set[UTC]Day()  
 get/set[UTC]Hours()  
 get/set[UTC]Minutes()  
 get/set[UTC]Month()  
 get/set[UTC]Seconds()  
 get/set[UTC]Time()  
 get/set[Full]Year()  
 getTimezoneOffset()  
 parse("dateString")  
 toGMTString()  
 toLocaleString()  
 toString()  
 UTC(*date vals*)

[UTC] and [Full] add-ons available in N4,M4.

## screen<sup>N4,M4,(1)</sup>

availHeight (None)  
 availLeft<sup>(2)</sup>  
 availTop<sup>(2)</sup>  
 availWidth  
 colorDepth  
 height  
 width  
 pixelDepth<sup>(2)</sup>

<sup>(1)</sup>Contained by window object in M4

<sup>(2)</sup>Not in M4

## String

length anchor("anchorName")  
 prototype<sup>N3</sup> big()  
 blink()  
 bold()  
 charAt(*index*)  
 charCodeAt(*[i]*)<sup>N4,M4</sup>  
 concat(*string2*)<sup>N4,M4</sup>  
 fixed()  
 fontcolor(#rrggbb)  
 fontsize(1to7)  
 fromCharCode(*n1...*)<sup>N4,M4</sup>  
 indexOf("str" [,*i*])  
 italics()  
 lastIndexOf("str" [,*i*])  
 link(URL)  
 match(*regexp*)<sup>N4,M4</sup>  
 replace(*regexp*,*str*)<sup>N4,M4</sup>  
 search(*regexp*)<sup>N4,M4</sup>  
 slice(*i,j*)<sup>N4,J2</sup>  
 small()  
 split(*char*)<sup>N3,(1),M4</sup>  
 strike()  
 sub()  
 substr(*start,length*)<sup>N4,M4</sup>  
 substring(*intA*, *intB*)  
 sup()  
 toLowerCase()  
 toUpperCase()

<sup>(1)</sup>Added behavior in N4 includes: ability to accept a regexp parameter; second parameter (limit integer) to limit the number of splits to be included; a space string parameter signifying any white space character.

## Array<sup>N3,J2</sup>

length<sup>J2</sup> concat(*array2*)<sup>N4,M4</sup>  
 prototype<sup>N3,J2</sup> join("char")<sup>J2</sup>  
 push()<sup>N4</sup>  
 pop()<sup>N4</sup>  
 reverse()<sup>J2</sup>  
 shift()<sup>N4</sup>  
 slice(*i,[j]*)<sup>N4,M4</sup>  
 sort(*compareFunc*)<sup>J2</sup>  
 unshift()<sup>N4</sup>

## Number<sup>N3,J2</sup>

MAX\_VALUE toString()  
 MIN\_VALUE  
 NaN  
 NEGATIVE\_INFINITY  
 POSITIVE\_INFINITY  
 prototype

## navigator<sup>(1)</sup>

appName javaEnabled()<sup>N3,M4</sup>  
 appName preference(*name*[, *val*])<sup>N4,(S),(2)</sup>  
 appVersion taintEnabled()<sup>N3,M4</sup>  
 language<sup>N4</sup>  
 mimeTypes[*i*]<sup>N3</sup>  
 platform<sup>N4</sup>  
 plugins[*i*]<sup>N3</sup>  
 userAgent

<sup>(1)</sup>Contained by window object in M4

<sup>(2)</sup>Preference names: general.always\_load\_images; security.enable\_java; javascript.enabled; browser.enable\_style\_sheets; autoupdate.enabled; network.cookie.cookieBehavior; network.cookie.warnAboutCookies

## plugin<sup>N3</sup>

description refresh()  
 filename  
 length  
 name

## mimeType<sup>N3</sup>

description (None)  
 enabledPlugin  
 type  
 suffixes

## function<sup>N3,J2</sup>

arguments[ ] (None)  
 arity<sup>N4</sup>  
 caller  
 prototype

## RegExp<sup>N4,M4</sup>

input (None)  
 multiline  
 lastMatch  
 lastParen  
 leftContext  
 rightContext  
 \$1...\$9

## Regular Expression<sup>N4,M4</sup>

global compile(*regexp*)  
 ignoreCase exec("string")<sup>(1)</sup>  
 lastIndex test("string")  
 source str.match(*regexp*)<sup>(1)</sup>  
 str.replace(*regexp*,*str*)<sup>(1)</sup>  
 str.search(*regexp*)  
 str.split(*regexp*[,*limit*])

<sup>(1)</sup>Returns an array with properties: index, input, [0], [1]...[n]

## Event<sup>N4</sup>

(None)  
 ALT\_MASK  
 CONTROL\_MASK  
 SHIFT\_MASK  
 META\_MASK  
 MOUSEDOWN  
 MOUSEUP  
 MOUSEOVER  
 MOUSEOUT  
 MOUSEMOVE  
 MOUSEDRAG  
 CLICK  
 DBLCLICK  
 KEYDOWN  
 KEYUP  
 KEYPRESS  
 DRAGDROP  
 FOCUS  
 BLUR  
 SELECT  
 CHANGE  
 RESET  
 SUBMIT  
 SCROLL  
 LOAD  
 UNLOAD  
 XFER\_DONE  
 ABORT  
 ERROR  
 LOCATE  
 MOVE  
 RESIZE  
 FORWARD  
 HELP  
 BACK

## event<sup>N4</sup>

data<sup>(1)</sup> (None)  
 layerX  
 layerY  
 modifiers<sup>(2)</sup>  
 pageX  
 pageY  
 screenX  
 screenY  
 target  
 type  
 which<sup>(3)</sup>

<sup>(1)</sup>URL of dragdrop event

<sup>(2)</sup>Event.ALT\_MASK, Event.CONTROL\_MASK, Event.SHIFT\_MASK, Event.META\_MASK

<sup>(3)</sup>Mouse button (1=left; 3=right); Key char code

## Operators

### Comparison

==	Equals
!=	Does not equal
>	Is greater than
>=	Is greater than or equal to
<	Is less than
<=	Is less than or equal to

### Arithmetic

+	Plus (and string concat.)
-	Minus
*	Multiply
/	Divide
%	Modulo
++	Increment
--	Decrement
-val	Negation

### Assignment

=	Equals
+=	Add by value
-=	Subtract by value
*=	Multiply by value
/=	Divide by value
%=	Modulo by value
<<=	Left shift by value
>>=	Right shift by value
>>>=	Zero fill by value
&=	Bitwise AND by value
=	Bitwise OR by value
^=	Bitwise XOR by value

### Boolean

&&	AND
	OR
!	NOT

### Bitwise

&	Bitwise AND
	Bitwise OR
^	Bitwise XOR
~	Bitwise NOT
<<	Left shift
>>	Right shift
>>>	Zero fill right shift

### Miscellaneous

delete <sup>N4,M4</sup>	Property destroyer
new	Object creator
this	Object self-reference
typeof <sup>N3,M3</sup>	Value type
void <sup>N3,M3</sup>	Return no value

## Functions of all Objects

watch(*id*, *handler*)<sup>N4</sup>    toString()  
unwatch(*id*)<sup>N4</sup>

## Control Statements

```
if (condition) {  
    statementsIfTrue  
}
```

```
if (condition) {  
    statementsIfTrue  
} else {  
    statementsIfFalse  
}
```

```
result = condition ? expression1 : expression2
```

```
for ([init expr]; [condition]; [update expr]) {  
    statements  
}
```

```
for (var in object) {  
    statements  
}
```

```
while (condition) {  
    statements  
}
```

```
with (object) {  
    statements  
}
```

```
do {  
    statements  
} while (condition) N4,M4
```

```
switch (expression) {  
    case label1 :  
        statements  
        [break]  
    case label2 :  
        statements  
        [break]  
    ...  
    [default :  
        statements]  
} N4,M4
```

```
label : N4,M4  
continue [label] N4,M4  
break [label] N4,M4
```

## Global Functions

escape("str" [,1])	eval( <i>expression</i> )
unescape("str")	isNaN( <i>expression</i> )
Boolean( <i>value</i> ) <sup>N4</sup>	parseFloat("string")
Number("str") <sup>N4</sup>	parseInt("string")
String( <i>value</i> ) <sup>N4</sup>	

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fold here

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2 January 1998

A special service to readers of  
**JavaScript Bible, 3rd Edition**  
by **Danny Goodman**  
ISBN 0-7645-3188-3

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