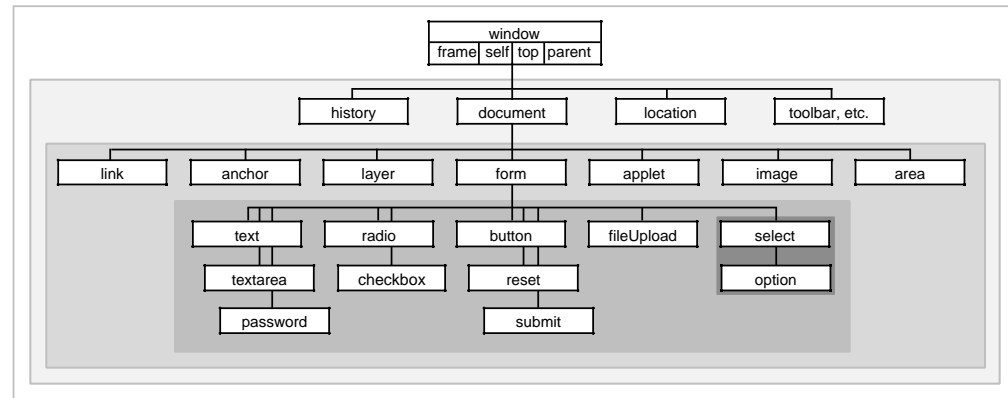


Netscape Navigator 4 Object Road Map

Learn how to create
"Web Pages That Think"™

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

(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 ^{N4} , menubar ^{N4} , personalbar ^{N4} , scrollbars ^{N4} , statusbar ^{N4} , toolbar ^{N4}
visible (None) (None)

history		
length	back()	(None)
current(S),(1)	forward()	
next(S),(1)	go(<i>int</i> " <i>URL</i> ")	
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>) ^{N4}	(None)
anchors[i]	clear()	
applets[i] ^{N3,M4}	close()	
bgColor	getSelection() ^{N4,(2)}	
cookie	handleEvent(<i>event</i>) ^{N4}	
domain ^{N3,M4}	open(" <i>mimetype</i> " [, <i>replace</i>]) ⁽³⁾	
embeds[i] ^{N3,M4}	releaseEvents(<i>type</i>) ^{N4}	
fgColor	routeEvent(<i>event</i>) ^{N4}	
forms[i]	write("string")	
images[i] ^{N3,M4}	writeln("string")	
lastModified		
layers[i] ^{N4}		
linkColor		
links[i]		
location ⁽¹⁾		
referrer		
title		
URL ^{N3,M4}		
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>]) ^{N3,M4}	
hostname	replace("URL") ^{N3,M4}	
href		
pathname		
port		
protocol		
search		

layer ^{N4}		
above	load("filename", <i>y</i>)	onBlur=
background	moveAbove(<i>layerObj</i>)	onFocus=
below	moveBelow(<i>layerObj</i>)	onLoad=
bgColor	moveBy($\Delta x, \Delta y$)	onMouseOut=
clip.top	moveTo(<i>x, y</i>)	onMouseOver=
clip.left	moveToAbsolute(<i>x, y</i>)	onMouseUp=
clip.right	resizeBy($\Delta x, \Delta y$)	
clip.bottom	resizeTo(<i>width, 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 ^{N3,(1),M4}		
border	(None)	onAbort=
complete		onError=
height		onLoad=
hspace		
lowsrc		
name		
src		
vspace		
width		
x ^{N4}		
y ^{N4}		

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

link ()		
hash	(None)	onClick=
host		onDbClick= ^{N4,(1),M4}
hostname		onMouseDown= ^{N4,M4}
href		onMouseOut= ^{N3,M4}
pathname		onMouseOver=
port		onMouseUp= ^{N4,M4}
protocol		
search		
target		
text ^{N4}		
x ^{N4}		
y ^{N4}		

(1)Not implemented for Macintosh Navigator 4.

area ^{N3,M4}		
hash	(None)	onClick= ^{N4}
host		onMouseOut=
hostname		onMouseOver=
href		
pathname		
port		
protocol		
search		
target		

applet ^{N3,M3}		
(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.

anchor ()		
name ^{N4,M4}	(None)	(None)
text ^{N4}		
x ^{N4}		
y ^{N4}		

form		
action	handleEvent(evt) ^{N4}	onReset= ^{N3,M4}
elements[i]	reset() ^{N3,M4}	onSubmit=
encoding	submit()	
length		
method		
name		
target		

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.

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

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

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

radio		
checked	click()	onClick=
defaultChecked	handleEvent(evt) ^{N4}	onMouseDown= ^{N4,M4}
length		onMouseUp= ^{N4,M4}
name		
type ^{N3,M4}		
value		

button, reset, submit		
name	click()	onClick=
type ^{N3,M4}	handleEvent(evt) ^{N4}	onMouseDown= ^{N4,M4}
value		onMouseUp= ^{N4,M4}

checkbox		
checked	click()	onClick=
defaultChecked	handleEvent(evt) ^{N4}	onMouseDown= ^{N4,M4}
name		onMouseUp= ^{N4,M4}
type ^{N3,M4}		
value		

fileUpload ^{N3,M4,(1)}		
name	blur()	onBlur=
value	focus()	onFocus=
	handleEvent(evt) ^{N4}	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^{N3} 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^{N4,M4,(1)}

availHeight (None)
 availLeft⁽²⁾
 availTop⁽²⁾
 availWidth
 colorDepth
 height
 width
 pixelDepth⁽²⁾

⁽¹⁾Contained by window object in M4

⁽²⁾Not in M4

String

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

⁽¹⁾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^{N3,J2}

length^{J2} concat(*array2*)^{N4,M4}
 prototype^{N3,J2} join("char")^{J2}
 push()^{N4}
 pop()^{N4}
 reverse()^{J2}
 shift()^{N4}
 slice(*i,j*)^{N4,M4}
 sort(*compareFunc*)^{J2}
 unshift()^{N4}

Number^{N3,J2}

MAX_VALUE toString()
 MIN_VALUE
 NaN
 NEGATIVE_INFINITY
 POSITIVE_INFINITY
 prototype

navigator⁽¹⁾

appName javaEnabled()^{N3,M4}
 appName preference(*name*[, *val*])^{N4,(S),(2)}
 appVersion taintEnabled()^{N3,M4}
 language^{N4}
 mimeTypes[*i*]^{N3}
 platform^{N4}
 plugins[*i*]^{N3}
 userAgent

⁽¹⁾Contained by window object in M4

⁽²⁾Preference names: general.always_load_images; security.enable_java; javascript.enabled; browser.enable_style_sheets; autoupdate.enabled; network.cookie.cookieBehavior; network.cookie.warnAboutCookies

plugin^{N3}

description refresh()
 filename
 length
 name

mimeType^{N3}

description (None)
 enabledPlugin
 type
 suffixes

function^{N3,J2}

caller (None)
 arguments[]
 prototype

RegExp^{N4,M4}

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

Regular Expression^{N4,M4}

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

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

Event^{N4}

(None)
 ALT_MASK
 CONTROL_MASK
 SHIFT_MASK
 META_MASK
 MOUSEDOWN
 MOUSEUP
 MOUSEOVER
 MOUSEOUT
 MOUSEMOVE
 MOUSEDROP
 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^{N4}

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

⁽¹⁾URL of dragdrop event

⁽²⁾Event.ALT_MASK, Event.CONTROL_MASK, Event.SHIFT_MASK, Event.META_MASK

⁽³⁾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 ^{N4,M4}	Property destroyer
new	Object creator
this	Object self-reference
typeof ^{N3,M3}	Value type
void ^{N3,M3}	Return no value

Functions of all Objects

watch(*id*, *handler*)^{N4} toString()
unwatch(*id*)^{N4}

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>) ^{N4}	parseFloat("string")
Number("str") ^{N4}	parseInt("string")
String(<i>value</i>) ^{N4}	

fold here

fold here

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