

Netscape Navigator 4 Object Road Map

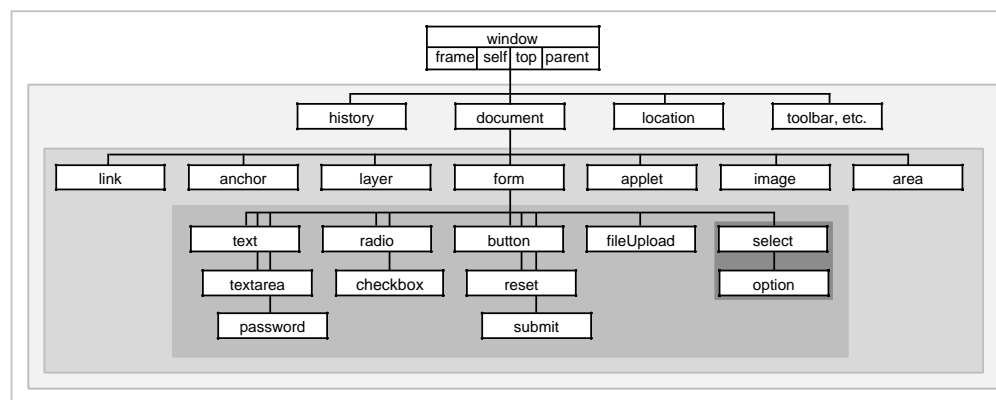
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window		
closed ^{N3,M4}	alert("msg")	onBlur= ^{N3,M4}
defaultStatus	back() ^{N4}	onDragDrop= ^{N4,(S)}
document	blur() ^{N3,M4}	onFocus= ^{N3,M4}
frames[i]	captureEvents(<i>type</i>) ^{N4}	onLoad=
history	clearInterval(<i>ID</i>) ^{N4,M4}	onMove= ^{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</i> , <i>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</i> , <i>height</i>) ^{N4,(S)}	
toolbar ^{N4,(S)}	routeEvent(<i>event</i>) ^{N4}	
top	scroll(<i>x</i> , <i>y</i>) ^{N3,M4}	
window	scrollBy($\Delta x, \Delta y$) ^{N4}	
	scrollTo(<i>x</i> , <i>y</i>) ^{N4}	
	setInterval(<i>func</i> , <i>msec</i> [, <i>args</i>]) ^{N4,M4,(2)}	
	setTimeout(<i>func</i> , <i>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

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("mimetype" [, <i>replace</i>])	
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.

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</i> , <i>y</i>)	onMouseOver=
clip.left	moveToAbsolute(<i>x</i> , <i>y</i>)	onMouseUp=
clip.right	resizeBy($\Delta x, \Delta y$)	
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		

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> "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.

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

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.

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() ^{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}		

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

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.

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		

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.

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

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)

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
MS Internet Explorer 4.0x	1.1
Netscape Navigator 4.0x	1.2

No other mainstream browsers support JavaScript.

radio		
checked	click()	onClick=
defaultChecked	handleEvent(evt) ^{N4}	onMouseDown= ^{N4,M4}
length		onMouseUp= ^{N4,M4}
name		
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(<i>val</i>)
LN2	acos(<i>val</i>)
LN10	asin(<i>val</i>)
LOG2E	atan(<i>val</i>)
LOG10E	atan2(<i>val</i> 1, <i>val</i> 2)
PI	ceil(<i>val</i>)
SQRT1_2	cos(<i>val</i>)
SQRT2	exp(<i>val</i>)
	floor(<i>val</i>)
	log(<i>val</i>)
	max(<i>val</i> 1, <i>val</i> 2)
	min(<i>val</i> 1, <i>val</i> 2)
	pow(<i>val</i> 1, <i>power</i>)
	random()
	round(<i>val</i>)
	sin(<i>val</i>)
	sqrt(<i>val</i>)
	tan(<i>val</i>)

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(<i>date vals</i>)
-------------------------	--

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

function^{N3,J2}

caller	(None)
arguments[]	
prototype	

screen^{N4}

availHeight	(None)
availWidth	
colorDepth	
height	
width	
pixelDepth	

String

length	anchor("anchorName")
prototype ^{N3}	big() blink() bold() charAt(<i>index</i>) charCodeAt(<i>[i]</i>) ^{N4,M4} concat(<i>string</i> 2) ^{N4} fixed() fontcolor(<i>#rrggbb</i>) fontSize(1to7) fromCharCode(<i>n1...</i>) ^{N4,M4} indexOf("str" [, <i>i</i>]) italics() lastIndexOf("str" [, <i>i</i>]) link(URL) match(<i>regexp</i>) ^{N4} replace(<i>regexp</i> , <i>str</i>) ^{N4} search(<i>regexp</i>) ^{N4} slice(<i>i,j</i>) ^{N4} small() split(<i>char</i>) ^{N3,(1),M4} strike() sub() substr(<i>start,length</i>) ^{N4} substring(<i>intA, intB</i>) 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(<i>array</i> 2) ^{N4}
prototype ^{N3,J2}	join("char") ^{J2} push() ^{N4} pop() ^{N4} reverse() ^{J2} shift() ^{N4} slice(<i>i,[j]</i>) ^{N4} sort(<i>compareFunc</i>) ^{J2} unshift() ^{N4}

Number^{N3,J2}

MAX_VALUE	toString()
MIN_VALUE	
NaN	
NEGATIVE_INFINITY	
POSITIVE_INFINITY	
prototype	

navigator

appName	javaEnabled() ^{N3}
appName	preference(<i>name</i> [, <i>val</i>]) ^{N4,(S),(1)}
appVersion	taintEnabled() ^{N3}
language ^{N4}	
mimeType ^{N3}	
platform ^{N4}	
plugins ^{N3}	
userAgent	

(1)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	

Sample navigator.userAgent Strings

Mozilla/4.01 [en] (Win95; I)
Mozilla/4.0 (compatible; MSIE 4.0; Windows 95)
Mozilla/3.01Gold (Macintosh; U; PPC)
Mozilla/3.01SC-SGI (X11; I; IRIX 6.2 IP22)
Mozilla/3.0 (compatible; MSIE 3.01; Mac_PowerPC; Mac OS8)

RegExp^{N4}

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

Regular Expression^{N4}

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

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

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}	Object destroyer
new	Object creator
this	Object self-reference
typeof ^{N3,M3}	Value type
void ^{N3,M3}	Return no value

Control Structures

```
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
```

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

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

Global Functions

eval(expression)	escape("str" [,1])
isNaN(expression)	unescape("str")
parseFloat("string")	Number("str") ^{N4}
parseInt("string")	watch(id, handler) ^{N4}
toString()	unwatch(id) ^{N4}
String(value) ^{N4}	

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