**[MS-HTML5E]:**

**Microsoft Edge / Internet Explorer Extensions to the HTML5 Specification**

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**Revision Summary**

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# Introduction

This document describes extensions provided by Microsoft web browsers for the *HTML5* specification [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490) W3C Recommendation of 28 October 2014.

Section 2 of this specification is normative. All other sections and examples in this specification are informative.

## Glossary

**MAY, SHOULD, MUST, SHOULD NOT, MUST NOT:** These terms (in all caps) are used as defined in [[RFC2119]](https://go.microsoft.com/fwlink/?LinkId=90317). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

## References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](https://go.microsoft.com/fwlink/?linkid=850906).

### Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

[HTML5] Berjon, R., Faulkner, S., Leithead, T., Navara, E., et al., Eds., "HTML5 -- A vocabulary and associated APIs for HTML and XHTML", [http://www.w3.org/TR/html5/](https://go.microsoft.com/fwlink/?LinkId=510490)

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, [http://www.rfc-editor.org/rfc/rfc2119.txt](https://go.microsoft.com/fwlink/?LinkId=90317)

### Informative References

[CSS-Level2-2009] World Wide Web Consortium, "Cascading Style Sheets Level 2 Revision 1 (CSS 2.1) Specification", W3C Candidate Recommendation 08 September 2009, [http://www.w3.org/TR/2009/CR-CSS2-20090908/](https://go.microsoft.com/fwlink/?LinkId=182880)

[DOM Level 2 - Core] World Wide Web Consortium, "Document Object Model (DOM) Level 2 Core Specification Version 1.0", W3C Recommendation 13 November 2000, [http://www.w3.org/TR/DOM-Level-2-Core/](https://go.microsoft.com/fwlink/?LinkId=182703)

[DOM Level 2 - HTML] World Wide Web Consortium, "Document Object Model (DOM) Level 2 HTML Specification Version 1.0", W3C Recommendation 09 January 2003, [http://www.w3.org/TR/2003/REC-DOM-Level-2-HTML-20030109/](https://go.microsoft.com/fwlink/?LinkId=182708)

[DOM Level 2 - Style] World Wide Web Consortium, "Document Object Model (DOM) Level 2 Style Specification Version 1.0", W3C Recommendation 13 November 2000, [http://www.w3.org/TR/2000/REC-DOM-Level-2-Style-20001113/](https://go.microsoft.com/fwlink/?LinkId=182710)

[ECMA-262-1999] Ecma International, "ECMAScript Language Specification", Standard ECMA-262 3rd Edition - December 1999, [http://www.ecma-international.org/publications/files/ECMA-ST-ARCH/ECMA-262,%203rd%20edition,%20December%201999.pdf](https://go.microsoft.com/fwlink/?LinkId=153655)

[ECMA-262/5] Ecma International, "ECMAScript Language Specification", Standard ECMA-262 5th Edition / December 2009, [http://www.ecma-international.org/publications/files/ECMA-ST-ARCH/ECMA-262%205th%20edition%20December%202009.pdf](https://go.microsoft.com/fwlink/?LinkId=185963)

[HTML] World Wide Web Consortium, "HTML 4.01 Specification", W3C Recommendation, December 1999, [http://www.w3.org/TR/html4/](https://go.microsoft.com/fwlink/?LinkId=89880)

[MS-CSS21E] Microsoft Corporation, "[Internet Explorer Extensions to Cascading Style Sheets (CSS) 2.1 and DOM Level 2 Style Specifications](%5bMS-CSS21E%5d.pdf#Section_410044a186ab4fadad89f8a72e646ad9)".

[MS-DOM2CEX] Microsoft Corporation, "[Microsoft XML Extensions to the Document Object Model (DOM) Level 2 Core Specification](%5bMS-DOM2CEX%5d.pdf#Section_a6643286fa9d4ad1913cdc602fe9a9d7)".

[MS-DOM2CE] Microsoft Corporation, "[Internet Explorer Extensions to the Document Object Model (DOM) Level 2 Core Specification](%5bMS-DOM2CE%5d.pdf#Section_7e7551df5d2f4707b10ca9dcccb66aa7)".

[MS-DOM2EE] Microsoft Corporation, "[Internet Explorer Extensions to the Document Object Model (DOM) Level 2 Events Specification](%5bMS-DOM2EE%5d.pdf#Section_fc95d4415a0247c09588e4ef5a9b6749)".

[MS-DOM2E] Microsoft Corporation, "[Internet Explorer Document Object Model (DOM) Level 2 Events Standards Support Document](%5bMS-DOM2E%5d.pdf#Section_d5a3f4ce8ba14755b31a45b52595305d)".

[MS-ES3EX] Microsoft Corporation, "[Microsoft JScript Extensions to the ECMAScript Language Specification Third Edition](%5bMS-ES3EX%5d.pdf#Section_a51500aa4fc543e2a79f2beac751f53a)".

[MS-ES5EX] Microsoft Corporation, "[Internet Explorer Extensions to the ECMA-262 ECMAScript Language Specification (Fifth Edition)](%5bMS-ES5EX%5d.pdf#Section_a6028f4d030b49e4b128f0abac70912f)".

[MS-HTML401E] Microsoft Corporation, "[Internet Explorer Extensions to HTML 4.01 and DOM Level 2 HTML Specifications](%5bMS-HTML401E%5d.pdf#Section_6e91051f13504dac8429fd5ef3e9193c)".

## Extensions Overview

This document is organized as follows:

* **Interfaces:** All DOM interfaces with extensions defined in this document.
* **Attributes:** All markup and DOM properties extending [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490) interface functionality.
  + **DOM and Content Attributes:** Attributes that are exposed through both DOM scripting and markup.
  + **DOM Attributes Only:** Attributes only supported through DOM scripting.
  + **Event Attributes:** Attributes that bind events to event handlers.
* **Methods:** All methods extending [HTML5] interface functionality.

## Relationship to Standards and Other Extensions

The following documents provide additional extensions.

* [[MS-CSS21E]](%5bMS-CSS21E%5d.pdf#Section_410044a186ab4fadad89f8a72e646ad9): Extensions to the [[CSS-Level2-2009]](https://go.microsoft.com/fwlink/?LinkId=182880) and [[DOM Level 2 - Style]](https://go.microsoft.com/fwlink/?LinkId=182710) specifications.
* [[MS-DOM2CE]](%5bMS-DOM2CE%5d.pdf#Section_7e7551df5d2f4707b10ca9dcccb66aa7) and [[MS-DOM2CEX]](%5bMS-DOM2CEX%5d.pdf#Section_a6643286fa9d4ad1913cdc602fe9a9d7): Extensions to the [[DOM Level 2 - Core]](https://go.microsoft.com/fwlink/?LinkId=182703) specification.
* [[MS-DOM2EE]](%5bMS-DOM2EE%5d.pdf#Section_fc95d4415a0247c09588e4ef5a9b6749): Extensions to the [[MS-DOM2E]](%5bMS-DOM2E%5d.pdf#Section_d5a3f4ce8ba14755b31a45b52595305d) specification.
* [[MS-ES3EX]](%5bMS-ES3EX%5d.pdf#Section_a51500aa4fc543e2a79f2beac751f53a): Extensions to the ECMAScript [[ECMA-262-1999]](https://go.microsoft.com/fwlink/?LinkId=153655) specification.
* [[MS-ES5EX]](%5bMS-ES5EX%5d.pdf#Section_a6028f4d030b49e4b128f0abac70912f): Extensions to the ECMAScript [[ECMA-262/5]](https://go.microsoft.com/fwlink/?LinkId=185963) specification.
* [[MS-HTML401E]](%5bMS-HTML401E%5d.pdf#Section_6e91051f13504dac8429fd5ef3e9193c): Extensions to the HTML 4.01 [[HTML]](https://go.microsoft.com/fwlink/?LinkId=89880) and [[DOM Level 2 - HTML]](https://go.microsoft.com/fwlink/?LinkId=182708) specifications.

## Applicability Statement

This document specifies a set of extensions to the [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490) specification that are unique to Windows Internet Explorer 9, Windows Internet Explorer 10, Internet Explorer 11, Internet Explorer 11 for Windows 10, and Microsoft Edge.

Each browser version may implement multiple document rendering modes. The modes vary from one another in support of the standard. The following table lists the document modes supported by each browser version.

| Browser Version | Document Modes Supported |
| --- | --- |
| Internet Explorer 9 | Quirks Mode  IE7 Mode  IE8 Mode  IE9 Mode |
| Internet Explorer 10 | Quirks Mode  IE7 Mode  IE8 Mode  IE9 Mode  IE10 Mode |
| Internet Explorer 11 | Quirks Mode  IE7 Mode  IE8 Mode  IE9 Mode  IE10 Mode  IE11 Mode |
| Internet Explorer 11 for Windows 10 | Quirks Mode  IE7 Mode  IE8 Mode  IE9 Mode  IE10 Mode  IE11 Mode |
| Microsoft Edge | EdgeHTML Mode |

Many of the extensions listed in this documented are accompanied by a statement that indicates what modes and versions have the extension. The statement has a list of document modes followed by a list of browser versions in parentheses. For any listed version the extension is in all listed modes that the version provides. Here is an example of an availability statement:

Available only *in IE11 Mode and EdgeHTML Mode (All Versions).*

This means that the extension is in IE11 Mode for all versions in the table above that provide that mode, and in EdgeHTML Mode for all versions that provide that mode.

If an extension does not have an availability statement, all modes of all versions shown in the table above have the extension.

# Extensions

This section describes extensions to [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490) that are available in Microsoft web browsers.

## Interfaces

The following interfaces are defined in [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490) and extended by Microsoft web browsers.

### AudioTrackList

The **AudioTrackList** interface represents a list of AudioTrack objects.

**AudioTrackList** has been extended with the following method:

* item

1. // Microsoft extensions
2. interface AudioTrackList : EventTarget
3. {
4. getter AudioTrack item(unsigned long index);
5. };

### Document

The **Document** interface represents the HTML document in a specific window.

**Document** has been extended with the following attributes:

* + URLUnencoded
  + defaultCharset
  + webkitCurrentFullScreenElement
  + webkitFullscreenElement
  + webkitFullscreenEnabled
  + webkitIsFullScreen

**Document** has been extended with the following methods:

* + execCommandShowHelp
  + focus
  + queryCommandText
  + updateSettings
  + webkitCancelFullScreen
  + webkitExitFullscreen

Available only in *EdgeHTML Mode (All Versions).*

* + caretRangeFromPoint

// Microsoft extensions

1. interface Document : Node
2. {
3. readonly attribute DOMString URLUnencoded;
4. readonly attribute DOMString defaultCharset;
5. readonly attribute Element? webkitCurrentFullScreenElement;
6. readonly attribute Element? webkitFullscreenElement;
7. readonly attribute boolean webkitFullscreenEnabled;
8. readonly attribute boolean webkitIsFullScreen;
9. boolean execCommandShowHelp(DOMString commandId);
10. void focus();
11. DOMString queryCommandText(DOMString commandId);
12. void updateSettings();
13. void webkitCancelFullScreen();
14. void webkitExitFullscreen();
15. Range caretRangeFromPoint(float x, float y);

};

### ErrorEvent

The **ErrorEvent** interface represents the dispatched object of an error event.

**ErrorEvent** has been extended with the following method:

* + initErrorEvent

1. // Microsoft extensions
2. interface ErrorEvent : Event
3. {
4. void initErrorEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg, DOMString messageArg, DOMString filenameArg, unsigned long linenoArg);
5. };

### HTMLEmbedElement

The **HTMLEmbedElement** interface allows documents of any type to be embedded.

**HTMLEmbedElement** has been extended with the following attributes:

* + msPlayToDisabled
  + msPlayToPrimary
  + msPlayToPreferredSourceUri

1. // Microsoft extensions
2. interface HTMLEmbedElement : HTMLElement
3. {
4. attribute boolean msPlayToDisabled;
5. attribute boolean msPlayToPrimary;
6. attribute DOMString msPlayToPreferredSourceUri;
7. };

### HTMLImageElement

The **HTMLImageElement** interface embeds an image or a video clip in the document.

**HTMLImageElement** has been extended with the following attributes:

* + msPlayToDisabled
  + msPlayToPrimary
  + msPlayToPreferredSourceUri

1. // Microsoft extensions
2. interface HTMLImageElement : HTMLElement
3. {
4. attribute boolean msPlayToDisabled;
5. attribute boolean msPlayToPrimary;
6. attribute DOMString msPlayToPreferredSourceUri;
7. };

### HTMLMediaElement

The **HTMLMediaElement** interface represents an audio or video object in the document.

**HTMLMediaElement** has been extended with the following attributes:

* + msPlayToDisabled
  + msPlayToPrimary
  + msPlayToPreferredSourceUri

1. // Microsoft extensions
2. interface HTMLMediaElement : HTMLElement
3. {
4. attribute boolean msPlayToDisabled;
5. attribute boolean msPlayToPrimary;
6. attribute DOMString msPlayToPreferredSourceUri;
7. };

### HTMLObjectElement

The **HTMLObjectElement** interface represents an external resource.

**HTMLObjectElement** has been extended with the following attributes:

* + msPlayToDisabled
  + msPlayToPrimary
  + msPlayToPreferredSourceUri

1. // Microsoft extensions
2. interface HTMLObjectElement : HTMLElement
3. {
4. attribute boolean msPlayToDisabled;
5. attribute boolean msPlayToPrimary;
6. attribute DOMString msPlayToPreferredSourceUri;
7. };

### HTMLVideoElement

The **HTMLVideoElement** interface represents video content to be played in a document.

**HTMLVideoElement** has been extended with the following attribute:

* + msZoom

1. // Microsoft extensions
2. interface HTMLVideoElement : HTMLMediaElement
3. {
4. attribute boolean msZoom;
5. };

### MediaError

The **MediaError** interface represents an error in media object playback.

**MediaError** has been extended with the following attribute:

* + msExtendedCode

1. // Microsoft extensions
2. interface MediaError
3. {
4. readonly attribute long msExtendedCode;
5. };

### Navigator

The **Navigator** interface represents the identity and state of the browser.

**Navigator** has been extended with the following attributes:

* + appMinorVersion
  + browserLanguage
  + userLanguage
  + systemLanguage
  + cpuClass

**Navigator** has been extended with the following method:

* + msLaunchUri

1. // Microsoft extensions
2. interface Navigator
3. {
4. readonly attribute DOMString appMinorVersion;
5. readonly attribute DOMString browserLanguage;
6. readonly attribute DOMString userLanguage;
7. readonly attribute DOMString systemLanguage;
8. readonly attribute DOMString cpuClass;
9. void msLaunchUri(DOMString uri, optional MSLaunchUriCallback successCallback = 0, optional MSLaunchUriCallback noHandlerCallback = 0);
10. };

### PopStateEvent

The **PopStateEvent** interface represents the object that is dispatched when navigating to a session history entry.

**PopStateEvent** has been extended with the following method:

* + initPopStateEvent

1. // Microsoft extensions
2. interface PopStateEvent : Event
3. {
4. void initPopStateEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg, any stateArg);
5. };

### TextTrack

The **TextTrack** interface represents timed text track content.

**TextTrack** has been extended with the following attribute:

* + readyState

1. // Microsoft extensions
2. interface TextTrack : EventTarget
3. {
4. readonly attribute unsigned short readyState;
5. };

### TextTrackCue

The **TextTrackCue** interface represents the content and timing of text to be displayed concurrently with associated media during playback.

**TextTrackCue** has been extended with the following attribute:

* + text

**TextTrackCue** has been extended with the following method:

* + getCueAsHTML

1. // Microsoft extensions
2. interface TextTrackCue : EventTarget
3. {
4. attribute DOMString text;
5. DocumentFragment getCueAsHTML();
6. };

### TextTrackCueList

The **TextTrackCueList** interface represents a dynamically updated list of text track cues.

**TextTrackCueList** has been extended with the following method:

* + item

1. // Microsoft extensions
2. interface TextTrackCueList
3. {
4. getter TextTrackCue item(unsigned long index);
5. };

### TextTrackList

The **TextTrackList** interface represents a list of text tracks.

**TextTrackList** has been extended with the following method:

* + item

1. // Microsoft extensions
2. interface TextTrackList : EventTarget
3. {
4. getter TextTrack item(unsigned long index);
5. };

### VideoTrackList

The **VideoTrackList** interface represents a list of VideoTrack objects.

**VideoTrackList** has been extended with the following method:

* item

1. // Microsoft extensions
2. interface VideoTrackList : EventTarget
3. {
4. getter VideoTrack item(unsigned long index);
5. };

### Window

The **Window** interface represents a window containing a web document.

**Window** has been extended with the following attributes:

* + defaultStatus
  + clientInformation
  + screenLeft
  + screenTop

**Window** has been extended with the following methods:

Available only in *EdgeHTML Mode (All Versions).*

* + webkitConvertPointFromPageToNode
  + webkitConvertPointFromNodeToPage

1. // Microsoft extensions
2. interface Window : EventTarget
3. {
4. attribute DOMString defaultStatus;
5. readonly attribute Navigator clientInformation;
6. readonly attribute long screenLeft;
7. readonly attribute long screenTop;

WebKitPoint webkitConvertPointFromPageToNode(Node node, WebKitPoint pt);

WebKitPoint webkitConvertPointFromNodeToPage(Node node, WebKitPoint pt);

};

## Attributes

The following attributes introduced by Microsoft web browsers are members of interfaces defined in [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490).

### DOM and Content Attributes

The following attributes are supported in both DOM scripting and markup.

#### msPlayToDisabled

msPlayToDisabled of type boolean

Gets and sets if the *PlayTo* device is enabled or disabled.

Available only in *IE10 Mode*, *IE11 Mode*, and *EdgeHTML Mode (All Versions).*

The **msPlayToDisabled** attribute extends the **HTMLEmbedElement**, **HTMLImageElement**, **HTMLMediaElement**, and **HTMLObject** interfaces.

#### msPlayToPrimary

msPlayToPrimary of type boolean

Gets and sets if the device is the primary *PlayTo*device.

Available only in *IE10 Mode*, *IE11 Mode*, and *EdgeHTML Mode (All Versions)*.

The **msPlayToPrimary** attribute extends the **HTMLEmbedElement**, **HTMLImageElement**, **HTMLMediaElement**, and **HTMLObject** interfaces.

#### msPlayToPreferredSourceUri

msPlayToPreferredSourceUri of type DOMString

Gets and sets the path to the preferred media source. This enables the *PlayTo*target device to stream the media content, which might be DRM protected, from a different location (such as a cloud media server).

Available only in *IE11 Mode* and *EdgeHTML Mode (All Versions)*.

The **msPlayToPreferredSourceUri** attribute extends the **HTMLEmbedElement**, **HTMLImageElement**, **HTMLMediaElement**, and **HTMLObject** interfaces.

### DOM Attributes Only

The following attributes are supported only in DOM scripting.

#### appMinorVersion

appMinorVersion of type DOMString

Retrieves the application’s minor version value.

The **appMinorVersion** attribute extends the **Navigator** interface.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, and IE10 Mode (All Versions).*

#### browserLanguage

browserLanguage of type DOMString

Retrieves the current operating system language.

This property does not indicated the language or languages set by the user in the *Internet Options* menu.

The **browserLanguage** attribute extends the **Navigator** interface.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, and IE10 Mode (All Versions).*

#### msCapsLockWarningOff

msCapsLockWarningOff of type boolean

Toggles the automatic caps lock warning on or off for validated password input fields.

Starting with Windows Internet Explorer 10, input type=password fields will automatically display a warning if the caps lock is on. This property is provided to disable this warning.

Available only in *IE10 Mode*, *IE11 Mode*, and *EdgeHTML Mode (All Versions)*.

The **msCapsLockWarningOff** attribute extends the **Document** interface.

#### clientInformation

clientInformation of type Navigator

Retrieves a Navigator object representing information about the browser.

The **clientInformation** attribute extends the **Window** interface.

#### cpuClass

cpuClass of type DOMString

Retrieves a string denoting the type of CPU on the host machine.

Possible return values include: x86, 68K, Alpha, PPC, and Other.

The **cpuClass** attribute extends the **Navigator** interface.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, and IE10 Mode (All Versions).*

#### defaultCharset

defaultCharset of type DOMString

Gets the default character set from the current regional language settings.

For typical settings in North America, the value is windows-1252.

The **defaultCharset** attribute extends the **Document** interface.

#### defaultStatus

defaultStatus of type DOMString

Sets or retrieves the default message displayed in the status bar at the bottom of the window.

The **defaultStatus** attribute extends the **Window** interface.

#### msExtendedCode

msExtendedCode of type long

Gets additional platform specific error information.

Available only in *IE10 Mode*, *IE11 Mode***,** and *EdgeHTML Mode (All Versions)*.

The **msExtendedCode** attribute extends the **MediaError** interface.

#### offscreenBuffering

offscreenBuffering of type DOMString or boolean

Sets or retrieves whether objects are drawn offscreen before being made visible to the user.

The value of the offscreenBuffering property determines how the current document is drawn. When the property is set to true, objects are added to an offscreen buffer. After all objects are drawn, the contents of the offscreen buffer are made visible to the user. When the property is set to false, objects are rendered directly to the screen. By default, the property is set to **auto**, meaning that Windows Internet Explorer automatically enables offscreen buffering when Microsoft DirectX components are used in the document.

The **offscreenBuffering** attribute extends the **Window** interface.

#### readyState

readyState of type unsigned short

Returns the status of the text track.

Possible values include:

* + NONE (0): The TextTrack has been declared (with corresponding markup element) but is not yet loaded
  + LOADING (1): The TextTrack is currently loading
  + LOADED (2): The TextTrack has been loaded
  + ERROR (3): The TextTrack failed to load. Possible causes are a bad URL or unknown text format.

Available only in *IE10 Mode*, *IE11 Mode***,** and *EdgeHTML Mode (All Versions)*.

The **readyState** attribute extends the **TextTrack** interface.

#### systemLanguage

systemLanguage of type DOMString

Retrieves the default language used by the operating system.

The **systemLanguage** attribute extends the **Navigator** interface.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, and IE10 Mode (All Versions).*

#### text

text of type DOMString

Retrieves the raw text portion of the TextTrackCue.

The **text** property can be used to put cue text into a div element for custom displays.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)*.

The **text** attribute extends the **TextTrackCue** interface.

#### URLUnencoded

URLUnencoded of type DOMString

Gets the URL for the document, stripped of any character encoding.

The **URLUnencoded** attribute extends the **Document** interface.

#### userLanguage

userLanguage of type DOMString

Retrieves the operating system’s natural language setting.

The **userLanguage** attribute extends the **Navigator** interface.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, and IE10 Mode (All Versions).*

#### msZoom

msZoom of type boolean

Gets or sets whether the video frame is trimmed to fit the video display.

When true, trims the video frame to the display space. When false, the video frame uses letterbox or pillarbox to display video as needed.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)*.

The **msZoom** attribute extends the **HTMLVideoElement** interface.

### Event Attributes

The following are attributes that bind events to event handlers.

#### onmssitemodejumplistitemremoved

onmssitemodejumplistitemremoved of type Function

Occurs when msSiteModeShowJumpList is called, and an item has been removed from a Jump List by the user. Dispatches a MSSiteModeEvent object.

* + Bubbles: No
  + Cancelable: No
  + Synchronous: No

Available only in *IE9 Mode*, *IE10 Mode*, *IE11 Mode*, and *EdgeHTML Mode (All Versions)*.

The **onmssitemodejumplistitemremoved** attribute extends the **Document** interface.

#### onmsthumbnailclick

onmsthumbnailclick of type Function

Occurs when a user clicks a button in a Thumbnail Toolbar. Dispatches a MSSiteModeEvent object.

* + Bubbles: No
  + Cancelable: No
  + Synchronous: No

Available only in *IE9 Mode*, *IE10 Mode*, *IE11 Mode*, and *EdgeHTML Mode (All Versions)*.

The **onmsthumbnailclick** attribute extends the **Document** interface.

## Methods

The following methods introduced by Internet Explorer and Microsoft Edge are members of interfaces defined in [[HTML5]](https://go.microsoft.com/fwlink/?LinkId=510490).

### getCueAsHTML

Returns the TextTrackCue text (caption) as HTML document fragment.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)***.**

The **getCueAsHTML** method extends the **TextTrackCue** interface.

**Parameters**

None

**Return Value**

DOMString representing the text track cue text

### initErrorEvent

Initializes the properties of an **ErrorEvent** object.

As of Microsoft Edge, the createEvent / initEvent constructor pattern for synthetic events has been deprecated in favor of the DOM4 event constructor pattern.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)***.**

The **initErrorEvent** method extends the **ErrorEvent** interface.

**Parameters**

DOMString **typeArg** *The type of event being created*

boolean **canBubbleArg** *Indicates whether the event can bubble*

boolean **cancelableArg** *Indicates whether the default action of the event can be prevented*

DOMString **messageArg** *The error message string*

DOMString **filenameArg** *The absolute URL of the script in which the error originally occurred*

Unsigned long **linenoArg** *The line number where the error occurred in the script*

**Return Value**

None

### initPopStateEvent

Initializes the properties of a PopStateEvent object.

As of Microsoft Edge, the createEvent() / initEvent() constructor pattern for synthetic events has been deprecated in favor of the DOM4 event constructor pattern.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)***.**

The **initPopStateEvent** method extends the **PopStateEvent** interface.

**Parameters**

DOMString **typeArg** *The type of event being created*

boolean **canBubbleArg** *Indicates whether the event can bubble*

boolean **cancelableArg** *Indicates whether the default action of the event can be prevented*

any **stateArg** *The object to be applied to the state property*

**Return Value**

None

### item

Returns the item at the specified index from the list object.

Available only in *IE10*, *IE11*, and *EdgeHTML Mode (All Versions)***.**

The **item** method extends the **AudioTextTrackList**, **TextTrackList**, **TextTrackCueList**, and **VideoCueList** interfaces.

**Parameters**

unsigned long **index** *The index of the desired item in the list*

**Return Value**

AudioTrack (in the case of AudioTrackList)

TextTrack (in the case of TextTrackList)

TextTrackCue (in the case of TextTrackCueList)

VideoTrack (in the case of VideoTrackList)

### msLaunchUri

Starts a service or app, such as an email client, that handles a given protocol.

Available only in *IE7 Mode, IE8 Mode, IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions).*

The **msLaunchUri** method extends the **Navigator** interface.

**Parameters**

DOMString **uri** *URL containing protocol of the document or resource to be displayed*

optional callback **successCallback** *Function to be executed if the protocol handler is present*

optional callback **noHandlerCallback** *Function to be executed if the protocol handler isn’t present*

**Return Value**

None

### queryCommandText

Retrieves the string associated with a command.

The **queryCommandText** method extends the **Document** interface.

**Parameters**

DOMString **commandId** *String containing the identifier of a command*

**Return Value**

None

### updateSettings

Updates the print settings for the document.

The **updateSettings** method extends the **Document** interface.

**Parameters**

None

**Return Value**

None

# Security

There are no additional security considerations.

# Appendix A: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

* Windows Internet Explorer 7
* Windows Internet Explorer 8
* Windows Internet Explorer 9
* Windows Internet Explorer 10
* Internet Explorer 11
* Internet Explorer 11 for Windows 10
* Microsoft Edge

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

# Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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