# Document Object Model (DOM) Level 2 HTML Specification

## Version 1.0

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# Abstract

This specification defines the Document Object Model Level 2 HTML, a platform- and language-neutral interface that allows programs and scripts to dynamically access and update the content and structure of HTML documents. The Document Object Model Level 2 HTML builds on the Document Object Model Level 2 Core [DOM Level 2 Core] and on the Document Object Model Level 1 HTML [DOM Level 1].

The DOM Level 2 HTML is made of a set of specific interfaces to manipulate the structure and contents of an HTML document.

# Status of this document

This is a W3C Proposed Recommendation for review by W3C members and other interested parties. W3C Advisory Committee Members are invited to send formal comments, visible only to the W3C Team, to dom-review@w3.org until October 25, 2000.

Comments on this document are invited and are to be sent to the public mailing list www-dom@w3.org. An archive is available at http://lists.w3.org/Archives/Public/www-dom/.

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This document has been produced as part of the W3C DOM Activity. The authors of this document are the DOM WG members. Different modules of the Document Object Model have different editors.

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# 1. Document Object Model HTML

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## 1.1. Introduction

This section extends the DOM Level 2 Core API [DOM Level 2 Core] to describe objects and methods specific to *HTML* [p.123] documents [HTML4.0]. In general, the functionality needed to manipulate hierarchical document structures, elements, and attributes will be found in the core section; functionality that depends on the specific elements defined in HTML will be found in this section.

The goals of the HTML-specific DOM API are:

- to specialize and add functionality that relates specifically to HTML documents and elements.
- to address issues of backwards compatibility with the *DOM Level 0* [p.123] .
- to provide *convenience* [p.123] mechanisms, where appropriate, for common and frequent operations on HTML documents.

The key differences between the core DOM and the HTML application of DOM is that the HTML Document Object Model exposes a number of *convenience* [p.123] methods and properties that are consistent with the existing models and are more appropriate to script writers. In many cases, these enhancements are not applicable to a general DOM because they rely on the presence of a predefined DTD. The transitional and frameset DTDs for HTML 4.0 are assumed. Interoperability between implementations is only guaranteed for elements and attributes that are specified in the HTML 4.0 DTDs.

More specifically, this document includes the following specializations for HTML:

- An `HTMLDocument` [p.12] interface, derived from the core `Document` interface. `HTMLDocument` specifies the operations and queries that can be made on a HTML document.
- An `HTMLElement` [p.16] interface, derived from the core `Element` interface. `HTMLElement` specifies the operations and queries that can be made on any HTML element. Methods on `HTMLElement` include those that allow for the retrieval and modification of attributes that apply to all HTML elements.
- Specializations for all HTML elements that have attributes that extend beyond those specified in the `HTMLElement` [p.16] interface. For all such attributes, the derived interface for the element contains explicit methods for setting and getting the values.

The DOM Level 2 includes mechanisms to access and modify style specified through CSS and defines an event model that can be used with HTML documents.

The interfaces found within this section are not mandatory. A DOM application can use the `hasFeature` method of the `DOMImplementation` interface to determine whether they are supported or not. The feature string for all the interfaces listed in this section is "HTML" and the version is "2.0".

The interfaces in this specification are designed for HTML 4.0 documents, and not for XHTML 1.0 documents. Use of the HTML DOM with XHTML 1.0 documents may result in incorrect processing; see Appendix C11 in [XHTML10] for more information.

# 1.2. HTML Application of Core DOM

## 1.2.1. Naming Conventions

The HTML DOM follows a naming convention for properties, methods, events, collections, and data types. All names are defined as one or more English words concatenated together to form a single string.

### 1.2.1.1. Properties and Methods

The property or method name starts with the initial keyword in lowercase, and each subsequent word starts with a capital letter. For example, a property that returns document meta information such as the date the file was created might be named "fileDateCreated". In the ECMAScript binding, properties are exposed as properties of a given object. In Java, properties are exposed with get and set methods.

### 1.2.1.2. Non-HTML 4.0 interfaces and attributes

While most of the interfaces defined below can be mapped directly to elements defined in the HTML 4.0 Recommendation, some of them cannot. Similarly, not all attributes listed below have counterparts in the HTML 4.0 specification (and some do, but have been renamed to avoid conflicts with scripting languages). Interfaces and attribute definitions that have links to the HTML 4.0 specification have corresponding element and attribute definitions there; all others are added by this specification, either for convenience or backwards compatibility with *DOM Level 0* [p.123] implementations.

# 1.3. Miscellaneous Object Definitions

**Interface *HTMLDOMImplementation*** (introduced in **DOM Level 2**)

The `HTMLDOMImplementation` interface extends the `DOMImplementation` interface with a method for creating an HTML document instance.

**IDL Definition**

```
// Introduced in DOM Level 2:
interface HTMLDOMImplementation : DOMImplementation {
  HTMLDocument       createHTMLDocument(in DOMString title);
};
```

**Methods**

`createHTMLDocument`

Creates an `HTMLDocument` [p.12] object with the minimal tree made of the following elements: `HTML`, `HEAD`, `TITLE`, and `BODY`.

**Parameters**

`title` of type `DOMString`

The title of the document to be set as the content of the `TITLE` element, through a child `Text` node.

**Return Value**

| | |
|---|---|
| `HTMLDocument` [p.12] | A new `HTMLDocument` object. |

**No Exceptions**

## Interface *HTMLCollection*

An `HTMLCollection` is a list of nodes. An individual node may be accessed by either ordinal index or the node's `name` or `id` attributes. *Note:* Collections in the HTML DOM are assumed to be *live* meaning that they are automatically updated when the underlying document is changed.

**IDL Definition**

```
interface HTMLCollection {
  readonly attribute unsigned long    length;
  Node               item(in unsigned long index);
  Node               namedItem(in DOMString name);
};
```

**Attributes**

`length` of type `unsigned long`, readonly

This attribute specifies the length or *size* of the list.

**Methods**

`item`

This method retrieves a node specified by ordinal index. Nodes are numbered in tree order (depth-first traversal order).

**Parameters**

`index` of type `unsigned long`

The index of the node to be fetched. The index origin is 0.

**Return Value**

| | |
|---|---|
| `Node` | The `Node` at the corresponding position upon success. A value of `null` is returned if the index is out of range. |

**No Exceptions**

`namedItem`

This method retrieves a `Node` using a name. It first searches for a `Node` with a matching `id` attribute. If it doesn't find one, it then searches for a `Node` with a matching `name` attribute, but only on those elements that are allowed a name attribute.

**Parameters**

`name` of type `DOMString`

The name of the `Node` to be fetched.

**Return Value**

| | |
|---|---|
| `Node` | The `Node` with a `name` or `id` attribute whose value corresponds to the specified string. Upon failure (e.g., no node with this name exists), returns `null`. |

**No Exceptions**

# 1.4. Objects related to HTML documents

**Interface *HTMLDocument***

An `HTMLDocument` is the root of the HTML hierarchy and holds the entire content. Besides providing access to the hierarchy, it also provides some *convenience* [p.123] methods for accessing certain sets of information from the document.

The following properties have been deprecated in favor of the corresponding ones for the `BODY` element:

- alinkColor
- background
- bgColor
- fgColor
- linkColor
- vlinkColor

**Note:** In DOM Level 2, the method `getElementById` is inherited from the `Document` interface where it was moved.

**IDL Definition**

```
interface HTMLDocument : Document {
           attribute DOMString        title;
  readonly attribute DOMString        referrer;
  readonly attribute DOMString        domain;
  readonly attribute DOMString        URL;
           attribute HTMLElement      body;
  readonly attribute HTMLCollection   images;
  readonly attribute HTMLCollection   applets;
  readonly attribute HTMLCollection   links;
  readonly attribute HTMLCollection   forms;
```

```
  readonly attribute HTMLCollection   anchors;
           attribute DOMString        cookie;
  void               open();
  void               close();
  void               write(in DOMString text);
  void               writeln(in DOMString text);
  NodeList           getElementsByName(in DOMString elementName);
};
```

**Attributes**

`URL` of type `DOMString`, readonly
: The complete URI [RFC2396] of the document.

`anchors` of type `HTMLCollection` [p.11] , readonly
: A collection of all the anchor (`A`) elements in a document with a value for the `name` attribute.*Note.* For reasons of backwards compatibility, the returned set of anchors only contains those anchors created with the `name` attribute, not those created with the `id` attribute.

`applets` of type `HTMLCollection` [p.11] , readonly
: A collection of all the `OBJECT` elements that include applets and `APPLET` (*deprecated*) elements in a document.

`body` of type `HTMLElement` [p.16]
: The element that contains the content for the document. In documents with `BODY` contents, returns the `BODY` element. In frameset documents, this returns the outermost `FRAMESET` element.

`cookie` of type `DOMString`
: The cookies associated with this document. If there are none, the value is an empty string. Otherwise, the value is a string: a semicolon-delimited list of "name, value" pairs for all the cookies associated with the page. For example, `name=value;expires=date`.

`domain` of type `DOMString`, readonly
: The domain name of the server that served the document, or `null` if the server cannot be identified by a domain name.

`forms` of type `HTMLCollection` [p.11] , readonly
: A collection of all the forms of a document.

`images` of type `HTMLCollection` [p.11] , readonly
: A collection of all the `IMG` elements in a document. The behavior is limited to `IMG` elements for backwards compatibility.

`links` of type `HTMLCollection` [p.11] , readonly
: A collection of all `AREA` elements and anchor (`A`) elements in a document with a value for the `href` attribute.

`referrer` of type `DOMString`, readonly
: Returns the URI [RFC2396] of the page that linked to this page. The value is an empty string if the user navigated to the page directly (not through a link, but, for example, via a bookmark).

`title` of type `DOMString`
: The title of a document as specified by the `TITLE` element in the head of the document.

**Methods**

`close`
: Closes a document stream opened by `open()` and forces rendering.

**No Parameters**
**No Return Value**
**No Exceptions**

`getElementsByName`
: Returns the (possibly empty) collection of elements whose `name` value is given by `elementName`.
**Parameters**
`elementName` of type `DOMString`
: The `name` attribute value for an element.

**Return Value**

| | |
|---|---|
| `NodeList` | The matching elements. |

**No Exceptions**

`open`
: *Note.* This method and the ones following allow a user to add to or replace the structure model of a document using strings of unparsed HTML. At the time of writing alternate methods for providing similar functionality for both HTML and XML documents were being considered. The following methods may be deprecated at some point in the future in favor of a more general-purpose mechanism.
Open a document stream for writing. If a document exists in the target, this method clears it.

**No Parameters**
**No Return Value**
**No Exceptions**

`write`
: Write a string of text to a document stream opened by `open()`. The text is parsed into the document's structure model.
**Parameters**

`text` of type `DOMString`
The string to be parsed into some structure in the document structure model.

**No Return Value**
**No Exceptions**

`writeln`
Write a string of text followed by a newline character to a document stream opened by `open()`. The text is parsed into the document's structure model.
**Parameters**
`text` of type `DOMString`
The string to be parsed into some structure in the document structure model.

**No Return Value**
**No Exceptions**

# 1.5. HTML Elements

## 1.5.1. Property Attributes

HTML attributes are exposed as properties on the element object. The DOM naming conventions always determine the name of the exposed property, and is independent of the case of the attribute in the source document. The data type of the property is determined by the type of the attribute as determined by the HTML 4.0 transitional and frameset DTDs. The attributes have the semantics (including case-sensitivity) given in the HTML 4.0 specification.

The attributes are exposed as properties for compatibility with *DOM Level 0* [p.123] . This usage is deprecated because it can not be generalized to all possible attribute names, as is required both for XML and potentially for future versions of HTML. We recommend the use of generic methods on the core `Element` interface for setting, getting and removing attributes.

| **DTD Data Type** | ***Object Model Data* Type** |
|---|---|
| CDATA | DOMString |
| Value list (e.g., (left \| right \| center)) | DOMString |
| one-value Value list (e.g., (disabled)) | boolean |
| Number | long int |

The return value of an attribute that has a data type that is a value list is always capitalized, independent of the case of the value in the source document. For example, if the value of the align attribute on a P element is "left" then it is returned as "Left". For attributes with the `CDATA` data type, the case of the return value is that given in the source document.

The return value of an attribute that is unspecified and does not have a default value is the empty string if the return type is a DOMString, false if the return type is a boolean and 0 if the return type is a number.

## 1.5.2. Naming Exceptions

To avoid namespace conflicts, an attribute with the same name as a keyword in one of our chosen *binding languages* [p.123] is prefixed. For HTML, the prefix used is "html". For example, the `for` attribute of the `LABEL` element collides with loop construct naming conventions and is renamed `htmlFor`.

## 1.5.3. Exposing Element Type Names (`tagName`)

The element type names exposed through a property are in uppercase. For example, the body element type name is exposed through the `tagName` property as `BODY`.

## 1.5.4. The HTMLElement interface

**Interface *HTMLElement***

All HTML element interfaces derive from this class. Elements that only expose the HTML core attributes are represented by the base `HTMLElement` interface. These elements are as follows:

- HEAD
- special: SUB, SUP, SPAN, BDO
- font: TT, I, B, U, S, STRIKE, BIG, SMALL
- phrase: EM, STRONG, DFN, CODE, SAMP, KBD, VAR, CITE, ACRONYM, ABBR
- list: DD, DT
- NOFRAMES, NOSCRIPT
- ADDRESS, CENTER

**Note:** The `style` attribute of an HTML element is accessible through the `ElementCSSInlineStyle` interface which is defined in the CSS module [DOM Level 2 Style Sheets and CSS].

**IDL Definition**

```
interface HTMLElement : Element {
           attribute DOMString        id;
           attribute DOMString        title;
           attribute DOMString        lang;
           attribute DOMString        dir;
           attribute DOMString        className;
};
```

**Attributes**

`className` of type `DOMString`

The class attribute of the element. This attribute has been renamed due to conflicts with the "class" keyword exposed by many languages. See the class attribute definition in HTML 4.0.

`dir` of type `DOMString`
: Specifies the base direction of directionally neutral text and the directionality of tables. See the dir attribute definition in HTML 4.0.

`id` of type `DOMString`
: The element's identifier. See the id attribute definition in HTML 4.0.

`lang` of type `DOMString`
: Language code defined in RFC 1766. See the lang attribute definition in HTML 4.0.

`title` of type `DOMString`
: The element's advisory title. See the title attribute definition in HTML 4.0.

## 1.5.5. Object definitions

**Interface *HTMLHtmlElement***

Root of an HTML document. See the HTML element definition in HTML 4.0.
**IDL Definition**

```
interface HTMLHtmlElement : HTMLElement {
           attribute DOMString        version;
};
```

**Attributes**

`version` of type `DOMString`
: Version information about the document's DTD. See the version attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

**Interface *HTMLHeadElement***

Document head information. See the HEAD element definition in HTML 4.0.
**IDL Definition**

```
interface HTMLHeadElement : HTMLElement {
           attribute DOMString        profile;
};
```

**Attributes**

`profile` of type `DOMString`
: URI designating a metadata profile. See the profile attribute definition in HTML 4.0.

**Interface *HTMLLinkElement***

The `LINK` element specifies a link to an external resource, and defines this document's relationship to that resource (or vice versa). See the LINK element definition in HTML 4.0 (see also the `LinkStyle` interface in the StyleSheet module [DOM Level 2 Style Sheets and CSS]).
**IDL Definition**

```
interface HTMLLinkElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        charset;
           attribute DOMString        href;
           attribute DOMString        hreflang;
           attribute DOMString        media;
           attribute DOMString        rel;
           attribute DOMString        rev;
           attribute DOMString        target;
           attribute DOMString        type;
};
```

**Attributes**

`charset` of type `DOMString`
: The character encoding of the resource being linked to. See the charset attribute definition in HTML 4.0.

`disabled` of type `boolean`
: Enables/disables the link. This is currently only used for style sheet links, and may be used to activate or deactivate style sheets.

`href` of type `DOMString`
: The URI of the linked resource. See the href attribute definition in HTML 4.0.

`hreflang` of type `DOMString`
: Language code of the linked resource. See the hreflang attribute definition in HTML 4.0.

`media` of type `DOMString`
: Designed for use with one or more target media. See the media attribute definition in HTML 4.0.

`rel` of type `DOMString`
: Forward link type. See the rel attribute definition in HTML 4.0.

`rev` of type `DOMString`
: Reverse link type. See the rev attribute definition in HTML 4.0.

`target` of type `DOMString`
: Frame to render the resource in. See the target attribute definition in HTML 4.0.

`type` of type `DOMString`
: Advisory content type. See the type attribute definition in HTML 4.0.

### Interface *HTMLTitleElement*

The document title. See the TITLE element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTitleElement : HTMLElement {
           attribute DOMString        text;
};
```

**Attributes**

`text` of type `DOMString`

The specified title as a string.

### Interface *HTMLMetaElement*

This contains generic meta-information about the document. See the META element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLMetaElement : HTMLElement {
           attribute DOMString        content;
           attribute DOMString        httpEquiv;
           attribute DOMString        name;
           attribute DOMString        scheme;
};
```

**Attributes**

`content` of type `DOMString`

Associated information. See the content attribute definition in HTML 4.0.

`httpEquiv` of type `DOMString`

HTTP response header name. See the http-equiv attribute definition in HTML 4.0.

`name` of type `DOMString`

Meta information name. See the name attribute definition in HTML 4.0.

`scheme` of type `DOMString`

Select form of content. See the scheme attribute definition in HTML 4.0.

### Interface *HTMLBaseElement*

Document base URI. See the BASE element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLBaseElement : HTMLElement {
           attribute DOMString        href;
           attribute DOMString        target;
};
```

**Attributes**

`href` of type `DOMString`

The base URI. See the href attribute definition in HTML 4.0.

`target` of type `DOMString`

The default target frame. See the target attribute definition in HTML 4.0.

### Interface *HTMLIsIndexElement*

This element is used for single-line text input. See the ISINDEX element definition in HTML 4.0. This element is deprecated in HTML 4.0.

**IDL Definition**

```
interface HTMLIsIndexElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        prompt;
};
```

**Attributes**

`form` of type `HTMLFormElement` [p.21] , readonly

Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`prompt` of type `DOMString`

The prompt message. See the prompt attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLStyleElement*

Style information. See the STYLE element definition in HTML 4.0, the CSS module [DOM Level 2 Style Sheets and CSS] and the `LinkStyle` interface in the StyleSheets module [DOM Level 2 Style Sheets and CSS].

**IDL Definition**

```
interface HTMLStyleElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        media;
           attribute DOMString        type;
};
```

**Attributes**

`disabled` of type `boolean`

Enables/disables the style sheet.

`media` of type `DOMString`

Designed for use with one or more target media. See the media attribute definition in HTML 4.0.

`type` of type `DOMString`

The content type of the style sheet language. See the type attribute definition in HTML 4.0.

### Interface *HTMLBodyElement*

The HTML document body. This element is always present in the DOM API, even if the tags are not present in the source document. See the BODY element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLBodyElement : HTMLElement {
           attribute DOMString        aLink;
           attribute DOMString        background;
           attribute DOMString        bgColor;
           attribute DOMString        link;
           attribute DOMString        text;
           attribute DOMString        vLink;
};
```

**Attributes**

`aLink` of type `DOMString`

Color of active links (after mouse-button down, but before mouse-button up). See the alink attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`background` of type `DOMString`

URI of the background texture tile image. See the background attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`bgColor` of type `DOMString`

Document background color. See the bgcolor attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`link` of type `DOMString`

Color of links that are not active and unvisited. See the link attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`text` of type `DOMString`

Document text color. See the text attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`vLink` of type `DOMString`

Color of links that have been visited by the user. See the vlink attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

## Interface *HTMLFormElement*

The `FORM` element encompasses behavior similar to a collection and an element. It provides direct access to the contained input elements as well as the attributes of the form element. See the FORM element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLFormElement : HTMLElement {
  readonly attribute HTMLCollection   elements;
  readonly attribute long             length;
           attribute DOMString        name;
           attribute DOMString        acceptCharset;
           attribute DOMString        action;
           attribute DOMString        enctype;
           attribute DOMString        method;
```

```
           attribute DOMString        target;
  void               submit();
  void               reset();
};
```

**Attributes**

`acceptCharset` of type `DOMString`
: List of character sets supported by the server. See the accept-charset attribute definition in HTML 4.0.

`action` of type `DOMString`
: Server-side form handler. See the action attribute definition in HTML 4.0.

`elements` of type `HTMLCollection` [p.11] , readonly
: Returns a collection of all control elements in the form.

`enctype` of type `DOMString`
: The content type of the submitted form, generally "application/x-www-form-urlencoded". See the enctype attribute definition in HTML 4.0.

`length` of type `long`, readonly
: The number of form controls in the form.

`method` of type `DOMString`
: HTTP method used to submit form. See the method attribute definition in HTML 4.0.

`name` of type `DOMString`
: Names the form.

`target` of type `DOMString`
: Frame to render the resource in. See the target attribute definition in HTML 4.0.

**Methods**

`reset`
: Restores a form element’s default values. It performs the same action as a reset button.

  **No Parameters**
  **No Return Value**
  **No Exceptions**

`submit`
: Submits the form. It performs the same action as a submit button.

  **No Parameters**
  **No Return Value**
  **No Exceptions**

### Interface *HTMLSelectElement*

The select element allows the selection of an option. The contained options can be directly accessed through the select element as a collection. See the SELECT element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLSelectElement : HTMLElement {
  readonly attribute DOMString        type;
           attribute long             selectedIndex;
           attribute DOMString        value;
  readonly attribute long             length;
  readonly attribute HTMLFormElement  form;
  readonly attribute HTMLCollection   options;
           attribute boolean          disabled;
           attribute boolean          multiple;
           attribute DOMString        name;
           attribute long             size;
           attribute long             tabIndex;
  void               add(in HTMLElement element,
                         in HTMLElement before)
                                        raises(DOMException);
  void               remove(in long index);
  void               blur();
  void               focus();
};
```

**Attributes**

`disabled` of type `boolean`
: The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`length` of type `long`, readonly
: The number of options in this `SELECT`.

`multiple` of type `boolean`
: If true, multiple `OPTION` elements may be selected in this `SELECT`. See the multiple attribute definition in HTML 4.0.

`name` of type `DOMString`
: Form control or object name when submitted with a form. See the name attribute definition in HTML 4.0.

`options` of type `HTMLCollection` [p.11] , readonly
: The collection of `OPTION` elements contained by this element.

`selectedIndex` of type `long`
: The ordinal index of the selected option, starting from 0. The value -1 is returned if no element is selected. If multiple options are selected, the index of the first selected option is returned.

`size` of type `long`
: Number of visible rows. See the size attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element's position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`type` of type `DOMString`, readonly
: The type of this form control. This is the string "select-multiple" when the multiple attribute is `true` and the string "select-one" when `false`.

`value` of type `DOMString`
: The current form control value.

**Methods**

`add`
: Add a new element to the collection of `OPTION` elements for this `SELECT`. This method is the equivalent of the `appendChild` method of the `Node` interface if the `before` parameter is `null`. It is equivalent to the `insertBefore` method on the parent of `before` in all other cases.

**Parameters**

`element` of type `HTMLElement` [p.16]
: The element to add.

`before` of type `HTMLElement`
: The element to insert before, or `null` for the tail of the list.

**Exceptions**

| | |
|---|---|
| `DOMException` | NOT_FOUND_ERR: Raised if `before` is not a descendant of the `SELECT` element. |

**No Return Value**

`blur`
: Removes keyboard focus from this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`focus`
Gives keyboard focus to this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`remove`
Remove an element from the collection of `OPTION` elements for this `SELECT`. Does nothing if no element has the given index.
**Parameters**
`index` of type `long`
The index of the item to remove, starting from 0.

**No Return Value**
**No Exceptions**

### Interface *HTMLOptGroupElement*

Group options together in logical subdivisions. See the OPTGROUP element definition in HTML 4.0.
**IDL Definition**

```
interface HTMLOptGroupElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        label;
};
```

**Attributes**
`disabled` of type `boolean`
The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`label` of type `DOMString`
Assigns a label to this option group. See the label attribute definition in HTML 4.0.

### Interface *HTMLOptionElement*

A selectable choice. See the OPTION element definition in HTML 4.0.
**IDL Definition**

```
interface HTMLOptionElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute boolean          defaultSelected;
  readonly attribute DOMString        text;
  readonly attribute long             index;
           attribute boolean          disabled;
           attribute DOMString        label;
           attribute boolean          selected;
           attribute DOMString        value;
};
```

**Attributes**

`defaultSelected` of type `boolean`
: Represents the value of the HTML selected attribute. The value of this attribute does not change if the state of the corresponding form control, in an interactive user agent, changes. Changing `defaultSelected`, however, resets the state of the form control. See the selected attribute definition in HTML 4.0.

`disabled` of type `boolean`
: The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`index` of type `long`, readonly
: The index of this `OPTION` in its parent `SELECT`, starting from 0.

`label` of type `DOMString`
: Option label for use in hierarchical menus. See the label attribute definition in HTML 4.0.

`selected` of type `boolean`
: Represents the current state of the corresponding form control, in an interactive user agent. Changing this attribute changes the state of the form control, but does not change the value of the HTML selected attribute of the element.

`text` of type `DOMString`, readonly
: The text contained within the option element.

`value` of type `DOMString`
: The current form control value. See the value attribute definition in HTML 4.0.

## Interface *HTMLInputElement*

Form control. *Note.* Depending upon the environment in which the page is being viewed, the value property may be read-only for the file upload input type. For the "password" input type, the actual value returned may be masked to prevent unauthorized use. See the INPUT element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLInputElement : HTMLElement {
           attribute DOMString        defaultValue;
           attribute boolean          defaultChecked;
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accept;
           attribute DOMString        accessKey;
           attribute DOMString        align;
           attribute DOMString        alt;
           attribute boolean          checked;
           attribute boolean          disabled;
```

```
           attribute long             maxLength;
           attribute DOMString        name;
           attribute boolean          readOnly;
           attribute DOMString        size;
           attribute DOMString        src;
           attribute long             tabIndex;
  // Modified in DOM Level 2:
           attribute DOMString        type;
           attribute DOMString        useMap;
           attribute DOMString        value;
  void               blur();
  void               focus();
  void               select();
  void               click();
};
```

**Attributes**

`accept` of type `DOMString`
: A comma-separated list of content types that a server processing this form will handle correctly. See the accept attribute definition in HTML 4.0.

`accessKey` of type `DOMString`
: A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`align` of type `DOMString`
: Aligns this object (vertically or horizontally) with respect to its surrounding text. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`alt` of type `DOMString`
: Alternate text for user agents not rendering the normal content of this element. See the alt attribute definition in HTML 4.0.

`checked` of type `boolean`
: When the `type` attribute of the element has the value "Radio" or "Checkbox", this represents the current state of the form control, in an interactive user agent. Changes to this attribute change the state of the form control, but do not change the value of the HTML value attribute of the element.

`defaultChecked` of type `boolean`
: When `type` has the value "Radio" or "Checkbox", this represents the HTML checked attribute of the element. The value of this attribute does not change if the state of the corresponding form control, in an interactive user agent, changes. Changes to this attribute, however, resets the state of the form control. See the checked attribute definition in HTML 4.0.

`defaultValue` of type `DOMString`
: When the `type` attribute of the element has the value "Text", "File" or "Password", this represents the HTML value attribute of the element. The value of this attribute does not change if the contents of the corresponding form control, in an interactive user agent, changes. Changing this attribute, however, resets the contents of the form control. See the

value attribute definition in HTML 4.0.

`disabled` of type `boolean`
: The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`maxLength` of type `long`
: Maximum number of characters for text fields, when `type` has the value "Text" or "Password". See the maxlength attribute definition in HTML 4.0.

`name` of type `DOMString`
: Form control or object name when submitted with a form. See the name attribute definition in HTML 4.0.

`readOnly` of type `boolean`
: This control is read-only. Relevant only when `type` has the value "Text" or "Password". See the readonly attribute definition in HTML 4.0.

`size` of type `DOMString`
: Size information. The precise meaning is specific to each type of field. See the size attribute definition in HTML 4.0.

`src` of type `DOMString`
: When the `type` attribute has the value "Image", this attribute specifies the location of the image to be used to decorate the graphical submit button. See the src attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element’s position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`type` of type `DOMString`, modified in **DOM Level 2**
: The type of control created. See the type attribute definition in HTML 4.0.

`useMap` of type `DOMString`
: Use client-side image map. See the usemap attribute definition in HTML 4.0.

`value` of type `DOMString`
: When the `type` attribute of the element has the value "Text", "File" or "Password", this represents the current contents of the corresponding form control, in an interactive user agent. Changing this attribute changes the contents of the form control, but does not change the value of the HTML value attribute of the element. When the `type` attribute of the element has the value "Button", "Hidden", "Submit", "Reset", "Image", "Checkbox" or "Radio", this represents the HTML value attribute of the element. See the value attribute

definition in HTML 4.0.

**Methods**

`blur`

Removes keyboard focus from this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`click`

Simulate a mouse-click. For `INPUT` elements whose `type` attribute has one of the following values: "Button", "Checkbox", "Radio", "Reset", or "Submit".

**No Parameters**
**No Return Value**
**No Exceptions**

`focus`

Gives keyboard focus to this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`select`

Select the contents of the text area. For `INPUT` elements whose `type` attribute has one of the following values: "Text", "File", or "Password".

**No Parameters**
**No Return Value**
**No Exceptions**

## Interface *HTMLTextAreaElement*

Multi-line text field. See the TEXTAREA element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTextAreaElement : HTMLElement {
           attribute DOMString        defaultValue;
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute long             cols;
           attribute boolean          disabled;
           attribute DOMString        name;
           attribute boolean          readOnly;
           attribute long             rows;
           attribute long             tabIndex;
  readonly attribute DOMString        type;
           attribute DOMString        value;
```

```
  void              blur();
  void              focus();
  void              select();
};
```

**Attributes**

`accessKey` of type `DOMString`
: A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`cols` of type `long`
: Width of control (in characters). See the cols attribute definition in HTML 4.0.

`defaultValue` of type `DOMString`
: Represents the contents of the element. The value of this attribute does not change if the contents of the corresponding form control, in an interactive user agent, changes. Changing this attribute, however, resets the contents of the form control.

`disabled` of type `boolean`
: The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`name` of type `DOMString`
: Form control or object name when submitted with a form. See the name attribute definition in HTML 4.0.

`readOnly` of type `boolean`
: This control is read-only. See the readonly attribute definition in HTML 4.0.

`rows` of type `long`
: Number of text rows. See the rows attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element’s position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`type` of type `DOMString`, readonly
: The type of this form control. This the string "textarea".

`value` of type `DOMString`
: Represents the current contents of the corresponding form control, in an interactive user agent. Changing this attribute changes the contents of the form control, but does not change the contents of the element. If the entirety of the data can not fit into a single `DOMString`, the implementation may truncate the data.

**Methods**

`blur`

Removes keyboard focus from this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`focus`

Gives keyboard focus to this element.

**No Parameters**
**No Return Value**
**No Exceptions**

`select`

Select the contents of the TEXTAREA.

**No Parameters**
**No Return Value**
**No Exceptions**

## Interface *HTMLButtonElement*

Push button. See the BUTTON element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLButtonElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute boolean          disabled;
           attribute DOMString        name;
           attribute long             tabIndex;
  readonly attribute DOMString        type;
           attribute DOMString        value;
};
```

**Attributes**

`accessKey` of type `DOMString`

A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`disabled` of type `boolean`

The control is unavailable in this context. See the disabled attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly

Returns the FORM element containing this control. Returns `null` if this control is not within the context of a form.

`name` of type `DOMString`
: Form control or object name when submitted with a form. See the name attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element's position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`type` of type `DOMString`, readonly
: The type of button. See the type attribute definition in HTML 4.0.

`value` of type `DOMString`
: The current form control value. See the value attribute definition in HTML 4.0.

### Interface *HTMLLabelElement*

Form field label text. See the LABEL element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLLabelElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute DOMString        htmlFor;
};
```

**Attributes**

`accessKey` of type `DOMString`
: A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`htmlFor` of type `DOMString`
: This attribute links this label with another form control by `id` attribute. See the for attribute definition in HTML 4.0.

### Interface *HTMLFieldSetElement*

Organizes form controls into logical groups. See the FIELDSET element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLFieldSetElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
};
```

**Attributes**

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

### Interface *HTMLLegendElement*

Provides a caption for a `FIELDSET` grouping. See the LEGEND element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLLegendElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute DOMString        align;
};
```

**Attributes**

`accessKey` of type `DOMString`
: A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`align` of type `DOMString`
: Text alignment relative to `FIELDSET`. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

### Interface *HTMLUListElement*

Unordered list. See the UL element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLUListElement : HTMLElement {
           attribute boolean          compact;
           attribute DOMString        type;
};
```

**Attributes**

`compact` of type `boolean`
: Reduce spacing between list items. See the compact attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`type` of type `DOMString`
: Bullet style. See the type attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLOListElement*

Ordered list. See the OL element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLOListElement : HTMLElement {
           attribute boolean          compact;
           attribute long             start;
           attribute DOMString        type;
};
```

**Attributes**

`compact` of type `boolean`

Reduce spacing between list items. See the compact attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`start` of type `long`

Starting sequence number. See the start attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`type` of type `DOMString`

Numbering style. See the type attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLDListElement*

Definition list. See the DL element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLDListElement : HTMLElement {
           attribute boolean          compact;
};
```

**Attributes**

`compact` of type `boolean`

Reduce spacing between list items. See the compact attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLDirectoryElement*

Directory list. See the DIR element definition in HTML 4.0. This element is deprecated in HTML 4.0.

**IDL Definition**

```
interface HTMLDirectoryElement : HTMLElement {
           attribute boolean          compact;
};
```

**Attributes**

`compact` of type `boolean`

Reduce spacing between list items. See the compact attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLMenuElement*

Menu list. See the MENU element definition in HTML 4.0. This element is deprecated in HTML 4.0.

**IDL Definition**

```
interface HTMLMenuElement : HTMLElement {
           attribute boolean          compact;
};
```

**Attributes**

`compact` of type `boolean`

Reduce spacing between list items. See the compact attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLLIElement*

List item. See the LI element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLLIElement : HTMLElement {
           attribute DOMString        type;
           attribute long             value;
};
```

**Attributes**

`type` of type `DOMString`

List item bullet style. See the type attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`value` of type `long`

Reset sequence number when used in `OL`. See the value attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLDivElement*

Generic block container. See the DIV element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLDivElement : HTMLElement {
           attribute DOMString        align;
};
```

**Attributes**

`align` of type `DOMString`

Horizontal text alignment. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLParagraphElement*

Paragraphs. See the P element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLParagraphElement : HTMLElement {
           attribute DOMString        align;
};
```

**Attributes**

`align` of type `DOMString`

Horizontal text alignment. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLHeadingElement*

For the `H1` to `H6` elements. See the H1 element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLHeadingElement : HTMLElement {
           attribute DOMString        align;
};
```

**Attributes**

`align` of type `DOMString`

Horizontal text alignment. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLQuoteElement*

For the `Q` and `BLOCKQUOTE` elements. See the Q element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLQuoteElement : HTMLElement {
           attribute DOMString        cite;
};
```

**Attributes**

`cite` of type `DOMString`

A URI designating a source document or message. See the cite attribute definition in HTML 4.0.

### Interface *HTMLPreElement*

Preformatted text. See the PRE element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLPreElement : HTMLElement {
           attribute long             width;
};
```

**Attributes**

`width` of type `long`
: Fixed width for content. See the width attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLBRElement*

Force a line break. See the BR element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLBRElement : HTMLElement {
           attribute DOMString        clear;
};
```

**Attributes**

`clear` of type `DOMString`
: Control flow of text around floats. See the clear attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLBaseFontElement*

Base font. See the BASEFONT element definition in HTML 4.0. This element is deprecated in HTML 4.0.

**IDL Definition**

```
interface HTMLBaseFontElement : HTMLElement {
           attribute DOMString        color;
           attribute DOMString        face;
           attribute DOMString        size;
};
```

**Attributes**

`color` of type `DOMString`
: Font color. See the color attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`face` of type `DOMString`
: Font face identifier. See the face attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`size` of type `DOMString`
: Font size. See the size attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLFontElement*

Local change to font. See the FONT element definition in HTML 4.0. This element is deprecated in HTML 4.0.

**IDL Definition**

```
interface HTMLFontElement : HTMLElement {
           attribute DOMString        color;
           attribute DOMString        face;
           attribute DOMString        size;
};
```

**Attributes**

`color` of type `DOMString`

Font color. See the color attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`face` of type `DOMString`

Font face identifier. See the face attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`size` of type `DOMString`

Font size. See the size attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

## Interface *HTMLHRElement*

Create a horizontal rule. See the HR element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLHRElement : HTMLElement {
           attribute DOMString        align;
           attribute boolean          noShade;
           attribute DOMString        size;
           attribute DOMString        width;
};
```

**Attributes**

`align` of type `DOMString`

Align the rule on the page. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`noShade` of type `boolean`

Indicates to the user agent that there should be no shading in the rendering of this element. See the noshade attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`size` of type `DOMString`

The height of the rule. See the size attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`width` of type `DOMString`

The width of the rule. See the width attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLModElement*

Notice of modification to part of a document. See the INS and DEL element definitions in HTML 4.0.

**IDL Definition**

```
interface HTMLModElement : HTMLElement {
           attribute DOMString        cite;
           attribute DOMString        dateTime;
};
```

**Attributes**

`cite` of type `DOMString`

A URI designating a document that describes the reason for the change. See the cite attribute definition in HTML 4.0.

`dateTime` of type `DOMString`

The date and time of the change. See the datetime attribute definition in HTML 4.0.

### Interface *HTMLAnchorElement*

The anchor element. See the A element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLAnchorElement : HTMLElement {
           attribute DOMString        accessKey;
           attribute DOMString        charset;
           attribute DOMString        coords;
           attribute DOMString        href;
           attribute DOMString        hreflang;
           attribute DOMString        name;
           attribute DOMString        rel;
           attribute DOMString        rev;
           attribute DOMString        shape;
           attribute long             tabIndex;
           attribute DOMString        target;
           attribute DOMString        type;
  void               blur();
  void               focus();
};
```

**Attributes**

`accessKey` of type `DOMString`

A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`charset` of type `DOMString`

The character encoding of the linked resource. See the charset attribute definition in HTML 4.0.

`coords` of type `DOMString`
: Comma-separated list of lengths, defining an active region geometry. See also `shape` for the shape of the region. See the coords attribute definition in HTML 4.0.

`href` of type `DOMString`
: The URI of the linked resource. See the href attribute definition in HTML 4.0.

`hreflang` of type `DOMString`
: Language code of the linked resource. See the hreflang attribute definition in HTML 4.0.

`name` of type `DOMString`
: Anchor name. See the name attribute definition in HTML 4.0.

`rel` of type `DOMString`
: Forward link type. See the rel attribute definition in HTML 4.0.

`rev` of type `DOMString`
: Reverse link type. See the rev attribute definition in HTML 4.0.

`shape` of type `DOMString`
: The shape of the active area. The coordinates are given by `coords`. See the shape attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element's position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`target` of type `DOMString`
: Frame to render the resource in. See the target attribute definition in HTML 4.0.

`type` of type `DOMString`
: Advisory content type. See the type attribute definition in HTML 4.0.

**Methods**

`blur`
: Removes keyboard focus from this element.

  **No Parameters**
  **No Return Value**
  **No Exceptions**

`focus`
: Gives keyboard focus to this element.

  **No Parameters**
  **No Return Value**
  **No Exceptions**

### Interface *HTMLImageElement*

Embedded image. See the IMG element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLImageElement : HTMLElement {
           attribute DOMString        lowSrc;
           attribute DOMString        name;
           attribute DOMString        align;
           attribute DOMString        alt;
           attribute DOMString        border;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute boolean          isMap;
           attribute DOMString        longDesc;
           attribute DOMString        src;
           attribute DOMString        useMap;
           attribute DOMString        vspace;
           attribute DOMString        width;
};
```

**Attributes**

`align` of type `DOMString`
: Aligns this object (vertically or horizontally) with respect to its surrounding text. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`alt` of type `DOMString`
: Alternate text for user agents not rendering the normal content of this element. See the alt attribute definition in HTML 4.0.

`border` of type `DOMString`
: Width of border around image. See the border attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`height` of type `DOMString`
: Override height. See the height attribute definition in HTML 4.0.

`hspace` of type `DOMString`
: Horizontal space to the left and right of this image. See the hspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`isMap` of type `boolean`
: Use server-side image map. See the ismap attribute definition in HTML 4.0.

`longDesc` of type `DOMString`
: URI designating a long description of this image or frame. See the longdesc attribute definition in HTML 4.0.

`lowSrc` of type `DOMString`
: URI designating the source of this image, for low-resolution output.

`name` of type `DOMString`
: The name of the element (for backwards compatibility).

`src` of type `DOMString`
: URI designating the source of this image. See the src attribute definition in HTML 4.0.

`useMap` of type `DOMString`
: Use client-side image map. See the usemap attribute definition in HTML 4.0.

`vspace` of type `DOMString`
: Vertical space above and below this image. See the vspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`width` of type `DOMString`
: Override width. See the width attribute definition in HTML 4.0.

### Interface *HTMLObjectElement*

Generic embedded object. *Note.* In principle, all properties on the object element are read-write but in some environments some properties may be read-only once the underlying object is instantiated. See the OBJECT element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLObjectElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        code;
           attribute DOMString        align;
           attribute DOMString        archive;
           attribute DOMString        border;
           attribute DOMString        codeBase;
           attribute DOMString        codeType;
           attribute DOMString        data;
           attribute boolean          declare;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute DOMString        name;
           attribute DOMString        standby;
           attribute long             tabIndex;
           attribute DOMString        type;
           attribute DOMString        useMap;
           attribute DOMString        vspace;
           attribute DOMString        width;
  // Introduced in DOM Level 2:
  readonly attribute Document         contentDocument;
};
```

**Attributes**

`align` of type `DOMString`
: Aligns this object (vertically or horizontally) with respect to its surrounding text. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`archive` of type `DOMString`
: Space-separated list of archives. See the archive attribute definition in HTML 4.0.

`border` of type `DOMString`
: Width of border around the object. See the border attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`code` of type `DOMString`
: Applet class file. See the `code` attribute for HTMLAppletElement.

`codeBase` of type `DOMString`
: Base URI for `classid`, `data`, and `archive` attributes. See the codebase attribute definition in HTML 4.0.

`codeType` of type `DOMString`
: Content type for data downloaded via `classid` attribute. See the codetype attribute definition in HTML 4.0.

`contentDocument` of type `Document`, readonly, introduced in **DOM Level 2**
: The document this object contains, if there is any and it is available, or `null` otherwise.

`data` of type `DOMString`
: A URI specifying the location of the object's data. See the data attribute definition in HTML 4.0.

`declare` of type `boolean`
: Declare (for future reference), but do not instantiate, this object. See the declare attribute definition in HTML 4.0.

`form` of type `HTMLFormElement` [p.21] , readonly
: Returns the `FORM` element containing this control. Returns `null` if this control is not within the context of a form.

`height` of type `DOMString`
: Override height. See the height attribute definition in HTML 4.0.

`hspace` of type `DOMString`
: Horizontal space to the left and right of this image, applet, or object. See the hspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`name` of type `DOMString`
: Form control or object name when submitted with a form. See the name attribute definition in HTML 4.0.

`standby` of type `DOMString`
: Message to render while loading the object. See the standby attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element's position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`type` of type `DOMString`
: Content type for data downloaded via `data` attribute. See the type attribute definition in HTML 4.0.

`useMap` of type `DOMString`
: Use client-side image map. See the usemap attribute definition in HTML 4.0.

`vspace` of type `DOMString`
: Vertical space above and below this image, applet, or object. See the vspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`width` of type `DOMString`
: Override width. See the width attribute definition in HTML 4.0.

### Interface *HTMLParamElement*

Parameters fed to the `OBJECT` element. See the PARAM element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLParamElement : HTMLElement {
           attribute DOMString        name;
           attribute DOMString        type;
           attribute DOMString        value;
           attribute DOMString        valueType;
};
```

**Attributes**

`name` of type `DOMString`
: The name of a run-time parameter. See the name attribute definition in HTML 4.0.

`type` of type `DOMString`
: Content type for the `value` attribute when `valuetype` has the value "ref". See the type attribute definition in HTML 4.0.

`value` of type `DOMString`
: The value of a run-time parameter. See the value attribute definition in HTML 4.0.

`valueType` of type `DOMString`
: Information about the meaning of the `value` attribute value. See the valuetype attribute definition in HTML 4.0.

### Interface *HTMLAppletElement*

An embedded Java applet. See the APPLET element definition in HTML 4.0. This element is deprecated in HTML 4.0.

### IDL Definition

```
interface HTMLAppletElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        alt;
           attribute DOMString        archive;
           attribute DOMString        code;
           attribute DOMString        codeBase;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute DOMString        name;
           attribute DOMString        object;
           attribute DOMString        vspace;
           attribute DOMString        width;
};
```

### Attributes

`align` of type `DOMString`
: Aligns this object (vertically or horizontally) with respect to its surrounding text. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`alt` of type `DOMString`
: Alternate text for user agents not rendering the normal content of this element. See the alt attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`archive` of type `DOMString`
: Comma-separated archive list. See the archive attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`code` of type `DOMString`
: Applet class file. See the code attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`codeBase` of type `DOMString`
: Optional base URI for applet. See the codebase attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`height` of type `DOMString`
: Override height. See the height attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`hspace` of type `DOMString`
: Horizontal space to the left and right of this image, applet, or object. See the hspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`name` of type `DOMString`
: The name of the applet. See the name attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`object` of type `DOMString`
: Serialized applet file. See the object attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`vspace` of type `DOMString`
: Vertical space above and below this image, applet, or object. See the vspace attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`width` of type `DOMString`
: Override width. See the width attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLMapElement*

Client-side image map. See the MAP element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLMapElement : HTMLElement {
  readonly attribute HTMLCollection   areas;
           attribute DOMString        name;
};
```

**Attributes**

`areas` of type `HTMLCollection` [p.11] , readonly
: The list of areas defined for the image map.

`name` of type `DOMString`
: Names the map (for use with `usemap`). See the name attribute definition in HTML 4.0.

### Interface *HTMLAreaElement*

Client-side image map area definition. See the AREA element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLAreaElement : HTMLElement {
           attribute DOMString        accessKey;
           attribute DOMString        alt;
           attribute DOMString        coords;
           attribute DOMString        href;
           attribute boolean          noHref;
           attribute DOMString        shape;
           attribute long             tabIndex;
           attribute DOMString        target;
};
```

**Attributes**

`accessKey` of type `DOMString`
: A single character access key to give access to the form control. See the accesskey attribute definition in HTML 4.0.

`alt` of type `DOMString`
: Alternate text for user agents not rendering the normal content of this element. See the alt attribute definition in HTML 4.0.

`coords` of type `DOMString`
: Comma-separated list of lengths, defining an active region geometry. See also `shape` for the shape of the region. See the coords attribute definition in HTML 4.0.

`href` of type `DOMString`
: The URI of the linked resource. See the href attribute definition in HTML 4.0.

`noHref` of type `boolean`
: Specifies that this area is inactive, i.e., has no associated action. See the nohref attribute definition in HTML 4.0.

`shape` of type `DOMString`
: The shape of the active area. The coordinates are given by `coords`. See the shape attribute definition in HTML 4.0.

`tabIndex` of type `long`
: Index that represents the element's position in the tabbing order. See the tabindex attribute definition in HTML 4.0.

`target` of type `DOMString`
: Frame to render the resource in. See the target attribute definition in HTML 4.0.

### Interface *HTMLScriptElement*

Script statements. See the SCRIPT element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLScriptElement : HTMLElement {
           attribute DOMString        text;
           attribute DOMString        htmlFor;
           attribute DOMString        event;
           attribute DOMString        charset;
           attribute boolean          defer;
           attribute DOMString        src;
           attribute DOMString        type;
};
```

**Attributes**

`charset` of type `DOMString`
: The character encoding of the linked resource. See the charset attribute definition in HTML 4.0.

`defer` of type `boolean`
: Indicates that the user agent can defer processing of the script. See the defer attribute definition in HTML 4.0.

`event` of type `DOMString`
*Reserved for future use.*

`htmlFor` of type `DOMString`
*Reserved for future use.*

`src` of type `DOMString`
URI designating an external script. See the src attribute definition in HTML 4.0.

`text` of type `DOMString`
The script content of the element.

`type` of type `DOMString`
The content type of the script language. See the type attribute definition in HTML 4.0.

### Interface *HTMLTableElement*

The create* and delete* methods on the table allow authors to construct and modify tables. HTML 4.0 specifies that only one of each of the `CAPTION`, `THEAD`, and `TFOOT` elements may exist in a table. Therefore, if one exists, and the createTHead() or createTFoot() method is called, the method returns the existing THead or TFoot element. See the TABLE element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTableElement : HTMLElement {
           attribute HTMLTableCaptionElement  caption;
           attribute HTMLTableSectionElement  tHead;
           attribute HTMLTableSectionElement  tFoot;
  readonly attribute HTMLCollection   rows;
  readonly attribute HTMLCollection   tBodies;
           attribute DOMString        align;
           attribute DOMString        bgColor;
           attribute DOMString        border;
           attribute DOMString        cellPadding;
           attribute DOMString        cellSpacing;
           attribute DOMString        frame;
           attribute DOMString        rules;
           attribute DOMString        summary;
           attribute DOMString        width;
  HTMLElement        createTHead();
  void               deleteTHead();
  HTMLElement        createTFoot();
  void               deleteTFoot();
  HTMLElement        createCaption();
  void               deleteCaption();
  HTMLElement        insertRow(in long index)
                                       raises(DOMException);
  void               deleteRow(in long index)
                                       raises(DOMException);
};
```

**Attributes**

`align` of type `DOMString`
: Specifies the table's position with respect to the rest of the document. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`bgColor` of type `DOMString`
: Cell background color. See the bgcolor attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`border` of type `DOMString`
: The width of the border around the table. See the border attribute definition in HTML 4.0.

`caption` of type `HTMLTableCaptionElement` [p.51]
: Returns the table's `CAPTION`, or void if none exists.

`cellPadding` of type `DOMString`
: Specifies the horizontal and vertical space between cell content and cell borders. See the cellpadding attribute definition in HTML 4.0.

`cellSpacing` of type `DOMString`
: Specifies the horizontal and vertical separation between cells. See the cellspacing attribute definition in HTML 4.0.

`frame` of type `DOMString`
: Specifies which external table borders to render. See the frame attribute definition in HTML 4.0.

`rows` of type `HTMLCollection` [p.11] , readonly
: Returns a collection of all the rows in the table, including all in `THEAD`, `TFOOT`, all `TBODY` elements.

`rules` of type `DOMString`
: Specifies which internal table borders to render. See the rules attribute definition in HTML 4.0.

`summary` of type `DOMString`
: Description about the purpose or structure of a table. See the summary attribute definition in HTML 4.0.

`tBodies` of type `HTMLCollection` [p.11] , readonly
: Returns a collection of the defined table bodies.

`tFoot` of type `HTMLTableSectionElement` [p.52]
: Returns the table's `TFOOT`, or `null` if none exists.

`tHead` of type `HTMLTableSectionElement` [p.52]
: Returns the table's `THEAD`, or `null` if none exists.

`width` of type `DOMString`
Specifies the desired table width. See the width attribute definition in HTML 4.0.

**Methods**

`createCaption`
Create a new table caption object or return an existing one.
**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | A `CAPTION` element. |

**No Parameters**
**No Exceptions**

`createTFoot`
Create a table footer row or return an existing one.
**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | A footer element (`TFOOT`). |

**No Parameters**
**No Exceptions**

`createTHead`
Create a table header row or return an existing one.
**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | A new table header element (`THEAD`). |

**No Parameters**
**No Exceptions**

`deleteCaption`
Delete the table caption, if one exists.

**No Parameters**
**No Return Value**
**No Exceptions**

`deleteRow`
Delete a table row.
**Parameters**
`index` of type `long`
The index of the row to be deleted. This index starts from 0 and is relative to all the rows contained inside the table, regardless of section parentage.

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified index is greater than or equal to the number of rows or if the index is negative. |

**No Return Value**

`deleteTFoot`
Delete the footer from the table, if one exists.

**No Parameters**
**No Return Value**
**No Exceptions**

`deleteTHead`
Delete the header from the table, if one exists.

**No Parameters**
**No Return Value**
**No Exceptions**

`insertRow`
Insert a new empty row in the table. The new row is inserted immediately before and in the same section as the current `index`th row in the table. If `index` is equal to the number of rows, the new row is appended. In addition, when the table is empty the row is inserted into a `TBODY` which is created and inserted into the table. *Note.* A table row cannot be empty according to HTML 4.0 Recommendation.
**Parameters**
`index` of type `long`
The row number where to insert a new row. This index starts from 0 and is relative to all the rows contained inside the table, regardless of section parentage.

**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | The newly created row. |

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified index is greater than the number of rows or if the index is negative. |

**Interface *HTMLTableCaptionElement***

Table caption See the CAPTION element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTableCaptionElement : HTMLElement {
           attribute DOMString        align;
};
```

**Attributes**

`align` of type `DOMString`

Caption alignment with respect to the table. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLTableColElement*

Regroups the `COL` and `COLGROUP` elements. See the COL element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTableColElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute long             span;
           attribute DOMString        vAlign;
           attribute DOMString        width;
};
```

**Attributes**

`align` of type `DOMString`

Horizontal alignment of cell data in column. See the align attribute definition in HTML 4.0.

`ch` of type `DOMString`

Alignment character for cells in a column. See the char attribute definition in HTML 4.0.

`chOff` of type `DOMString`

Offset of alignment character. See the charoff attribute definition in HTML 4.0.

`span` of type `long`

Indicates the number of columns in a group or affected by a grouping. See the span attribute definition in HTML 4.0.

`vAlign` of type `DOMString`

Vertical alignment of cell data in column. See the valign attribute definition in HTML 4.0.

`width` of type `DOMString`

Default column width. See the width attribute definition in HTML 4.0.

### Interface *HTMLTableSectionElement*

The `THEAD`, `TFOOT`, and `TBODY` elements.

### IDL Definition

```
interface HTMLTableSectionElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute DOMString        vAlign;
  readonly attribute HTMLCollection   rows;
  HTMLElement        insertRow(in long index)
                                        raises(DOMException);
  void               deleteRow(in long index)
                                        raises(DOMException);
};
```

### Attributes

`align` of type `DOMString`

Horizontal alignment of data in cells. See the `align` attribute for HTMLTheadElement for details.

`ch` of type `DOMString`

Alignment character for cells in a column. See the char attribute definition in HTML 4.0.

`chOff` of type `DOMString`

Offset of alignment character. See the charoff attribute definition in HTML 4.0.

`rows` of type `HTMLCollection` [p.11] , readonly

The collection of rows in this table section.

`vAlign` of type `DOMString`

Vertical alignment of data in cells. See the `valign` attribute for HTMLTheadElement for details.

### Methods

`deleteRow`

Delete a row from this section.

**Parameters**

`index` of type `long`

The index of the row to be deleted. This index starts from 0 and is relative only to the rows contained inside this section, not all the rows in the table.

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified index is greater than or equal to the number of rows or if the index is negative. |

**No Return Value**

`insertRow`

Insert a row into this section. The new row is inserted immediately before the current `index`th row in this section. If `index` is equal to the number of rows in this section, the new row is appended.

**Parameters**

`index` of type `long`

The row number where to insert a new row. This index starts from 0 and is relative only to the rows contained inside this section, not all the rows in the table.

**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | The newly created row. |

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified index is greater than the number of rows of if the index is neagative. |

## Interface *HTMLTableRowElement*

A row in a table. See the TR element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTableRowElement : HTMLElement {
  readonly attribute long             rowIndex;
  readonly attribute long             sectionRowIndex;
  readonly attribute HTMLCollection   cells;
           attribute DOMString        align;
           attribute DOMString        bgColor;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute DOMString        vAlign;
  HTMLElement        insertCell(in long index)
                                        raises(DOMException);
  void               deleteCell(in long index)
                                        raises(DOMException);
};
```

**Attributes**

`align` of type `DOMString`

Horizontal alignment of data within cells of this row. See the align attribute definition in HTML 4.0.

`bgColor` of type `DOMString`

Background color for rows. See the bgcolor attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`cells` of type `HTMLCollection` [p.11] , readonly
The collection of cells in this row.

`ch` of type `DOMString`
Alignment character for cells in a column. See the char attribute definition in HTML 4.0.

`chOff` of type `DOMString`
Offset of alignment character. See the charoff attribute definition in HTML 4.0.

`rowIndex` of type `long`, readonly
The index of this row, relative to the entire table, starting from 0. This is in document tree order and not display order. The `rowIndex` does not take into account sections (`THEAD`, `TFOOT`, or `TBODY`) within the table.

`sectionRowIndex` of type `long`, readonly
The index of this row, relative to the current section (`THEAD`, `TFOOT`, or `TBODY`), starting from 0.

`vAlign` of type `DOMString`
Vertical alignment of data within cells of this row. See the valign attribute definition in HTML 4.0.

**Methods**

`deleteCell`
Delete a cell from the current row.
**Parameters**
`index` of type `long`
The index of the cell to delete, starting from 0.

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified `index` is greater than or equal to the number of cells or if the index is negative. |

**No Return Value**

`insertCell`
Insert an empty `TD` cell into this row. If `index` is equal to the number of cells, the new cell is appended.
**Parameters**
`index` of type `long`
The place to insert the cell, starting from 0.

**Return Value**

| | |
|---|---|
| `HTMLElement` [p.16] | The newly created cell. |

**Exceptions**

| | |
|---|---|
| `DOMException` | INDEX_SIZE_ERR: Raised if the specified `index` is greater than the number of cells or if the index is negative. |

### Interface *HTMLTableCellElement*

The object used to represent the `TH` and `TD` elements. See the TD element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLTableCellElement : HTMLElement {
  readonly attribute long             cellIndex;
           attribute DOMString        abbr;
           attribute DOMString        align;
           attribute DOMString        axis;
           attribute DOMString        bgColor;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute long             colSpan;
           attribute DOMString        headers;
           attribute DOMString        height;
           attribute boolean          noWrap;
           attribute long             rowSpan;
           attribute DOMString        scope;
           attribute DOMString        vAlign;
           attribute DOMString        width;
};
```

**Attributes**

`abbr` of type `DOMString`
: Abbreviation for header cells. See the abbr attribute definition in HTML 4.0.

`align` of type `DOMString`
: Horizontal alignment of data in cell. See the align attribute definition in HTML 4.0.

`axis` of type `DOMString`
: Names group of related headers. See the axis attribute definition in HTML 4.0.

`bgColor` of type `DOMString`
: Cell background color. See the bgcolor attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`cellIndex` of type `long`, readonly
: The index of this cell in the row, starting from 0. This index is in document tree order and not display order.

`ch` of type `DOMString`
: Alignment character for cells in a column. See the char attribute definition in HTML 4.0.

`chOff` of type `DOMString`
: Offset of alignment character. See the charoff attribute definition in HTML 4.0.

`colSpan` of type `long`
: Number of columns spanned by cell. See the colspan attribute definition in HTML 4.0.

`headers` of type `DOMString`
: List of `id` attribute values for header cells. See the headers attribute definition in HTML 4.0.

`height` of type `DOMString`
: Cell height. See the height attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`noWrap` of type `boolean`
: Suppress word wrapping. See the nowrap attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`rowSpan` of type `long`
: Number of rows spanned by cell. See the rowspan attribute definition in HTML 4.0.

`scope` of type `DOMString`
: Scope covered by header cells. See the scope attribute definition in HTML 4.0.

`vAlign` of type `DOMString`
: Vertical alignment of data in cell. See the valign attribute definition in HTML 4.0.

`width` of type `DOMString`
: Cell width. See the width attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

### Interface *HTMLFrameSetElement*

Create a grid of frames. See the FRAMESET element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLFrameSetElement : HTMLElement {
           attribute DOMString        cols;
           attribute DOMString        rows;
};
```

**Attributes**

`cols` of type `DOMString`
: The number of columns of frames in the frameset. See the cols attribute definition in HTML 4.0.

`rows` of type `DOMString`
: The number of rows of frames in the frameset. See the rows attribute definition in HTML 4.0.

### Interface *HTMLFrameElement*

Create a frame. See the FRAME element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLFrameElement : HTMLElement {
           attribute DOMString        frameBorder;
           attribute DOMString        longDesc;
           attribute DOMString        marginHeight;
           attribute DOMString        marginWidth;
           attribute DOMString        name;
           attribute boolean          noResize;
           attribute DOMString        scrolling;
           attribute DOMString        src;
  // Introduced in DOM Level 2:
  readonly attribute Document         contentDocument;
};
```

**Attributes**

`contentDocument` of type `Document`, readonly, introduced in **DOM Level 2**
: The document this frame contains, if there is any and it is available, or `null` otherwise.

`frameBorder` of type `DOMString`
: Request frame borders. See the frameborder attribute definition in HTML 4.0.

`longDesc` of type `DOMString`
: URI designating a long description of this image or frame. See the longdesc attribute definition in HTML 4.0.

`marginHeight` of type `DOMString`
: Frame margin height, in pixels. See the marginheight attribute definition in HTML 4.0.

`marginWidth` of type `DOMString`
: Frame margin width, in pixels. See the marginwidth attribute definition in HTML 4.0.

`name` of type `DOMString`
: The frame name (object of the `target` attribute). See the name attribute definition in HTML 4.0.

`noResize` of type `boolean`
: When true, forbid user from resizing frame. See the noresize attribute definition in HTML 4.0.

`scrolling` of type `DOMString`
: Specify whether or not the frame should have scrollbars. See the scrolling attribute definition in HTML 4.0.

`src` of type `DOMString`
: A URI designating the initial frame contents. See the src attribute definition in HTML 4.0.

### Interface *HTMLIFrameElement*

Inline subwindows. See the IFRAME element definition in HTML 4.0.

**IDL Definition**

```
interface HTMLIFrameElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        frameBorder;
           attribute DOMString        height;
           attribute DOMString        longDesc;
           attribute DOMString        marginHeight;
           attribute DOMString        marginWidth;
           attribute DOMString        name;
           attribute DOMString        scrolling;
           attribute DOMString        src;
           attribute DOMString        width;
  // Introduced in DOM Level 2:
  readonly attribute Document         contentDocument;
};
```

**Attributes**

`align` of type `DOMString`
: Aligns this object (vertically or horizontally) with respect to its surrounding text. See the align attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0.

`contentDocument` of type `Document`, readonly, introduced in **DOM Level 2**
: The document this frame contains, if there is any and it is available, or `null` otherwise.

`frameBorder` of type `DOMString`
: Request frame borders. See the frameborder attribute definition in HTML 4.0.

`height` of type `DOMString`
: Frame height. See the height attribute definition in HTML 4.0.

`longDesc` of type `DOMString`
: URI designating a long description of this image or frame. See the longdesc attribute definition in HTML 4.0.

`marginHeight` of type `DOMString`
: Frame margin height, in pixels. See the marginheight attribute definition in HTML 4.0.

`marginWidth` of type `DOMString`
: Frame margin width, in pixels. See the marginwidth attribute definition in HTML 4.0.

`name` of type `DOMString`
: The frame name (object of the `target` attribute). See the name attribute definition in HTML 4.0.

`scrolling` of type `DOMString`
: Specify whether or not the frame should have scrollbars. See the scrolling attribute definition in HTML 4.0.

`src` of type `DOMString`
: A URI designating the initial frame contents. See the src attribute definition in HTML 4.0.

`width` of type `DOMString`
: Frame width. See the width attribute definition in HTML 4.0.

# Appendix A: Changes

*Editors*
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## A.1: Changes between DOM Level 1 and DOM Level 2

### A.1.1: Changes to DOM Level 1 interfaces and exceptions

**Interface `HTMLDocument` [p.12]**
the method `getElementById` is now inherited from the `Document` interface [DOM Level 2 Core] where it was moved.

**Interface `HTMLFrameElement` [p.58]**
the attribute `contentDocument` was added.

**Interface `HTMLIFrameElement` [p.59]**
the attribute `contentDocument` was added.

**Interface `HTMLInputElement` [p.26]**
the attribute `type` is no longer read only.

**Interface `HTMLObjectElement` [p.42]**
the attribute `contentDocument` was added.

**Interface `HTMLObjectElement` [p.42]**
the attribute `contentDocument` was added.

### A.1.2: New Interfaces

**Interface `HTMLDOMImplementation` [p.10]**
The `HTMLDOMImplementation` [p.10] interface was added to the HTML module.

# Appendix B: IDL Definitions

This appendix contains the complete OMG IDL [OMGIDL] for the Level 2 Document Object Model HTML definitions.

Unfortunately the OMG IDL in this binding is not compliant because of problems in the validator that was used to validate Level 1. The `readOnly` attribute on the `HTMLInputElement` [p.26] and `HTMLTextAreaElement` [p.29] interfaces, as well as the `object` attribute on the `HTMLAppletElement` [p.44] interface, are not compliant with OMG IDL 2.2. The `valueType` attribute on the `HTMLParamElement` [p.44] interface is not compliant with OMG IDL 2.3, which hadn't been released when DOM Level 1 was published.

The IDL files are also available as:
http://www.w3.org/TR/2000/PR-DOM-Level-2-HTML-20000927/idl.zip

## html.idl:

```
// File: html.idl

#ifndef _HTML_IDL_
#define _HTML_IDL_

#include "dom.idl"

#pragma prefix "dom.w3c.org"
module html
{

  typedef dom::DOMString DOMString;
  typedef dom::Node Node;
  typedef dom::DOMImplementation DOMImplementation;
  typedef dom::Document Document;
  typedef dom::NodeList NodeList;
  typedef dom::Element Element;

  interface HTMLDocument;
  interface HTMLElement;
  interface HTMLFormElement;
  interface HTMLTableCaptionElement;
  interface HTMLTableSectionElement;

  interface HTMLCollection {
    readonly attribute unsigned long    length;
    Node               item(in unsigned long index);
    Node               namedItem(in DOMString name);
  };

  // Introduced in DOM Level 2:
  interface HTMLDOMImplementation : DOMImplementation {
    HTMLDocument       createHTMLDocument(in DOMString title);
  };

  interface HTMLDocument : Document {
```

```
           attribute DOMString        title;
  readonly attribute DOMString        referrer;
  readonly attribute DOMString        domain;
  readonly attribute DOMString        URL;
           attribute HTMLElement      body;
  readonly attribute HTMLCollection   images;
  readonly attribute HTMLCollection   applets;
  readonly attribute HTMLCollection   links;
  readonly attribute HTMLCollection   forms;
  readonly attribute HTMLCollection   anchors;
           attribute DOMString        cookie;
  void                open();
  void                close();
  void                write(in DOMString text);
  void                writeln(in DOMString text);
  NodeList            getElementsByName(in DOMString elementName);
};

interface HTMLElement : Element {
           attribute DOMString        id;
           attribute DOMString        title;
           attribute DOMString        lang;
           attribute DOMString        dir;
           attribute DOMString        className;
};

interface HTMLHtmlElement : HTMLElement {
           attribute DOMString        version;
};

interface HTMLHeadElement : HTMLElement {
           attribute DOMString        profile;
};

interface HTMLLinkElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        charset;
           attribute DOMString        href;
           attribute DOMString        hreflang;
           attribute DOMString        media;
           attribute DOMString        rel;
           attribute DOMString        rev;
           attribute DOMString        target;
           attribute DOMString        type;
};

interface HTMLTitleElement : HTMLElement {
           attribute DOMString        text;
};

interface HTMLMetaElement : HTMLElement {
           attribute DOMString        content;
           attribute DOMString        httpEquiv;
           attribute DOMString        name;
           attribute DOMString        scheme;
};
```

```
interface HTMLBaseElement : HTMLElement {
           attribute DOMString        href;
           attribute DOMString        target;
};

interface HTMLIsIndexElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        prompt;
};

interface HTMLStyleElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        media;
           attribute DOMString        type;
};

interface HTMLBodyElement : HTMLElement {
           attribute DOMString        aLink;
           attribute DOMString        background;
           attribute DOMString        bgColor;
           attribute DOMString        link;
           attribute DOMString        text;
           attribute DOMString        vLink;
};

interface HTMLFormElement : HTMLElement {
  readonly attribute HTMLCollection   elements;
  readonly attribute long             length;
           attribute DOMString        name;
           attribute DOMString        acceptCharset;
           attribute DOMString        action;
           attribute DOMString        enctype;
           attribute DOMString        method;
           attribute DOMString        target;
  void               submit();
  void               reset();
};

interface HTMLSelectElement : HTMLElement {
  readonly attribute DOMString        type;
           attribute long             selectedIndex;
           attribute DOMString        value;
  readonly attribute long             length;
  readonly attribute HTMLFormElement  form;
  readonly attribute HTMLCollection   options;
           attribute boolean          disabled;
           attribute boolean          multiple;
           attribute DOMString        name;
           attribute long             size;
           attribute long             tabIndex;
  void               add(in HTMLElement element,
                         in HTMLElement before)
                                      raises(dom::DOMException);
  void               remove(in long index);
  void               blur();
  void               focus();
};
```

```
interface HTMLOptGroupElement : HTMLElement {
           attribute boolean          disabled;
           attribute DOMString        label;
};

interface HTMLOptionElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute boolean          defaultSelected;
  readonly attribute DOMString        text;
  readonly attribute long             index;
           attribute boolean          disabled;
           attribute DOMString        label;
           attribute boolean          selected;
           attribute DOMString        value;
};

interface HTMLInputElement : HTMLElement {
           attribute DOMString        defaultValue;
           attribute boolean          defaultChecked;
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accept;
           attribute DOMString        accessKey;
           attribute DOMString        align;
           attribute DOMString        alt;
           attribute boolean          checked;
           attribute boolean          disabled;
           attribute long             maxLength;
           attribute DOMString        name;
           attribute boolean          readOnly;
           attribute DOMString        size;
           attribute DOMString        src;
           attribute long             tabIndex;
  // Modified in DOM Level 2:
           attribute DOMString        type;
           attribute DOMString        useMap;
           attribute DOMString        value;
  void               blur();
  void               focus();
  void               select();
  void               click();
};

interface HTMLTextAreaElement : HTMLElement {
           attribute DOMString        defaultValue;
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute long             cols;
           attribute boolean          disabled;
           attribute DOMString        name;
           attribute boolean          readOnly;
           attribute long             rows;
           attribute long             tabIndex;
  readonly attribute DOMString        type;
           attribute DOMString        value;
  void               blur();
  void               focus();
```

```
  void               select();
};

interface HTMLButtonElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute boolean          disabled;
           attribute DOMString        name;
           attribute long             tabIndex;
  readonly attribute DOMString        type;
           attribute DOMString        value;
};

interface HTMLLabelElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute DOMString        htmlFor;
};

interface HTMLFieldSetElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
};

interface HTMLLegendElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        accessKey;
           attribute DOMString        align;
};

interface HTMLUListElement : HTMLElement {
           attribute boolean          compact;
           attribute DOMString        type;
};

interface HTMLOListElement : HTMLElement {
           attribute boolean          compact;
           attribute long             start;
           attribute DOMString        type;
};

interface HTMLDListElement : HTMLElement {
           attribute boolean          compact;
};

interface HTMLDirectoryElement : HTMLElement {
           attribute boolean          compact;
};

interface HTMLMenuElement : HTMLElement {
           attribute boolean          compact;
};

interface HTMLLIElement : HTMLElement {
           attribute DOMString        type;
           attribute long             value;
};
```

```
interface HTMLDivElement : HTMLElement {
           attribute DOMString        align;
};

interface HTMLParagraphElement : HTMLElement {
           attribute DOMString        align;
};

interface HTMLHeadingElement : HTMLElement {
           attribute DOMString        align;
};

interface HTMLQuoteElement : HTMLElement {
           attribute DOMString        cite;
};

interface HTMLPreElement : HTMLElement {
           attribute long             width;
};

interface HTMLBRElement : HTMLElement {
           attribute DOMString        clear;
};

interface HTMLBaseFontElement : HTMLElement {
           attribute DOMString        color;
           attribute DOMString        face;
           attribute DOMString        size;
};

interface HTMLFontElement : HTMLElement {
           attribute DOMString        color;
           attribute DOMString        face;
           attribute DOMString        size;
};

interface HTMLHRElement : HTMLElement {
           attribute DOMString        align;
           attribute boolean          noShade;
           attribute DOMString        size;
           attribute DOMString        width;
};

interface HTMLModElement : HTMLElement {
           attribute DOMString        cite;
           attribute DOMString        dateTime;
};

interface HTMLAnchorElement : HTMLElement {
           attribute DOMString        accessKey;
           attribute DOMString        charset;
           attribute DOMString        coords;
           attribute DOMString        href;
           attribute DOMString        hreflang;
           attribute DOMString        name;
           attribute DOMString        rel;
           attribute DOMString        rev;
```

```
           attribute DOMString        shape;
           attribute long             tabIndex;
           attribute DOMString        target;
           attribute DOMString        type;
  void               blur();
  void               focus();
};

interface HTMLImageElement : HTMLElement {
           attribute DOMString        lowSrc;
           attribute DOMString        name;
           attribute DOMString        align;
           attribute DOMString        alt;
           attribute DOMString        border;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute boolean          isMap;
           attribute DOMString        longDesc;
           attribute DOMString        src;
           attribute DOMString        useMap;
           attribute DOMString        vspace;
           attribute DOMString        width;
};

interface HTMLObjectElement : HTMLElement {
  readonly attribute HTMLFormElement  form;
           attribute DOMString        code;
           attribute DOMString        align;
           attribute DOMString        archive;
           attribute DOMString        border;
           attribute DOMString        codeBase;
           attribute DOMString        codeType;
           attribute DOMString        data;
           attribute boolean          declare;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute DOMString        name;
           attribute DOMString        standby;
           attribute long             tabIndex;
           attribute DOMString        type;
           attribute DOMString        useMap;
           attribute DOMString        vspace;
           attribute DOMString        width;
  // Introduced in DOM Level 2:
  readonly attribute Document         contentDocument;
};

interface HTMLParamElement : HTMLElement {
           attribute DOMString        name;
           attribute DOMString        type;
           attribute DOMString        value;
           attribute DOMString        valueType;
};

interface HTMLAppletElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        alt;
```

```
           attribute DOMString        archive;
           attribute DOMString        code;
           attribute DOMString        codeBase;
           attribute DOMString        height;
           attribute DOMString        hspace;
           attribute DOMString        name;
           attribute DOMString        object;
           attribute DOMString        vspace;
           attribute DOMString        width;
};

interface HTMLMapElement : HTMLElement {
  readonly attribute HTMLCollection   areas;
           attribute DOMString        name;
};

interface HTMLAreaElement : HTMLElement {
           attribute DOMString        accessKey;
           attribute DOMString        alt;
           attribute DOMString        coords;
           attribute DOMString        href;
           attribute boolean          noHref;
           attribute DOMString        shape;
           attribute long             tabIndex;
           attribute DOMString        target;
};

interface HTMLScriptElement : HTMLElement {
           attribute DOMString        text;
           attribute DOMString        htmlFor;
           attribute DOMString        event;
           attribute DOMString        charset;
           attribute boolean          defer;
           attribute DOMString        src;
           attribute DOMString        type;
};

interface HTMLTableElement : HTMLElement {
           attribute HTMLTableCaptionElement  caption;
           attribute HTMLTableSectionElement  tHead;
           attribute HTMLTableSectionElement  tFoot;
  readonly attribute HTMLCollection   rows;
  readonly attribute HTMLCollection   tBodies;
           attribute DOMString        align;
           attribute DOMString        bgColor;
           attribute DOMString        border;
           attribute DOMString        cellPadding;
           attribute DOMString        cellSpacing;
           attribute DOMString        frame;
           attribute DOMString        rules;
           attribute DOMString        summary;
           attribute DOMString        width;
  HTMLElement        createTHead();
  void               deleteTHead();
  HTMLElement        createTFoot();
  void               deleteTFoot();
  HTMLElement        createCaption();
```

```
  void               deleteCaption();
  HTMLElement        insertRow(in long index)
                                    raises(dom::DOMException);
  void               deleteRow(in long index)
                                    raises(dom::DOMException);
};

interface HTMLTableCaptionElement : HTMLElement {
           attribute DOMString        align;
};

interface HTMLTableColElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute long             span;
           attribute DOMString        vAlign;
           attribute DOMString        width;
};

interface HTMLTableSectionElement : HTMLElement {
           attribute DOMString        align;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute DOMString        vAlign;
  readonly attribute HTMLCollection   rows;
  HTMLElement        insertRow(in long index)
                                    raises(dom::DOMException);
  void               deleteRow(in long index)
                                    raises(dom::DOMException);
};

interface HTMLTableRowElement : HTMLElement {
  readonly attribute long             rowIndex;
  readonly attribute long             sectionRowIndex;
  readonly attribute HTMLCollection   cells;
           attribute DOMString        align;
           attribute DOMString        bgColor;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute DOMString        vAlign;
  HTMLElement        insertCell(in long index)
                                    raises(dom::DOMException);
  void               deleteCell(in long index)
                                    raises(dom::DOMException);
};

interface HTMLTableCellElement : HTMLElement {
  readonly attribute long             cellIndex;
           attribute DOMString        abbr;
           attribute DOMString        align;
           attribute DOMString        axis;
           attribute DOMString        bgColor;
           attribute DOMString        ch;
           attribute DOMString        chOff;
           attribute long             colSpan;
           attribute DOMString        headers;
```

```
            attribute DOMString        height;
            attribute boolean          noWrap;
            attribute long             rowSpan;
            attribute DOMString        scope;
            attribute DOMString        vAlign;
            attribute DOMString        width;
  };

  interface HTMLFrameSetElement : HTMLElement {
            attribute DOMString        cols;
            attribute DOMString        rows;
  };

  interface HTMLFrameElement : HTMLElement {
            attribute DOMString        frameBorder;
            attribute DOMString        longDesc;
            attribute DOMString        marginHeight;
            attribute DOMString        marginWidth;
            attribute DOMString        name;
            attribute boolean          noResize;
            attribute DOMString        scrolling;
            attribute DOMString        src;
    // Introduced in DOM Level 2:
    readonly attribute Document         contentDocument;
  };

  interface HTMLIFrameElement : HTMLElement {
            attribute DOMString        align;
            attribute DOMString        frameBorder;
            attribute DOMString        height;
            attribute DOMString        longDesc;
            attribute DOMString        marginHeight;
            attribute DOMString        marginWidth;
            attribute DOMString        name;
            attribute DOMString        scrolling;
            attribute DOMString        src;
            attribute DOMString        width;
    // Introduced in DOM Level 2:
    readonly attribute Document         contentDocument;
  };
};

#endif // _HTML_IDL_
```

# Appendix C: Java Language Binding

This appendix contains the complete Java [Java] bindings for the Level 2 Document Object Model HTML.

The Java files are also available as http://www.w3.org/TR/2000/PR-DOM-Level-2-HTML-20000927/java-binding.zip

## org/w3c/dom/html/HTMLDOMImplementation.java:

```
package org.w3c.dom.html;

import org.w3c.dom.DOMImplementation;

public interface HTMLDOMImplementation extends DOMImplementation {
    public HTMLDocument createHTMLDocument(String title);

}
```

## org/w3c/dom/html/HTMLCollection.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Node;

public interface HTMLCollection {
    public int getLength();

    public Node item(int index);

    public Node namedItem(String name);

}
```

## org/w3c/dom/html/HTMLDocument.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Document;
import org.w3c.dom.NodeList;

public interface HTMLDocument extends Document {
    public String getTitle();
    public void setTitle(String title);

    public String getReferrer();

    public String getDomain();

    public String getURL();

    public HTMLElement getBody();
    public void setBody(HTMLElement body);
```

```
    public HTMLCollection getImages();

    public HTMLCollection getApplets();

    public HTMLCollection getLinks();

    public HTMLCollection getForms();

    public HTMLCollection getAnchors();

    public String getCookie();
    public void setCookie(String cookie);

    public void open();

    public void close();

    public void write(String text);

    public void writeln(String text);

    public NodeList getElementsByName(String elementName);

}
```

## org/w3c/dom/html/HTMLElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Element;

public interface HTMLElement extends Element {
    public String getId();
    public void setId(String id);

    public String getTitle();
    public void setTitle(String title);

    public String getLang();
    public void setLang(String lang);

    public String getDir();
    public void setDir(String dir);

    public String getClassName();
    public void setClassName(String className);

}
```

## org/w3c/dom/html/HTMLHtmlElement.java:

```
package org.w3c.dom.html;

public interface HTMLHtmlElement extends HTMLElement {
    public String getVersion();
    public void setVersion(String version);

}
```

## org/w3c/dom/html/HTMLHeadElement.java:

```
package org.w3c.dom.html;

public interface HTMLHeadElement extends HTMLElement {
    public String getProfile();
    public void setProfile(String profile);

}
```

## org/w3c/dom/html/HTMLLinkElement.java:

```
package org.w3c.dom.html;

public interface HTMLLinkElement extends HTMLElement {
    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getCharset();
    public void setCharset(String charset);

    public String getHref();
    public void setHref(String href);

    public String getHreflang();
    public void setHreflang(String hreflang);

    public String getMedia();
    public void setMedia(String media);

    public String getRel();
    public void setRel(String rel);

    public String getRev();
    public void setRev(String rev);

    public String getTarget();
    public void setTarget(String target);

    public String getType();
    public void setType(String type);

}
```

## org/w3c/dom/html/HTMLTitleElement.java:

```
package org.w3c.dom.html;

public interface HTMLTitleElement extends HTMLElement {
    public String getText();
    public void setText(String text);

}
```

## org/w3c/dom/html/HTMLMetaElement.java:

```
package org.w3c.dom.html;

public interface HTMLMetaElement extends HTMLElement {
    public String getContent();
    public void setContent(String content);

    public String getHttpEquiv();
    public void setHttpEquiv(String httpEquiv);

    public String getName();
    public void setName(String name);

    public String getScheme();
    public void setScheme(String scheme);

}
```

## org/w3c/dom/html/HTMLBaseElement.java:

```
package org.w3c.dom.html;

public interface HTMLBaseElement extends HTMLElement {
    public String getHref();
    public void setHref(String href);

    public String getTarget();
    public void setTarget(String target);

}
```

## org/w3c/dom/html/HTMLIsIndexElement.java:

```
package org.w3c.dom.html;

public interface HTMLIsIndexElement extends HTMLElement {
    public HTMLFormElement getForm();

    public String getPrompt();
    public void setPrompt(String prompt);

}
```

## org/w3c/dom/html/HTMLStyleElement.java:

```
package org.w3c.dom.html;

public interface HTMLStyleElement extends HTMLElement {
    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getMedia();
    public void setMedia(String media);

    public String getType();
    public void setType(String type);

}
```

## org/w3c/dom/html/HTMLBodyElement.java:

```
package org.w3c.dom.html;

public interface HTMLBodyElement extends HTMLElement {
    public String getALink();
    public void setALink(String aLink);

    public String getBackground();
    public void setBackground(String background);

    public String getBgColor();
    public void setBgColor(String bgColor);

    public String getLink();
    public void setLink(String link);

    public String getText();
    public void setText(String text);

    public String getVLink();
    public void setVLink(String vLink);

}
```

## org/w3c/dom/html/HTMLFormElement.java:

```
package org.w3c.dom.html;

public interface HTMLFormElement extends HTMLElement {
    public HTMLCollection getElements();

    public int getLength();

    public String getName();
    public void setName(String name);

    public String getAcceptCharset();
    public void setAcceptCharset(String acceptCharset);
```

```
    public String getAction();
    public void setAction(String action);

    public String getEnctype();
    public void setEnctype(String enctype);

    public String getMethod();
    public void setMethod(String method);

    public String getTarget();
    public void setTarget(String target);

    public void submit();

    public void reset();

}
```

## org/w3c/dom/html/HTMLSelectElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.DOMException;

public interface HTMLSelectElement extends HTMLElement {
    public String getType();

    public int getSelectedIndex();
    public void setSelectedIndex(int selectedIndex);

    public String getValue();
    public void setValue(String value);

    public int getLength();

    public HTMLFormElement getForm();

    public HTMLCollection getOptions();

    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public boolean getMultiple();
    public void setMultiple(boolean multiple);

    public String getName();
    public void setName(String name);

    public int getSize();
    public void setSize(int size);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public void add(HTMLElement element,
```

```
                    HTMLElement before)
                    throws DOMException;

    public void remove(int index);

    public void blur();

    public void focus();

}
```

## org/w3c/dom/html/HTMLOptGroupElement.java:

```
package org.w3c.dom.html;

public interface HTMLOptGroupElement extends HTMLElement {
    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getLabel();
    public void setLabel(String label);

}
```

## org/w3c/dom/html/HTMLOptionElement.java:

```
package org.w3c.dom.html;

public interface HTMLOptionElement extends HTMLElement {
    public HTMLFormElement getForm();

    public boolean getDefaultSelected();
    public void setDefaultSelected(boolean defaultSelected);

    public String getText();

    public int getIndex();

    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getLabel();
    public void setLabel(String label);

    public boolean getSelected();
    public void setSelected(boolean selected);

    public String getValue();
    public void setValue(String value);

}
```

# org/w3c/dom/html/HTMLInputElement.java:

```
package org.w3c.dom.html;

public interface HTMLInputElement extends HTMLElement {
    public String getDefaultValue();
    public void setDefaultValue(String defaultValue);

    public boolean getDefaultChecked();
    public void setDefaultChecked(boolean defaultChecked);

    public HTMLFormElement getForm();

    public String getAccept();
    public void setAccept(String accept);

    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public String getAlign();
    public void setAlign(String align);

    public String getAlt();
    public void setAlt(String alt);

    public boolean getChecked();
    public void setChecked(boolean checked);

    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public int getMaxLength();
    public void setMaxLength(int maxLength);

    public String getName();
    public void setName(String name);

    public boolean getReadOnly();
    public void setReadOnly(boolean readOnly);

    public String getSize();
    public void setSize(String size);

    public String getSrc();
    public void setSrc(String src);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getType();
    public void setType(String type);

    public String getUseMap();
    public void setUseMap(String useMap);

    public String getValue();
```

```
    public void setValue(String value);

    public void blur();

    public void focus();

    public void select();

    public void click();

}
```

## org/w3c/dom/html/HTMLTextAreaElement.java:

```
package org.w3c.dom.html;

public interface HTMLTextAreaElement extends HTMLElement {
    public String getDefaultValue();
    public void setDefaultValue(String defaultValue);

    public HTMLFormElement getForm();

    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public int getCols();
    public void setCols(int cols);

    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getName();
    public void setName(String name);

    public boolean getReadOnly();
    public void setReadOnly(boolean readOnly);

    public int getRows();
    public void setRows(int rows);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getType();

    public String getValue();
    public void setValue(String value);

    public void blur();

    public void focus();

    public void select();

}
```

## org/w3c/dom/html/HTMLButtonElement.java:

```
package org.w3c.dom.html;

public interface HTMLButtonElement extends HTMLElement {
    public HTMLFormElement getForm();

    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public boolean getDisabled();
    public void setDisabled(boolean disabled);

    public String getName();
    public void setName(String name);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getType();

    public String getValue();
    public void setValue(String value);

}
```

## org/w3c/dom/html/HTMLLabelElement.java:

```
package org.w3c.dom.html;

public interface HTMLLabelElement extends HTMLElement {
    public HTMLFormElement getForm();

    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public String getHtmlFor();
    public void setHtmlFor(String htmlFor);

}
```

## org/w3c/dom/html/HTMLFieldSetElement.java:

```
package org.w3c.dom.html;

public interface HTMLFieldSetElement extends HTMLElement {
    public HTMLFormElement getForm();

}
```

## org/w3c/dom/html/HTMLLegendElement.java:

```
package org.w3c.dom.html;

public interface HTMLLegendElement extends HTMLElement {
    public HTMLFormElement getForm();

    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public String getAlign();
    public void setAlign(String align);

}
```

## org/w3c/dom/html/HTMLUListElement.java:

```
package org.w3c.dom.html;

public interface HTMLUListElement extends HTMLElement {
    public boolean getCompact();
    public void setCompact(boolean compact);

    public String getType();
    public void setType(String type);

}
```

## org/w3c/dom/html/HTMLOListElement.java:

```
package org.w3c.dom.html;

public interface HTMLOListElement extends HTMLElement {
    public boolean getCompact();
    public void setCompact(boolean compact);

    public int getStart();
    public void setStart(int start);

    public String getType();
    public void setType(String type);

}
```

## org/w3c/dom/html/HTMLDListElement.java:

```
package org.w3c.dom.html;

public interface HTMLDListElement extends HTMLElement {
    public boolean getCompact();
    public void setCompact(boolean compact);

}
```

## org/w3c/dom/html/HTMLDirectoryElement.java:

```
package org.w3c.dom.html;

public interface HTMLDirectoryElement extends HTMLElement {
    public boolean getCompact();
    public void setCompact(boolean compact);

}
```

## org/w3c/dom/html/HTMLMenuElement.java:

```
package org.w3c.dom.html;

public interface HTMLMenuElement extends HTMLElement {
    public boolean getCompact();
    public void setCompact(boolean compact);

}
```

## org/w3c/dom/html/HTMLLIElement.java:

```
package org.w3c.dom.html;

public interface HTMLLIElement extends HTMLElement {
    public String getType();
    public void setType(String type);

    public int getValue();
    public void setValue(int value);

}
```

## org/w3c/dom/html/HTMLDivElement.java:

```
package org.w3c.dom.html;

public interface HTMLDivElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

}
```

## org/w3c/dom/html/HTMLParagraphElement.java:

```
package org.w3c.dom.html;

public interface HTMLParagraphElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

}
```

## org/w3c/dom/html/HTMLHeadingElement.java:

```
package org.w3c.dom.html;

public interface HTMLHeadingElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

}
```

## org/w3c/dom/html/HTMLQuoteElement.java:

```
package org.w3c.dom.html;

public interface HTMLQuoteElement extends HTMLElement {
    public String getCite();
    public void setCite(String cite);

}
```

## org/w3c/dom/html/HTMLPreElement.java:

```
package org.w3c.dom.html;

public interface HTMLPreElement extends HTMLElement {
    public int getWidth();
    public void setWidth(int width);

}
```

## org/w3c/dom/html/HTMLBRElement.java:

```
package org.w3c.dom.html;

public interface HTMLBRElement extends HTMLElement {
    public String getClear();
    public void setClear(String clear);

}
```

## org/w3c/dom/html/HTMLBaseFontElement.java:

```
package org.w3c.dom.html;

public interface HTMLBaseFontElement extends HTMLElement {
    public String getColor();
    public void setColor(String color);

    public String getFace();
    public void setFace(String face);
```

```
    public String getSize();
    public void setSize(String size);

}
```

## org/w3c/dom/html/HTMLFontElement.java:

```
package org.w3c.dom.html;

public interface HTMLFontElement extends HTMLElement {
    public String getColor();
    public void setColor(String color);

    public String getFace();
    public void setFace(String face);

    public String getSize();
    public void setSize(String size);

}
```

## org/w3c/dom/html/HTMLHRElement.java:

```
package org.w3c.dom.html;

public interface HTMLHRElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

    public boolean getNoShade();
    public void setNoShade(boolean noShade);

    public String getSize();
    public void setSize(String size);

    public String getWidth();
    public void setWidth(String width);

}
```

## org/w3c/dom/html/HTMLModElement.java:

```
package org.w3c.dom.html;

public interface HTMLModElement extends HTMLElement {
    public String getCite();
    public void setCite(String cite);

    public String getDateTime();
    public void setDateTime(String dateTime);

}
```

## org/w3c/dom/html/HTMLAnchorElement.java:

```
package org.w3c.dom.html;

public interface HTMLAnchorElement extends HTMLElement {
    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public String getCharset();
    public void setCharset(String charset);

    public String getCoords();
    public void setCoords(String coords);

    public String getHref();
    public void setHref(String href);

    public String getHreflang();
    public void setHreflang(String hreflang);

    public String getName();
    public void setName(String name);

    public String getRel();
    public void setRel(String rel);

    public String getRev();
    public void setRev(String rev);

    public String getShape();
    public void setShape(String shape);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getTarget();
    public void setTarget(String target);

    public String getType();
    public void setType(String type);

    public void blur();

    public void focus();

}
```

## org/w3c/dom/html/HTMLImageElement.java:

```
package org.w3c.dom.html;

public interface HTMLImageElement extends HTMLElement {
    public String getLowSrc();
    public void setLowSrc(String lowSrc);

    public String getName();
```

```
    public void setName(String name);

    public String getAlign();
    public void setAlign(String align);

    public String getAlt();
    public void setAlt(String alt);

    public String getBorder();
    public void setBorder(String border);

    public String getHeight();
    public void setHeight(String height);

    public String getHspace();
    public void setHspace(String hspace);

    public boolean getIsMap();
    public void setIsMap(boolean isMap);

    public String getLongDesc();
    public void setLongDesc(String longDesc);

    public String getSrc();
    public void setSrc(String src);

    public String getUseMap();
    public void setUseMap(String useMap);

    public String getVspace();
    public void setVspace(String vspace);

    public String getWidth();
    public void setWidth(String width);

}
```

# org/w3c/dom/html/HTMLObjectElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Document;

public interface HTMLObjectElement extends HTMLElement {
    public HTMLFormElement getForm();

    public String getCode();
    public void setCode(String code);

    public String getAlign();
    public void setAlign(String align);

    public String getArchive();
    public void setArchive(String archive);

    public String getBorder();
```

```
    public void setBorder(String border);

    public String getCodeBase();
    public void setCodeBase(String codeBase);

    public String getCodeType();
    public void setCodeType(String codeType);

    public String getData();
    public void setData(String data);

    public boolean getDeclare();
    public void setDeclare(boolean declare);

    public String getHeight();
    public void setHeight(String height);

    public String getHspace();
    public void setHspace(String hspace);

    public String getName();
    public void setName(String name);

    public String getStandby();
    public void setStandby(String standby);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getType();
    public void setType(String type);

    public String getUseMap();
    public void setUseMap(String useMap);

    public String getVspace();
    public void setVspace(String vspace);

    public String getWidth();
    public void setWidth(String width);

    public Document getContentDocument();

}
```

# org/w3c/dom/html/HTMLParamElement.java:

```
package org.w3c.dom.html;

public interface HTMLParamElement extends HTMLElement {
    public String getName();
    public void setName(String name);

    public String getType();
    public void setType(String type);
```

```
    public String getValue();
    public void setValue(String value);

    public String getValueType();
    public void setValueType(String valueType);

}
```

## org/w3c/dom/html/HTMLAppletElement.java:

```
package org.w3c.dom.html;

public interface HTMLAppletElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

    public String getAlt();
    public void setAlt(String alt);

    public String getArchive();
    public void setArchive(String archive);

    public String getCode();
    public void setCode(String code);

    public String getCodeBase();
    public void setCodeBase(String codeBase);

    public String getHeight();
    public void setHeight(String height);

    public String getHspace();
    public void setHspace(String hspace);

    public String getName();
    public void setName(String name);

    public String getObject();
    public void setObject(String object);

    public String getVspace();
    public void setVspace(String vspace);

    public String getWidth();
    public void setWidth(String width);

}
```

## org/w3c/dom/html/HTMLMapElement.java:

```
package org.w3c.dom.html;

public interface HTMLMapElement extends HTMLElement {
    public HTMLCollection getAreas();
```

```
    public String getName();
    public void setName(String name);

}
```

## org/w3c/dom/html/HTMLAreaElement.java:

```
package org.w3c.dom.html;

public interface HTMLAreaElement extends HTMLElement {
    public String getAccessKey();
    public void setAccessKey(String accessKey);

    public String getAlt();
    public void setAlt(String alt);

    public String getCoords();
    public void setCoords(String coords);

    public String getHref();
    public void setHref(String href);

    public boolean getNoHref();
    public void setNoHref(boolean noHref);

    public String getShape();
    public void setShape(String shape);

    public int getTabIndex();
    public void setTabIndex(int tabIndex);

    public String getTarget();
    public void setTarget(String target);

}
```

## org/w3c/dom/html/HTMLScriptElement.java:

```
package org.w3c.dom.html;

public interface HTMLScriptElement extends HTMLElement {
    public String getText();
    public void setText(String text);

    public String getHtmlFor();
    public void setHtmlFor(String htmlFor);

    public String getEvent();
    public void setEvent(String event);

    public String getCharset();
    public void setCharset(String charset);

    public boolean getDefer();
    public void setDefer(boolean defer);
```

```
    public String getSrc();
    public void setSrc(String src);

    public String getType();
    public void setType(String type);

}
```

# org/w3c/dom/html/HTMLTableElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.DOMException;

public interface HTMLTableElement extends HTMLElement {
    public HTMLTableCaptionElement getCaption();
    public void setCaption(HTMLTableCaptionElement caption);

    public HTMLTableSectionElement getTHead();
    public void setTHead(HTMLTableSectionElement tHead);

    public HTMLTableSectionElement getTFoot();
    public void setTFoot(HTMLTableSectionElement tFoot);

    public HTMLCollection getRows();

    public HTMLCollection getTBodies();

    public String getAlign();
    public void setAlign(String align);

    public String getBgColor();
    public void setBgColor(String bgColor);

    public String getBorder();
    public void setBorder(String border);

    public String getCellPadding();
    public void setCellPadding(String cellPadding);

    public String getCellSpacing();
    public void setCellSpacing(String cellSpacing);

    public String getFrame();
    public void setFrame(String frame);

    public String getRules();
    public void setRules(String rules);

    public String getSummary();
    public void setSummary(String summary);

    public String getWidth();
    public void setWidth(String width);

    public HTMLElement createTHead();
```

```
    public void deleteTHead();

    public HTMLElement createTFoot();

    public void deleteTFoot();

    public HTMLElement createCaption();

    public void deleteCaption();

    public HTMLElement insertRow(int index)
                                 throws DOMException;

    public void deleteRow(int index)
                          throws DOMException;

}
```

## org/w3c/dom/html/HTMLTableCaptionElement.java:

```
package org.w3c.dom.html;

public interface HTMLTableCaptionElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

}
```

## org/w3c/dom/html/HTMLTableColElement.java:

```
package org.w3c.dom.html;

public interface HTMLTableColElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

    public String getCh();
    public void setCh(String ch);

    public String getChOff();
    public void setChOff(String chOff);

    public int getSpan();
    public void setSpan(int span);

    public String getVAlign();
    public void setVAlign(String vAlign);

    public String getWidth();
    public void setWidth(String width);

}
```

## org/w3c/dom/html/HTMLTableSectionElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.DOMException;

public interface HTMLTableSectionElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

    public String getCh();
    public void setCh(String ch);

    public String getChOff();
    public void setChOff(String chOff);

    public String getVAlign();
    public void setVAlign(String vAlign);

    public HTMLCollection getRows();

    public HTMLElement insertRow(int index)
                                 throws DOMException;

    public void deleteRow(int index)
                          throws DOMException;

}
```

## org/w3c/dom/html/HTMLTableRowElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.DOMException;

public interface HTMLTableRowElement extends HTMLElement {
    public int getRowIndex();

    public int getSectionRowIndex();

    public HTMLCollection getCells();

    public String getAlign();
    public void setAlign(String align);

    public String getBgColor();
    public void setBgColor(String bgColor);

    public String getCh();
    public void setCh(String ch);

    public String getChOff();
    public void setChOff(String chOff);

    public String getVAlign();
    public void setVAlign(String vAlign);
```

```
    public HTMLElement insertCell(int index)
                                  throws DOMException;

    public void deleteCell(int index)
                           throws DOMException;

}
```

# org/w3c/dom/html/HTMLTableCellElement.java:

```
package org.w3c.dom.html;

public interface HTMLTableCellElement extends HTMLElement {
    public int getCellIndex();

    public String getAbbr();
    public void setAbbr(String abbr);

    public String getAlign();
    public void setAlign(String align);

    public String getAxis();
    public void setAxis(String axis);

    public String getBgColor();
    public void setBgColor(String bgColor);

    public String getCh();
    public void setCh(String ch);

    public String getChOff();
    public void setChOff(String chOff);

    public int getColSpan();
    public void setColSpan(int colSpan);

    public String getHeaders();
    public void setHeaders(String headers);

    public String getHeight();
    public void setHeight(String height);

    public boolean getNoWrap();
    public void setNoWrap(boolean noWrap);

    public int getRowSpan();
    public void setRowSpan(int rowSpan);

    public String getScope();
    public void setScope(String scope);

    public String getVAlign();
    public void setVAlign(String vAlign);
```

```
    public String getWidth();
    public void setWidth(String width);

}
```

## org/w3c/dom/html/HTMLFrameSetElement.java:

```
package org.w3c.dom.html;

public interface HTMLFrameSetElement extends HTMLElement {
    public String getCols();
    public void setCols(String cols);

    public String getRows();
    public void setRows(String rows);

}
```

## org/w3c/dom/html/HTMLFrameElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Document;

public interface HTMLFrameElement extends HTMLElement {
    public String getFrameBorder();
    public void setFrameBorder(String frameBorder);

    public String getLongDesc();
    public void setLongDesc(String longDesc);

    public String getMarginHeight();
    public void setMarginHeight(String marginHeight);

    public String getMarginWidth();
    public void setMarginWidth(String marginWidth);

    public String getName();
    public void setName(String name);

    public boolean getNoResize();
    public void setNoResize(boolean noResize);

    public String getScrolling();
    public void setScrolling(String scrolling);

    public String getSrc();
    public void setSrc(String src);

    public Document getContentDocument();

}
```

# org/w3c/dom/html/HTMLIFrameElement.java:

```
package org.w3c.dom.html;

import org.w3c.dom.Document;

public interface HTMLIFrameElement extends HTMLElement {
    public String getAlign();
    public void setAlign(String align);

    public String getFrameBorder();
    public void setFrameBorder(String frameBorder);

    public String getHeight();
    public void setHeight(String height);

    public String getLongDesc();
    public void setLongDesc(String longDesc);

    public String getMarginHeight();
    public void setMarginHeight(String marginHeight);

    public String getMarginWidth();
    public void setMarginWidth(String marginWidth);

    public String getName();
    public void setName(String name);

    public String getScrolling();
    public void setScrolling(String scrolling);

    public String getSrc();
    public void setSrc(String src);

    public String getWidth();
    public void setWidth(String width);

    public Document getContentDocument();

}
```

# Appendix D: ECMA Script Language Binding

This appendix contains the complete ECMA Script [ECMAScript] binding for the Level 2 Document Object Model HTML definitions.

**Note:** Exceptions handling is only supported by ECMAScript implementation compliant with the Standard ECMA-262 3rd. Edition ([ECMAScript]).

Object **HTMLDOMImplementation**

**HTMLDOMImplementation** has the all the properties and methods of **DOMImplementation** as well as the properties and methods defined below.

The **HTMLDOMImplementation** object has the following methods:

**createHTMLDocument(title)**

This method returns a **HTMLDocument**.

The **title** parameter is of type **String**.

Object **HTMLCollection**

The **HTMLCollection** object has the following properties:

**length**

This read-only property is of type **int**.

The **HTMLCollection** object has the following methods:

**item(index)**

This method returns a **Node**.

The **index** parameter is of type **int**.

**Note:** This object can also be dereferenced using square bracket notation (e.g. obj[1]). Dereferencing with an integer **index** is equivalent to invoking the **item** method with that index.

**namedItem(name)**

This method returns a **Node**.

The **name** parameter is of type **String**.

**Note:** This object can also be dereferenced using square bracket notation (e.g. obj["foo"]). Dereferencing using a string index is equivalent to invoking the **namedItem** method with that index.

Object **HTMLDocument**

**HTMLDocument** has the all the properties and methods of **Document** as well as the properties and methods defined below.

The **HTMLDocument** object has the following properties:

**title**

This property is of type **String**.

**referrer**

This read-only property is of type **String**.

**domain**

This read-only property is of type **String**.

**URL**

This read-only property is of type **String**.

**body**
This property is of type **HTMLElement**.
**images**
This read-only property is of type **HTMLCollection**.
**applets**
This read-only property is of type **HTMLCollection**.
**links**
This read-only property is of type **HTMLCollection**.
**forms**
This read-only property is of type **HTMLCollection**.
**anchors**
This read-only property is of type **HTMLCollection**.
**cookie**
This property is of type **String**.

The **HTMLDocument** object has the following methods:

**open()**
This method has no return value.
**close()**
This method has no return value.
**write(text)**
This method has no return value.
The **text** parameter is of type **String**.
**writeln(text)**
This method has no return value.
The **text** parameter is of type **String**.
**getElementsByName(elementName)**
This method returns a **NodeList**.
The **elementName** parameter is of type **String**.

Object **HTMLElement**

**HTMLElement** has the all the properties and methods of **Element** as well as the properties and methods defined below.

The **HTMLElement** object has the following properties:

**id**
This property is of type **String**.
**title**
This property is of type **String**.
**lang**
This property is of type **String**.
**dir**
This property is of type **String**.
**className**
This property is of type **String**.

Object **HTMLHtmlElement**

**HTMLHtmlElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLHtmlElement** object has the following properties:

**version**

This property is of type **String**.

Object **HTMLHeadElement**

**HTMLHeadElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLHeadElement** object has the following properties:

**profile**

This property is of type **String**.

Object **HTMLLinkElement**

**HTMLLinkElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLLinkElement** object has the following properties:

**disabled**

This property is of type **boolean**.

**charset**

This property is of type **String**.

**href**

This property is of type **String**.

**hreflang**

This property is of type **String**.

**media**

This property is of type **String**.

**rel**

This property is of type **String**.

**rev**

This property is of type **String**.

**target**

This property is of type **String**.

**type**

This property is of type **String**.

Object **HTMLTitleElement**

**HTMLTitleElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTitleElement** object has the following properties:

**text**

This property is of type **String**.

Object **HTMLMetaElement**

**HTMLMetaElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLMetaElement** object has the following properties:

**content**

This property is of type **String**.

**httpEquiv**

This property is of type **String**.

**name**

This property is of type **String**.

**scheme**

This property is of type **String**.

Object **HTMLBaseElement**

**HTMLBaseElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLBaseElement** object has the following properties:

**href**

This property is of type **String**.

**target**

This property is of type **String**.

Object **HTMLIsIndexElement**

**HTMLIsIndexElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLIsIndexElement** object has the following properties:

**form**

This read-only property is of type **HTMLFormElement**.

**prompt**

This property is of type **String**.

Object **HTMLStyleElement**

**HTMLStyleElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLStyleElement** object has the following properties:

**disabled**

This property is of type **boolean**.

**media**

This property is of type **String**.

**type**

This property is of type **String**.

Object **HTMLBodyElement**

**HTMLBodyElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLBodyElement** object has the following properties:

**aLink**

This property is of type **String**.

**background**

This property is of type **String**.

**bgColor**

This property is of type **String**.

**link**

This property is of type **String**.

**text**

This property is of type **String**.

**vLink**

This property is of type **String**.

Object **HTMLFormElement**

**HTMLFormElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLFormElement** object has the following properties:

**elements**

This read-only property is of type **HTMLCollection**.

**length**

This read-only property is of type **long**.

**name**

This property is of type **String**.

**acceptCharset**

This property is of type **String**.

**action**

This property is of type **String**.

**enctype**

This property is of type **String**.

**method**

This property is of type **String**.

**target**

This property is of type **String**.

The **HTMLFormElement** object has the following methods:

**submit()**

This method has no return value.

**reset()**

This method has no return value.

Object **HTMLSelectElement**

**HTMLSelectElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLSelectElement** object has the following properties:

**type**

This read-only property is of type **String**.

**selectedIndex**

This property is of type **long**.

**value**

This property is of type **String**.

**length**

This read-only property is of type **long**.

**form**

This read-only property is of type **HTMLFormElement**.

**options**

This read-only property is of type **HTMLCollection**.

**disabled**

This property is of type **boolean**.

**multiple**

This property is of type **boolean**.

**name**
This property is of type **String**.
**size**
This property is of type **long**.
**tabIndex**
This property is of type **long**.

The **HTMLSelectElement** object has the following methods:

**add(element, before)**
This method has no return value.
The **element** parameter is of type **HTMLElement**.
The **before** parameter is of type **HTMLElement**.
This method can raise a **DOMException**.
**remove(index)**
This method has no return value.
The **index** parameter is of type **long**.
**blur()**
This method has no return value.
**focus()**
This method has no return value.

Object **HTMLOptGroupElement**

**HTMLOptGroupElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLOptGroupElement** object has the following properties:

**disabled**
This property is of type **boolean**.
**label**
This property is of type **String**.

Object **HTMLOptionElement**

**HTMLOptionElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLOptionElement** object has the following properties:

**form**
This read-only property is of type **HTMLFormElement**.
**defaultSelected**
This property is of type **boolean**.
**text**
This read-only property is of type **String**.
**index**
This read-only property is of type **long**.
**disabled**
This property is of type **boolean**.
**label**
This property is of type **String**.
**selected**
This property is of type **boolean**.

**value**
This property is of type **String**.

Object **HTMLInputElement**

**HTMLInputElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLInputElement** object has the following properties:

**defaultValue**
This property is of type **String**.

**defaultChecked**
This property is of type **boolean**.

**form**
This read-only property is of type **HTMLFormElement**.

**accept**
This property is of type **String**.

**accessKey**
This property is of type **String**.

**align**
This property is of type **String**.

**alt**
This property is of type **String**.

**checked**
This property is of type **boolean**.

**disabled**
This property is of type **boolean**.

**maxLength**
This property is of type **long**.

**name**
This property is of type **String**.

**readOnly**
This property is of type **boolean**.

**size**
This property is of type **String**.

**src**
This property is of type **String**.

**tabIndex**
This property is of type **long**.

**type**
This property is of type **String**.

**useMap**
This property is of type **String**.

**value**
This property is of type **String**.

The **HTMLInputElement** object has the following methods:

**blur()**
This method has no return value.

**focus()**
This method has no return value.
**select()**
This method has no return value.
**click()**
This method has no return value.

Object **HTMLTextAreaElement**

**HTMLTextAreaElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTextAreaElement** object has the following properties:

**defaultValue**
This property is of type **String**.
**form**
This read-only property is of type **HTMLFormElement**.
**accessKey**
This property is of type **String**.
**cols**
This property is of type **long**.
**disabled**
This property is of type **boolean**.
**name**
This property is of type **String**.
**readOnly**
This property is of type **boolean**.
**rows**
This property is of type **long**.
**tabIndex**
This property is of type **long**.
**type**
This read-only property is of type **String**.
**value**
This property is of type **String**.

The **HTMLTextAreaElement** object has the following methods:

**blur()**
This method has no return value.
**focus()**
This method has no return value.
**select()**
This method has no return value.

Object **HTMLButtonElement**

**HTMLButtonElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLButtonElement** object has the following properties:

**form**
This read-only property is of type **HTMLFormElement**.

**accessKey**
This property is of type **String**.
**disabled**
This property is of type **boolean**.
**name**
This property is of type **String**.
**tabIndex**
This property is of type **long**.
**type**
This read-only property is of type **String**.
**value**
This property is of type **String**.

Object **HTMLLabelElement**

**HTMLLabelElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLLabelElement** object has the following properties:

**form**
This read-only property is of type **HTMLFormElement**.
**accessKey**
This property is of type **String**.
**htmlFor**
This property is of type **String**.

Object **HTMLFieldSetElement**

**HTMLFieldSetElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLFieldSetElement** object has the following properties:

**form**
This read-only property is of type **HTMLFormElement**.

Object **HTMLLegendElement**

**HTMLLegendElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLLegendElement** object has the following properties:

**form**
This read-only property is of type **HTMLFormElement**.
**accessKey**
This property is of type **String**.
**align**
This property is of type **String**.

Object **HTMLUListElement**

**HTMLUListElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLUListElement** object has the following properties:

**compact**
This property is of type **boolean**.
**type**
This property is of type **String**.

Object **HTMLOListElement**

**HTMLOListElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLOListElement** object has the following properties:

**compact**

This property is of type **boolean**.

**start**

This property is of type **long**.

**type**

This property is of type **String**.

Object **HTMLDListElement**

**HTMLDListElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLDListElement** object has the following properties:

**compact**

This property is of type **boolean**.

Object **HTMLDirectoryElement**

**HTMLDirectoryElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLDirectoryElement** object has the following properties:

**compact**

This property is of type **boolean**.

Object **HTMLMenuElement**

**HTMLMenuElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLMenuElement** object has the following properties:

**compact**

This property is of type **boolean**.

Object **HTMLLIElement**

**HTMLLIElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLLIElement** object has the following properties:

**type**

This property is of type **String**.

**value**

This property is of type **long**.

Object **HTMLDivElement**

**HTMLDivElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLDivElement** object has the following properties:

**align**

This property is of type **String**.

Object **HTMLParagraphElement**

**HTMLParagraphElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLParagraphElement** object has the following properties:

**align**

This property is of type **String**.

Object **HTMLHeadingElement**

**HTMLHeadingElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLHeadingElement** object has the following properties:

**align**

This property is of type **String**.

Object **HTMLQuoteElement**

**HTMLQuoteElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLQuoteElement** object has the following properties:

**cite**

This property is of type **String**.

Object **HTMLPreElement**

**HTMLPreElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLPreElement** object has the following properties:

**width**

This property is of type **long**.

Object **HTMLBRElement**

**HTMLBRElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLBRElement** object has the following properties:

**clear**

This property is of type **String**.

Object **HTMLBaseFontElement**

**HTMLBaseFontElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLBaseFontElement** object has the following properties:

**color**

This property is of type **String**.

**face**

This property is of type **String**.

**size**

This property is of type **String**.

Object **HTMLFontElement**

**HTMLFontElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLFontElement** object has the following properties:

**color**

This property is of type **String**.

**face**

This property is of type **String**.

**size**
This property is of type **String**.

Object **HTMLHRElement**

**HTMLHRElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLHRElement** object has the following properties:

**align**
This property is of type **String**.

**noShade**
This property is of type **boolean**.

**size**
This property is of type **String**.

**width**
This property is of type **String**.

Object **HTMLModElement**

**HTMLModElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLModElement** object has the following properties:

**cite**
This property is of type **String**.

**dateTime**
This property is of type **String**.

Object **HTMLAnchorElement**

**HTMLAnchorElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLAnchorElement** object has the following properties:

**accessKey**
This property is of type **String**.

**charset**
This property is of type **String**.

**coords**
This property is of type **String**.

**href**
This property is of type **String**.

**hreflang**
This property is of type **String**.

**name**
This property is of type **String**.

**rel**
This property is of type **String**.

**rev**
This property is of type **String**.

**shape**
This property is of type **String**.

**tabIndex**
This property is of type **long**.

**target**
This property is of type **String**.
**type**
This property is of type **String**.
The **HTMLAnchorElement** object has the following methods:
**blur()**
This method has no return value.
**focus()**
This method has no return value.

Object **HTMLImageElement**
**HTMLImageElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.
The **HTMLImageElement** object has the following properties:
**lowSrc**
This property is of type **String**.
**name**
This property is of type **String**.
**align**
This property is of type **String**.
**alt**
This property is of type **String**.
**border**
This property is of type **String**.
**height**
This property is of type **String**.
**hspace**
This property is of type **String**.
**isMap**
This property is of type **boolean**.
**longDesc**
This property is of type **String**.
**src**
This property is of type **String**.
**useMap**
This property is of type **String**.
**vspace**
This property is of type **String**.
**width**
This property is of type **String**.

Object **HTMLObjectElement**
**HTMLObjectElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.
The **HTMLObjectElement** object has the following properties:
**form**
This read-only property is of type **HTMLFormElement**.

**code**
This property is of type **String**.
**align**
This property is of type **String**.
**archive**
This property is of type **String**.
**border**
This property is of type **String**.
**codeBase**
This property is of type **String**.
**codeType**
This property is of type **String**.
**data**
This property is of type **String**.
**declare**
This property is of type **boolean**.
**height**
This property is of type **String**.
**hspace**
This property is of type **String**.
**name**
This property is of type **String**.
**standby**
This property is of type **String**.
**tabIndex**
This property is of type **long**.
**type**
This property is of type **String**.
**useMap**
This property is of type **String**.
**vspace**
This property is of type **String**.
**width**
This property is of type **String**.
**contentDocument**
This read-only property is of type **Document**.

Object **HTMLParamElement**

**HTMLParamElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLParamElement** object has the following properties:

**name**
This property is of type **String**.
**type**
This property is of type **String**.
**value**
This property is of type **String**.

**valueType**
This property is of type **String**.

Object **HTMLAppletElement**

**HTMLAppletElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLAppletElement** object has the following properties:

**align**
This property is of type **String**.

**alt**
This property is of type **String**.

**archive**
This property is of type **String**.

**code**
This property is of type **String**.

**codeBase**
This property is of type **String**.

**height**
This property is of type **String**.

**hspace**
This property is of type **String**.

**name**
This property is of type **String**.

**object**
This property is of type **String**.

**vspace**
This property is of type **String**.

**width**
This property is of type **String**.

Object **HTMLMapElement**

**HTMLMapElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLMapElement** object has the following properties:

**areas**
This read-only property is of type **HTMLCollection**.

**name**
This property is of type **String**.

Object **HTMLAreaElement**

**HTMLAreaElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLAreaElement** object has the following properties:

**accessKey**
This property is of type **String**.

**alt**
This property is of type **String**.

**coords**
This property is of type **String**.

**href**
This property is of type **String**.
**noHref**
This property is of type **boolean**.
**shape**
This property is of type **String**.
**tabIndex**
This property is of type **long**.
**target**
This property is of type **String**.

Object **HTMLScriptElement**

**HTMLScriptElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLScriptElement** object has the following properties:

**text**
This property is of type **String**.
**htmlFor**
This property is of type **String**.
**event**
This property is of type **String**.
**charset**
This property is of type **String**.
**defer**
This property is of type **boolean**.
**src**
This property is of type **String**.
**type**
This property is of type **String**.

Object **HTMLTableElement**

**HTMLTableElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableElement** object has the following properties:

**caption**
This property is of type **HTMLTableCaptionElement**.
**tHead**
This property is of type **HTMLTableSectionElement**.
**tFoot**
This property is of type **HTMLTableSectionElement**.
**rows**
This read-only property is of type **HTMLCollection**.
**tBodies**
This read-only property is of type **HTMLCollection**.
**align**
This property is of type **String**.
**bgColor**
This property is of type **String**.

**border**
This property is of type **String**.
**cellPadding**
This property is of type **String**.
**cellSpacing**
This property is of type **String**.
**frame**
This property is of type **String**.
**rules**
This property is of type **String**.
**summary**
This property is of type **String**.
**width**
This property is of type **String**.

The **HTMLTableElement** object has the following methods:

**createTHead()**
This method returns a **HTMLElement**.
**deleteTHead()**
This method has no return value.
**createTFoot()**
This method returns a **HTMLElement**.
**deleteTFoot()**
This method has no return value.
**createCaption()**
This method returns a **HTMLElement**.
**deleteCaption()**
This method has no return value.
**insertRow(index)**
This method returns a **HTMLElement**.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.
**deleteRow(index)**
This method has no return value.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.

Object **HTMLTableCaptionElement**

**HTMLTableCaptionElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableCaptionElement** object has the following properties:

**align**
This property is of type **String**.

Object **HTMLTableColElement**

**HTMLTableColElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableColElement** object has the following properties:

**align**
This property is of type **String**.
**ch**
This property is of type **String**.
**chOff**
This property is of type **String**.
**span**
This property is of type **long**.
**vAlign**
This property is of type **String**.
**width**
This property is of type **String**.

Object **HTMLTableSectionElement**

**HTMLTableSectionElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableSectionElement** object has the following properties:

**align**
This property is of type **String**.
**ch**
This property is of type **String**.
**chOff**
This property is of type **String**.
**vAlign**
This property is of type **String**.
**rows**
This read-only property is of type **HTMLCollection**.

The **HTMLTableSectionElement** object has the following methods:

**insertRow(index)**
This method returns a **HTMLElement**.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.
**deleteRow(index)**
This method has no return value.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.

Object **HTMLTableRowElement**

**HTMLTableRowElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableRowElement** object has the following properties:

**rowIndex**
This read-only property is of type **long**.
**sectionRowIndex**
This read-only property is of type **long**.
**cells**
This read-only property is of type **HTMLCollection**.

**align**
This property is of type **String**.
**bgColor**
This property is of type **String**.
**ch**
This property is of type **String**.
**chOff**
This property is of type **String**.
**vAlign**
This property is of type **String**.

The **HTMLTableRowElement** object has the following methods:

**insertCell(index)**
This method returns a **HTMLElement**.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.
**deleteCell(index)**
This method has no return value.
The **index** parameter is of type **long**.
This method can raise a **DOMException**.

Object **HTMLTableCellElement**

**HTMLTableCellElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLTableCellElement** object has the following properties:

**cellIndex**
This read-only property is of type **long**.
**abbr**
This property is of type **String**.
**align**
This property is of type **String**.
**axis**
This property is of type **String**.
**bgColor**
This property is of type **String**.
**ch**
This property is of type **String**.
**chOff**
This property is of type **String**.
**colSpan**
This property is of type **long**.
**headers**
This property is of type **String**.
**height**
This property is of type **String**.
**noWrap**
This property is of type **boolean**.

**rowSpan**
This property is of type **long**.
**scope**
This property is of type **String**.
**vAlign**
This property is of type **String**.
**width**
This property is of type **String**.

Object **HTMLFrameSetElement**

**HTMLFrameSetElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLFrameSetElement** object has the following properties:

**cols**
This property is of type **String**.
**rows**
This property is of type **String**.

Object **HTMLFrameElement**

**HTMLFrameElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLFrameElement** object has the following properties:

**frameBorder**
This property is of type **String**.
**longDesc**
This property is of type **String**.
**marginHeight**
This property is of type **String**.
**marginWidth**
This property is of type **String**.
**name**
This property is of type **String**.
**noResize**
This property is of type **boolean**.
**scrolling**
This property is of type **String**.
**src**
This property is of type **String**.
**contentDocument**
This read-only property is of type **Document**.

Object **HTMLIFrameElement**

**HTMLIFrameElement** has the all the properties and methods of **HTMLElement** as well as the properties and methods defined below.

The **HTMLIFrameElement** object has the following properties:

**align**
This property is of type **String**.
**frameBorder**
This property is of type **String**.

**height**
This property is of type **String**.
**longDesc**
This property is of type **String**.
**marginHeight**
This property is of type **String**.
**marginWidth**
This property is of type **String**.
**name**
This property is of type **String**.
**scrolling**
This property is of type **String**.
**src**
This property is of type **String**.
**width**
This property is of type **String**.
**contentDocument**
This read-only property is of type **Document**.

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## E.1: Production Systems

This specification was written in XML. The HTML, OMG IDL, Java and ECMA Script bindings were all produced automatically.

Thanks to Joe English, author of cost, which was used as the basis for producing DOM Level 1. Thanks also to Gavin Nicol, who wrote the scripts which run on top of cost. Arnaud Le Hors and Philippe Le Hégaret maintained the scripts.

For DOM Level 2, we used Xerces as the basis DOM implementation and wish to thank the authors. Philippe Le Hégaret and Arnaud Le Hors wrote the Java programs which are the DOM application.

Thanks also to Jan Kärrman, author of html2ps, which we use in creating the PostScript version of the specification.

# Glossary

*Editors*
Arnaud Le Hors, W3C and IBM
Lauren Wood, SoftQuad Software Inc.
Robert S. Sutor, IBM Research (for DOM Level 1)

Several of the following term definitions have been borrowed or modified from similar definitions in other W3C or standards documents. See the links within the definitions for more information.

**convenience**
A *convenience method* is an operation on an object that could be accomplished by a program consisting of more basic operations on the object. Convenience *methods* are usually provided to make the API easier and simpler to use or to allow specific programs to create more optimized implementations for common operations. A similar definition holds for a *convenience property*.

**data model**
A *data model* is a collection of descriptions of data structures and their contained fields, together with the operations or functions that manipulate them.

**DOM Level 0**
The term "*DOM Level 0*" refers to a mix (not formally specified) of HTML document functionalities offered by Netscape Navigator version 3.0 and Microsoft Internet Explorer version 3.0. In some cases, attributes or *methods* have been included for reasons of backward compatibility with "DOM Level 0".

**HTML**
The HyperText Markup Language (*HTML*) is a simple markup language used to create hypertext documents that are portable from one platform to another. HTML documents are SGML documents with generic semantics that are appropriate for representing information from a wide range of applications. [HTML4.0]

**language binding**
A programming *language binding* for an IDL specification is an implementation of the interfaces in the specification for the given language. For example, a Java language binding for the Document Object Model IDL specification would implement the concrete Java classes that provide the functionality exposed by the interfaces.

**tokenized**
The description given to various information items (for example, attribute values of various types, but not including the StringType CDATA) after having been processed by the XML processor. The process includes stripping leading and trailing white space, and replacing multiple space characters by one. See the definition of tokenized type.

# References

For the latest version of any W3C specification please consult the list of W3C Technical Reports available at http://www.w3.org/TR.

## G.1: Normative references

**DOM Level 2 Core**
W3C (World Wide Web Consortium) Document Object Model Level 2 Core Specification, September 2000. Available at http://www.w3.org/TR/2000/PR-DOM-Level-2-Core-20000927

**ECMAScript**
ECMA (European Computer Manufacturers Association) ECMAScript Language Specification. Available at http://www.ecma.ch/ecma1/STAND/ECMA-262.HTM

**HTML4.0**
W3C (World Wide Web Consortium) HTML 4.0 Specification, April 1998. Available at http://www.w3.org/TR/1998/REC-html40-19980424

**Java**
Sun Microsystems Inc. The Java Language Specification, James Gosling, Bill Joy, and Guy Steele, September 1996. Available at http://java.sun.com/docs/books/jls

**OMGIDL**
OMG (Object Management Group) IDL (Interface Definition Language) defined in The Common Object Request Broker: Architecture and Specification, version 2.3.1, October 1999. Available from http://www.omg.org/

**DOM Level 2 Style Sheets and CSS**
W3C (World Wide Web Consortium) Document Object Model Level 2 Style Sheets and CSS Specification, September 2000. Available at http://www.w3.org/TR/2000/PR-DOM-Level-2-Style-20000927

**RFC2396**
IETF (Internet Engineering Task Force) RFC 2396: Uniform Resource Identifiers (URI): Generic Syntax, eds. T. Berners-Lee, R. Fielding, L. Masinter. August 1998. Available at http://www.ietf.org/rfc/rfc2396.txt

## G.2: Informative references

**DOM Level 1**
W3C (World Wide Web Consortium) DOM Level 1 Specification, October 1998. Available at http://www.w3.org/TR/REC-DOM-Level-1

**XHTML10**
W3C (World Wide Web Consortium) XHTML 1.0: Extensible HyperText Markup Language, A Reformulation of HTML 4.0 in XML 1.0. Available at http://www.w3.org/TR/2000/REC-xhtml1-20000126

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