



Document Object Model (DOM) Level 2 HTML Specification

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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 4.0 and XHTML 1.0 documents. The Document Object Model Level 2 HTML builds on the Document Object Model Level 2 Core [DOM Level 2 Core].

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

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This document has been produced as part of the W3C DOM Activity. The authors of this document are the DOM Working Group members.

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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.119] documents [HTML4.0], and XHTML documents [XHTML 1.0]. 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.119] .
- to provide *convenience* [p.119] 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.119] 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 or frameset DTD for HTML 4.0, or the XHTML 1.0 DTD are assumed. Interoperability between implementations is only guaranteed for elements and attributes that are specified in the HTML 4.0 and XHTML 1.0 DTDs.

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

- An `HTMLDocument` [p.13] interface, derived from the core `Document` interface. `HTMLDocument` specifies the operations and queries that can be made on a HTML document.
- An `HTMLElement` [p.17] 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.17] 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 may use the `hasFeature(feature, version)` method of the `DOMImplementation` interface with parameter values "HTML" and "2.0" (respectively) to determine whether or not this module is supported by the implementation. In addition to the feature string "HTML", the feature string "XHTML" (version string "2.0") can be used to check if the implementation supports XHTML (this is equivalent to checking the features "XML" and "HTML"). In order to fully support this module, an implementation must also support the "Core" feature defined [DOM Level 2 Core]. Please refer to additional information about *conformance* in the DOM Level 2 Core specification [DOM Level 2 Core].

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". Note that, since DOM Level 2 HTML is not backward compatible with DOM Level 1 [DOM Level 1], a DOM Level 2 HTML implementation must not claim to implement the feature "HTML" version "1.0". In order to fully support this feature, an implementation needs also to support the "Core" feature defined in the Document Object Model Level 2 Core [DOM Level 2 Core] (see also *Conformance*).

The interfaces in this specification are designed for HTML 4.0 documents, as well as for XHTML 1.0 documents.

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.119] implementations.

1.3. XHTML and the HTML DOM

The DOM HTML Level 1 API's [DOM Level 1] were originally intended to be used only for HTML 4.0 documents [HTML4.0] and the APIs were defined well before XHTML 1.0 [XHTML 1.0] became a specification, or was even being worked on by the HTML working group. The biggest difference between HTML 4.0 (and earlier) and XHTML 1.0 (from the DOM point of view) is that XHTML is case sensitive, whereas HTML 4.0 is case insensitive. The HTML case insensitivity is also reflected in the DOM HTML API's in some ways, for instance, element and attribute names are exposed as all upper case (for consistency) when used on an HTML document, regardless of the character case used in the markup. In XHTML everything is case sensitive (since XHTML is based on XML) and element and attribute names must be lower case in the markup. Because of this there are certain things that developers need to keep in mind when writing code that should work on both HTML and XHTML documents. There are basically two things that need to be taken into account, one is that when comparing element or attribute names to strings the string compare needs to be case insensitive, or the element or attribute name needs to be converted into lowercase before comparing against a lowercase string. The other thing is that when calling methods that are case insensitive when used on a HTML document (such as `getElementsByTagName()` and `namedItem()`) the string that is passed in should be lower case to work on both HTML and XHTML documents.

1.4. 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. The core `DOMImplementation` interface can be used to create XHTML documents by passing the XHTML namespace as the namespace for the root element.

IDL Definition

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

Methods

`createHTMLDocument`

Creates an `HTMLDocument` [p.13] 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.13] 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* [p.119] 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. This method is case insensitive in HTML documents and case sensitive in XHTML documents.

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

1.5. 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.119] 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 to.

IDL Definition

```
interface HTMLDocument : Document {
    attribute DOMString          title;
    readonly attribute DOMString referrer;
    readonly attribute DOMString domain;
    readonly attribute DOMString URL;
    attribute HTMLCollection    body;
    readonly attribute HTMLCollection images;
    readonly attribute HTMLCollection applets;
    readonly attribute HTMLCollection links;
    readonly attribute HTMLCollection forms;
    readonly attribute HTMLCollection anchors;
    attribute DOMString         cookie;
                                // raises(DOMException) on setting

    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 absolute URI [RFC2396] of the document.

`anchors` of type `HTMLCollection` [p.12] , 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.12] , readonly

A collection of all the OBJECT elements that include applets and APPLET (*deprecated*) elements in a document.

`body` of type `HTMLElement` [p.17]

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`

This mutable string attribute denotes persistent state information that (1) is associated with the current frame or document and (2) is composed of information described by the cookies non-terminal of [RFC2965], Section 4.2.2.

If no persistent state information is available for the current frame or document document, then this property's value is an empty string.

When this attribute is read, all cookies are returned as a single string, with each cookie's name-value pair concatenated into a list of name-value pairs, each list item being separated by a ';' (semicolon).

When this attribute is set, the value it is set to should be a string that adheres to the cookie non-terminal of [RFC2965]; that is, it should be a single name-value pair followed by zero or more cookie attribute values. If no domain attribute is specified, then the domain attribute for the new value defaults to the host portion of an absolute URI [RFC2396] of the current frame or document. If no path attribute is specified, then the path attribute for the new value defaults to the absolute path portion of the URI [RFC2396] of the current frame or document. If no max-age attribute is specified, then the max-age attribute for the new value defaults to a user agent defined value. If a cookie with the specified name is already associated with the current frame or document, then the new value as well as the new attributes replace the old value and attributes. If a max-age attribute of 0 is specified for the new value, then any existing cookies of the specified name are removed from the cookie storage.

Note: See [RFC2965] for the semantics of persistent state item attribute value pairs.

Note: The precise nature of a user agent session is not defined by this specification.

Exceptions on setting

`DOMException` SYNTAX_ERR: If the new value does not adhere to the cookie syntax specified by [RFC2965].

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.12] , readonly

A collection of all the forms of a document.

images of type `HTMLCollection` [p.12] , 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.12] , 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`. This method is case sensitive.

Parameters

`elementName` of type `DOMString`

The name attribute value for an element.

Return Value

`NodeList` The matching elements.

No Exceptions

`open`

Open a document stream for writing. If a document exists in the target, this method clears it.

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 (see [DOM Level 3 Abstract Schemas and Load and Save]). The following methods may be deprecated at some point in the future in favor of a more general-purpose mechanism.

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

1.6. HTML Elements

1.6.1. 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 in general determined by the type of the attribute as determined by the HTML 4.0 (transitional and frameset) and XHTML 1.0 DTDs. The attributes have the semantics (including case-sensitivity) given in the HTML 4.0 and XHTML 1.0 specifications.

The attributes are exposed as properties for compatibility with *DOM Level 0* [p.119]. 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	<i>Object Model Data Type</i>
CDATA	<code>DOMString</code>
Value list (e.g., (left right center))	<code>DOMString</code>
one-value Value list (e.g., (disabled))	<code>boolean</code>
Number	<code>long int</code>

In an HTML document the return value of an attribute that has a data type that is a value list is normalized to lower case (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" (which is not a valid value in XHTML due to the case sensitivity of XHTML) then the value 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.

1.6.2. Naming Exceptions

To avoid namespace conflicts, an attribute with the same name as a keyword in one of our chosen *binding languages* [p.119] 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`.

1.6.3. Exposing Element Type Names (`tagName`, (`nodeName`))

If the document is a HTML 4.0 document 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`. If the document is an XHTML 1.0 or above document the element name is exposed as it is written in the XHTML file. This means that the element type names are exposed in lower case for XHTML documents since the XHTML 1.0 DTD defines element type names as lower case, and XHTML, being derived from XML, is case sensitive.

1.6.4. The HTML`Element` 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.

1.6.5. 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 [RFC2396] 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 [RFC2396] 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 [RFC2616]. 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 [RFC2396]. 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 [RFC2396]. 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.22] , 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 [RFC2396] 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 form controls 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.12], `readonly`
Returns a collection of all form 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 [RFC2616] 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 HTMLInputElement element,
           in HTMLInputElement 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.22] , 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.12] , 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 (i.e. the value of the currently selected option), if multiple options are selected this is the value of the first selected option.

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.17]

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. 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.22] , 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 [HTML4.0].

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. 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. 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.22] , `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 (all lower case). 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.

`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.22], `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.22], `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 (all lower case). 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.22], 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.22], 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.22], readonly

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

Interface *HTMLULListElement*

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

IDL Definition

```
interface HTMLULListElement : 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 *HTMLLOListElement*

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

IDL Definition

```
interface HTMLLOListElement : 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 *HTMLDLListElement*

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

IDL Definition

```
interface HTMLDLListElement : 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 [RFC2396] 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 [RFC2396] 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 absolute URI [RFC2396] 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    name;
    attribute DOMString    align;
    attribute DOMString    alt;
    attribute long         border;
    attribute long         height;
    attribute long         hspace;
    attribute boolean      isMap;
    attribute DOMString    longDesc;
    attribute DOMString    src;
```

```

        attribute DOMString    useMap;
        attribute long         vspace;
        attribute long         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 `long`

Width of border around image in pixels. See the `border` attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0. Note that the type of this attribute was `DOMString` in DOM Level 1 HTML [DOM Level 1].

`height` of type `long`

Height of the image in pixels. See the `height` attribute definition in HTML 4.0. Note that the type of this attribute was `DOMString` in DOM Level 1 HTML [DOM Level 1].

`hspace` of type `long`

Horizontal space to the left and right of this image in pixels. See the `hspace` attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0. Note that the type of this attribute was `DOMString` in DOM Level 1 HTML [DOM Level 1].

`isMap` of type `boolean`

Use server-side image map. See the `ismap` attribute definition in HTML 4.0.

`longDesc` of type `DOMString`

URI [RFC2396] designating a long description of this image or frame. See the `longdesc` attribute definition in HTML 4.0.

`name` of type `DOMString`

The name of the element (for backwards compatibility).

`src` of type `DOMString`

URI [RFC2396] 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 `long`

Vertical space above and below this image in pixels. See the `vspace` attribute definition in HTML 4.0. This attribute is deprecated in HTML 4.0. Note that the type of this attribute was "`DOMString`" in DOM Level 1 HTML [DOM Level 1].

`width` of type `long`

The width of the image in pixels. See the `width` attribute definition in HTML 4.0. Note that the type of this attribute was `DOMString` in DOM Level 1 HTML [DOM Level 1].

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 [HTML4.0].

IDL Definition

```
interface HTMLObjectElement : HTMLElement {
    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 [RFC2396] 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 [RFC2396] 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.
- `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 [RFC2396] 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.12] , 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 [RFC2396] 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 [RFC2396] 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.49]

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.12] , `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.12] , `readonly`

Returns a collection of the defined table bodies.

`tFoot` of type `HTMLTableSectionElement` [p.50]

Returns the table's `TFOOT`, or `null` if none exists.

`tHead` of type `HTMLTableSectionElement` [p.50]

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.17] A `CAPTION` element.

No Parameters

No Exceptions

`createTFoot`

Create a table footer row or return an existing one.

Return Value

`HTMLElement` [p.17] A footer element (`TFOOT`).

No Parameters

No Exceptions

`createTHead`

Create a table header row or return an existing one.

Return Value

`HTML`Element [p.17] 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

`DOM`Exception `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 [HTML4.0].

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

HTML`Element` [p.17] The newly created row.

Exceptions

DOM`Exception` `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;
    HTMLTableSectionElement 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.12] , 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

HTML`Element` [p.17] 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 negative.

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.12] , 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

`HTMLCollection` [p.17] 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 : HTMLInputElement {
    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 : HTMLInputElement {
    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 [RFC2396] 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 [RFC2396] 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 [RFC2396] 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 [RFC2396] 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

Editor:

Philippe Le Hégarret, W3C

A.1: Changes between DOM Level 1 and DOM Level 2

Note: The DOM Level 2 HTML module is not backward compatible with the DOM Level 1 HTML module.

OMG IDL

The DOM Level 2 specifications are now using Corba 2.3.1 instead of Corba 2.2.

XHTML 1.0 support

The DOM Level 2 HTML module supports HTML 4 as well as XHTML 1.0 documents. Therefore, case sensitivity in methods depends on the Document supports the feature "XML" as well as "HTML".

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

Interface `HTMLDocument` [p.13]

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

Interface `HTMLFrameElement` [p.54]

the attribute `contentDocument` was added.

Interface `HTMLIFrameElement` [p.55]

the attribute `contentDocument` was added.

Interface `HTMLInputElement` [p.26]

the attribute `type` is no longer read only.

Interface `HTMLObjectElement` [p.40]

The attribute `contentDocument` was added.
The attribute `form` was removed.

Interface `HTMLOptionElement` [p.26]

Changing the `defaultSelected` attribute does not reset the state of the form control.

Interface `HTMLTextAreaElement` [p.29]

Changing the `defaultValue` attribute does not reset the contents of the form control.

Interface `HTMLImageElement` [p.39]

The `lowSrc` attribute was removed.
The types of the attributes `border`, `height`, `hspace`, `width` and `vspace` were changed from `DOMString` to `long`.

A.1.2: New Interfaces

Interface `HTMLDOMImplementation` [p.11]

The `HTMLDOMImplementation` [p.11] 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 appendix is not conformant due to 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.43] interface, are not conformant with OMG IDL 2.2. The `valueType` attribute on the `HTMLParamElement` [p.42] interface is not conformant with OMG IDL 2.3.1, which hadn't been released when DOM Level 1 [DOM Level 1] was published.

The IDL files are also available as:

<http://www.w3.org/TR/2001/WD-DOM-Level-2-HTML-20011025/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 HTMLInputElement;
    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 {
```

```

                                html.idl:

        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;
                                // raises(dom::DOMException) on setting

    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  http-equiv;
    attribute DOMString  name;
    attribute DOMString  scheme;
};

```

html.idl:

```
};

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();
};
```

html.idl:

```
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;
};
```

html.idl:

```
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 HTMLLOListElement : 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;
};
```

html.idl:

```
};

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;
```

html.idl:

```
        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      name;
    attribute DOMString      align;
    attribute DOMString      alt;
    attribute long            border;
    attribute long            height;
    attribute long            hspace;
    attribute boolean        isMap;
    attribute DOMString      longDesc;
    attribute DOMString      src;
    attribute DOMString      useMap;
    attribute long            vspace;
    attribute long            width;
};

interface HTMLObjectElement : HTMLElement {
    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;
```

html.idl:

```
        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();
};
```

html.idl:

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

interface HTMLTableCaptionElement : HTMLInputElement {
    attribute DOMString    align;
};

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

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

interface HTMLTableRowElement : HTMLInputElement {
    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;
    HTMLInputElement      insertCell(in long index)
                            raises(dom::DOMException);
    void                  deleteCell(in long index)
                            raises(dom::DOMException);
};

interface HTMLTableCellElement : HTMLInputElement {
    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;
```

html.idl:

```
        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 Language [Java] binding for the Level 2 Document Object Model HTML.

The Java files are also available as

<http://www.w3.org/TR/2001/WD-DOM-Level-2-HTML-20011025/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;
import org.w3c.dom.DOMException;

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();
}

```

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

```
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)
    throws DOMException;

public void open();

public void close();

public void write(String text);

public void writeln(String text);

public NodeList getElementsByTagName(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/HTMLFormElement.java:

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

public interface HTMLFormElement 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/HTMLInputElement.java:

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

public interface HTMLInputElement 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/HTMLULListElement.java:

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

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

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

org/w3c/dom/html/HTMLLOListElement.java:

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

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

    public String getAlign();
}
```

```
public void setAlign(String align);

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

public int getBorder();
public void setBorder(int border);

public int getHeight();
public void setHeight(int height);

public int getHspace();
public void setHspace(int 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 int getVspace();
public void setVspace(int vspace);

public int getWidth();
public void setWidth(int width);
}
```

org/w3c/dom/html/HTMLObjectElement.java:

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

import org.w3c.dom.Document;

public interface HTMLObjectElement extends HTMLElement {
    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();
}
```

org/w3c/dom/html/HTMLTableCaptionElement.java:

```
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();
}
```

org/w3c/dom/html/HTMLIFrameElement.java:

Appendix D: ECMAScript Language Binding

This appendix contains the complete ECMAScript [ECMAScript] binding for the Level 2 Document Object Model HTML definitions.

Note: Exceptions handling is only supported by ECMAScript implementation conformant with the Standard ECMA-262 3rd. Edition ([ECMAScript]).

Object **HTMLDOMImplementation**

HTMLDOMImplementation has the all the properties and methods of the **DOMImplementation** object as well as the properties and methods defined below.

The **HTMLDOMImplementation** object has the following methods:

createHTMLDocument(title)

This method returns a **HTMLDocument** object.

The **title** parameter is of type **String**.

Object **HTMLCollection**

The **HTMLCollection** object has the following properties:

length

This read-only property is of type **Number**.

The **HTMLCollection** object has the following methods:

item(index)

This method returns a **Node** object.

The **index** parameter is of type **Number**.

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** object.

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 the **Document** object 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 a **HTMLElement** object.

images

This read-only property is a **HTMLCollection** object.

applets

This read-only property is a **HTMLCollection** object.

links

This read-only property is a **HTMLCollection** object.

forms

This read-only property is a **HTMLCollection** object.

anchors

This read-only property is a **HTMLCollection** object.

cookie

This property is of type **String** and can raise a **DOMException** object on setting.

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** object.

The **elementName** parameter is of type **String**.

Object **HTMLElement**

HTMLElement has all the properties and methods of the **Element** object 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 all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLHeadElement** object has the following properties:

profile

This property is of type **String**.

Object **HTMMLinkElement**

HTMMLinkElement has the all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMMLinkElement** 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLIsIndexElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

prompt

This property is of type **String**.

Object **HTMLStyleElement**

HTMLStyleElement has the all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLFormElement** object has the following properties:

elements

This read-only property is a **HTMLCollection** object.

length

This read-only property is of type **Number**.

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 all the properties and methods of the **HTMLElement** object 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 **Number**.

value

This property is of type **String**.

length

This read-only property is of type **Number**.

form

This read-only property is a **HTMLFormElement** object.

options

This read-only property is a **HTMLCollection** object.

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 **Number**.

tabIndex

This property is of type **Number**.

The **HTMLSelectElement** object has the following methods:

add(element, before)

This method has no return value.

The **element** parameter is a **HTMLElement** object.

The **before** parameter is a **HTMLElement** object.

This method can raise a **DOMException** object.

remove(index)

This method has no return value.

The **index** parameter is of type **Number**.

blur()

This method has no return value.

focus()

This method has no return value.

Object **HTMLOptGroupElement**

HTMLOptGroupElement has all the properties and methods of the **HTMLElement** object 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 all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLOptionElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

defaultSelected

This property is of type **Boolean**.

text

This read-only property is of type **String**.

index

This read-only property is of type **Number**.

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 all the properties and methods of the **HTMLElement** object 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 a **HTMLFormElement** object.

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 **Number**.

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 **Number**.

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 the **HTMLElement** object 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 a **HTMLFormElement** object.

accessKey

This property is of type **String**.

cols

This property is of type **Number**.

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 **Number**.

tabIndex

This property is of type **Number**.

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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLButtonElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

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 **Number**.

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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLLabelElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLFieldSetElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

Object **HTMLLegendElement**

HTMLLegendElement has the all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLLegendElement** object has the following properties:

form

This read-only property is a **HTMLFormElement** object.

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 the **HTMLElement** object 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 **HTMLListElement**

HTMLListElement has the all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLListElement** object has the following properties:

compact

This property is of type **Boolean**.

start

This property is of type **Number**.

type

This property is of type **String**.

Object **HTMLDListElement**

HTMLDListElement has the all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 **Number**.

Object **HTMLDivElement**

HTMLDivElement has the all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLPreElement** object has the following properties:

width

This property is of type **Number**.

Object **HTMLBRElement**

HTMLBRElement has the all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object 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 **Number**.

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 all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLImageElement** object has the following properties:

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 **Number**.

height

This property is of type **Number**.

hspace

This property is of type **Number**.

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 **Number**.

width

This property is of type **Number**.

Object **HTMLObjectElement**

HTMLObjectElement has all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLObjectElement** object has the following properties:

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 **Number**.

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 a **Document** object.

Object **HTMLParamElement**

HTMLParamElement has all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLMapElement** object has the following properties:

areas

This read-only property is a **HTMLCollection** object.

name

This property is of type **String**.

Object **HTMLAreaElement**

HTMLAreaElement has the all the properties and methods of the **HTMLElement** object 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 **Number**.

target

This property is of type **String**.

Object **HTMLScriptElement**

HTMLScriptElement has all the properties and methods of the **HTMLElement** object 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 all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLTableElement** object has the following properties:

caption

This property is a **HTMLTableCaptionElement** object.

tHead

This property is a **HTMLTableSectionElement** object.

tFoot

This property is a **HTMLTableSectionElement** object.

rows

This read-only property is a **HTMLCollection** object.

tBodies

This read-only property is a **HTMLCollection** object.

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** object.

deleteTHead()

This method has no return value.

createTFoot()

This method returns a **HTMLElement** object.

deleteTFoot()

This method has no return value.

createCaption()

This method returns a **HTMLElement** object.

deleteCaption()

This method has no return value.

insertRow(index)

This method returns a **HTMLElement** object.

The **index** parameter is of type **Number**.

This method can raise a **DOMException** object.

deleteRow(index)

This method has no return value.

The **index** parameter is of type **Number**.

This method can raise a **DOMException** object.

Object **HTMLTableCaptionElement**

HTMLTableCaptionElement has the all the properties and methods of the **HTMLElement** object 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 the **HTMLElement** object 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 **Number**.
- 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 the **HTMLElement** object 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 a **HTMLCollection** object.

The **HTMLTableSectionElement** object has the following methods:

- insertRow(index)**
This method returns a **HTMLElement** object.
The **index** parameter is of type **Number**.
This method can raise a **DOMException** object.
- deleteRow(index)**
This method has no return value.
The **index** parameter is of type **Number**.
This method can raise a **DOMException** object.

Object **HTMLTableRowElement**

HTMLTableRowElement has the all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLTableRowElement** object has the following properties:

- rowIndex**
This read-only property is of type **Number**.
- sectionRowIndex**
This read-only property is of type **Number**.
- cells**
This read-only property is a **HTMLCollection** object.
- 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** object.

The **index** parameter is of type **Number**.

This method can raise a **DOMException** object.

deleteCell(index)

This method has no return value.

The **index** parameter is of type **Number**.

This method can raise a **DOMException** object.

Object **HTMLTableCellElement**

HTMLTableCellElement has all the properties and methods of the **HTMLElement** object as well as the properties and methods defined below.

The **HTMLTableCellElement** object has the following properties:

cellIndex

This read-only property is of type **Number**.

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 **Number**.

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 **Number**.

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 the **HTMLElement** object 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 the **HTMLElement** object 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 a **Document** object.

Object **HTMLIFrameElement**

HTMLIFrameElement has the all the properties and methods of the **HTMLElement** object 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 a **Document** object.

HTMLAnchorElement objects in String expressions are evaluated as HTMLAnchorElement.href [p.39]. For example:

```
alert(" The absolute URI is " + myAnchorElement);
```

is equivalent to

```
alert(" The absolute URI is " + myAnchorElement.href);
```


Appendix E: Acknowledgements

Many people contributed to this specification, including members of the DOM Working Group and the DOM Interest Group. We especially thank the following:

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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.

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For DOM Level 2, we used Xerces as the basis DOM implementation and wish to thank the authors. Philippe Le Hégarret and Arnaud Le Hors wrote the Java programs which are the DOM application.

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Glossary

Editors:

Arnaud Le Hors, IBM
 Lauren Wood, SoftQuad Software Inc.
 Robert S. Sutor, IBM (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.

live

An object is *live* if any change to the underlying document structure is reflected in the object.

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, November 2000. Available at <http://www.w3.org/TR/2000/REC-DOM-Level-2-Core-20001113>

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>

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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

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DOM Level 2 Style Sheets and CSS

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G.2: Informative references

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DOM Level 3 Abstract Schemas and Load and Save

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RFC2616

IETF (Internet Engineering Task Force) RFC 2616: Hypertext Transfer Protocol -- HTTP/1.1 , eds. R. Fielding, J. Gettys, J. Mogul, H. Frystyk, L. Masinter, P. Leach, T. Berners-Lee. June 1999. Available at <http://www.ietf.org/rfc/rfc2616.txt>

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