Document Object Model (DOM)

The **Document Object Model** (**DOM**) connects web pages to scripts or programming languages by representing the structure of a document—such as the HTML representing a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG, or XML documents as objects are not part of the core JavaScript language, as such.

The DOM represents a document with a logical tree. Each branch of the tree ends in a node, and each node contains objects. DOM methods allow programmatic access to the tree. With them, you can change the document's structure, style, or content.

Nodes can also have event handlers attached to them. Once an event is triggered, the event handlers get executed.

> **To learn more** about what the DOM is and how it represents documents, see our article Introduction to the DOM.

DOM interfaces

`Attr`
`CDATASection`
`CharacterData`
`ChildNode`
`Comment`
`CustomEvent`
`Document`
`DocumentFragment`
`DocumentType`
`DOMError`
`DOMException`
`DOMImplementation`
`DOMString`
`DOMTimeStamp`
`DOMStringList`
`DOMTokenList`
`Element`
`Event`
`EventTarget`
`HTMLCollection`

`MutationObserver`
`MutationRecord`
`NamedNodeMap`
`Node`
`NodeFilter`
`NodeIterator`
`NodeList`
`NonDocumentTypeChildNode`
`ParentNode`
`ProcessingInstruction`
`Selection`
`Range`
`Text`
`TextDecoder`
`TextEncoder`
`TimeRanges`
`TreeWalker`
`URL`
`Window`
`Worker`
`XMLDocument`

Obsolete DOM interfaces

The Document Object Model has been highly simplified. To achieve this, the following interfaces present in the different DOM level 3 or earlier specifications have been removed. It is uncertain whether some may be reintroduced in the future or not, but for the time being they should be considered obsolete and should be avoided:

`DocumentTouch`
`DOMConfiguration`
`DOMErrorHandler`
`DOMImplementationList`
`DOMImplementationRegistry`
`DOMImplementationSource`
`DOMLocator`
`DOMObject`
`DOMSettableTokenList`
`DOMUserData`
`ElementTraversal`
`Entity`
`EntityReference`
`NameList`
`Notation`
`TypeInfo`
`UserDataHandler`

HTML DOM

A document containing HTML is described using the `Document` interface, which is extended by the HTML specification to include various HTML-specific features. In particular, the `Element`

interface is enhanced to become `HTMLElement` and various subclasses, each representing one of (or a family of closely related) elements.

The HTML DOM API provides access to various browser features such as tabs and windows, CSS styles and stylesheets, browser history, and so forth. These interfaces are discussed further in the HTML DOM API documentation.

SVG interfaces

SVG element interfaces

`SVGAElement`
`SVGAltGlyphElement`
`SVGAltGlyphDefElement`
`SVGAltGlyphItemElement`
`SVGAnimationElement`
`SVGAnimateElement`
`SVGAnimateColorElement`
`SVGAnimateMotionElement`
`SVGAnimateTransformElement`
`SVGCircleElement`
`SVGClipPathElement`
`SVGColorProfileElement`
`SVGComponentTransferFunctionElement`
`SVGCursorElement`
`SVGDefsElement`
`SVGDescElement`
`SVGElement`
`SVGEllipseElement`
`SVGFEBlendElement`
`SVGFEColorMatrixElement`
`SVGFEComponentTransferElement`
`SVGFECompositeElement`
`SVGFEConvolveMatrixElement`
`SVGFEDiffuseLightingElement`
`SVGFEDisplacementMapElement`
`SVGFEDistantLightElement`
`SVGFEDropShadowElement`
`SVGFEFloodElement`
`SVGFEFuncAElement`
`SVGFEFuncBElement`
`SVGFEFuncGElement`
`SVGFEFuncRElement`
`SVGFEGaussianBlurElement`
`SVGFEImageElement`
`SVGFEMergeElement`
`SVGFEMergeNodeElement`
`SVGFEMorphologyElement`
`SVGFEOffsetElement`
`SVGFEPointLightElement`
`SVGFESpecularLightingElement`
`SVGFESpotLightElement`
`SVGFETileElement`
`SVGFETurbulenceElement`
`SVGFilterElement`

SVGFilterPrimitiveStandardAttributes
SVGFontElement
SVGFontFaceElement
SVGFontFaceFormatElement
SVGFontFaceNameElement
SVGFontFaceSrcElement
SVGFontFaceUriElement
SVGForeignObjectElement
SVGGElement
SVGGeometryElement
SVGGlyphElement
SVGGlyphRefElement
SVGGradientElement
SVGGraphicsElement
SVGHatchElement
SVGHatchpathElement
SVGHKernElement
SVGImageElement
SVGLinearGradientElement
SVGLineElement
SVGMarkerElement
SVGMaskElement
SVGMeshElement
SVGMeshGradientElement
SVGMeshpatchElement
SVGMeshrowElement
SVGMetadataElement
SVGMissingGlyphElement
SVGMPathElement
SVGPathElement
SVGPatternElement
SVGPolylineElement
SVGPolygonElement
SVGRadialGradientElement
SVGRectElement
SVGScriptElement
SVGSetElement
SVGSolidcolorElement
SVGStopElement
SVGStyleElement
SVGSVGElement
SVGSwitchElement
SVGSymbolElement
SVGTextContentElement
SVGTextElement
SVGTextPathElement
SVGTextPositioningElement
SVGTitleElement
SVGTRefElement
SVGTSpanElement
SVGUseElement
SVGUnknownElement
SVGViewElement
SVGVKernElement

SVG data type interfaces

Here are the DOM APIs for data types used in the definitions of SVG properties and attributes.

Static type

SVGAngle

SVGColor

SVGICCColor

SVGElementInstance

SVGElementInstanceList

SVGLength

SVGLengthList

SVGMatrix

SVGNameList

SVGNumber

SVGNumberList

SVGPaint

SVGPathSeg

SVGPathSegClosePath

SVGPathSegMovetoAbs

SVGPathSegMovetoRel

SVGPathSegLinetoAbs

SVGPathSegLinetoRel

SVGPathSegCurvetoCubicAbs

SVGPathSegCurvetoCubicRel

SVGPathSegCurvetoQuadraticAbs

SVGPathSegCurvetoQuadraticRel

SVGPathSegArcAbs

SVGPathSegArcRel

SVGPathSegLinetoHorizontalAbs

SVGPathSegLinetoHorizontalRel

SVGPathSegLinetoVerticalAbs

SVGPathSegLinetoVerticalRel

SVGPathSegCurvetoCubicSmoothAbs

SVGPathSegCurvetoCubicSmoothRel

SVGPathSegCurvetoQuadraticSmoothAbs

SVGPathSegCurvetoQuadraticSmoothRel

SVGPathSegList

SVGPoint

SVGPointList

SVGPreserveAspectRatio

SVGRect

SVGStringList

SVGTransform

SVGTransformList

Animated type

SVGAnimatedAngle

SVGAnimatedBoolean

SVGAnimatedEnumeration

SVGAnimatedInteger

SVGAnimatedLength

SVGAnimatedLengthList

SVGAnimatedNumber

SVGAnimatedNumberList

SVGAnimatedPathData

SVGAnimatedPoints

SVGAnimatedPreserveAspectRatio

SVGAnimatedRect

SVGAnimatedString

SVGAnimatedTransformList

SMIL-related interfaces

ElementTimeControl

TimeEvent

Other SVG interfaces

GetSVGDocument

ShadowAnimation

SVGColorProfileRule

SVGCSSRule

SVGDocument

SVGException

SVGExternalResourcesRequired

SVGFitToViewBox

SVGLangSpace

SVGLocatable

SVGRenderingIntent

SVGStylable

SVGTests

SVGTransformable

SVGUnitTypes

SVGUseElementShadowRoot

SVGURIReference

SVGViewSpec

SVGZoomAndPan

SVGZoomEvent

Specifications

Specification	Status	Comment
DOM	LS Living Standard	

See also

- DOM Examples
- CSS Object Model (CSSOM)

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Related Topics

Document Object Model

- Guides

  Introduction to the DOM

  Using the W3C DOM Level 1 Core

  Traversing an HTML table with JavaScript and DOM Interfaces

  Locating DOM elements using selectors

  How to create a DOM tree

  Events and the DOM

  How whitespace is handled by HTML, CSS, and in the DOM

  Examples of web and XML development using the DOM

- Interfaces

  `AbortController`

  `AbortSignal`

  `AbstractRange`

  `Attr`

  `ByteString`

  `CDATASection`

  `CharacterData`

  `ChildNode`

  `CSSPrimitiveValue`

  `CSSValue`

  `CSSValueList`

  `Comment`

  `CustomEvent`

  `Document`

  `DocumentFragment`

  `DocumentType`

  `DOMConfiguration`

DOMError

DOMErrorHandler

DOMException

DOMImplementation

DOMImplementationList

DOMImplementationRegistry

DOMImplementationSource

DOMLocator

DOMObject

DOMParser

DOMPoint

DOMPointInit

DOMPointReadOnly

DOMRect

DOMString

DOMTimeStamp

DOMTokenList

DOMUserData

Element

ElementTraversal

Entity

EntityReference

Event

EventTarget

HTMLCollection

MutationObserver

Node

NodeFilter

NodeIterator

NodeList

NonDocumentTypeChildNode

ProcessingInstruction

PromiseResolver

Range

`StaticRange`

`Text`

`TextDecoder`

`TextEncoder`

`TimeRanges`

`TreeWalker`

`TypeInfo`

`UserDataHandler`

`USVString`

`XMLDocument`