[MS-WEBMSG]:

Microsoft Edge / Internet Explorer HTML5 Web Messaging Standards Support Document

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Revision Summary

Date	Revision History	Revision Class	Comments
8/11/2015	1.0	New	Released new document.
11/2/2015	1.0	None	No changes to the meaning, language, or formatting of the technical content.
1/20/2016	1.1	Minor	Clarified the meaning of the technical content.
3/22/2016	1.1	None	No changes to the meaning, language, or formatting of the technical content.
7/19/2016	1.2	Minor	Clarified the meaning of the technical content.
11/2/2016	1.2	None	No changes to the meaning, language, or formatting of the technical content.
3/14/2017	1.2	None	No changes to the meaning, language, or formatting of the technical content.
10/3/2017	1.2	None	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1 Introduction

This documented describes the level of supported provided by Microsoft web browsers for the W3C *HTML5 Web Messaging* specification [W3C-HTML5WEBMSG], published 19 May 2015. The [W3C-HTML5WEBMSG] specification defines two mechanisms for communicating between browsing contexts in HTML documents.

1.1 Glossary

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the Errata.

1.2.1 Normative References

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

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.rfc-editor.org/rfc/rfc2119.txt

[W3C-HTML5WEBMSG] World Wide Web Consortium, "HTML5 Web Messaging", W3C Recommendation 19 May 2015, http://www.w3.org/TR/2015/REC-webmessaging-20150519/

1.2.2 Informative References

None.

1.3 Microsoft Implementations

The following Microsoft web browser versions implement some portion of the [W3C-HTML5WEBMSG], specification:

- Windows Internet Explorer 9
- Windows Internet Explorer 10
- Internet Explorer 11
- Internet Explorer 11 for Windows 10
- Microsoft Edge

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

Browser Version	Document Modes Supported
Internet Explorer 9	IE9 Mode IE10 Mode IE11 Mode
Internet Explorer 10	IE9 Mode IE10 Mode IE11 Mode
Internet Explorer 11	IE9 Mode IE10 Mode IE11 Mode
Internet Explorer 11 for Windows 10	IE9 Mode IE10 Mode IE11 Mode
Microsoft Edge	EdgeHTML Mode

For each variation presented in this document there is a list of the document modes and browser versions that exhibit the behavior described by the variation. All combinations of modes and versions that are not listed conform to the specification. For example, the following list for a variation indicates that the variation exists in three document modes in all browser versions that support these modes:

Quirks Mode, IE7 Mode, and IE8 Mode (All Versions)

1.4 Standards Support Requirements

To conform to [W3C-HTML5WEBMSG], a user agent must implemented all required portions of the specification. Any optional portions that have been implemented must also be implemented as described by the specification. Normative language is usually used to define both required and optional portions. (For more information, see [RFC2119].)

The following lists the sections of [W3C-HTML5WEBMSG] and whether they are considered normative or informative.

Sections	Normative/Informative
1,2	Informative
3	Normative
4	Informative
5	Normative

1.5 Notation

The following notations are used in this document to differentiate between notes of clarification, variation from the specification, and points of extensibility.

Notation	Explanation
C####	This identifies a clarification of ambiguity in the target specification. This includes imprecise statements, omitted information, discrepancies, and errata. This does not include data formatting clarifications.
V####	This identifies an intended point of variability in the target specification such as the use of MAY, SHOULD, or RECOMMENDED. (See [RFC2119].) This does not include extensibility points.
E####	Because the use of extensibility points (such as optional implementation-specific data) can impair interoperability, this profile identifies such points in the target specification.

For document mode and browser version notation, see also section 1.3.

2 Standards Support Statements

This section contains a full list of variations, clarifications, and extension points in the Microsoft implementation of [W3C-HTML5WEBMSG].

2.1 Normative Variations

2.1.1 [W3C-HTML5WEBMSG] Section 3 The MessageEvent interfaces

V0001: The lastEventId attribute is not supported

The specification states:

```
3. The MessageEvent interfaces
...
interface MessageEvent : Event {
  readonly attribute any data;
  readonly attribute DOMString origin;
  readonly attribute DOMString lastEventId;
  readonly attribute (WindowProxy or MessagePort)? source;
  readonly attribute MessagePort[]? ports;

  void initMessageEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg,
  any dataArg, DOMString originArg, DOMString lastEventIdArg, (WindowProxy or
  MessagePort) sourceArg, sequence<MessagePort>? portsArg);
};
```

All document modes (All versions)

The `lastEventId` attribute is not supported.

V0002: The source attribute is defined with the incorrect type

The specification states:

```
3. The MessageEvent interfaces
...
interface MessageEvent : Event {
  readonly attribute any data;
  readonly attribute DOMString origin;
  readonly attribute DOMString lastEventId;
  readonly attribute (WindowProxy or MessagePort)? source;
  readonly attribute MessagePort[]? ports;

  void initMessageEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg,
  any dataArg, DOMString originArg, DOMString lastEventIdArg, (WindowProxy or
  MessagePort) sourceArg, sequence<MessagePort>? portsArg);
};
```

All document modes (All versions)

The `source` attribute is defined incorrectly as type `Window`.

V0003: The ports attribute is defined with an incorrect type

The specification states:

```
3. The MessageEvent interfaces
...
interface MessageEvent : Event {
  readonly attribute any data;
  readonly attribute DOMString origin;
  readonly attribute DOMString lastEventId;
  readonly attribute (WindowProxy or MessagePort)? source;
  readonly attribute MessagePort[]? ports;

  void initMessageEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg,
  any dataArg, DOMString originArg, DOMString lastEventIdArg, (WindowProxy or
  MessagePort) sourceArg, sequence<MessagePort>? portsArg);
};
```

All document modes (All versions)

The `ports` attribute is defined as type `any`.

V0004: The initMessageEvent funtion does not take the correct numer of values

The specification states:

```
interface MessageEvent : Event {
  readonly attribute any data;
  readonly attribute DOMString origin;
  readonly attribute DOMString lastEventId;
  readonly attribute (WindowProxy or MessagePort)? source;
  readonly attribute MessagePort[]? ports;

  void initMessageEvent(DOMString typeArg, boolean canBubbleArg, boolean cancelableArg,
  any dataArg, DOMString originArg, DOMString lastEventIdArg, (WindowProxy or
  MessagePort) sourceArg, sequence<MessagePort>? portsArg);
};
```

All document modes (All versions)

The `initMessageEvent` function defines the `sourceArg` type as `Window` and does not support the final argument `portsArgs`.

2.1.2 [W3C-HTML5WEBMSG] Section 5.3 Message ports

V0005: The postMessage function does not define the proper arguments

The specification states:

```
5.3 Message ports
...
interface MessagePort : EventTarget {
  void postMessage(any message, optional sequence<Transferable> transfer);
  void start();
  void close();

  // event handlers
  attribute EventHandler onmessage;
```

```
};
```

IE11 Mode (All versions)

The `postMessage` function is incorrectly defined as:

```
void postMessage(optional any message, optional any ports);
```

2.2 Clarifications

The following subsections identify clarifications relative to [W3C-HTML5WEBMSG].

2.3 Error Handling

There are no additional considerations for error handling.

2.4 Security

There are no additional security considerations.

3 Change Tracking

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

4 Index