**[MS-CSS3-FONTS]:**

**Microsoft Edge CSS Fonts Module Level 3 Standards Support Document**

Intellectual Property Rights Notice for Open Specifications Documentation

* **Technical Documentation.** Microsoft publishes Open Specifications documentation (“this documentation”) for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.
* **Copyrights**. This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.
* **No Trade Secrets**. Microsoft does not claim any trade secret rights in this documentation.
* **Patents**. Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft [Open Specifications Promise](https://go.microsoft.com/fwlink/?LinkId=214445) or the [Microsoft Community Promise](https://go.microsoft.com/fwlink/?LinkId=214448). If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting [iplg@microsoft.com](mailto:iplg@microsoft.com).
* **License Programs**. To see all of the protocols in scope under a specific license program and the associated patents, visit the [Patent Map](https://msdn.microsoft.com/en-us/openspecifications/dn750984).
* **Trademarks**. The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit [www.microsoft.com/trademarks](https://www.microsoft.com/trademarks).
* **Fictitious Names**. The example companies, organizations, products, domain names, email addresses, logos, people, places, and events that are depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

**Reservation of Rights**. All other rights are reserved, and this notice does not grant any rights other than as specifically described above, whether by implication, estoppel, or otherwise.

**Tools**. The Open Specifications documentation does not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments, you are free to take advantage of them. Certain Open Specifications documents are intended for use in conjunction with publicly available standards specifications and network programming art and, as such, assume that the reader either is familiar with the aforementioned material or has immediate access to it.

**Support.** For questions and support, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).

**Revision Summary**

| Date | Revision History | Revision Class | Comments |
| --- | --- | --- | --- |
| 11/27/2018 | 1.0 | New | Released new document. |

Table of Contents

[1 Introduction 4](#_Toc531071402)

[1.1 Glossary 4](#_Toc531071403)

[1.2 References 4](#_Toc531071404)

[1.2.1 Normative References 4](#_Toc531071405)

[1.2.2 Informative References 4](#_Toc531071406)

[1.3 Microsoft Implementations 4](#_Toc531071407)

[1.4 Standards Support Requirements 5](#_Toc531071408)

[1.5 Notation 5](#_Toc531071409)

[2 Standards Support Statements 6](#_Toc531071410)

[2.1 Normative Variations 6](#_Toc531071411)

[2.1.1 [CSS3Fonts:2018] Section 3.6. Relative sizing: the font-size-adjust property 6](#_Toc531071412)

[2.1.2 [CSS3Fonts:2018] Section 3.7. Shorthand font property: the font property 6](#_Toc531071413)

[2.1.3 [CSS3Fonts:2018] Section 3.8. Controlling synthetic faces: the font-synthesis property 7](#_Toc531071414)

[2.1.4 [CSS3Fonts:2018] Section 4.7. Font features: the font-feature-settings descriptor 7](#_Toc531071415)

[2.1.5 [CSS3Fonts:2018] Section 6.3. Kerning: the font-kerning property 7](#_Toc531071416)

[2.1.6 [CSS3Fonts:2018] Section 6.4. Ligatures: the font-variant-ligatures property 8](#_Toc531071417)

[2.1.7 [CSS3Fonts:2018] Section 6.5. Subscript and superscript forms: the font-variant-position property 8](#_Toc531071418)

[2.1.8 [CSS3Fonts:2018] Section 6.6. Capitalization: the font-variant-caps property 9](#_Toc531071419)

[2.1.9 [CSS3Fonts:2018] Section 6.7. Numerical formatting: the font-variant-numeric property 9](#_Toc531071420)

[2.1.10 [CSS3Fonts:2018] Section 6.8. East Asian text rendering: the font-variant-east-asian property 9](#_Toc531071421)

[2.1.11 [CSS3Fonts:2018] Section 6.10. Low-level font feature settings control: the font-feature-settings property 10](#_Toc531071422)

[2.2 Clarifications 10](#_Toc531071423)

[2.3 Extensions 10](#_Toc531071424)

[2.3.1 [CSS3Fonts:2018] Section 3.6. Relative sizing: the font-size-adjust property 10](#_Toc531071425)

[2.4 Error Handling 10](#_Toc531071426)

[2.5 Security 11](#_Toc531071427)

[3 Change Tracking 12](#_Toc531071428)

[4 Index 13](#_Toc531071429)

# Introduction

This document describes the level of support provided by Microsoft web browsers for the *CSS Fonts Module Level 3* W3C Recommendation [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057), published September 2018. The [CSS3Fonts:2018] CSS3 module describes how font properties are specified and how font resources are loaded dynamically. The contents of this module consolidate content previously divided into the CSS3 Fonts and CSS3 Web Fonts modules. The description of font load events was moved into the CSS Font Loading module.

## Glossary

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

## References

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

### Normative References

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

[CSS3Fonts:2018] Daggett, J., Maxfield, M., and Lilley, C., Eds., "CSS Fonts Module Level 3", W3C Recommendation, September 2018, [https://www.w3.org/TR/2018/REC-css-fonts-3-20180920/](https://go.microsoft.com/fwlink/?linkid=2038057)

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

### Informative References

None.

## Microsoft Implementations

The following Microsoft web browser versions implement some portion of the [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057) specification:

* 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 |
| --- | --- |
| 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)*

## Standards Support Requirements

To conform to [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057), a user agent must implement 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]](https://go.microsoft.com/fwlink/?LinkId=90317).)

The following table lists the sections of [CSS3Fonts:2018] and whether they are considered normative or informative.

| Sections | Normative/Informative |
| --- | --- |
| 1 | Normative |
| 2 | Informative |
| 3-8 | Normative |

## 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]](https://go.microsoft.com/fwlink/?LinkId=90317).) 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](#Section_9a1b4e6ff1ae4318a49a97494a9b115c).

# Standards Support Statements

This section contains all variations, clarifications, and extensions for the Microsoft implementation of [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057).

* Section [2.1](#Section_ebffeb6214284a819083b5176564f671) describes normative variations from the MUST requirements of the specification.
* Section [2.2](#Section_1bd1eb24a5af47929b711dd78e104278) describes clarifications of the MAY and SHOULD requirements.
* Section [2.3](#Section_b198a2bc46f04fbfba66f6f3885dbd98) describes extensions to the requirements.
* Section [2.4](#Section_5a0feab59d4c4c5f8786130e78e3a511) considers error handling aspects of the implementation.
* Section [2.5](#Section_2ba019b7f1a4439ba57d4c74383b7850) considers security aspects of the implementation.

## Normative Variations

The following subsections describe normative variations from the MUST requirements of [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057).

### [CSS3Fonts:2018] Section 3.6. Relative sizing: the font-size-adjust property

V0002: Number values not supported

The specification states:

1. 3.6. Relative sizing: the font-size-adjust property
2. Name: font-size-adjust
3. Value: none | <number>
4. ...
5. none
6. Do not preserve the font's x-height.
7. <number>
8. Specifies the aspect value used in the calculation below to calculate the
9. adjusted font size:

***EdgeHTML Mode***

Number values not supported.

### [CSS3Fonts:2018] Section 3.7. Shorthand font property: the font property

V0011: The inherit value can be mixed with other sub-values

The specification states:

1. 3.7. Shorthand font property: the font property
2. Name: font
3. Value: [[ <‘font-style’> || <font-variant-css21> || <‘font-weight’>
4. || <‘font-stretch’> ]?<‘font-size’> [ / <‘line-height’> ]?
5. <‘font-family’> ] | caption | icon | menu | message-box |
6. small-caption | status-bar

***EdgeHTML Mode***

The **inherit** value can be mixed with other sub-values, for example:

font: 40px inherit;

### [CSS3Fonts:2018] Section 3.8. Controlling synthetic faces: the font-synthesis property

V0003: The font-synthesis property is not supported

The specification states:

1. 3.8. Controlling synthetic faces: the font-synthesis property
2. Name: font-synthesis
3. ...
4. This property controls whether user agents are allowed to synthesize bold or oblique
5. font faces when a font family lacks bold or italic faces.

***EdgeHTML Mode***

The font-synthesis property is not supported.

### [CSS3Fonts:2018] Section 4.7. Font features: the font-feature-settings descriptor

V0001: The font-feature-settings descriptor is not supported

The specification states:

1. 4.7. Font features: the font-feature-settings descriptor
2. Name: font-feature-settings
3. ...
4. This descriptor defines initial settings that apply when the font defined by an
5. @font-face rule is rendered. ...

***EdgeHTML Mode***

The font-feature-settings descriptor is not supported.

### [CSS3Fonts:2018] Section 6.3. Kerning: the font-kerning property

V0007: The font-kerning property is not supported

The specification states:

1. 6.3. Kerning: the font-kerning property
2. Name: font-kerning
3. ...
4. Kerning is the contextual adjustment of inter-glyph spacing. This property controls
5. metric kerning, kerning that utilizes adjustment data contained in the font.

***EdgeHTML Mode***

The font-kerning property is not supported.

### [CSS3Fonts:2018] Section 6.4. Ligatures: the font-variant-ligatures property

V0008: The font-variant-ligatures property is not supported

The specification states:

1. 6.4. Ligatures: the font-variant-ligatures property
2. Name: font-variant-ligatures
3. ...
4. Ligatures and contextual forms are ways of combining glyphs to produce more
5. harmonized forms.

***EdgeHTML Mode***

The font-variant-ligatures property is not supported.

### [CSS3Fonts:2018] Section 6.5. Subscript and superscript forms: the font-variant-position property

V0005: The font-variant-position property is not supported

The specification states:

1. 6.5. Subscript and superscript forms: the font-variant-position property
2. Name: font-variant-position
3. ...
4. This property is used to enable typographic subscript and superscript glyphs. These
5. are alternate glyphs designed within the same em-box as default glyphs and are
6. intended to be laid out on the same baseline as the default glyphs, with no resizing
7. or repositioning of the baseline. ...

***EdgeHTML Mode***

The font-variant-position property is not supported.

### [CSS3Fonts:2018] Section 6.6. Capitalization: the font-variant-caps property

V0006: The font-variant-caps property is not supported

The specification states:

1. 6.6. Capitalization: the font-variant-caps property
2. Name: font-variant-caps
3. ...
4. This property allows the selection of alternate glyphs used for small or petite
5. capitals or for titling. These glyphs are specifically designed to blend well with
6. the surrounding normal glyphs, to maintain the weight and readability which suffers
7. when text is simply resized to fit this purpose.

***EdgeHTML Mode***

The font-variant-caps property is not supported.

### [CSS3Fonts:2018] Section 6.7. Numerical formatting: the font-variant-numeric property

V0009: The font-variant-numeric property is not supported

The specification states:

1. 6.7. Numerical formatting: the font-variant-numeric property
2. Name: font-variant-numeric
3. ...
4. Specifies control over numerical forms. The example below shows how some of these
5. values can be combined to influence the rendering of tabular data with fonts that
6. support these features. ...

***EdgeHTML Mode***

The font-variant-numeric property is not supported.

### [CSS3Fonts:2018] Section 6.8. East Asian text rendering: the font-variant-east-asian property

V0010: The font-variant-east-asian property is not supported

The specification states:

1. 6.8. East Asian text rendering: the font-variant-east-asian property
2. Name: font-variant-east-Asian
3. ...
4. Allows control of glyph substitution and sizing in East Asian text.

***EdgeHTML Mode***

The font-variant-east-asian property is not supported.

### [CSS3Fonts:2018] Section 6.10. Low-level font feature settings control: the font-feature-settings property

V0004: The font-feature-settings property is not supported

The specification states:

1. 6.10. Low-level font feature settings control: the font-feature-settings property
2. Name: font-feature-settings
3. ...
4. This property provides low-level control over OpenType font features. It is intended
5. as a way of providing access to font features that are not widely used but are needed
6. for a particular use case.

***EdgeHTML Mode***

The font-feature-settings property is not supported.

## Clarifications

There are no clarifications of the MAY and SHOULD requirements of [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057).

## Extensions

The following subsections describe extensions to the requirements of [[CSS3Fonts:2018]](https://go.microsoft.com/fwlink/?linkid=2038057).

### [CSS3Fonts:2018] Section 3.6. Relative sizing: the font-size-adjust property

E0001: Percentage values are supported

The specification states:

1. 3.6. Relative sizing: the font-size-adjust property
2. Name: font-size-adjust
3. ...
4. Percentages: N/A

***EdgeHTML Mode***

Percentage values are supported.

## Error Handling

There are no additional error handling considerations.

## Security

There are no additional security considerations.

# Change Tracking

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

# Index

C

[Change tracking](#section_3dea58b6704f4ea6879b390913f9502f) 12

G

[Glossary](#section_0c5f487dc53042c69cb30c2c8f45551f) 4

I

[Informative references](#section_b857518a75c54ec3b27902440576d9d0) 4

[Introduction](#section_de3257667e464f4586c891eb95d2826b) 4

N

[Normative references](#section_96509f23099e4a219174c6fba6cb3ab9) 4

R

References

[informative](#section_b857518a75c54ec3b27902440576d9d0) 4

[normative](#section_96509f23099e4a219174c6fba6cb3ab9) 4

T

[Tracking changes](#section_3dea58b6704f4ea6879b390913f9502f) 12