

[MS-CSS3COLR]: Internet Explorer CSS Color Module Level 3 Standards Support

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Revision Summary

Date	Revision History	Revision Class	Comments
12/07/2011	1.0	New	Released new document.
02/22/2012	1.1	Minor	Clarified the meaning of the technical content.
07/25/2012	1.2	Minor	Clarified the meaning of the technical content.

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1 Introduction

This document describes the level of support provided by Windows® Internet Explorer® for the CSS3 Color Module specification, published June 07, 2011.

1.1 Glossary

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

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

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. Please check the archive site, <http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624>, as an additional source.

[CSS-Level2-2009] Bos, B., Celik, T., Hickson, I., and Wium Lie, H., Eds., "Cascading Style Sheets Level 2 Revision 1 (CSS 2.1) Specification", W3C Candidate Recommendation 08 September 2009, <http://www.w3.org/TR/2009/CR-CSS2-20090908/>

[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-CSS3-Color] W3C, "CSS Color Module Level 3", W3C Recommendation 07 June 2011, <http://www.w3.org/TR/css3-color/>

1.2.2 Informative References

None.

1.3 Microsoft Implementations

The following Microsoft products implement some portion of the CSS specification:

- Windows® Internet Explorer® 7
- Windows® Internet Explorer® 8
- Windows® Internet Explorer® 9
- Windows® Internet Explorer® 10

In addition, each version of Windows® Internet Explorer® implements multiple document modes, which can vary individually in their support of the standard. The following table lists the document modes available in each version of Internet Explorer.

Browser Version	Document Modes Supported
Internet Explorer 7	Quirks Mode Standards Mode
Internet Explorer 8	Quirks Mode IE7 Mode IE8 Mode
Internet Explorer 9	Quirks Mode IE7 Mode IE8 Mode IE9 Mode
Internet Explorer 10 (Beta)	Quirks Mode IE7 Mode IE8 Mode IE9 Mode IE10 Mode

Throughout this document, the document mode appears first followed by the browser version in parentheses. Only those document modes and versions of Internet Explorer for which there is a variation note will be listed. If the document mode is not listed, conformance to the specification can be assumed.

Note "Standards mode" in Internet Explorer 7 and "IE7 mode" in Internet Explorer 8 refer to the same document mode. "IE7 mode" is the preferred way of referring to this document mode across all versions of the browser.

1.4 Standards Support Requirements

To conform to [\[W3C-CSS3-Color\]](#) 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 [\[RFC2119\]](#).)

1.5 Notation

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

Notation	Explanation
C####	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####	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####	Identifies extensibility points (such as optional implementation-specific data) in the target specification, which can impair interoperability.

For document mode and browser version notation, see section [1.3](#).

2 Standards Support Statements

This section contains a full list of variations, clarifications, and extension points in the Microsoft implementation of [\[CSS-Level2-2009\]](#).

- Section [2.1](#) includes only those variations that violate a MUST requirement in the target specification.
- Section [2.2](#) describes further variations from MAY and SHOULD requirements.
- Section [2.3](#) identifies variations in error handling.
- Section [2.4](#) identifies variations that impact security.

2.1 Normative Variations

The following subsections detail the normative variations from MUST requirements in [\[W3C-CSS3-Color\]](#).

2.1.1 [W3C-CSS3-Color] Section 3.1, Foreground color: the 'color' property

V0001:

The specification states:

```
Name: color
Value: <color> | inherit
Initial: depends on user agent
Applies to: all elements
Inherited: yes
Percentages: N/A
Media: visual
```

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

The **transparent**, **currentColor**, and **inherit** keywords are not supported.

All Document Modes (All Versions)

The color value of `invert` is treated like "black". `invert` is an invalid value.

V0002:

The specification states:

```
The computed value of the keyword 'transparent' is the quadruplet of all zero numerical RGBA values, e.g. rgba(0,0,0,0). See the definition of the 'currentColor' for how its computed value is determined. For all other values, the computed value is the specified value.
```

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

The **transparent** keyword is not supported.

2.1.2 [W3C-CSS3-Color] Section 3.2, Transparency: the 'opacity' property

V0003:

The specification states:

```
Name: opacity
Value: <alphavalue> | inherit
Initial: 1
Applies to: all elements
Inherited: no
Percentages: N/A
Media: visual
Computed value: The same as the specified value after clipping the <alphavalue> to the range [0.0,1.0].
```

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

The **opacity** property is not supported.

2.1.3 [W3C-CSS3-Color] Section 4, Color units

V0004:

The specification states:

```
A <color> is either a keyword or a numerical specification.
```

All Document Modes (All Versions)

The color value of `invert` is treated like "black". `invert` is considered to be an invalid value.

2.1.4 [W3C-CSS3-Color] Section 4.2.1, RGB color values

V0005:

The specification states:

```
The format of an RGB value in the functional notation is 'rgb(' followed by a comma-separated list of three numerical values (either three integer values or three percentage values) followed by ')'. The integer value 255 corresponds to 100%, and to F or FF in the hexadecimal notation: rgb(255,255,255) = rgb(100%,100%,100%) = #FFF. White space characters are allowed around the numerical values.
```

Quirks Mode and IE7 Mode (All Versions)

Signed RGB values are not supported.

IE8 Mode (Internet Explorer 8)

Signed RGB values are not supported.

2.1.5 [W3C-CSS3-Color] Section 4.2.2, RGBA color values

V0006:

The specification states:

The format of an RGBA value in the functional notation is `'rgba('` followed by a comma-separated list of three numerical values (either three integer values or three percentage values), followed by an `<alphavalue>`, followed by `')`. The integer value 255 corresponds to 100%, `rgba(255,255,255,0.8) = rgba(100%,100%,100%,0.8)`. White space characters are allowed around the numerical values.

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

RGBA color values are not supported.

V0007:

The specification states:

Implementations must clip the red, green, and blue components of RGBA color values to the device gamut according to the rules for the RGB color value composed of those components.

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

RGBA color values are not supported.

2.1.6 [W3C-CSS3-Color] Section 4.2.3, 'transparent' color keyword

V0008:

The specification states:

`transparent`
Fully transparent. This keyword can be considered a shorthand for transparent black, `rgba(0,0,0,0)`, which is its computed value.

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

The **transparent** keyword is not supported.

2.1.7 [W3C-CSS3-Color] Section 4.2.4, HSL color values

V0009:

The specification states:

HSL colors are encoding as a triple (hue, saturation, lightness). Hue is represented as an angle of the color circle (i.e. the rainbow represented in a circle). This angle is so typically measured in degrees that the unit is implicit in CSS; syntactically, only a `<number>` is given.

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

HSL color values are not supported.

2.1.8 [W3C-CSS3-Color] Section 4.2.5, HSLA color values

V0010:

The specification states:

The format of an HSLA color value in the functional notation is 'hsla(' followed by the hue in degrees, saturation and lightness as a percentage, and an <alphavalue>, followed by ')'. White space characters are allowed around the numerical values.

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

HSLA color values are not supported.

V0011:

The specification states:

Implementations must clip the hue, saturation, and lightness components of HSLA color values to the device gamut according to the rules for the HSL color value composed of those components.

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

HSLA color values are not supported.

2.1.9 [W3C-CSS3-Color] Section 4.4, 'currentColor' color keyword

V0012:

The specification states:

`currentColor`
The value of the 'color' property. The computed value of the 'currentColor' keyword is the computed value of the 'color' property. If the 'currentColor' keyword is set on the 'color' property itself, it is treated as 'color:inherit' at parse time.

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

The **currentColor** keyword is not supported.

2.2 Clarifications

There are no additional clarifications to [\[W3C-CSS3-Color\]](#).

2.3 Error Handling

There are no additional considerations for error handling.

2.4 Security

There are no additional security considerations.

3 Change Tracking

This section identifies changes that were made to the [MS-CSS3COLR] protocol document between the February 2012 and July 2012 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- The removal of a document from the documentation set.
- Changes made for template compliance.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

Major and minor changes can be described further using the following change types:

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated**.

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1 Introduction	Updated document to remove beta tagging.	N	Content updated.

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