Cascading Style Sheets (CSS) Requirements for RFCs

Abstract

The HTML format for RFCs assigns style guidance to a Cascading Style Sheet (CSS) specifically defined for the RFC Series. The embedded, default CSS as included by the RFC Editor is expected to take into account accessibility needs and to be built along a responsive design model. This document describes the requirements for the default CSS used by the RFC Editor. The class names are based on the classes defined in "HTML for RFCs" (RFC 7992).

Status of this Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

This document is a product of the Internet Architecture Board (IAB) and represents information that the IAB has deemed valuable to provide for permanent record. It represents the consensus of the Internet Architecture Board (IAB). Documents approved for publication by the IAB are not a candidate for any level of Internet Standard; see Section 2 of RFC 7841[1].

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc7993[2].

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[1] https://www.rfc-editor.org/rfc/rfc7841.html#section-2
[2] http://www.rfc-editor.org/info/rfc7993
[3] http://trustee.ietf.org/license-info

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1. Introduction

The HTML format for RFCs, described in [RFC7992], assigns style guidance to a Cascading Style Sheet (CSS) specifically defined for the RFC Series. This CSS will be embedded in the published HTML, and it may be overridden by a locally defined CSS, as desired. The embedded, default CSS as included by the RFC Editor is expected to take into account accessibility needs and to be built along a responsive design model.

This document describes the requirements for the default CSS used by the RFC Editor. Unless called out otherwise, any styling provided for these classes must not alter the natural language content in any visible way. Many of these classes are provided to mark the elements semantically: elements using them should simply inherit their surrounding styling. Exceptions are listed below. A class is identified for Internet-Drafts, such that certain features found only in I-Ds may be made distinct in some fashion within those drafts. The requirements will only be applied to HTML documents published by the RFC Editor as per [RFC7990].

The details included in this document are expected to change based on experience gained in implementing the new publication toolsets. Revised documents will be published capturing those changes as the toolsets are completed. Other implementers must not expect those changes to remain backwards compatible with the details included in this document.

2. Design Goal

RFCs must be adaptable to a wide variety of devices and displays, accessible to assisted readers, and printable.

3. General Requirements

- Support the display of the semantic HTML described in [RFC7992].
- Follow best practice for accessibility, as defined by the W3C's "Best Practices for Authoring HTML" [HTMLBP].
- Follow best practice for mobile devices, as defined by the W3C's "Best Practices for Authoring HTML".
- Allow for a broad range of internationalized scripts.

4. Page Layout

4.1. Title Page Header

The document header must be at the top of the document and include all information described in "RFC Style Guide" [RFC7322] and "RFC Streams, Headers, and Boilerplates" [RFC7841].

4.2. Body

The body of the document must conform to the following:

- Examples and code blocks must be in a fixed-width font
- ASCII art must be in a fixed-width font
- Reflow the text as the screen gets smaller and limit max width
- Block quotes must be indented
- Tables must allow for distinct header rows
- Paragraphs should include a hover-over paragraph identifier

All anchor tags and URLs should be clearly distinguished as links, for example, through the use of color and/or text decoration, following appropriate accessibility standards.

4.3. Font Choices

- Default to a sans-serif font family with broad Unicode support for web browser viewing.
- Default to a serif font family with broad Unicode support for printing.
- A fixed-width font must be used for code and artwork-tagged sections.
- All fonts should be publicly licensed and supported by all major web browsers.

5. Printing

The CSS must include support for a printer-friendly output. The print rules should be a part of the embedded style sheet; consumers of an RFC may develop their own print-specific style sheet, as desired.

6. Lists

Lists should provide ample whitespace between list elements for legibility unless a 'compact' class is specified (e.g., .dlCompact, .ulCompact, .olCompact).

7. CSS Classes and Attributes

This section describes the CSS classes that result in specific changes to the natural language content of a document. A full list of available classes, not including basic selectors, is included in Appendix A.

7.1. .alignCenter

To be used with '.artwork' to indicate the figure should align in the center of the page flow.

7.2. .alignRight

To be used with '.artwork' to indicate the figure should align on the right of the page flow.

7.3. .artwork

These classes will mostly be styled as part of '.artwork'. Specific classes may include '.art-ascii-art' and '.art-svg'. Artwork will be held in its own block of space, centered in the page flow, and will not float. Images should have a max width of 100% so views will scale properly across a variety of screens and devices.

7.3.1. .art-ascii-art

Must use a mono-spaced font.

7.3.2. .art-logo

No visible changes to the natural language content; keep in default style. Note that such images are not currently allowed in RFCs.

7.4. .cref

A comment within an I-D; should be visually distinct.

For I-Ds only; not for RFCs.

7.5. .crefAnchor

A comment within an I-D; should be visually distinct.

For I-Ds only; not for RFCs.

7.6. .crefSource

A comment within an I-D; should be visually distinct.

For I-Ds only; not for RFCs.

7.7. .dlCompact

Use less spacing on a definition list than the default.

7.8. .dlHanging

Use the standard hanging indent for a definition list; indent terms.

7.9. .dlParallel

Do not use the standard hanging indent for a definition list; align terms and definitions along left side.

7.10. .docInfo

Hide from visible content.

7.11. .eref

Standard link formatting (underlined, change in color).

7.12. .finalized

Hide from visible content.

7.13. .note

Notes should be emphasized and distinct from normal paragraph text.

7.13.1. .rfcEditorRemove

An RFC Editor note may be added after the standard boilerplate. It should be visually distinct to highlight final removal of the note by the RFC Editor.

7.14. .olCompact

Use less spacing on a numbered list than the default.

7.15. .olPercent

If the style attribute from the source XML contains a percent sign, a particular style setting will be required to make this setting behave like an HTML ordered list.

7.16. .pilcrow

Pilcrows, when used as described in RFC 7992, should appear at the end of the paragraph, artwork, or sourcecode segment. They should not appear until moused-over. They should not show when printed, and they should not be selected when copied with a copy/paste function.

7.17. .relref

Should be clearly distinguished as links.

7.18. .rendered

Hide from visible content.

7.19. .sourcecode

Code examples or components should be in a fixed-width font if the human language used has an available fixed-width font option, and they should be visually distinct. If no fixed-width font is available, use the default font for that human language.

7.20. .toc

The table of contents should be clearly distinguished using an indented, ordered list with the list style set to 'none', allowing for hyperlinked, in-line dotted number notation (e.g., 1., 1.1., 1.1.1.).

7.21. .type

No visible changes to the natural language content; keep in default style.

7.22. .ulCompact

Use less spacing on a bulleted list than the default.

7.23. .ulEmpty

Indent from the margin of the previous paragraph.

7.24. .url

Should be clearly distinguished as links.

7.25. .xref

Should be clearly distinguished as links.

8. Security Considerations

Security vulnerabilities can be introduced through the CSS, as with CSS injection attacks [CSSATTACK]. In order to avoid or mitigate any attack vectors here, the CSS used must comply with the current CSS Specifications from the W3C.

9. References

9.1. Normative References

[HTMLBP]   W3C, "Best Practices for Authoring HTML Current Status", <http://www.w3.org/standards/techs/
             htmlbp>.

[RFC7841]   Halpern, J., Ed., Daigle, L., Ed., and O. Kolkman, Ed., "RFC Streams, Headers, and Boilerplates",
             RFC 7841, DOI 10.17487/RFC7841, May 2016, <https://www.rfc-editor.org/info/rfc7841>.

[RFC7322]   Flanagan, H. and S. Ginoza, "RFC Style Guide", RFC 7322, DOI 10.17487/RFC7322, September
             2014, <https://www.rfc-editor.org/info/rfc7322>.

[RFC7990]   Flanagan, H., "RFC Format Framework", RFC 7990, DOI 10.17487/RFC7990, December 2016,
             <http://www.rfc-editor.org/info/rfc7990>.

[RFC7992]   Hildebrand, J., Ed. and P. Hoffman, "HTML Format for RFCs", RFC 7992, DOI 10.17487/
             RFC7992, December 2016, <http://www.rfc-editor.org/info/rfc7992>.

9.2. Informative References

[CSSATTACK] Huang, L-S., Weinberg, Z., Evans, C., and C. Jackson, "Protecting browsers from cross-origin
             CSS attacks", In Proceedings of the 17th ACM conference on Computer and communications
             security (CCS '10), pp. 619-629, 2010, <https://doi.org/10.1145/1866307.1866376>.

Appendix A. List of Classes

This section lists all the CSS classes. Except for those also listed in Section 7, none of these result in specific changes to the natural language content of a document.

- .adr
- .alignCenter
- .alignRight
- .annotation
- .artwork

  .art-ascii-art

  .art-logo

  .art-svg
- .ascii
- .author
- .authors
- .bcp14
- .center
- .city
- .compact
- .country-name
- .cref
- .crefAnchor
- .crefSource
- .dlCompact
- .dlHanging
- .dlParallel
- .docInfo
- .ears
- .email
- .eref
- .finalized
- .fn
- .index
- .indexChar
- .indexIndex
- .indexItem
- .indexPrimary
- .indexSubItem
- .initial
- .iref
- .irefItem
- .irefRefs
- .irefSubItem
- .label
- .left

- .locality
- .nameRole
- .note
    - .rfcEditorRemove
- .olCompact
- .olPercent
- .org
- .organization
- .pilcrow
- .postal-code
- .published
- .refContent
- .refDate
- .refInstance
- .refTitle
- .reference
- .region
- .relref
- .rendered
- .RFC
- .rfcEditorRemove
- .right
- .role
- .selfRef
- .series
- .seriesInfo
- .sourcecode
    - .lang-*
- .street-address
- .status
- .street-address
- .surname
- .tel
- .toc
- .type
- .ulCompact
- .ulEmpty
- .url
- .workgroup
- .xref
- .vcard

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