

Proposed Update Unicode® Standard Annex #41

COMMON REFERENCES FOR UNICODE STANDARD ANNEXES

Version	Unicode 15.0.0 (draft 4)
Editors	Ken Whistler, Rick McGowan
Date	2022-05-11
This Version	https://www.unicode.org/reports/tr41/tr41-29.html
Previous Version	https://www.unicode.org/reports/tr41/tr41-28.html
Latest Version	https://www.unicode.org/reports/tr41/
Latest Proposed Update	https://www.unicode.org/reports/tr41/proposed.html
Revision	29

Summary

This annex presents a common set of references for the Unicode Standard Annexes.

Status

This is a **draft** document which may be updated, replaced, or superseded by other documents at any time. Publication does not imply endorsement by the Unicode Consortium. This is not a stable document; it is inappropriate to cite this document as other than a work in progress.

A Unicode Standard Annex (UAX) forms an integral part of the Unicode Standard, but is published online as a separate document. The Unicode Standard may require conformance to normative content in a Unicode Standard Annex, if so specified in the Conformance chapter of that version of the Unicode Standard. The version number of a UAX document corresponds to the version of the Unicode Standard of which it forms a part.

Please submit corrigenda and other comments with the online reporting form [[Feedback](#)]. For the latest version of the Unicode Standard, see [[Unicode](#)]. For a list of current Unicode Technical Reports, see [[Reports](#)]. For more information about versions of the Unicode Standard, see [[Versions](#)]. For any errata which may apply to this annex, see [[Errata](#)].

Contents

- 1 [References to Publications by the Unicode Consortium](#)
- 2 [References to Other Standards](#)
- 3 [Other References](#)

1 References to Publications by the Unicode Consortium

Publications may be listed more than once under different headings.

- [Blocks]** *Character Block Property Data File*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/Blocks.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/Blocks.txt>
- [Charts]** *Character Code Charts*
Latest version:
<https://www.unicode.org/charts/>
Index of character names with links to the corresponding code charts:
<https://www.unicode.org/charts/charindex.html>
- [Charts14]** *Charts for the Unicode Line Breaking Algorithm Test Files*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/LineBreakTest.html>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/LineBreakTest.html>
- [Charts15]** *Normalization Charts*
Latest version:
<https://www.unicode.org/charts/normalization/>
- [Charts29]** *Charts for the Unicode Text Segmentation Test Files*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/GraphemeBreakTest.html>
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/WordBreakTest.html>
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/SentenceBreakTest.html>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/GraphemeBreakTest.html>
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/WordBreakTest.html>
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/SentenceBreakTest.html>
- [CJKRadicals]** *CJK Radicals Data File*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/CJKRadicals.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/CJKRadicals.txt>
- [CLDR]** *Unicode Common Locale Data Repository*
<http://cldr.unicode.org/>
- [Code9]** *Reference Implementations of the Unicode Bidirectional Algorithm*
C reference code:
<https://www.unicode.org/Public/PROGRAMS/BidiReferenceC/>
Java reference code:
<https://www.unicode.org/Public/PROGRAMS/BidiReferenceJava/>
- [Code14]** *Sample Implementation of the Unicode Line Breaking Algorithm*
<https://www.unicode.org/Public/PROGRAMS/LineBreakSampleCpp/>
- [Corrections]** *Normalization Corrections Data File*
Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/NormalizationCorrections.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/NormalizationCorrections.txt>

[Corrigendum1] *Corrigendum #1: UTF-8 Shortest Form*

<https://www.unicode.org/versions/corrigendum1.html>

[Corrigendum2] *Corrigendum #2: Yod with Hiriq Normalization*

<https://www.unicode.org/versions/corrigendum2.html>

[Corrigendum3] *Corrigendum #3: U+F951 Normalization*

<https://www.unicode.org/versions/corrigendum3.html>

[Corrigendum4] *Corrigendum #4: Five CJK Canonical Mapping Errors*

<https://www.unicode.org/versions/corrigendum4.html>

[Corrigendum5] *Corrigendum #5: Normalization Idempotency*

<https://www.unicode.org/versions/corrigendum5.html>

[Corrigendum6] *Corrigendum #6: Bidi Mirroring*

<https://www.unicode.org/versions/corrigendum6.html>

[Corrigendum7] *Corrigendum #7: UAX #14, Unicode Line Breaking Algorithm, rule LB8*

<https://www.unicode.org/versions/corrigendum7.html>

[Corrigendum8] *Corrigendum #8: Bidi_Class Fix for U+070F Syriac Abbreviation Mark*

<https://www.unicode.org/versions/corrigendum8.html>

[Corrigendum9] *Corrigendum #9: Clarification About Noncharacters*

<https://www.unicode.org/versions/corrigendum9.html>

[Data9] *Unicode Bidirectional Algorithm Property Data Files*

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/BidiMirroring.txt>

<https://www.unicode.org/Public/UCD/latest/ucd/BidiBrackets.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/BidiMirroring.txt>

<https://www.unicode.org/Public/15.0.0/ucd/BidiBrackets.txt>

[Data11] *East Asian Width Property Data File*

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/EastAsianWidth.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/EastAsianWidth.txt>

[Data14] *Unicode Line Breaking Algorithm Property Data File*

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/LineBreak.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/LineBreak.txt>

[Data24] *Unicode Script Property Data File*

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/Scripts.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/Scripts.txt>

[Data34]

Unicode Named Character Sequences Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/NamedSequences.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/NamedSequences.txt>

[Data45]

U-Source Ideographs Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/USourceData.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/USourceData.txt>

[Data50]

Unicode Vertical Text Layout Property Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/VerticalOrientation.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/VerticalOrientation.txt>

[Data51]

Unicode Emoji Data Files

Latest Version:

<https://www.unicode.org/Public/UCD/latest/ucd/emoji/emoji-data.txt>

<https://www.unicode.org/Public/UCD/latest/ucd/emoji/emoji-variation-sequences.txt>

<https://www.unicode.org/Public/emoji/latest/emoji-sequences.txt>

<https://www.unicode.org/Public/emoji/latest/emoji-test.txt>

<https://www.unicode.org/Public/emoji/latest/emoji-zwj-sequences.txt>

Version 15.0:

<https://www.unicode.org/Public/15.0.0/ucd/emoji/emoji-data.txt>

<https://www.unicode.org/Public/15.0.0/ucd/emoji/emoji-variation-sequences.txt>

<https://www.unicode.org/Public/emoji/15.0/emoji-sequences.txt>

<https://www.unicode.org/Public/emoji/15.0/emoji-test.txt>

<https://www.unicode.org/Public/emoji/15.0/emoji-zwj-sequences.txt>

[DataProv]

Provisional Named Sequences Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/NamedSequencesProv.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/NamedSequencesProv.txt>

[Demo9]

Online Demo of the Unicode Bidirectional Algorithm

<https://util.unicode.org/UnicodeJsps/bidi.jsp>

[DerivedBIDI]

Derived Bidirectional Type Property Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/extracted/DerivedBidiClass.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/extracted/DerivedBidiClass.txt>

[Errata]

Updates and Errata

- <https://www.unicode.org/errata>
- [Exclusions] *Composition Exclusion Table*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/CompositionExclusions.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/CompositionExclusions.txt>
- [FAQ] *Frequently Asked Questions*
Answers to common questions on technical issues:
<https://www.unicode.org/faq/>
- [Feedback] *Contact Form*
Error reporting and information requests:
<https://www.unicode.org/reporting.html>
- [Glossary] *Glossary of Unicode Terms*
<https://www.unicode.org/glossary/>
- [Glyphs45] *U-Source Ideographs Glyph Table*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/USourceGlyphs.pdf>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/USourceGlyphs.pdf>
- [HanguIST] *Hangul Syllable Type Property Data File*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/HangulSyllableType.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/HangulSyllableType.txt>
- [NormProps] *Derived Normalization Properties Data File*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/DerivedNormalizationProps.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/DerivedNormalizationProps.txt>
- [Policies] *Unicode Consortium Policies*
<https://www.unicode.org/policies/policies.html>
- [Props] *Unicode Text Segmentation Property Data Files*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/GraphemeBreakProperty.txt>
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/WordBreakProperty.txt>
<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/SentenceBreakProperty.txt>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/GraphemeBreakProperty.txt>
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/WordBreakProperty.txt>
<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/SentenceBreakProperty.txt>
- [PropValue] *Property Value Aliases Data File*
Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/PropertyValueAliases.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/PropertyValueAliases.txt>

[Reports]

Unicode Technical Reports

List of Unicode Standard Annexes, Technical Standards, and Technical Reports:

<https://www.unicode.org/reports/>

[RSChart45]

U–Source Ideographs Radical–Stroke Chart

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/USourceRSChart.pdf>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/USourceRSChart.pdf>

[Stability]

Unicode Character Encoding Stability Policy

https://www.unicode.org/policies/stability_policy.html

[Tests9]

Unicode Bidirectional Algorithm Test Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/BidiTest.txt>

<https://www.unicode.org/Public/UCD/latest/ucd/BidiCharacterTest.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/BidiTest.txt>

<https://www.unicode.org/Public/15.0.0/ucd/BidiCharacterTest.txt>

[Tests14]

Unicode Line Breaking Algorithm Test Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/LineBreakTest.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/LineBreakTest.txt>

[Tests15]

Unicode Normalization Forms Test Data File

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/NormalizationTest.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/NormalizationTest.txt>

[Tests29]

Unicode Text Segmentation Test Data Files

Latest version:

<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/GraphemeBreakTest.txt>

<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/WordBreakTest.txt>

<https://www.unicode.org/Public/UCD/latest/ucd/auxiliary/SentenceBreakTest.txt>

Version 15.0.0:

<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/GraphemeBreakTest.txt>

<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/WordBreakTest.txt>

<https://www.unicode.org/Public/15.0.0/ucd/auxiliary/SentenceBreakTest.txt>

[UAX9]

Unicode Standard Annex #9: Unicode Bidirectional Algorithm

Latest version:

<https://www.unicode.org/reports/tr9/>

Version 15.0.0:
<https://www.unicode.org/reports/tr9/tr9-44.html>

[UAX11] *Unicode Standard Annex #11: East Asian Width*

Latest version:
<https://www.unicode.org/reports/tr11/>

Version 15.0.0:
<https://www.unicode.org/reports/tr11/tr11-39.html>

[UAX14] *Unicode Standard Annex #14: Unicode Line Breaking Algorithm*

Latest version:
<https://www.unicode.org/reports/tr14/>

Version 15.0.0:
<https://www.unicode.org/reports/tr14/tr14-47.html>

[UAX15] *Unicode Standard Annex #15: Unicode Normalization Forms*

Latest version:
<https://www.unicode.org/reports/tr15/>

Version 15.0.0:
<https://www.unicode.org/reports/tr15/tr15-51.html>

[UAX24] *Unicode Standard Annex #24: Unicode Script Property*

Latest version:
<https://www.unicode.org/reports/tr24/>

Version 15.0.0:
<https://www.unicode.org/reports/tr24/tr24-32.html>

[UAX29] *Unicode Standard Annex #29: Unicode Text Segmentation*

Latest version:
<https://www.unicode.org/reports/tr29/>

Version 15.0.0:
<https://www.unicode.org/reports/tr29/tr29-39.html>

[UAX31] *Unicode Standard Annex #31: Unicode Identifier and Pattern Syntax*

Latest version:
<https://www.unicode.org/reports/tr31/>

Version 15.0.0:
<https://www.unicode.org/reports/tr31/tr31-35.html>

[UAX34] *Unicode Standard Annex #34: Unicode Named Character Sequences*

Latest version:
<https://www.unicode.org/reports/tr34/>

Version 15.0.0:
<https://www.unicode.org/reports/tr34/tr34-27.html>

[UAX38] *Unicode Standard Annex #38: Unicode Han Database (Unihan)*

Latest version:
<https://www.unicode.org/reports/tr38/>

Version 15.0.0:
<https://www.unicode.org/reports/tr38/tr38-31.html>

[UAX41] *Unicode Standard Annex #41: Common References for Unicode Standard Annexes*

Latest version:

<https://www.unicode.org/reports/tr41/>

Version 15.0.0:

<https://www.unicode.org/reports/tr41/tr41-28.html>

[UAX42] *Unicode Standard Annex #42: Unicode Character Database in XML*

Latest version:

<https://www.unicode.org/reports/tr42/>

Version 15.0.0:

<https://www.unicode.org/reports/tr42/tr42-30.html>

[UAX44] *Unicode Standard Annex #44: Unicode Character Database*

Latest version:

<https://www.unicode.org/reports/tr44/>

Version 15.0.0:

<https://www.unicode.org/reports/tr44/tr44-28.html>

[UAX45] *Unicode Standard Annex #45: U-Source Ideographs*

Latest version:

<https://www.unicode.org/reports/tr45/>

Version 15.0.0:

<https://www.unicode.org/reports/tr45/tr45-25.html>

[UAX50] *Unicode Standard Annex #50: Unicode Vertical Text Layout*

Latest version:

<https://www.unicode.org/reports/tr50/>

Version 15.0.0:

<https://www.unicode.org/reports/tr50/tr50-26.html>

[UCD] *About the Unicode Character Database*

<https://www.unicode.org/ucd/>

For detailed documentation, see [UAX44].

[Unicode] *The Unicode Standard*

Latest version:

<https://www.unicode.org/versions/latest/>

Version 15.0.0:

<https://www.unicode.org/versions/Unicode15.0.0/>

[Unicode3.0] The Unicode Consortium, *The Unicode Standard, Version 3.0.0* defined by: *The Unicode Standard, Version 3.0* (Reading, MA: Addison–Wesley, 2000. ISBN 0–201–61633–5),

<https://www.unicode.org/versions/Unicode3.0.0/>

[Unicode3.1] The Unicode Consortium, *The Unicode Standard, Version 3.1.0*, defined by: *The Unicode Standard, Version 3.0* (Reading, MA: Addison–Wesley, 2000. ISBN 0–201–61633–5),

as amended by the *Unicode Standard Annex #27: Unicode 3.1*

<https://www.unicode.org/reports/tr27/>

[Unicode3.2] The Unicode Consortium, *The Unicode Standard, Version 3.2.0*, defined by: *The Unicode Standard, Version 3.0* (Reading, MA: Addison–Wesley, 2000.

ISBN 0–201–61633–5),
as amended by the *Unicode Standard Annex #27: Unicode 3.1* and the *Unicode Standard Annex #28: Unicode 3.2*

<https://www.unicode.org/reports/tr28/>

- [Unicode4.0] The Unicode Consortium, *The Unicode Standard, Version 4.0.0*, defined by: *The Unicode Standard, Version 4.0* (Boston, MA: Addison–Wesley, 2003. ISBN 0–321–18578–1),
<https://www.unicode.org/versions/Unicode4.0.0/>
- [Unicode4.0.1] The Unicode Consortium, *The Unicode Standard, Version 4.0.1*, defined by: *The Unicode Standard, Version 4.0* (Boston, MA: Addison–Wesley, 2003. ISBN 0–321–18578–1),
as amended by *Unicode 4.0.1*
<https://www.unicode.org/versions/Unicode4.0.1/>
- [Unicode4.1] The Unicode Consortium, *The Unicode Standard, Version 4.1.0*, defined by: *The Unicode Standard, Version 4.0* (Boston, MA: Addison–Wesley, 2003. ISBN 0–321–18578–1),
as amended by *Unicode 4.0.1* and *Unicode 4.1.0*
<https://www.unicode.org/versions/Unicode4.1.0/>
- [Unicode5.0] The Unicode Consortium, *The Unicode Standard, Version 5.0.0*, defined by: *The Unicode Standard, Version 5.0* (Boston, MA: Addison–Wesley, 2007. ISBN 0–321–48091–0),
<https://www.unicode.org/versions/Unicode5.0.0/>
- [Unicode5.1] The Unicode Consortium, *The Unicode Standard, Version 5.1.0*, defined by: *The Unicode Standard, Version 5.0* (Boston, MA: Addison–Wesley, 2007. ISBN 0–321–48091–0),
as amended by *Unicode 5.1.0*
<https://www.unicode.org/versions/Unicode5.1.0/>
- [Unicode5.2] The Unicode Consortium, *The Unicode Standard, Version 5.2.0*, defined by: *The Unicode Standard, Version 5.2* (Mountain View, CA: The Unicode Consortium, 2009. ISBN 978–1–936213–00–9),
<https://www.unicode.org/versions/Unicode5.2.0/>
- [Unicode6.0] The Unicode Consortium, *The Unicode Standard, Version 6.0.0* (Mountain View, CA: The Unicode Consortium, 2011. ISBN 978–1–936213–01–6)
<https://www.unicode.org/versions/Unicode6.0.0/>
- [Unicode6.1] The Unicode Consortium, *The Unicode Standard, Version 6.1.0* (Mountain View, CA: The Unicode Consortium, 2012. ISBN 978–1–936213–02–3)
<https://www.unicode.org/versions/Unicode6.1.0/>
- [Unicode6.2] The Unicode Consortium, *The Unicode Standard, Version 6.2.0* (Mountain View, CA: The Unicode Consortium, 2012. ISBN 978–1–936213–07–8)
<https://www.unicode.org/versions/Unicode6.2.0/>
- [Unicode6.3] The Unicode Consortium, *The Unicode Standard, Version 6.3.0* (Mountain View, CA: The Unicode Consortium, 2013. ISBN 978–1–936213–08–5)

<https://www.unicode.org/versions/Unicode6.3.0/>

[Unicode7.0] The Unicode Consortium, *The Unicode Standard, Version 7.0.0*
(Mountain View, CA: The Unicode Consortium, 2014. ISBN 978-1-936213-09-2)
<https://www.unicode.org/versions/Unicode7.0.0/>

[Unicode8.0] The Unicode Consortium, *The Unicode Standard, Version 8.0.0*
(Mountain View, CA: The Unicode Consortium, 2015. ISBN 978-1-936213-10-8)
<https://www.unicode.org/versions/Unicode8.0.0/>

[Unicode9.0] The Unicode Consortium, *The Unicode Standard, Version 9.0.0*
(Mountain View, CA: The Unicode Consortium, 2016. ISBN 978-1-936213-13-9)
<https://www.unicode.org/versions/Unicode9.0.0/>

[Unicode10.0] The Unicode Consortium, *The Unicode Standard, Version 10.0.0*
(Mountain View, CA: The Unicode Consortium, 2017. ISBN 978-1-936213-16-0)
<https://www.unicode.org/versions/Unicode10.0.0/>

[Unicode11.0] The Unicode Consortium, *The Unicode Standard, Version 11.0.0*
(Mountain View, CA: The Unicode Consortium, 2018. ISBN 978-1-936213-19-1)
<https://www.unicode.org/versions/Unicode11.0.0/>

[Unicode12.0] The Unicode Consortium, *The Unicode Standard, Version 12.0.0*
(Mountain View, CA: The Unicode Consortium, 2019. ISBN 978-1-936213-22-1)
<https://www.unicode.org/versions/Unicode12.0.0/>

[Unicode12.1] The Unicode Consortium, *The Unicode Standard, Version 12.1.0*
(Mountain View, CA: The Unicode Consortium, 2019. ISBN 978-1-936213-25-2)
<https://www.unicode.org/versions/Unicode12.1.0/>

[Unicode13.0] The Unicode Consortium, *The Unicode Standard, Version 13.0.0*
(Mountain View, CA: The Unicode Consortium, 2020. ISBN 978-1-936213-26-9)
<https://www.unicode.org/versions/Unicode13.0.0/>

[Unicode14.0] The Unicode Consortium, *The Unicode Standard, Version 14.0.0*
(Mountain View, CA: The Unicode Consortium, 2021. ISBN 978-1-936213-29-0)
<https://www.unicode.org/versions/Unicode14.0.0/>

[Unicode15.0] The Unicode Consortium, *The Unicode Standard, Version 15.0.0*
(Mountain View, CA: The Unicode Consortium, 2022. ISBN 978-1-936213-32-0)
<https://www.unicode.org/versions/Unicode15.0.0/>

[Unihan] *Unihan Database*
Latest version:
<https://www.unicode.org/Public/UCD/latest/ucd/Unihan.zip>
Version 15.0.0:
<https://www.unicode.org/Public/15.0.0/ucd/Unihan.zip>

[UTC] *Unicode Technical Committee*
<https://www.unicode.org/consortium/utc.html>

[UTN5] *Unicode Technical Note #5: Canonical Equivalence in Applications*
<https://www.unicode.org/notes/tn5/>

[UTN43] *Unicode Technical Note #43: Unihan Database Property "kStrange"*

<https://www.unicode.org/notes/tn43/>

[UTN45] *Unicode Technical Note #45: Unihan Property History*

<https://www.unicode.org/notes/tn45/>

[UTR17] *Unicode Technical Report #17: Unicode Character Encoding Model*

Latest version:

<https://www.unicode.org/reports/tr17/>

[UTR23] *Unicode Technical Report #23: The Unicode Character Property Model*

Latest version:

<https://www.unicode.org/reports/tr23/>

[UTR25] *Unicode Technical Report #25: Unicode Support for Mathematics*

Latest version:

<https://www.unicode.org/reports/tr25/>

[UTR33] *Unicode Technical Report #33: Unicode Conformance Model*

Latest version:

<https://www.unicode.org/reports/tr33/>

[UTR36] *Unicode Technical Report #36: Unicode Security Considerations*

Latest version:

<https://www.unicode.org/reports/tr36/>

[UTR53] *Unicode Technical Report #53: Unicode Arabic Mark Rendering*

Latest version:

<https://www.unicode.org/reports/tr53/>

[UTR54] *Unicode Technical Report #54: Unicode Mongolian 12.1 Snapshot*

Latest version:

<https://www.unicode.org/reports/tr54/>

[UTS6] *Unicode Technical Standard #6: A Standard Compression Scheme for Unicode*

Latest version:

<https://www.unicode.org/reports/tr6/>

[UTS10] *Unicode Technical Standard #10: Unicode Collation Algorithm*

Latest version:

<https://www.unicode.org/reports/tr10/>

Version 15.0.0:

<https://www.unicode.org/reports/tr10/tr10-45.html>

[UTS18] *Unicode Technical Standard #18: Unicode Regular Expressions*

Latest version:

<https://www.unicode.org/reports/tr18/>

[UTS22] *Unicode Technical Standard #22: Unicode Character Mapping Markup Language (CharMapML)*

Latest version:

<https://www.unicode.org/reports/tr22/>

[UTS35] *Unicode Technical Standard #35: Unicode Locale Data Markup Language (LDML)*

Latest version:

- <https://www.unicode.org/reports/tr35/>
- [UTS37] *Unicode Technical Standard #37: Unicode Ideographic Variation Database*
Latest version:
<https://www.unicode.org/reports/tr37/>
- [UTS39] *Unicode Technical Standard #39: Unicode Security Mechanisms*
Latest version:
<https://www.unicode.org/reports/tr39/>
Version 15.0.0:
<https://www.unicode.org/reports/tr39/tr39-24.html>
- [UTS46] *Unicode Technical Standard #46: Unicode IDNA Compatibility Processing*
Latest version:
<https://www.unicode.org/reports/tr46/>
Version 15.0.0:
<https://www.unicode.org/reports/tr46/tr46-27.html>
- [UTS51] *Unicode Technical Standard #51: Unicode Emoji*
Latest version:
<https://www.unicode.org/reports/tr51/>
Version 15.0.0:
<https://www.unicode.org/reports/tr51/tr51-21.html>
- [Versions] *About Versions of the Unicode Standard*
Information on version numbering, and citing and referencing the Unicode Standard, the Unicode Character Database, and Unicode Technical Reports:
<https://www.unicode.org/versions/>

2 References to Other Standards

- [10646] International Organization for Standardization, *ISO/IEC 10646:2020: Information Technology – Universal Coded Character Set (UCS), Sixth Edition*
Available from the ISO/IEC ITTF website:
<https://standards.iso.org/ittf/PubliclyAvailableStandards/>
- [CharMod] Martin J. Dürst, et al., *Character Model for the World Wide Web 1.0: Fundamentals*, W3C Recommendation
<https://www.w3.org/TR/charmod/>
- [CSS3Writing] Erika J. Etemad / fantasai, Koji Ishii, *CSS Writing Modes Level 3*, W3C Candidate Recommendation
<https://www.w3.org/TR/css-writing-modes-3/>
- [HTML5] Steve Faulkner, et al., *HTML 5.2*, W3C Recommendation, 14 December 2017
<https://www.w3.org/TR/html5/>

[IDNA2008] The IDNA2008 specification is defined by a cluster of IETF RFCs:

- Internationalized Domain Names for Applications (IDNA): Definitions and Document Framework
<https://www.rfc-editor.org/info/rfc5890>
- Internationalized Domain Names in Applications (IDNA) Protocol
<https://www.rfc-editor.org/info/rfc5891>
- The Unicode Code Points and Internationalized Domain Names for Applications (IDNA)
<https://www.rfc-editor.org/info/rfc5892>
- Right-to-Left Scripts for Internationalized Domain Names for Applications (IDNA)
<https://www.rfc-editor.org/info/rfc5893>

There is also an informative document:

- Internationalized Domain Names for Applications (IDNA): Background, Explanation, and Rationale
<https://www.rfc-editor.org/info/rfc5894>

- [ISO 5924] International Organization for Standardization, *ISO 15924:2004: Information and Documentation – Codes for the Representation of Names of Scripts*
<https://www.unicode.org/iso15924/>
- [ISO 19757] International Organization for Standardization, *ISO/IEC 19757-2:2008: Information Technology – Document Schema Definition Language (DSDL) – Part 2: Regular-Grammar-Based Validation – RELAX NG, Second Edition*
Available from the ISO/IEC ITTF website:
<https://standards.iso.org/ittf/PubliclyAvailableStandards/>
- [JIS] Japanese Standards Association, *JIS X 4051:2004: Formatting Rules for Japanese Documents* 『日本語文書の組版方法』
- [KSX 1026] Korean Agency for Technology and Standards, *KS X 1026-1:2007: Information Technology – Universal Multiple Octet Coded Character Set – Hangul – Part 1: Hangul Processing Guide for Information Interchange*
- [XML] Tim Bray, et al., *Extensible Markup Language (XML) 1.0, Fifth Edition*, W3C Recommendation
<https://www.w3.org/TR/xml/>


3 Other References

- [CharLint] Martin J. Dürst, *Charlint – A Character Normalization Tool*
<https://www.w3.org/International/charlint/>
- [CharMatch] Addison Phillips, *Character Model for the World Wide Web: String Matching and Searching*, W3C Working Draft
<https://www.w3.org/TR/charmod-norm/>
- [CharNorm] François Yergeau, et al., *Character Model for the World Wide Web 1.0:*

Normalization, W3C Working Draft

<https://www.w3.org/TR/2012/WD-charmod-norm-20120501/>

- [JLREQ] Hiroyuki Chiba, et al., *Requirements for Japanese Text Layout*, W3C Working Group Note
<https://www.w3.org/TR/jlreq/>
- [Knuth78] Donald E. Knuth, et al., *Breaking Lines into Paragraphs*, republished in *Digital Typography*, CSLI 78 (Stanford, CA: CSLI Publications, 1997)
- [Suign98] Michel Suignard, *Worldwide Typography and How to Apply JIS X 4051–1995 to Unicode*, Proceedings of the Twelfth International Unicode / ISO 10646 Conference (Tokyo, Japan: 1998)
- [TEX] Donald E. Knuth, *T_EX, the Program*, Volume B of *Computers & Typesetting* (Reading, MA: Addison–Wesley, 1986)
- [UnicodeXML] Martin Dürst, Asmus Freytag, *Unicode in XML and other Markup Languages*, W3C Working Group Note
<https://www.w3.org/TR/unicode-xml/>

© 2022  Unicode, Inc. All Rights Reserved. The Unicode Consortium makes no expressed or implied warranty of any kind, and assumes no liability for errors or omissions. No liability is assumed for incidental and consequential damages in connection with or arising out of the use of the information or programs contained or accompanying this technical report. The Unicode [Terms of Use](#) apply.

Unicode and the Unicode logo are trademarks of Unicode, Inc., and are registered in some jurisdictions.