

The Adobe-Japan1-6 Character Collection

Introduction

The purpose of this document is to define and describe the Adobe-Japan1-6 character collection, which enumerates 23,058 glyphs, and whose designation is derived from the following three /CIDSystemInfo dictionary entries:

- /Registry (**Adobe**)
- /Ordering (**Japan1**)
- /Supplement 6

CIDFont resources that reference this character collection must include a /CIDSystemInfo dictionary that matches the /Registry and /Ordering strings shown above.

This document is designed for font developers, for the purpose of developing Japanese fonts for use with PostScript products, or for developing OpenType Japanese fonts. It is also useful for application developers and end users who need to know more about the glyphs in this character collection. This document expects that its readers are familiar with the CID-keyed font file format, which is described in Adobe Technical Note #5014, entitled *Adobe CMap and CIDFont Files Specification*.*

A *character collection* contains the glyphs that are required to develop font products for a specific language, script, or market. Specific encodings are defined through the use of CMap resources that are instantiated as files, and generally reference a subset of the character collection.

The character collection that results from each Supplement includes the glyphs associated with all earlier Supplements. For example, Supplement 6 includes all glyphs defined in Supplements 0 through 5.

The Adobe-Japan1-6 character collection enumerates 23,058 glyphs, specifically CIDs 0 through 23057, among seven Supplements, designated 0 through 6. Adobe-Japan1-6 completely supports the current JIS (*Japanese Industrial Standard*) character set standards, and earlier vintages thereof, specifically JIS X 0208:1997, JIS X 0213:2004, and JIS X 0212-1990. The following table summarizes these seven Supplements, and also provides the pages on which their glyphs are shown in this document:

Supplement	Additional CIDs	CID Range	Total CIDs	Date of Establishment	Pages
0	n/a	0–8283	8,284	1992	13–29
1	75	8284–8358	8,359	1993	29
2	361	8359–8719	8,720	1993	29–30
3	634	8720–9353	9,354	September 1998	30–31
4	6,090	9354–15443	15,444	February 21, 2000	31–43
5	4,873	15444–20316	20,317	September 2002	43–53
6	2,741	20317–23057	23,058	March 5, 2004	53–59

* http://www.adobe.com/devnet/font/pdfs/5014.CIDFont_Spec.pdf

Each CID (*Character ID*) in a character collection is associated with a class of character shapes or glyphs. The specific shape of a glyph from a given glyph class is dependent on the typeface style and possibly other factors. Glyphs for all CIDs are illustrated in this document, providing a specific example or instance of the correspondence between a CID and its glyph shape class. Font developers should design glyphs for each CID of the character collection, and may use this document as a reference when proofing or otherwise validating CIDFont resources.

The following sections detail the history and contents of each of the seven Supplements of the Adobe-Japan1-6 character collection.

Supplement 0—Adobe-Japan1-0

Supplement 0, which enumerates 8,284 glyphs, specifically CIDs 0 through 8283, was designed to be glyph-compatible with OCF (*Original Composite Format*) fonts, whose glyph set was published in Adobe Technical Note #5031, entitled *Kanji Glyph Collections and Glyph Sets* (attached). Supplement 0 thus includes the glyphs necessary to support the 1978 and 1983 vintages of the JIS X 0208 character set standard in terms of the number of glyphs, JIS X 0201-1997, and JIS83-based vendor character sets established by Apple (Macintosh KanjiTalk Version 6), Fujitsu, and NEC.

Special Notes

In order to maintain stability and ensure predictability, CIDs 1125 through 7477 should be design such that they are JIS90 compatible.

We further recommend that the glyphs for CIDs 243 and 245—along with their pre-rotated counterparts in Supplement 3, specifically CIDs 8962 and 8964—be designed in such a way that their glyphs are centered within their half-width (500-unit) set widths, thus making them look better when used between digits.

Supplement 1—Adobe-Japan1-1

Supplement 1 provides 75 additional glyphs, specifically CIDs 8284 through 8358, that are necessary to support JIS X 0208-1990 (aka, JIS90), Apple’s Macintosh KanjiTalk Version 7.1 character set, and JIS90-based vendor character sets set forth by Fujitsu and NEC. Supplement 1 thus includes glyphs for the two so-called JIS90 kanji, specifically JIS X 0208-1990 漢 (84-05) and 熙 (84-06). The 震 (heisei) era-name kanji ligature is also among the glyphs that are included.

Special Notes

In order to maintain stability and ensure predictability, CIDs 8284 and 8285 should be design such that they are JIS90 compatible.

Supplement 2—Adobe-Japan1-2

Supplement 2 adds 361 glyphs, specifically CIDs 8359 through 8719, that are used to support the Microsoft Windows Version 3.1J character set. IBM Selected Kanji make up the vast majority—359 of the 361 glyphs—of the glyphs that were added for Supplement 2. Those who are familiar with IBM Selected Kanji may know that it includes 360 kanji. The reason why Supplement 2 includes only 359 IBM Selected Kanji is because one of them, 昴 (IBM 0xFAD0 and JIS X 0208:1997 25-23), was already included in Supplement 0, specifically at CID+1993.

Supplement 3—Adobe-Japan1-3

Supplement 3 enumerates 634 glyphs, specifically CIDs 8720 through 9353, and was designed to add only pre-rotated versions of all non-full-width Latin and Latin-like glyphs found in Supplement 2 and earlier, for the specific purpose of supporting the OpenType ‘vrt2’ GSUB (*Glyph SUBstitution*) feature.

Special Notes

We recommend that the glyphs for CIDs 8962 and 8964—along with their unrotated counterparts in Supplement 0, specifically CIDs 243 and 245—be designed in such a way that their glyphs are centered within their half-width (500-unit) set widths, thus making them look better when used between digits.

Supplement 4—Adobe-Japan1-4

Supplement 4 represents the very first “Pro” (Professional) character collection with its 6,090 additional glyphs, specifically CIDs 9354 through 15443, and is designed to satisfy most professional and commercial printing needs. By comparison, Supplement 3 is referred to as “Std” (Standard, meaning that their glyph repertoire is largely based on character set standards) character collection. “Pro” fonts thus effectively leap beyond standards, and provide glyphs that are necessary for professional and commercial printing.

Special Notes

The glyphs for CIDs 12220 through 12227 are intended to be decorative in nature, and thus can vary from typeface to typeface, or from type foundry to type foundry. The representative glyphs for this range of eight CIDs merely illustrate the glyphs that are used for the Kozuka Mincho typeface design.

Adobe-Japan1-4 Design Objectives

In order to satisfy the needs of professional and commercial printing in Japan, a wide variety of character and glyph sets were studied. These included common vendor extensions, proprietary glyph sets, common *gaiji* sets, and the JIS X 0212-1990 character set. Adobe-Japan1-4 was not intended to be a “Gaiji Solution,” but rather was designed to meet most of the professional and commercial printing needs in Japan. Put simply, Supplement 4 was specifically designed to allow sophisticated users to compose complex documents with a minimum use of *gaiji* fonts.

Adobe-Japan1-4 Technical Details

In order to ensure glyph consistency across fonts of different manufacturers, the JIS X 0208:1997 kanji—CIDs 1125 through 7477, 8284, and 8285 in Supplements 0 and 1—must be JIS90-compliant. This is due to the fact that some of the JIS X 0208:1997 kanji variants in Supplement 4 are sometimes subtle in their difference with their standard (JIS90) forms. The following is a summary of the glyph classes that are included in Adobe-Japan1-4:

- Additional proportional Latin glyphs, such as macroned vowels for transliterating Japanese text, along with genuine italic forms that correspond to the proportional Latin glyph set
- The “Euro” currency symbol, in full-width, proportional, and proportional italic forms
- “Horizontal in vertical” (縦中横 *tatechūyoko*) typesetting is enabled by third- and quarter-width forms
- Two styles of fractions—nut-style with a horizontal bar, and traditional-style with diagonal line as the numerator/denominator separator—ranging from $\frac{1}{3}$ to $\frac{1}{100}$
- Nearly 2,000 additional annotated forms of the following character classes are included: numerals 0 through 100 (00 through 09 are also supported), upper and lowercase Latin alphabet, hiragana, katakana, and some kanji
- Annotation styles include parentheses, circles, black circles, boxes, black boxes, rounded boxes, and black rounded boxes
- Additional Latin ligatures, kana ligatures with vertical forms, and kanji ligatures with vertical forms
- Additional half- and full-width punctuation and symbols, along with the small hiragana and katakana “ko” in horizontal and vertical forms
- Horizontally- and vertically-optimized kana glyphs

- Ruby glyphs—applications are still expected to shrink the glyphs down to fifty percent size, but because the glyphs are expected to be designed at the reduced size, then scaled up, the results are typographically pleasing
- Pre-rotated forms of all proportional-, half-, third-, and quarter-width glyphs
- Over 2,000 kanji and kanji variants are included, and are ordered and categorized as follows:
 - Official traditional kanji forms from the “*Joyo Kanji*” specification, dated October 1, 1981
 - Additional JIS78 (aka, JIS C 6226-1978) kanji forms
 - JIS83 (aka, JIS X 0208-1983) kanji forms
 - Other JIS X 0208:1997 kanji variants
 - IBM Selected Kanji variants
 - JIS X 0212-1990 kanji
 - JIS X 0212-1990 kanji variants
 - Unicode kanji
 - K-JIS kanji
 - Dai Kanwa Jiten (大漢和辞典) kanji

The above list of kanji and kanji variants can be misleading, because some glyphs categorized in an earlier glyph classes may be included in a later glyph classes. For example, all JIS X 0212-1990 kanji are in Unicode, and some JIS X 0212-1990 kanji are also K-JIS kanji. These 2,000 or so kanji and kanji variants include support for the following sets of kanji or kanji variants, some of which were partially supported in Supplement 2 and earlier:

- The remaining official traditional forms as specified in the “*Joyo Kanji*” document, dated October 1, 1981
- Additional JIS78 kanji forms
- JIS83 kanji forms
- Common JIS X 0208:1997 kanji variants
- IBM Selected Kanji variants
- JIS X 0221-1995 Ideographic Supplement 1—918 kanji from JIS X 0212-1990
- All “Kousei Hikkei” (校正必携) kanji variants
- All K-JIS kanji
- Other requests

Supplement 5—Adobe-Japan1-5

Supplement 5 continues the expansion of the “Pro” character collection by adding 4,873 glyphs, specifically CIDs 15444 through 20316, and is designed to support the Apple Mac OS X Version 10.2 glyph set, which is also referred to as APGS (*Apple Publishing Glyph Set*). Supplement 5 is also designed to support the JIS X 0213:2000 character set and NLC (*National Language Council*) kanji.[†]

JIS X 0213:2000 Coverage

JIS X 0213:2000 includes 4,344 characters. Its 2004 revision, designated JIS X 0213:2004, added ten kanji, bringing its total to 4,354 characters. The glyphs for some JIS X 0213:2004 kanji are found in Supplement 4, but

[†] Published on December 8, 2000.

the vast majority are in Supplement 5. The following CIDs and CID ranges represent the Supplement 5 glyphs that correspond to JIS X 0213:2004 and variant forms thereof, vertical or otherwise:

15462, 15463, 15472–15479, 15486–15490, 15505–15516, 15600–15607, 15694–15722, 15725–15882, 15912–15975, 15983, 15984, 16068–16070, 16071–16075, 16162–16190, 16193–16282, 16299–16311, 16327, 16329–16349, 16352–16411, 16414–16447, 16450–16466, 16483–16490, 16497–16501, 16516–16685, 16715–19129, 19312, 19346, 20297–20316

Note that there are three JIS X 0213:2004 kanji in Supplement 6, specifically CIDs 21072 through 21074.

NLC Glyph Coverage

Supplement 5 includes thirty-eight glyphs that effectively complete the coverage for NLC kanji, which is a set of 1,022 kanji established in 2000. Many NLC kanji are found in JIS X 0208:1997 as-is, or are in Supplement 4. The following is a complete list of the thirty-eight NLC kanji glyphs in Supplement 5, along with their related JIS X 0208:1997 forms in parentheses:

19312 (4570), 19346 (4738), 20175 (5741), 20222 (3505), 20263 (1666), 20264 (5020), 20265 (4036), 20266 (5976), 20267 (5704), 20268 (6662), 20269 (1402), 20270 (1662), 20271 (1243), 20272 (1791), 20273 (1850), 20274 (6481), 20275 (6258), 20276 (1892), 20277 (4368), 20278 (5629), 20279 (1998), 20280 (2171), 20281 (2085), 20282 (2523), 20283 (5707), 20284 (2059), 20285 (5937), 20286 (3086), 20287 (3251), 20288 (3379), 20289 (3538), 20290 (1494), 20291 (3628), 20292 (6325), 20293 (3822), 20294 (3832), 20295 (6537), 20296 (6510)

Supplement 6—Adobe-Japan1-6

Supplement 6 adds 2,741 glyphs, specifically CIDs 20317 through 23057, to completely support the JIS X 0212-1990 character set, and thus obsoletes the Adobe-Japan2-0 character collection, described in Adobe Technical Note #5097, entitled *Adobe-Japan2-0 Character Collection for CID-Keyed Fonts*.[‡] Also included are the glyphs necessary to support Kyodo News' U-PRESS character set.

Special Notes

CID+20958 is rendered as a full-width space in this document, but is allocated for NTT's *FreeDial* symbol. Font developers who have the right or permission to use this glyph in their font products can thus assign this glyph to CID+20958.

JIS C 6226-1978 Coverage

Supplement 6 includes one additional JIS78 (aka, JIS C 6226-1978) glyph, specifically CID+21071.

JIS X 0213:2004 Coverage

Supplement 6 includes three glyphs, specifically CIDs 21072 through 21074, that are intended to complete JIS X 0213:2004 coverage. These three glyphs are for kanji in JIS X 0213:2000 proper, and not among the ten kanji that were added for its 2004 revision.

JIS X 0212-1990 Coverage

Supplement 6 adds the necessary glyphs to completely cover the JIS X 0212-1990 character set, which contains 6,067 characters. Note that the glyphs for the majority of the JIS X 0212-1990 characters are found in earlier Supplements. The glyphs for CIDs 21075 through 23057 are intended to support JIS X 0212-1990 kanji.

The JIS X 0212-1990 and JIS X 0213:2004 character sets significantly overlap, and some characters shared by them, in terms of sharing the same Unicode mapping, have glyphs that differ, sometimes in very subtle ways.

[‡] <http://www.adobe.com/devnet/font/pdfs/5097.Adobe-Japan2-0.pdf>

The following list provides thirty-seven pairs of CIDs, specifically the JIS X 0213:2004 form's CID, followed by the corresponding JIS X 0212-1990 form's CID in parentheses:

144 (20319), 140 (20320), 7610 (20321), 15739 (20341), 15747 (20359), 16786 (21164), 17469 (21371), 17510 (20107), 15390 (14510), 14541 (21558), 16889 (14609), 17755 (21722), 17850 (21791), 15395 (14741), 14762 (21933), 15397 (14766), 16977 (8561), 18115 (22006), 14160 (22010), 16987 (20177), 13893 (7725), 16994 (22045), 18201 (22063), 17014 (14904), 18316 (22186), 17041 (8592), 18514 (22341), 18713 (22583), 17168 (15238), 18858 (20239), 18854 (22788), 15405 (15269), 18905 (22843), 15319 (22920), 17205 (13372), 19068 (20257), 19091 (23006)

U-PRESS Coverage

With a couple minor exceptions, the glyphs for CIDs 20473 through 20960 are intended for supporting Kyodo News' U-PRESS character set. For those font developers who have the right or permission to use NTT's *FreeDial* symbol in their font products, CID+20958 has been allocated for this specific purpose.

Kana Subset Definitions

In terms of font products developed by Adobe Systems, three different *Kana* subsets have been defined, and are categorized by typeface family and Supplement. Although kana fonts can be used stand-alone, as independent fonts, their limited glyph set means that they are best used as a component of a *Composite Font*, which is functionality found in Adobe InDesign and other higher-end applications. The table below details each kana subset, along with the number of glyphs and their CIDs and CID ranges:

Kana Subset	Supplement	Glyphs	CIDs & CID Ranges
Kamono Kana Family	1	373	0—0, 232, 233, 238–240, 243, 245–258, 262, 290, 292, 295, 326–331, 503–514, 633–642, 651–655, 659–661, 663, 665, 666, 668, 670–679, 682–693, 695–697, 708, 709, 711–719, 723–739, 780–789, 842–1010, 7612, 7887, 7888, 7891, 7892, 7894, 7895, 7897, 7899–7904, 7907–7939, 7958–7960, 8009–8014, 8210, 8264, 8265, 8268, 8273–8283 1—8307, 8313–8316
Kamono Kana Family	3	415	0—0, 232, 233, 238–240, 243, 245–258, 262, 290, 292, 295, 326–331, 503–514, 633–642, 651–655, 659–661, 663, 665, 666, 668, 670–679, 682–693, 695–697, 708, 709, 711–719, 723–739, 780–789, 842–1010, 7612, 7887, 7888, 7891, 7892, 7894, 7895, 7897, 7899–7904, 7907–7939, 7958–7960, 8009–8014, 8210, 8264, 8265, 8268, 8273–8283 1—8307, 8313–8316 2— <i>none</i> 3—8951, 8952, 8957–8959, 8962, 8964–8977, 8981, 9009, 9011, 9014, 9048, 9084–9089, 9265–9275
Ryo Family	1	214	0—0, 633–635, 651–654, 657, 658, 660, 842–1010, 7887, 7888, 7891, 7918–7939, 7958–7960, 8264, 8265 1—8313–8316

For those developers who wish to include a complete set of proportional Latin glyphs with their kana font products, to make the fonts more usable as stand-alone fonts, we suggest that the glyphs for CIDs 1 through 230 (Supplement 0) and 8720 through 8949 (Supplement 3) be included.

Special Glyphs & Other Notes

The following sections detail special glyphs and other notes that are of interest to font developers. Several glyph classes that are supported by Adobe-Japan1-6 are complex, and deserve some amount of explanation and clarification.

Space Glyphs

The following table lists all of the Adobe-Japan1-6 glyphs that are classified as a space, or are otherwise rendered as a space, and provides information with regard to their intended usage, along with their recommended set widths.

CID	Set Width	Description
1	Proportional	Latin space—U+0020
231	Half-width	Latin space—U+2002
326	Half-width	Katakana space
422	Half-width	Generic space
515	Half-width	Hiragana space
633	Full-width	Ideographic space—U+3000
8229	Full-width	Generic space
8720	Full-width	Pre-rotated version of CID+1
8950	Full-width	Pre-rotated version of CID+231
9084	Full-width	Pre-rotated version of CID+326
9179	Full-width	Pre-rotated version of CID+515
9276	Full-width	Pre-rotated version of CID+422
9444	Proportional	Italic space
12960	Full-width	Pre-rotated version of CID+9444
15444	Full-width	For AAT compatibility—U+F860
15445	Full-width	For AAT compatibility—U+F861
15446	Full-width	For AAT compatibility—U+F862
15447	Full-width	For AAT compatibility—U+F87A
15448	Full-width	For AAT compatibility—U+F87F
20958	Full-width	Placeholder for NTT's <i>FreeDial</i> symbol

The space glyphs that are described as a pre-rotated version of another glyph must be assigned full-width set widths in terms of their horizontal set widths, but when instantiated as an OpenType font, their vertical set widths as specified in the ‘vmtx’ should match those of their unrotated counterparts.

Kana Glyphs

Adobe-Japan1-6 includes a rich variety of kana in terms of glyph classes, specifically half-width, full-width, full-width tuned for horizontal and vertical writing, proportional, ruby, and a special set for U-PRESS.

Kana Glyph Class	Horizontal CIDs & CID Ranges	Vertical CIDs & CID Ranges
Half-width	332–389, 391–422, 516–598 643, 644, 651–654, 660, 842–1010, 7958–7960, 8313–8316	9090–9178, 9180–9262
Full-width	12181, 12269, 12271, 16195, 16209–16221, 16236–16252, 16326, 16327	7891, 7918–7939, 8264, 8265, 8271, 8272, 12108–12110, 12270, 12272, 16333–16349
Tuned	12273–12455, 16352–16381	12456–12638, 16382–16411
Proportional	15449–15452, 15455, 15462, 15463, 15517–15724	15976–15979, 15982–16192
Ruby	12649–12652, 12671–12854, 12867, 16414–16449	12855–12866, 12868, 16450–16468
U-PRESS	20473–20496	

Kanji Glyphs

Adobe-Japan1-6 includes 14,664 glyphs that are classified as kanji (aka, ideographs), and their CIDs and CID ranges, separated by Supplement, are shown in the table below:

Supplement	CIDs & CID Ranges
0	656, 1125–7477, 7633–7886, 7961–8004, 8266–8267
1	8284, 8285
2	8359–8717
3	<i>none</i>
4	13320–15443
5	16779–20316
6	21071–23057

The attached *aj16-kanji.txt* database-like file provides detailed information for each of these 14,664 kanji.

Ruby Glyphs

Supplements 4 and 5 include glyphs that are suitable for typesetting ruby glyphs, and the vast majority of the glyphs are for kana, though one kanji and some symbols are also included. Although these glyphs are obviously unencoded, they can be used by applications that support the OpenType ‘ruby’ GSUB feature. The following table details the CID ranges for the ruby glyphs in Supplements 4 and 5:

Supplement	CID Ranges
4	12639–12869
5	16412–16468

Italic Glyphs

Italic glyphs were introduced in Supplement 4, and are also found in Supplements 5 and 6. The table below explicitly indicates the CID ranges for the italic glyphs in these three Supplements, along with their corresponding pre-rotated glyphs within the same Supplement:

Supplement	Italic CID Ranges	Pre-Rotated CID Ranges
4	9444–9737	12960–13253
5	15912–15975	16715–16778
6	20372–20426	21016–21070

Pre-Rotated Glyphs

In order to support the OpenType ‘vrt2’ GSUB feature, the Adobe-Japan1-6 character collection includes pre-rotated forms for all Latin and Latin-like glyphs that are not full-width. The table below details how horizontal CIDs and CID ranges map to their corresponding pre-rotated CID ranges:

Supplement	Horizontal CIDs & CID Ranges	Pre-Rotated CID Ranges
3	1–325, 390, 501–503, 599–628, 630–632, 8718, 8719, 326–389, 391–421, 515–598, 423, 424, 504–514, 422, 425–500, 629	8720–9353
4	9354–9778, 12063–12087	12870–13319
5	15456–15461, 15464–15516, 15725–15975	16469–16778
6	20317–20426	20961–21070

Glyph Set Widths

The following table provides CIDs and CID ranges that explicitly indicate which glyphs are intended to be designed with proportional-, half-, third-, or quarter-width set widths. All other glyphs are expected to be full-width.

Set Width	CIDs & CID Ranges
Proportional	1–230, 9354–9737, 15449–15975, 20317–20426
Half-width	231–632, 8718, 8719, 12063–12087
Third-width	9758–9778
Quarter-width	9738–9757

The glyph tables that are provided in this document include registration marks that serve to indicate relative set width. Explicitly specifying width classes, such as in the above table, is clearly more accurate and reliable than measuring the distance between registration marks. Please use both resources as your guide.

Note that the registration marks used in the glyph tables are in a separate layer, and if their presence is annoying, that layer can be turned off, thus preventing their display.

Duplicate Kanji Glyphs

For historical reasons and for JIS90-compliance, the following three Supplement 0 kanji glyph pairs represent genuine duplicate glyphs, and their JIS83 (aka, JIS X 0208-1983) forms in Supplement 4 are shown for the sake of comparison.

Primary Glyph	Duplicate Glyph	JIS83 Form
4301—匕	7983—匕	13523—匕
4411—喻	7984—喻	13526—喻
5459—渣	7994—渣	13558—渣

For the purposes of full compliance and character collection integrity, the duplicate glyphs shown above shall be maintained.

In addition, the glyphs for CIDs 3603 (Supplement 0) and 13505 (Supplement 4) are identical when rendered with the Kozuka Mincho design, but may be rendered differently for other typeface designs.

Glyph Variation

In order for fonts based on the Adobe-Japan1-6 character collection to be useful, meaningful, consistent, and predictable, the glyphs that correspond to the kanji in the JIS X 0208:1997 character set must be designed in such a way that they are JIS90-compliant, meaning that their glyphs match the prototypical glyphs set forth in the JIS X 0208-1990 standard. As mentioned earlier, this affects CIDs 1125 through 7477 (6,353 glyphs) in Supplement 0, along with CIDs 8284 and 8285 in Supplement 1, in order to completely cover all possible JIS90 glyphs. Subtle glyph variations in Supplement 4 and beyond make this necessary.

For font developers who wish to build JIS2004-savvy OpenType fonts, specifically those whose default glyphs match the prototypical glyphs set forth in the JIS X 0213:2004 standard, the strong JIS90-compliance recommendation still applies, because the JIS2004-savviness is achieved at the character code, not CID, level, through the use of JIS2004-savvy CMap resources that map the same Unicode code points to CIDs whose glyphs match the JIS X 0213:2004 prototypical glyphs. JIS2004-savvy font development is covered later in this document.

The JIS standards, specifically JIS X 0208:1997, JIS X 0212-1990, and JIS X 0213:2004, and earlier versions thereof, along with JIS-related material found in the appendixes of the book entitled *CJKV Information Processing* (O'Reilly, 1999), serve as the ideal glyph references for Adobe-Japan1-6, at least for the glyphs that correspond to these standards. Some glyphs do not correspond to characters found in any JIS standard, in which case Unicode and ISO 10646 serve as the ideal glyph reference, and in some cases the only glyph reference beyond this document. The attached *aj16-kanji.txt* database-like file, described in the section that follows, also provides references to other standards that can also be consulted in terms of glyph references.

CMap Resources & Databases

Attached to this document are all of the CMap resources associated with the Adobe-Japan1-6 character collection, along with two database-like files that provide additional details for font developers. The following is a listing of the attached files, and a brief description of their contents:

- *aj16-cmap.tar.Z*—All Adobe-Japan1-6 CMap resources (compressed ‘tar’ archive)
- *aj16-cid2code.txt*—Database-like file that represents all Adobe-Japan1-6 CMap resources
- *aj16-kanji.txt*—Database-like file for all 14,664 kanji in Adobe-Japan1-6

More complete descriptions of the individual Adobe-Japan1-6 CMap resources can be found in Adobe Technical Note #5094, entitled *Adobe CJKV Character Collections and CMap Files for CID-Keyed Fonts*.[§]

In general, the CMap resources that are based on legacy encodings, such as Shift-JIS, are no longer being updated. Rather, the Unicode CMap resources—available for UTF-8, UTF-16 (UTF-16BE), and UTF-32 (UTF-32BE) encodings, and kept perfectly synchronized—are updated on a regular basis, with new mappings being

[§] http://www.adobe.com/devnet/font/pdfs/5094.CJK_CID.pdf

triggered by a new Supplement or a new version of Unicode. Furthermore, the UCS-2 CMap resources are obsolete and deprecated. Developers should use the UTF-16 CMap resources instead, because they are forward compatible with the now-obsolete UCS-2 ones.

The Ideographic Variation Sequences (IVSes) that are specified in one of the fields of the *aj16-kanji.txt* database-like file are registered by The Unicode Consortium.⁴ The implementation of IVSes is considered to be standardized.

OpenType Font Development

Given today's dominance of OpenType fonts, this section provides information intended to help with OpenType font development efforts with regard to those built based on the Adobe-Japan1-6 character collection. Adobe considers the minimum Supplement for an OpenType Japanese font to be 3, specifically Adobe-Japan1-3. The sections that follow provide information on building JIS2004-savvy OpenType fonts, and detail an industry-standard naming convention.

JIS2004-Savvy OpenType Fonts

All Adobe-Japan1-6 fonts are JIS2004-*compatible*, because all of the prototypical glyphs shown in JIS X 0213:2004 proper are included, but may not be the default, in terms of whether they are encoded. Whether a glyph is encoded is a function of the CMap resource that is used, and in the case of OpenType fonts, it is a function of what CMap resource is used to build the Formats 4 and 12 ‘cmap’ subtable.

When developing JIS2004-*savvy* OpenType fonts, specifically those whose default glyphs match the prototypical glyphs set forth in the JIS X 0213:2004 character set standard, the appropriate UTF-32-encoded CMap resource must be used to build the Formats 4 and 12 ‘cmap’ subtables. For fonts based on Supplements 3 through 5, additional glyphs beyond each Supplement are necessary for JIS2004-compliance, which requires the advertised Supplement to be set to 6. For Supplements 3 through 5, the following table details the number of glyphs that are necessary beyond those in each of these Supplements, and also indicates which JIS2004-savvy CMap resources should be used to build their Formats 4 and 12 ‘cmap’ subtables:

Supplement	Advertised Supplement	CMap Resource	CIDs
3	6	UniJIS2004-UTF32-H or UniJISX02132004-UTF32-H	Adobe-Japan1-3 + 144 Supplement 4–6 glyphs
4	6	UniJIS2004-UTF32-H or UniJISX02132004-UTF32-H	Adobe-Japan1-4 + 81 Supplement 5 & 6 glyphs
5	6	UniJIS2004-UTF32-H or UniJISX02132004-UTF32-H	Adobe-Japan1-5 + 10 Supplement 6 glyphs

The advertised Supplement is the integer value that is recorded in the /Supplement entry of the /CIDSystemInfo dictionary of the CIDFont resource. The following table provides a complete listing of the additional glyphs necessary for each of these three special-case JIS2004-savvy OpenType font types, distinguished by Supplement:

Supplement	Glyphs	CIDs & CID Ranges
3	144	4—9354, 9779, 12101, 12870, 13320–13327, 13330, 13332–13333, 13335–13341, 13343, 13345–13355, 13358–13369, 13371, 13373–13382, 13385–13388, 13391–13400, 13402, 13460, 13495, 13538, 13624, 13650, 13673, 13731, 13803, 13860,
		13893, 13915, 13949, 13964, 14013, 14066, 14074, 14111, 14116, 14196, 14272, 14290
		5—16977, 17041, 18760, 19312, 19346, 20175, 20222, 20263–20296, 20301–20305, 20307, 20314
		6—21072–21074

⁴ <http://www.unicode.org/ivd/>

Supplement	Glyphs	CIDs & CID Ranges
4	81	5—16413, 16444—16449, 16467—16468, 16889, 16905, 16977, 17014, 17041, 17168, 17205, 18759—18760, 19061, 19312, 19346, 20175, 20222, 20263—20296, 20299—20310, 20312—20315 6—21071—21074, 21558, 21933, 22010, 22920
5	10	6—21071—21074, 21371, 21558, 21722, 21933, 22010, 22920

Because the scope of each Supplement is different, in terms of coverage of JIS standards, the additional glyphs required beyond each Supplement are not in a subset/superset relationship. For example, the scope of Supplements 3 and 4 is JIS X 0208, for Supplement 5 is it JIS X 0208 and JIS X 0213, and for Supplement 6 it is JIS X 0208, JIS X 0213, and JIS X 0212.

OpenType Font Naming Conventions

In order to clearly distinguish OpenType Japanese fonts based on different Supplements, we strongly recommend that the names used for the fonts, specifically the /CIDFontName string and the OpenType menu names in the ‘name’ table, include a designator for this purpose. The table below illustrates the naming convention that is in current use, and thus industry standard, and provides example /CIDFontName and OpenType menu name strings with the designator emboldened:^{**}

Supplement	Designator	JIS2004-Savvy Designator	/CIDFontName & Menu Name Examples
3	Std	StdN	KozMin Std -Regular, 小塚明朝 Std R; KozMin StdN -Regular, 小塚明朝 StdN R
4	Pro	ProN	KozMin Pro -Regular, 小塚明朝 Pro R; KozMin ProN -Regular, 小塚明朝 ProN R
5	Pr5	Pr5N	KozMin Pr5 -Regular, 小塚明朝 Pr5 R; KozMin Pr5N -Regular, 小塚明朝 Pr5N R
6	Pr6	Pr6N	KozMin Pr6 -Regular, 小塚明朝 Pr6 R; KozMin Pr6N -Regular, 小塚明朝 Pr6N R

This naming convention also allows JIS2004-savvy OpenType fonts to coexist with earlier versions of the same font, even if they are based on the same Supplement. Also, the advertised Supplement does not affect which designator is used. For example, a JIS2004-savvy Adobe-Japan1-3 font includes 144 additional glyphs from Supplements 4 through 6, but “StdN” shall be used as its designator.

Glyph Tables

Representative glyphs for CIDs 0 through 23057 are provided in the multiple-page table that follows this section, with 500 glyphs shown per page. And, for reader convenience, the beginning of each Supplement is clearly marked. The typeface used to exemplify each glyph is *Kozuka Mincho Pr6N R* (aka, KozMinPr6N-Regular or 小塚明朝 Pr6N R), designed by Adobe Systems, and an Adobe Original typeface available for purchase.^{††} The specific font instance is Version 6.002, as reflected in its /CIDFontVersion dictionary entry.

^{**} Some of the fonts suggested by the font names in this table are hypothetical, and thus do not exist.

^{††} <http://www.adobe.com/type/>

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
500	+	‘	’	“	[]	<	>	《	》	『	』	【	】	-	を	あ	い	う	
520	え	お	や	ゆ	よ	つ	あ	い	う	え	お	か	き	く	け	こ	さ	し	す	せ
540	そ	た	ち	つ	て	と	な	に	ぬ	ね	の	は	ひ	ふ	へ	ほ	ま	み	む	め
560	も	や	ゆ	よ	ら	り	る	れ	ろ	わ	ん	ゐ	ゑ	わ	が	ぎ	ぐ	げ	ご	ぎ
580	じ	ず	ぜ	そ	だ	ぢ	づ	で	ど	ば	ぱ	び	び	ぶ	ぶ	べ	ペ	ぼ	ぽ	Ä
600	ù	é	í	ß	ç	ç	N	ñ	¢	£	ó	ú	i	½	Ö	Ü	ä	ë	ï	
620	ö	ü	â	ê	î	ô	û	à	è	▲	á	~	ø	,	。	,	,	,	:	
640	;	?	!	„	„	„	„	„	„	„	„	„	„	„	„	„	全	々	〆	
660	-	-	-	/	\	~	=	=	=	=	=	=	=	=	=	()	[]	
680	{	}	<	>	《	》	「	」	『	』	【	】	+	-	±	×	÷	=	<	
700	>	≤	≥	∞	∴	♂	♀	°	,	"	°C	¥	\$	¢	£	%	#	&	*	@
720	§	☆	★	○	●	◎	◇	◆	□	■	△	▲	▽	▼	※	〒	→	←	↑	↓
740	=	∈	∃	⊆	⊇	⊂	⊃	U	∩	∧	∨	¬	⇒	↔	∀	∃	∠	⊥	∂	
760	∇	≡	÷	«	»	√	∞	∞	∴	∫	ʃʃ	Å	%	#	♭	♪	†	‡	¶	
780	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J
800	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d
820	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x
840	y	z	あ	あ	い	い	う	う	え	え	お	お	か	が	き	ぎ	く	ぐ	け	げ
860	こ	ご	さ	ざ	し	じ	す	ず	せ	せ	そ	ぞ	た	だ	ち	ち	っ	つ	づ	て
880	で	と	ど	な	に	ぬ	ね	の	は	ば	ば	ひ	び	ぴ	ふ	ぶ	ぶ	へ	べ	ペ
900	ほ	ぼ	ぼ	ま	み	む	め	も	や	や	ゆ	よ	よ	ら	り	る	れ	ろ	わ	
920	わ	ゐ	ゑ	を	ん	ア	ア	イ	イ	ウ	エ	エ	オ	オ	カ	ガ	キ	ギ	ク	
940	グ	ケ	ゲ	コ	ゴ	サ	ザ	シ	ジ	ス	ズ	セ	ゼ	ソ	ゾ	タ	ダ	チ	ヂ	ツ
960	ツ	ヅ	テ	デ	ト	ド	ナ	ニ	ヌ	ネ	ノ	ハ	バ	パ	ヒ	ビ	ピ	フ	ブ	プ
980	ヘ	ベ	ペ	ホ	ボ	ボ	マ	ミ	ム	メ	モ	ヤ	ヤ	ユ	ヨ	ヨ	ラ	リ	ル	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1000	レ	ロ	ワ	ワ	ヰ	ヱ	ヲ	ン	ヴ	カ	ケ	А	В	Г	Д	Е	З	Н	Ѡ	І
1020	К	Л	М	Н	Ѐ	Ѡ	П	Р	Ѕ	Т	Ҭ	Ѳ	Х	Ѱ	Ѡ	ѡ	ѿ	ѿ	ѿ	ѿ
1040	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ	ѿ
1060	Б	В	Г	Д	Е	Ё	Ж	З	И	Й	К	Л	М	Н	Ѡ	П	Р	С	Т	Ѹ
1080	Ѳ	Х	Ц	Ч	Ш	Щ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ
1100	ӟ	И	Й	К	Л	М	Н	Ѡ	П	Р	С	Т	Ѹ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ	Ӧ
1120	ы	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ	ъ
1140	旭	葦	芦	鯈	梓	庄	斡	扱	宛	姐	虻	餧	絢	綾	鮎	或	粟	裕	安	庵
1160	按	暗	案	闇	鞍	杏	以	伊	位	依	偉	囮	夷	委	威	尉	惟	意	慰	易
1180	椅	為	畏	異	移	維	緯	胃	萎	衣	謂	違	遺	医	井	亥	域	育	郁	磯
1200	一	壹	溢	逸	稻	茨	芋	鰯	允	印	咽	員	因	姻	引	飲	淫	胤	蔭	院
1220	陰	隱	韻	吺	右	宇	烏	羽	迂	雨	卯	鶲	窺	丑	碓	臼	渦	噓	唄	鬱
1240	蔚	鰐	姥	厩	浦	瓜	閨	噂	云	運	雲	荏	餌	叡	宮	嬰	影	映	曳	榮
1260	永	泳	洩	瑛	盈	穎	穎	英	衛	詠	銳	液	疫	益	駅	悅	越	閱	榎	
1280	厭	円	園	堰	奄	宴	延	怨	掩	援	沿	演	炎	焰	煙	燕	猿	縁	艷	苑
1300	薦	遠	鉛	鴛	塩	於	汚	甥	凹	央	奥	往	応	押	旺	横	欧	殴	王	翁
1320	襖	鳶	鷗	黃	岡	沖	荻	億	屋	憶	臆	桶	牡	乙	俺	卸	恩	温	穩	音
1340	下	化	仮	何	伽	偭	佳	加	可	嘉	夏	嫁	家	寡	科	暇	果	架	歌	河
1360	火	珂	禍	禾	稼	箇	花	苛	茄	荷	華	菓	蝦	課	嘩	貨	迦	過	霞	蚊
1380	俄	峨	我	牙	画	臥	芽	蛾	賀	雅	餓	駕	介	会	解	回	塊	壞	廻	快
1400	怪	悔	恢	懷	戒	拐	改	魁	晦	械	海	灰	界	皆	絵	芥	蟹	開	階	貝
1420	凱	効	外	咳	害	崖	慨	概	涯	碍	蓋	街	該	鎧	骸	涅	馨	蛙	垣	柿
1440	蛎	鈎	劃	嚇	各	廓	拏	攬	格	核	殼	獲	確	穫	覺	角	赫	較	郭	閣
1460	隔	革	学	岳	樂	額	顎	掛	笠	檉	樞	梶	鰍	潟	割	喝	恰	括	活	渴
1480	滑	葛	褐	轄	且	鰆	叶	杔	樺	鞆	株	兜	竈	蒲	釜	鎌	噙	鴨	栢	茅

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1500	萱	粥	刈	荔	瓦	乾	侃	冠	寒	刊	勘	勸	卷	喚	堪	姦	完	官	寬	干
1520	幹	患	感	慣	憾	換	敢	柑	桓	棺	款	歛	汗	漢	澗	淮	環	甘	監	看
1540	竿	管	簡	緩	缶	翰	肝	艦	莞	觀	諫	貫	還	鑑	間	閑	閔	陷	韓	館
1560	館	丸	含	岸	巖	玩	癌	眼	岩	翫	贗	雁	頑	顏	願	企	伎	危	喜	器
1580	基	奇	嬉	寄	岐	希	幾	忌	揮	机	旗	既	期	棋	棄	機	帰	毅	氣	汽
1600	畿	祈	季	稀	紀	徽	規	記	貴	起	軌	輝	飢	騎	鬼	龜	偽	儀	妓	宜
1620	戯	技	擬	欺	犧	疑	祇	義	蟻	誼	議	掬	菊	鞠	吉	吃	喫	桔	橘	詰
1640	砧	杵	黍	却	客	脚	虐	逆	丘	久	仇	休	及	吸	宮	弓	急	救	朽	求
1660	汲	泣	灸	炎	球	究	窮	笈	級	糾	給	旧	牛	去	居	巨	拒	拏	拳	渠
1680	許	距	鋸	漁	禦	魚	亨	享	京	供	俠	僑	兇	競	共	凶	協	匡	卿	叫
1700	喬	境	峽	強	彊	怯	恐	恭	挾	教	橋	況	狂	狹	矯	胸	脅	興	喬	鄉
1720	鏡	響	饗	驚	仰	凝	堯	曉	業	局	曲	極	玉	桐	秆	僅	勤	均	巾	錦
1740	斤	欣	欽	琴	禁	禽	筋	緊	芹	菌	衿	謹	近	金	吟	銀	九	俱	句	
1760	区	狗	玖	矩	苦	躯	驅	駢	駒	具	愚	虞	喰	空	偶	寓	遇	隅	串	櫛
1780	鉶	屑	屈	掘	窟	沓	靴	轡	窪	熊	隈	朶	栗	繩	桑	鍬	勲	君	薰	訓
1800	群	軍	郡	卦	袈	祁	係	傾	刑	兄	啓	圭	珪	型	契	形	徑	惠	慶	慧
1820	憩	揭	携	敬	景	桂	溪	畦	稽	系	經	繼	繫	罝	莖	荊	蛩	計	詣	警
1840	輕	頸	鷄	芸	迎	鯨	劇	戟	擊	激	隙	桁	傑	欠	決	潔	穴	結	血	訣
1860	月	件	儉	倦	健	兼	券	劍	喧	圈	堅	嫌	建	憲	懸	拳	捲	檢	權	牽
1880	犬	獻	研	硯	絹	県	肩	見	謙	賢	軒	遣	鍵	險	顯	鹺	元	原	嚴	
1900	幻	弦	減	源	玄	現	絃	舷	言	諺	限	乎	個	古	呼	固	姑	孤	己	庫
1920	弧	戶	故	枯	湖	狐	糊	袴	股	胡	菰	虎	誇	跨	鈷	雇	顧	鼓	五	互
1940	伍	午	吳	吾	娛	後	御	悟	梧	檜	瑚	碁	語	誤	護	酬	乞	鯉	交	佼
1960	侯	候	偉	光	公	功	効	勾	厚	口	向	后	喉	坑	垢	好	孔	孝	宏	工
1980	巧	巷	幸	広	庚	康	弘	恒	慌	抗	拘	控	攻	昂	晃	更	杭	校	梗	構

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2000	江	洪	浩	港	溝	甲	皇	硬	稿	糠	紅	紜	絞	綱	耕	考	肯	肱	腔	膏
2020	航	荒	行	衡	講	貢	購	郊	酵	鉛	礮	鋼	閣	降	項	香	高	鴻	剛	劫
2040	号	合	壕	拷	濠	豪	轟	麌	克	刻	告	国	穀	酷	鵠	黑	獄	瀝	腰	甑
2060	忽	惚	骨	珀	达	此	頃	今	困	坤	墾	婚	恨	懇	昏	昆	根	樞	混	痕
2080	紺	艮	魂	些	佐	又	唆	嵯	左	差	查	沙	瑳	砂	詐	鎖	裟	坐	座	挫
2100	債	催	再	最	哉	塞	妻	宰	彩	才	採	栽	歲	濟	災	采	犀	碎	砦	祭
2120	斎	細	菜	裁	載	際	剤	在	材	罪	財	汎	坂	阪	堺	柟	看	咲	崎	埼
2140	琦	鷺	作	削	昨	搾	昨	朔	柵	窄	策	索	錯	桜	鮭	笪	匙	冊	刷	察
2160	拶	撮	擦	札	殺	薩	雜	臯	鰆	捌	鑄	鮫	皿	晒	三	傘	參	山	慘	撒
2180	散	棧	燦	珊瑚	產	算	纂	蚕	讚	贊	酸	餐	斬	暫	殘	仕	仔	伺	使	刺
2200	司	史	嗣	四	土	始	姊	姿	子	屍	市	師	志	思	指	支	孜	斯	施	旨
2220	枝	止	死	氏	獅	祉	私	糸	紙	紫	肢	脂	至	視	詞	詩	試	誌	諮	資
2240	賜	雌	飼	齒	事	似	侍	兒	字	寺	慈	持	時	次	滋	治	爾	靈	痔	磁
2260	示	而	耳	自	蒔	辭	汐	鹿	式	識	鷗	竺	軸	穴	秉	七	叱	執	失	嫉
2280	室	悉	湿	漆	疾	質	寘	蔀	篠	偲	柴	芝	屢	蕊	縞	舍	写	射	捨	赦
2300	斜	煮	社	紗	者	謝	車	遮	蛇	邪	借	勾	尺	杓	灼	爵	酌	釂	錫	若
2320	寂	弱	惹	主	取	守	手	朱	殊	狩	珠	種	腫	趣	酒	首	儒	受	呪	寿
2340	授	樹	綏	需	囚	收	周	宗	就	州	修	愁	拾	洲	秀	秋	終	繡	習	臭
2360	舟	蒐	衆	襲	讐	蹴	輯	週	酋	酬	集	醜	什	住	充	十	從	戎	柔	汁
2380	渢	獸	縱	重	銃	叔	夙	宿	淑	祝	縮	肅	塾	熟	出	術	述	俊	峻	春
2400	瞬	竣	舜	駿	淮	循	旬	楯	殉	淳	準	潤	盾	純	巡	遵	醇	順	処	初
2420	所	暑	曙	渚	庶	緒	署	書	薯	諸	助	叙	女	序	徐	恕	鋤	除	傷	
2440	償	勝	匠	升	召	哨	商	唱	嘗	獎	妾	娼	宵	將	小	少	尚	庄	床	廠
2460	彰	承	抄	招	掌	捷	昇	昌	昭	晶	松	梢	樟	樵	沼	消	涉	湘	燒	焦
2480	照	症	省	硝	礁	祥	称	章	笑	粧	紹	肖	菖	蔣	蕉	衝	裳	訟	詔	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2500	詳	象	賞	醬	鉢	鍾	鐘	障	鞘	上	丈	永	乘	冗	剰	城	場	壤	嬢	常
2520	情	擾	条	杖	淨	状	畠	穰	蒸	讓	釀	錠	囑	埴	飾	拭	植	殖	燭	織
2540	職	色	触	食	蝕	辱	尻	伸	信	侵	唇	娠	寢	審	心	慎	振	新	晋	森
2560	榛	浸	深	申	疹	真	神	秦	紳	臣	芯	薪	親	診	身	辛	進	針	震	人
2580	仁	刃	塵	壬	尋	甚	尽	腎	訊	迅	陣	鞠	筈	諫	須	醉	囝	厨	逗	吹
2600	垂	帥	推	水	炊	睡	粹	衰	遂	醉	錐	錘	隨	瑞	髓	崇	嵩	数	枢	
2620	趨	雛	据	杉	楣	菅	頗	雀	裾	澄	摺	寸	世	瀨	畝	是	淒	制	勢	姓
2640	征	性	成	政	整	星	晴	棲	正	清	牲	生	盛	精	聖	声	製	西	誠	
2660	誓	請	逝	醒	青	靜	齊	稅	脆	隻	席	惜	戚	斥	昔	析	石	積	籍	績
2680	脊	責	赤	跡	蹟	碩	切	拙	接	摶	折	設	窈	節	說	雪	絕	舌	蟬	仙
2700	先	千	占	宣	專	尖	川	戰	扇	撰	栓	梅	泉	淺	洗	染	潛	煎	煽	旋
2720	穿	箭	線	纖	羨	腺	舛	船	薦	詮	賤	踐	選	遷	錢	銑	閃	鮮	前	善
2740	漸	然	全	禪	繕	膳	糰	增	塑	岨	措	曾	楚	狙	疏	疎	礎	祖	租	
2760	粗	素	組	蘇	訴	阻	遡	鼠	僧	創	双	叢	倉	喪	壯	奏	爽	宋	層	匝
2780	惣	想	搜	掃	挿	搔	操	早	曹	巢	槍	槽	漕	燥	爭	瘦	相	窓	糟	總
2800	綜	聰	草	莊	葬	蒼	藻	裝	走	送	遭	鎗	霜	騷	像	增	憎	臟	藏	贈
2820	造	促	側	則	即	息	捉	束	測	足	速	俗	屬	賊	族	統	卒	袖	其	揃
2840	存	孫	尊	損	村	遜	他	多	太	汰	訖	唾	墮	妥	惰	打	柁	舵	檣	陀
2860	駄	驛	体	堆	對	耐	岱	帶	待	怠	態	戴	替	泰	滯	胎	腿	苔	袋	貸
2880	退	逮	隊	黛	鯛	代	台	大	第	醍	題	鷹	滝	瀧	卓	啄	宅	托	抆	拓
2900	沢	灌	琢	託	鐸	濁	諾	茸	鳳	蛸	只	叩	但	達	辰	奪	脫	翼	堅	辿
2920	棚	谷	狸	鱈	樽	誰	丹	单	嘆	坦	担	探	旦	歎	淡	湛	炭	短	端	簾
2940	綻	耽	胆	蛋	誕	鍛	団	壇	彈	斷	暖	檀	段	男	談	值	知	地	弛	恥
2960	智	池	痴	稚	置	致	蜘	遲	馳	築	畜	竹	筑	蓄	逐	秩	窒	茶	嫡	着
2980	中	仲	宙	忠	抽	昼	柱	注	虫	衷	註	酌	鑄	駐	櫓	瀦	猪	苧	著	貯

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
3500	漂	瓢	票	表	評	豹	廟	描	病	秒	苗	錨	鋤	蒜	蛭	鰐	品	彬	斌	浜
3520	瀨	貧	賓	頻	敏	瓶	不	付	埠	夫	婦	富	富	布	府	怖	扶	敷	斧	普
3540	浮	父	符	腐	膚	芙	譜	負	賦	赴	阜	附	侮	撫	武	舞	葡	蕪	部	封
3560	楓	風	葺	露	伏	副	復	幅	服	福	腹	複	覆	淵	弗	払	沸	仏	物	鮒
3580	分	吻	噴	墳	憤	扮	焚	奮	粉	糞	紛	霧	文	聞	丙	併	兵	墀	幣	平
3600	弊	柄	並	蔽	閉	陞	米	貢	僻	壁	癖	碧	別	瞽	蔑	鎧	偏	變	片	篇
3620	編	辺	返	逼	便	勉	婉	弁	鞭	保	舗	鋪	圃	捕	步	甫	補	輔	穗	募
3640	墓	慕	戊	暮	母	簿	菩	倣	俸	包	呆	報	奉	宝	峰	峯	崩	庖	抱	捧
3660	放	方	朋	法	泡	烹	砲	縫	胞	芳	萌	蓬	蜂	褒	訪	豐	邦	鋒	飽	鳳
3680	鵬	乏	亡	傍	剖	坊	妨	帽	忘	忙	房	暴	望	某	棒	冒	紡	肪	膨	謀
3700	貌	貿	銖	防	吠	頰	北	僕	卜	墨	撲	朴	牧	睦	穆	鉢	勃	沒	殆	堦
3720	幌	奔	本	翻	凡	盆	摩	磨	魔	麻	埋	妹	昧	枚	每	哩	楨	幕	膜	枕
3740	鮪	杼	鱠	柂	亦	俣	又	抹	末	沫	迄	併	繭	磨	万	慢	滿	漫	蔓	味
3760	未	魅	已	箕	岬	密	蜜	湊	蓑	稔	脈	妙	耗	民	眠	務	夢	無	牟	矛
3780	霧	鶴	椋	婿	娘	冥	名	命	明	盟	迷	銘	鳴	姪	牝	滅	免	棉	綿	緬
3800	面	麵	摸	模	茂	妄	孟	毛	猛	盲	網	耗	蒙	儲	木	默	目	柰	勿	餅
3820	尤	戾	糲	貫	問	悶	紋	門	匄	也	治	夜	爺	耶	野	弥	矢	厄	役	約
3840	葉	訛	躍	靖	柳	藪	鑽	愉	愈	油	癒	諭	輸	唯	佑	優	勇	友	宥	幽
3860	悠	憂	揖	有	柚	湧	涌	猶	猷	由	祐	裕	誘	遊	邑	郵	雄	融	夕	予
3880	余	与	誉	輿	預	傭	幼	妖	容	庸	揚	搖	擁	曜	楊	樣	洋	溶	熔	用
3900	窯	羊	耀	葉	蓉	要	謠	踊	遙	陽	養	慾	抑	欲	沃	浴	翌	翼	淀	羅
3920	螺	裸	來	萊	賴	雷	洛	絡	落	酩	亂	卵	嵐	欄	濫	藍	蘭	覽	利	吏
3940	履	李	梨	理	璃	痢	裏	裡	里	離	陸	律	率	立	葎	掠	略	劉	流	溜
3960	琉	留	硫	粒	隆	龍	龍	侶	慮	旅	虜	了	亮	僚	丩	凌	寮	料	梁	涼
3980	獵	療	瞭	稜	糧	良	諒	遼	量	陵	領	力	綠	倫	厘	林	淋	燐	琳	臨

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
4500	猝	堋	堙	堦	塲	堡	塙	塈	塋	塎	塩	塚	塢	塪	塤	塥	塧	塨	塭	塮
4520	墻	墮	壅	壓	壑	壠	壘	壘	壘	壘	壘	壘	壘	壘	壘	壘	壘	壘	壘	壘
4540	夐	夢	夥	夬	天	夊	夸	夾	奇	奕	奐	奎	奚	奐	奢	奠	奧	獎	奩	奩
4560	奸	妁	妝	佞	佞	妣	姐	姆	姨	妍	姁	姚	娥	娟	娑	娜	娉	嫒	嫒	嫒
4580	姪	婉	嫏	娶	婢	嫗	媚	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗	嫗
4600	嬋	嬖	躄	嬾	嬾	嬾	嬾	嬾	嬾	嬾	子	孕	孚	孚	孥	孩	孰	孳	躇	學
4620	𡇔	孺	𠂆	它	宦	宸	寃	寇	崔	寔	寐	寤	實	寢	寘	寥	寫	寰	寶	寶
4640	尅	將	專	對	尔	尠	尤	彫	戶	尹	屁	屆	屎	肩	屐	屏	辱	屬	山	屹
4660	劣	屹	岌	岑	岱	嵒	岫	嵒	嵒	嵒	嵒	嵒	嵒	嵒	峩	峩	峩	峩	峩	峩
4680	峪	峩	崕	嵩	峩	崕	崔	崕	嶮	峩	峩	峩	峩	峩	峩	峩	峩	峩	峩	
4700	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒	巒
4720	帴	帴	帙	帑	帛	帶	帷	幄	幙	幙	幙	幙	幙	幙	幙	幙	幙	幙	幙	幙
4740	麼	廣	庠	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁	廁
4760	廰	廸	升	弃	弌	彝	彝	弋	弑	弌	弩	弭	弸	弸	弸	弸	弸	弸	弸	弸
4780	彖	彗	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙	彙
4800	徼	付	忻	忤	忸	忧	忝	惠	忿	怡	恠	恠	恠	恠	恠	恠	恠	恠	恠	恠
4820	快	悅	恚	恁	恪	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄
4840	惄	悚	悄	悛	悖	惋	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄
4860	惄	惄	惶	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄
4880	惄	惄	博	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄
4900	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄	惄
4920	懦	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶	懶
4940	戰	戲	戩	扁	扎	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠	扠
4960	拗	扠	扠	拏	拿	拆	擔	拈	拜	拌	拊	拊	拊	拊	拊	拊	拊	拊	拊	拊
4980	挈	拯	拏	捐	挾	捍	搜	捏	掖	掎	掀	掀	捶	擊	掏	掉	捉	掄	掄	掄

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7500	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	
7520	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	
7540	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	①	②	③	④	⑤
7560	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	I	II	III	IV	V
7580	VI	VII	VIII	IX	X	ミリ	キロ	セン	メートル	グラム	トン	アル	ヘクタール	リットル	ワット	カリ	ドル	セント	ペース	ミリバル
7600	ミ	mm	cm	km	mg	kg	cc	m ²	ミ	ミ	No.	KK	TEL	(上)	(中)	(下)	(左)	(右)	(株)	(有)
7620	(代)	暭	姪	囂	沙	Σ	√	上	∠	△	□	U	啞	飴	溢	鱈	淫	迂	鬱	
7640	厩	閨	噂	餌	焰	襖	鷗	迦	恢	拐	晦	喝	葛	鞆	嚙	澗	翰	翫	徽	祇
7660	俠	卿	僅	軀	喰	櫛	屑	靴	祁	慧	稽	繫	荆	隙	倦	嫌	捲	鹹	諺	巷
7680	昂	溝	麴	鵠	餉	采	榦	柵	薩	鯖	鑄	珊	叱	屢	遮	杓	灼	繡	酋	曙
7700	渚	薯	譜	哨	廠	梢	蔣	醬	鞘	蝕	勒	逗	翠	摺	逝	蟬	撰	栓	煎	煽
7720	詮	憎	遡	創	搔	瘦	遜	驛	腿	黛	啄	濯	琢	蜎	巽	迺	棚	鱈	樽	簾
7740	註	瀦	凋	捲	槌	鎗	塚	擗	鄭	擢	溺	墳	顛	堵	屠	菟	賭	塘	禱	鵠
7760	瀆	瀧	頓	遁	頓	那	謎	灘	榦	禰	囊	牌	這	秤	剝	箸	潑	釀	挽	扉
7780	樋	格	碑	逼	媛	謬	廟	瀕	頻	蔽	瞥	婉	庖	泡	蓬	頰	鱈	麵	儲	餅
7800	糸	鑛	愈	癒	獸	熔	耀	萊	遼	漣	煉	蓮	榔	蠟	兔	冉	冕	冤	𠂔	唳
7820	嗤	嘲	嚙	堋	媾	寃	屏	幣	惋	捩	搆	攢	斃	栌	枮	椰	枹	涇	燭	爨
7840	珍	甄	甍	甕	皓	硼	稱	榦	榦	粄	粄	粄	紹	繁	緜	翔	舡	芍	冉	葱
7860	蔗	藜	螂	躋	褊	觀	謫	跚	跢	輓	迪	迹	邁	扈	鬻	闔	睢	靄	靄	
7880	韌	頤	鬪	鰐	鰐	麪	龜	、	。	।	।	।	।	।	।	=	-	:	（	
7900	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	𠂔	
7920	う	え	お	つ	や	ゆ	よ	わ	アイ	ウ	エ	オ	ツ	ヤ	ユ	ヨ	ワ	カ	ケ	
7940	リ	ミ	ロ	キ	チ	シ	ト	メ	ム	グ	シ	ト	ル	ア	タ	ハ	ト	リ	カ	ド
7960	け	芦	茨	嘘	廡	牙	汲	笈	饗	擎	拳	餐	韌	煽	穿	箭	揃	菟	祢	叛
7980	迄	簾	僊	匕	喻	嚮	堙	穸	彞	彞	廧	廧	扁	暨	氈	渣	滬	窗	籌	翩

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
8500	榦	楣	櫓	橫	舞	櫛	櫟	櫻	櫛	汜	汎	汎	汎	汎	汎	汎	汎	涇	涇	涇
8520	溟	清	濁	森	濶	湜	湜	湜	湜	漸	漸	漸	瀨	瀨	瀨	瀨	瀨	熑	熑	熑
8540	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖	熖
8560	琮	瑢	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉	璉
8580	神	祥	禔	福	禎	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑	竑
8600	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗	苗
8620	闇	諰	諸	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰	諰
8640	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣	釣
8660	鋭	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸	鋸
8680	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞	鏞
8700	飼	餚	館	醇	鱗	高	齧	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀
8720	-	=	#	\$	%	&	-	()	*	+	,	.	.	/	0	1	2	3	
8740	4	5	6	7	8	9	...	^		v	?	@	A	B	C	D	E	F	G	
8760	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
8780	¥]	>	-	,	a	b	c	d	e	f	g	h	i	j	k	l	m	n	
8800	p	q	r	s	t	u	v	w	x	y	z	{	}	-	-	,	,	,	,	
8820	j	i	e	f	/	f	s	s	“	”	”	”	”	”	”	”	”	”	”	
8840	”	”	”	”	:	:	%	”	”	”	”	”	”	”	”	”	”	”	”	
8860	ł	ø	œ	ø	æ	ı	ı	ı	ı	ø	œ	ı	ı	ı	ı	ı	ı	ı	ı	
8880	¼	¾	À	Á	À	Á	À	Á	À	Á	À	Á	È	É	È	É	È	É	È	
8900	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ü	Ý	Ü	Ý	Ü	Ý	Ü	
8920	é	é	é	é	í	í	í	í	í	ó	ó	ó	ó	ó	ó	ó	ú	ú	ú	
8940	p	ý	s	ý	z	ý	z	ý	z	ý	z	ý	z	ý	z	ý	z	ý	z	
8960	*	+	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,		
8980	›	?	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9000	R	S	T	U	V	W	X	Y	Z	[]	~	,	.	a	b	c	d	e	
9020	f	ø	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y
9040	Z	{	_	—		,	:	;	À	ù	é	í	B	c	ç	N	ñ	ƒ	ƒ	
9060	ó	ú	—	—	—	—	—	—	—	—	—	—	à	è	ò	à	é	á	á	
9080	~	Ø	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9160	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9180	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9240	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9320	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	+	+	+	
9340	—	—	—	—	—	—	—	—	—	—	—	—	►	€	Ω	'	"	ff	ffi	
9360	ffl	ā	ī	ū	ē	ō	Ā	Ī	Ū	Ē	Ō	½	¾	¾	¾	¾	¾	0	4	5
9380	6	7	8	9	0	1	2	3	4	5	6	7	8	9	Ā	Ě	É	Ě	Í	Í
9400	ĩ	õ	ö	ü	ü	ü	ä	ě	ë	ë	ë	í	í	í	ó	ó	ú	ú	á	á
9420	à	æ	æ	ɔ	ó	ó	é	é	é	é	é	é	é	é	é	é	é	é	á	á
9440	ł	ż	ż	ł	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	
9460	ó	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	@	A	B	C
9480	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9500	X	Y	Z	ſ	¥	ſ	^	`	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9520	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
9540	\	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9560	·	¶	•	,	”	”	»	...‰	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9580	—	Æ	‘	Ł	Ø	Œ	‘	œ	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9600	2	3	μ	‘	¼	½	¾	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9620	‘	‘	D	N	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9640	ä	å	ç	è	é	ê	ë	ì	í	î	ï	ð	ñ	ò	ó	ô	ö	÷	ù	
9660	ú	û	ü	ý	p	ÿ	Š	Ý	Ž	–	š	™	ž	ø	€	Ω	’	”	ff	
9680	ffl	ā	ī	ū	ē	ō	Ā	Ī	Ū	Ē	Ō	½	¾	⁵/₈	⁷/₈	¹/₃	²/₃	‘	‘	
9700	6	7	8	9	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9720	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	‘	
9740	2	3	4	5	6	7	8	9	–	–	–	–	–	–	–	–	–	–	–	
9760	2	3	4	5	6	7	8	9	–	–	–	–	–	–	–	–	–	–	–	
9780	% ₃	% ₃	% _{2/3}	% _{3/4}	% _{1/5}	% _{2/5}	% _{3/5}	% _{4/5}	% _{1/6}	% _{5/6}	% _{1/7}	% _{2/7}	% _{3/7}	% _{4/7}	% _{5/7}	% _{6/7}	% _{1/8}	% _{3/8}	% _{5/8}	
9800	% ₉	% ₉	% ₉	% ₉	% ₉	% ₁₀	% ₁₁													
9820	¹/₁₂	⁵/₁₂	⁷/₁₂	¹¹/₁₂	¹/₁₀₀	⁰/₃	¹/₂	¹/₃	²/₃	¹/₄	³/₄	¹/₅	²/₅	³/₅	⁴/₅	¹/₆	⁵/₆	¹/₇	²/₇	
9840	⁴/₇	⁵/₇	⁶/₇	¹/₈	³/₈	⁵/₈	⁷/₈	¹/₉	²/₉	⁴/₉	⁵/₉	⁷/₉	⁸/₉	¹/₁₀	³/₁₀	⁷/₁₀	⁹/₁₀	¹/₁₁	²/₁₁	
9860	⁴/₁₁	⁵/₁₁	⁶/₁₁	⁷/₁₁	⁸/₁₁	⁹/₁₁	¹⁰/₁₁	¹¹/₁₂	¹²/₁₂	¹¹/₁₂	¹¹/₁₀₀	0	1	2	3	4	5	6	7	
9880	8	9	Ø	III	(00)	(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09)	(21)	(22)	(23)	(24)	(25)	
9900	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	
9920	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	(64)	(65)	
9940	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	
9960	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(i)	(ii)	(iii)	(iv)	(v)	
9980	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
10000	(XII)	(XIII)	(XIV)	(XV)	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
10020	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)	(あ)	(い)	(う)	(え)	(お)	(か)	(き)	(く)	(け)	(こ)
10040	(さ)	(し)	(す)	(せ)	(そ)	(た)	(ち)	(つ)	(て)	(と)	(な)	(に)	(ぬ)	(ね)	(の)	(は)	(ひ)	(ふ)	(へ)	(ほ)
10060	(ま)	(み)	(む)	(め)	(も)	(や)	(ゆ)	(よ)	(ら)	(り)	(る)	(れ)	(ろ)	(わ)	(ゐ)	(ゑ)	(を)	(ん)	(ア)	(イ)
10080	(ウ)	(エ)	(オ)	(カ)	(キ)	(ク)	(ケ)	(コ)	(サ)	(シ)	(ス)	(セ)	(ソ)	(タ)	(チ)	(ツ)	(テ)	(ト)	(ナ)	(ニ)
10100	(ヌ)	(ネ)	(ノ)	(ハ)	(ヒ)	(フ)	(ヘ)	(ホ)	(マ)	(ミ)	(ム)	(メ)	(ヤ)	(ユ)	(ヨ)	(ヲ)	(リ)	(ル)	(レ)	
10120	(ロ)	(ワ)	(ヰ)	(ヱ)	(ヲ)	(ン)	(ヘ)	(ニ)	(三)	(四)	(五)	(六)	(七)	(八)	(九)	(十)	(±)	(±)	(四)	
10140	(圭)	(夬)	(夬)	(夬)	(夬)	(夬)	(當)	(合)	(注)	(問)	(答)	(例)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	
10160	(8)	(9)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(フ)	(オ)	(シ)	(二)	(三)	(四)	(五)	
10180	六	七	八	九	十	○	一	二	三	四	五	六	七	八	九	十	○	二	三	
10200	四	五	六	七	八	九	一	二	三	三	四	五	六	七	八	九	十	○	二	
10220	三	三	四	五	六	七	八	九	七	三	三	四	五	六	七	八	九	十	○	
10240	06	07	08	09	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
10260	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
10280	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
10300	88	89	90	91	92	93	94	95	96	97	98	99	100	a	b	c	d	e	f	g
10320	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	A
10340	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
10360	V	W	X	Y	Z	あ	い	う	え	お	か	き	く	け	こ	さ	し	す	せ	ぞ
10380	た	ち	つ	て	と	な	に	ぬ	ね	の	は	ひ	ふ	へ	ほ	ま	み	む	め	も
10400	や	ゆ	よ	ら	り	る	れ	ろ	わ	ゐ	ゑ	を	ん	ア	イ	ウ	エ	オ	カ	ヰ
10420	ク	ケ	コ	サ	シ	ス	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	ヌ	ネ	ノ	ハ	ヒ
10440	フ	ヘ	ホ	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ヲ	リ	ル	レ	ロ	ワ	ヰ	エ	ヲ
10460	ン	一	二	三	四	五	六	七	八	九	十	日	月	火	水	木	金	土	調	注
10480	副	減	標	欠	基	禁	項	休	女	男	正	写	祝	出	適	特	済	増	問	答

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
10500	(例)	電	○	0	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
10520	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
10540	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
10560	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
10580	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
10600	96	97	98	99	100	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
10620	p	q	r	s	t	u	v	w	x	y	z	A	B	C	D	E	F	G	H	I
10640	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	あ	い	う
10660	え	お	か	き	く	け	こ	さ	し	す	せ	そ	た	ち	つ	て	と	な	に	ぬ
10680	ね	の	は	ひ	ふ	へ	ほ	ま	み	む	め	も	や	ゆ	よ	ら	り	る	れ	ろ
10700	わ	ゐ	ゑ	を	ん	ア	イ	ウ	エ	オ	カ	キ	ク	ケ	コ	サ	シ	ス	セ	ソ
10720	タ	チ	ツ	テ	ト	ナ	ニ	ヌ	ネ	ノ	ハ	ヒ	フ	ヘ	ホ	マ	ミ	ム	メ	モ
10740	ヤ	ユ	ヨ	ラ	リ	ル	レ	ロ	ワ	ヰ	ヱ	ヲ	ン	日	月	火	水	木	金	土
10760	問	答	例	○	0	00	1	01	2	02	3	03	4	04	5	05	6	06	7	07
10780	8	08	9	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
10800	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
10820	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
10840	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
10860	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	a	b	c	d	e
10880	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y
10900	z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
10920	T	U	V	W	X	Y	Z	あ	い	う	え	お	か	き	く	け	こ	さ	し	す
10940	せ	そ	た	ち	つ	て	と	な	に	ぬ	ね	の	は	ひ	ふ	へ	ほ	ま	み	む
10960	め	も	や	ゆ	よ	ら	り	る	れ	ろ	わ	ゐ	ゑ	を	ん	ア	イ	ウ	エ	オ
10980	力	キ	ク	ケ	コ	サ	シ	ス	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	ヌ	ネ	ノ

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
11000	ハ	ヒ	フ	ヘ	ホ	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ラ	リ	ル	レ	ワ	ヰ	
11020	エ	ヲ	ン	日	月	火	水	木	金	土	負	勝	問	答	例	□	0	00	1	
11040	01	2	02	3	03	4	04	5	05	6	06	7	07	8	08	9	09	10	11	12
11060	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
11080	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
11100	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
11120	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
11140	93	94	95	96	97	98	99	100	a	b	c	d	e	f	g	h	i	j	k	1
11160	m	n	o	p	q	r	s	t	u	v	w	x	y	z	A	B	C	D	E	F
11180	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
11200	あ	い	う	え	お	か	き	く	け	こ	さ	し	す	せ	そ	た	ち	つ	て	と
11220	な	に	ぬ	ね	の	は	ひ	ふ	へ	ほ	ま	み	む	め	も	や	ゆ	よ	ら	り
11240	る	れ	ろ	わ	ゐ	ゑ	を	ん	ア	イ	ウ	エ	オ	カ	キ	ク	ケ	コ	サ	シ
11260	ス	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	ヌ	ネ	ノ	ハ	ヒ	フ	ヘ	ホ	マ	ミ
11280	ム	メ	モ	ヤ	ユ	ヨ	ラ	リ	ル	レ	ロ	ワ	ヰ	エ	ヲ	ン	日	月	火	水
11300	木	金	土	間	答	例	□	0	00	1	01	2	02	3	03	4	04	5	05	6
11320	06	7	07	8	08	9	09	10	11	12	13	14	15	16	17	18	19	20	21	22
11340	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
11360	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
11380	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
11400	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	a	b
11420	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
11440	w	x	y	z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
11460	Q	R	S	T	U	V	W	X	Y	Z	あ	い	う	え	お	か	き	く	け	こ
11480	さ	し	す	せ	そ	た	ち	つ	て	と	な	に	ぬ	ね	の	は	ひ	ふ	へ	ほ

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
11500	ま	み	む	め	も	や	ゆ	よ	ら	り	る	れ	ろ	わ	ゐ	ゑ	を	ん	ア	イ	
11520	ウ	エ	オ	カ	キ	ク	ケ	コ	サ	シ	ス	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	
11540	ヌ	ネ	ノ	ハ	ヒ	フ	ヘ	赤	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ラ	リ	ル	レ	
11560	口	ワ	ヰ	ヰ	ヲ	ン	日	月	火	水	木	金	土	問	答	例	0	00	1	01	
11580	2	02	3	03	4	04	5	05	6	06	7	07	8	08	9	09	10	11	12	13	
11600	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
11620	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	
11640	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	
11660	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	
11680	94	95	96	97	98	99	100	a	b	c	d	e	f	g	h	i	j	k	l	m	
11700	n	o	p	q	r	s	t	u	v	w	x	y	z	A	B	C	D	E	F	G	
11720	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	あ	
11740	い	う	え	お	か	き	く	け	こ	さ	し	す	せ	そ	た	ち	つ	て	と	な	
11760	に	ぬ	ね	の	は	ひ	ふ	へ	ほ	ま	み	む	め	も	や	ゆ	よ	ら	り	る	
11780	れ	ろ	わ	ゐ	ゑ	を	ん	ア	イ	ウ	エ	オ	カ	キ	ク	ケ	コ	サ	シ	ス	
11800	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	ヌ	ネ	ノ	ハ	ヒ	フ	ヘ	ホ	マ	ミ	ム	
11820	メ	モ	ヤ	ユ	ヨ	ラ	リ	ル	レ	ロ	ワ	ヰ	ヰ	ヲ	ン	日	月	火	水	木	
11840	金	土	問	答	例	■	AM	KK	No	PH	PM	PR	TEL	TM	VS	%c	am.	%c	c.c.	%	
11860	d1	hPa	k1	1	μg	μm	m1	m/m	n/m	pH	p.m.	さ	じ	さ	ア	ト	アル	アン	イニ	ウル	エー
11880	エク	エス	オー	オング	オン	オン	オントロ	カリ	カイ	カツ	カラ	ガロ	ガン	ギ	ギニ	キュー	ギル	キロ	キット	グス	グラム
11900	クル	クロ	ケ	チ	チ	チ	チ	チ	チ	チ	チ	チ	チ	チ	チ	チ	ノッ	バ	バ	バ	ピク
11920	ピ	コ	フ	ア	フ	ア	フ	エ	ブ	ラ	シ	ベ	ヘ	ヘクト	ペセ	ペソ	ペニ	ペ	ボ	ボ	マイ
11940	マイ	ハ	マ	ク	マル	ミク	メガ	メガ	ヤー	ユア	ユー	ラ	リ	ル	ルク	ルピ	ルピ	レム	レン	ア	フア
11960	ン	グニ	ンウ	オ	シウ	カエ	サエ	クエ	ドス	ムオ	豆	豆	豆	豆	豆	豆	豆	マガ	ギ	ギ	リキ
11980	ドキ	ムス	トダ	シム	ザク	ザク	ザク	ザク	スケ	スケ	ナコ	クサ	チサ	シ	シ	シ	シ	ナ	トノ	ツバ	ル

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
12000	カバ ルス	ルバ レ	スビ ルア	ルビ ク	ピ コ	ラブ ドア	ラフ トエ	シブ ラフ	ンラ タベ	トケ タベ	タベ タ	ペ ソ	ペ タ	ヒベ ヒニ	スペ ス	ンボ ンボ	ルホ ルホ			
12020	トル ボン	ホ ドボ	クマ ロイ	ルマ ハイ	ハマ ツ	クマ ロミ	ガ メ	トメ ンガ	ルヤ ンコ	ロコ ド	ラ ラ	リ ブル	スル アル	ビ アルビ	リ ルビ	ム ム				
12040	ジン 賜	賜 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃	盃 盃		
12060	法社 人團	法宗 人教	番郵 便	—	=	℃	♀	♂	■	〒	「	」	『	』	〔	〕	〔	〕	(())	
12080	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	‘ ’	“ ”	
12100	♪	・	©	®	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	
12120	≈	≤	≥	「	」	『	』	〔	〕	〔	〕	〔	〕	〔	〕	〔	〕	〔	〕	
12140	︵	︶	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	︵	
12160	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	ㄥ	
12180	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	
12200	↔	↔	↓	↖	↗	↗	↔	↔	↔	↑	↔	↑	↓	↔	↔	↔	↔	↔	↔	
12220		≡	*	*	-		×	+	×	田	⊕	△	▽	◀	▶	↔	↑	↓		
12240	+	+	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
12260	❖	<	>	^	∨	<>	^	∨	こ	こ	こ	こ	こ	ゞ	あ	あ	い	い	う	
12280	う	え	え	お	お	か	か	が	き	ぎ	く	ぐ	け	け	げ	こ	こ	ご	ざ	
12300	し	じ	す	ず	せ	ぜ	そ	ぞ	た	だ	ち	ち	つ	つ	づ	て	ど	な		
12320	に	ぬ	ね	の	は	ば	ぱ	ひ	び	ひ	ふ	ぶ	ぶ	へ	べ	ペ	ほ	ぼ	ま	
12340	み	む	め	も	や	や	ゆ	ゆ	よ	よ	ら	り	る	れ	ろ	わ	わ	ゐ	ゑ	
12360	ん	う	う	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、	
12380	ク	グ	ケ	ケ	ゲ	コ	コ	ゴ	サ	ザ	シ	ジ	ス	ズ	セ	ゼ	ソ	ゾ	タ	
12400	チ	ヂ	ツ	ツ	ツ	ツ	テ	デ	ト	ド	ナ	ニ	ヌ	ネ	ノ	ハ	バ	パ	ビ	
12420	フ	ブ	ブ	ヘ	ベ	ペ	ホ	ボ	ボ	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ヨ		
12440	ラ	リ	ル	レ	ロ	ワ	ワ	ヰ	ヱ	ヲ	ン	ヴ	ヴ	ヰ	ヱ	ゞ	あ	あ		
12460	い	い	う	え	え	お	お	か	か	が	き	ぎ	く	ぐ	け	け	げ	こ	こ	
12480	ご	さ	ざ	し	じ	す	す	せ	ぜ	そ	ぞ	た	だ	ち	ち	つ	つ	づ	て	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
13000	I	Z	n	o	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	
13020	J	Y	m	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	
13040	K	S	g	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	
13060	L	P	h	j	j	j	j	j	j	j	j	j	j	j	j	j	j	j	j	
13080	M	O	a	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	
13100	N	R	b	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	
13120	H	Y	c	r	s	t	u	v	w	x	y	z	z	z	z	z	z	z	z	
13140	¥	J	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	
13160	I	I	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	æ	
13180	L	I	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	
13200	Ø	E	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	
13220	½	À	À	À	À	À	À	À	À	À	À	À	À	À	À	À	À	À	À	
13240	¼	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	Á	
13260	Ó	Á	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó	
13280	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	
13300	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	œ	
13320	逸	謁	緣	黃	溫	禍	悔	海	慨	慨	渴	漢	器	既	祈	虛	響	勤	謹	
13340	揭	擊	研	穀	殺	社	視	煮	社	者	臭	祝	暑	署	涉	狀	慎	真	節	
13360	僧	層	巢	憎	贈	卽	嘆	著	徵	懲	鎮	禎	鬪	突	難	梅	繁	晚	卑	
13380	賓	敏	侮	併	墀	勉	步	墨	每	免	戾	祐	欄	隆	虜	淚	類	曆	練	
13400	鍊	廊	錄	概	汙	捌	蛛	邊	逢	偉	緯	違	厩	餌	衛	延	沿	鉛	翁	
13420	雅	害	慨	慨	殼	敢	貫	巖	頑	帰	軌	窮	均	傑	穴	健	建	鈷	檜	
13440	公	更	校	硬	絞	考	購	降	拷	罪	使	史	姊	謝	邪	收	輯	柔	瞬	
13460	楯	松	訟	丈	墳	植	職	親	遂	据	摶	船	總	聰	像	誕	恥	兆	眺	
13480	跳	庭	廷	艇	桃	逃	派	排	輩	班	頒	悲	扉	斐	緋	誹	貧	父	葺	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
13500	噴	憤	粉	紛	霧	蔽	便	捧	盆	栴	脈	耶	翼	吏	隣	麟	麗	聯	聾	灣
13520	傅	菁	凜	七	區	雙	喻	囁	圍	埠	姚	娶	媾	嵎	嶧	巔	嶃	弭	徘徊	惆
13540	博	懾	扱	擎	攝	搏	擲	敞	睂	朶	楫	榔	榧	橄	檻	氈	岷	渣	漑	
13560	滾	漾	耀	珥	琲	瑟	瓠	癩	礪	碟	禹	殖	窕	糴	絳	緘	羨	羹	翡	
13580	聚	智	聳	聰	聶	腓	膊	臍	躋	蕕	蕷	蠶	蟬	衰	裘	褫	襯	襪	襪	
13600	襯	訝	贅	羸	齎	躡	躡	迺	迺	鄰	酰	酸	酥	醑	醒	醢	醪	醴	醺	
13620	鑷	隘	霽	靠	韌	頌	顚	驅	魍	魘	鮆	鯈	鴟	鷗	鼈	扠	暗	意		
13640	衣	違	遺	磯	貞	重	臼	廐	瓜	運	餌	衛	銳	閱	延	援	沿	煙	遠	鉛
13660	於	往	翁	卸	音	化	花	菓	貨	過	芽	雅	餓	廻	灰	害	慨	慨	慨	慨
13680	概	柿	角	隔	割	轄	鎌	荔	寒	環	緩	乍	還	閒	韓	館	危	厴	厴	
13700	幾	旣	期	機	起	飢	吉	喫	虐	逆	及	吸	急	級	巨	拒	距	奐	奐	
13720	強	忍	槁	槁	槁	鄉	響	饗	曉	王	近	俱	矩	具	虞	空	遇	櫛	啓	
13740	惠	慧	迎	傑	潔	兜	月	月	兼	券	憲	权	肩	謙	遣	原	言	戶	雇	
13760	吳	娛	誤	互	慌	拘	控	構	浩	港	耕	腔	荒	講	購	酷	腰	餉	込	
13780	今	鎖	座	彩	採	歲	菜	冂	唉	削	產	餐	姿	姿	市	諮	諮	資	資	
13800	次	滋	玺	叱	捨	斜	邪	勻	爵	爵	酌	弱	主	受	授	周	終	習	衆	
13820	住	術	述	巡	遵	遵	所	書	女	勝	商	宵	將	少	尗	消	硝	肖	丈	
13840	冗	城	情	埴	飾	植	殖	食	食	食	尻	侵	小	浸	真	進	仁	八	尋	
13860	訊	訊	迅	衰	遂	勢	勢	成	盛	聖	西	誠	請	靜	靜	稅	脆	隻	籍	
13880	說	雪	絕	扇	潛	羨	船	選	遷	前	全	掃	挿	瘦	走	送	遭	足	速	
13900	賊	尊	尊	妥	泰	退	逮	隊	鯛	大	才	瀧	達	脫	丹	歎	炭	誕	暖	
13920	置	築	築	築	逐	柱	注	駐	彫	徵	懲	朝	潮	調	直	朕	朕	墜	追	
13940	坪	釣	呈	帝	程	的	適	迭	添	兎	途	砾	土	土	冬	唐	糖	藤	謄	
13960	透	騰	導	道	吞	棕	內	肉	乳	忍	認	寧	納	霸	派	肺	博	薄	縛	
13980	肇	肇	濺	濺	醸	伴	判	半	帆	畔	晚	蕃	避	微	鼻	匹	正	彥	姬	

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
15000	𠂇	羨	羿	翊	翟	翥	翬	翫	翶	翹	奐	耑	籽	耤	耦	暉	暉	暉	聟
15020	贊	臤	盼	肫	豚	肱	脖	腕	僻	腊	腌	賺	艘	膾	鍼	鍼	鷦	鷦	鷦
15040	艸	艋	艋	𦵯	芮	芷	蒂	𦵯	茩	荃	荑	𦵯	蒲	菉	莘	莧	莧	莧	莧
15060	苜	萑	筭	葶	蒨	蓀	蓂	蓀	蓀	蓀	蓀	蓀	蓀	蓀	蓀	蓀	蓀	蓀	蓀
15080	𧔻	虬	虯	虺	蛇	𧔻	蛇	𧔻	蛇	𧔻	蛇	𧔻	蜋	蜋	蜋	蜋	蜋	蜋	蜋
15100	螬	螭	螺	蜥	蟬	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻
15120	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻	𧔻
15140	詎	詰	誠	諂	諂	諂	諂	諂	諂	諂	諂	豇	豇	豔	𠂇	𠂇	贊	贊	贊
15160	頴	超	超	趕	趨	跔	跔	跔	跔	跔	跔	跔	跔	跔	跔	跔	跔	跔	跔
15180	覲	輶	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯	辯
15200	郴	鄙	廊	鄙	廊	鄙	鄙	鄙	鄙	鄙	鄙	醕	醕	醕	醕	醕	醕	醕	醕
15220	鉄	銛	鉄	鉄	鉄	鉄	鉄	鉄	鉄	鉄	鉄	鋏	鋏	鋏	鋏	鋏	鋏	鋏	鋏
15240	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄	鑄
15260	闔	闔	阝	阝	阝	阝	阝	阝	阝	阝	阝	雥	雥	雥	雥	雥	雥	雥	雥
15280	鞞	鞞	鞞	鞞	鞞	鞞	鞞	鞞	鞞	鞞	鞞	𩱁	𩱁	𩱁	𩱁	𩱁	𩱁	𩱁	𩱁
15300	飪	餳	餳	餳	餳	餳	餳	餳	餳	餳	餳	駢	駢	駢	駢	駢	駢	駢	駢
15320	驥	骯	骯	骯	骯	骯	骯	骯	骯	骯	骯	鮀	鮀	鮀	鮀	鮀	鮀	鮀	鮀
15340	臘	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀	鯀
15360	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺	鷺
15380	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗	鷗
15400	罝	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳	聳
15420	研	蠣	棧	玆	脣	功	脊	犖	橅	熑	夷	璫	璫	璫	璫	璫	璫	璫	璫
15440	糧	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶	訶
15460	°	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃	℃
15480	^	∨	⇒	↔	Δ	⊕	⊖	⊗	//	✗	∠	⊤	⊖	▽	≡	≠	≤	≥	∞

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
16000	ぐ	け	げ	こ	ご	さ	ざ	し	じ	す	す	せ	ぜ	そ	ぞ	た	だ	ち	ち	つ	
16020	つ	づ	て	で	と	ど	な	に	ぬ	ね	の	は	ば	ば	ひ	び	ひ	ふ	ぶ	ぶ	
16040	へ	べ	ペ	ほ	ぼ	ぼ	ま	み	む	め	も	や	や	ゆ	ゆ	よ	よ	ら	り	る	
16060	れ	ろ	わ	わ	ゐ	ゑ	を	ん	う	か	け	が	ぎ	ぐ	げ	ご	ア	ア	イ	イ	
16080	ウ	ウ	エ	エ	オ	オ	カ	ガ	キ	ギ	ク	グ	ケ	ゲ	コ	ゴ	サ	ザ	シ	ジ	
16100	ス	ズ	セ	ゼ	ソ	ゾ	タ	ダ	チ	ヂ	ツ	ツ	ツ	テ	デ	ト	ド	ナ	ニ	ヌ	
16120	ネ	ノ	ハ	バ	パ	ヒ	ビ	ピ	フ	ブ	ブ	ヘ	ベ	ペ	ホ	ボ	ボ	マ	ミ	ム	
16140	メ	モ	ヤ	ヤ	ユ	ユ	ヨ	ヨ	ラ	リ	ル	レ	ロ	ワ	ワ	キ	エ	ヲ	ン	ヴ	
16160	カ	ケ	ガ	ギ	グ	ゲ	ゴ	ゼ	ヅ	ド	ク	シ	ス	ト	ヌ	ハ	ヒ	フ	ヘ	ホ	
16180	プ	ム	ラ	リ	ル	レ	ロ	ワ	ギ	エ	ヂ	こ	コ	こ	□	フ	//	〔〕	𠂊		
16200	♪	↑	↓	○	◎	○	=	-	#	#	が	ぎ	ぐ	げ	ご	ガ	ギ	グ	ゲ	ゴ	ゼ
16220	ヅ	ド	ゞ	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	△	▲	□	□	□	□	□	
16240	ヌ	ハ	ヒ	フ	ヘ	ホ	プ	ム	ラ	リ	ル	レ	ロ	「	」	○	○	○	○	本	
16260	▲	+	下	土	丁	上	」	一	✓	⌘	』	⌚	⌚	⌚	⌚	⌚	⌚	⌚	⌚	⌚	
16280	¤	*	*		レ	一	二	三	四	上	中	下	甲	乙	丙	丁	天	地	人	∈	
16300	*	≈	≡	≠	≤	≥	≠	≠	≠	≠	≠	≠	≠	≠	≠	≠	≠	≠	≠	≠	
16320	凸	凸	凸	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	♻	
16340	フ	ヘ	ホ	プ	ム	ラ	リ	ル	レ	ロ	一	が	ぎ	ぐ	げ	ご	ガ	ギ	グ		
16360	ヶ	ゴ	ゼ	ヅ	ド	ク	シ	ス	ト	ヌ	ハ	ヒ	フ	ヘ	ホ	プ	ム	ラ	リ	ル	
16380	レ	ロ	が	ぎ	ぐ	げ	ご	ガ	ギ	グ	ゲ	ゴ	ゼ	ヅ	ド	ク	シ	ス	ト	ヌ	
16400	ハ	ヒ	フ	ヘ	ホ	プ	ム	ラ	リ	ル	レ	ロ	○	○	が	ぎ	ぐ	げ	ご	ガ	
16420	ギ	グ	ゲ	ゴ	ゼ	ヅ	ド	ク	シ	ス	ト	ヌ	ハ	ヒ	フ	ヘ	ホ	プ	ム	ラ	
16440	リ	ル	レ	ロ	ワ	ギ	エ	ヂ	こ	コ	ク	シ	ス	ト	ヌ	ハ	ヒ	フ	ヘ	ホ	
16460	プ	ム	ラ	リ	ル	レ	ロ	こ	コ	#	III	IV	8	:	⌚	⌚	⌚	⌚	⌚	⌚	
16480	∪	∩	○	△	×	≠	≣	≣	≣	≣	>	<	↓	↔	◀	▶	⊕	①	⊗		

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
20000	鶩	鰔	𩷇	𩷈	𩷉	𩷊	𩷋	𩷌	𩷍	𩷎	𩷏	𩷐	𩷑	𩷒	𩷓	𩷔	𩷕	𩷖	𩷗	
20020	𩷙	𩷚	𩷛	𩷜	𩷝	𩷞	𩷟	𩷧	𩷨	𩷩	𩷪	𩷫	𩷬	𩷭	𩷮	𩷯	𩷯	𩷯	𩷯	
20040	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷾	𩷿	𩷿	𩷿	𩷿	𩷿	
20060	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20080	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20100	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20120	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20140	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20160	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20180	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20200	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20220	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20240	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20260	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20280	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20300	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20320	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20340	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20360	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20380	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20400	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20420	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20440	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20460	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	
20480	𩷱	𩷲	𩷳	𩷴	𩷵	𩷶	𩷷	𩷸	𩷹	𩷺	𩷻	𩷼	𩷽	𩷿	𩷿	𩷿	𩷿	𩷿	𩷿	

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
20500	D	E	F	終	(H)	ICL	KCL	BEL	AS	AM	段	ゴ	ミ	1	2	3	4	5	6	7	
20520	8	9	0	0x	1x	2x	3x	4x	5x	6x	7x	8x	9x	0	1	2	3	4	5	6	
20540	7	8	9	0	1	2	3	4	5	6	7	8	9	年	N	天	再	新	映	声	
20560	前	後	終	立	交	ほか	劇	司	解	株	気	二	多	文	手	PV	MV	双	SS	S1	
20580	S2	S3	テ	HV	日	月	日	月	10.	11.	00	01	02	03	04	05	06	07	08	09	10
20600	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
20620	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
20640	51	52	53	54	55	56	57	58	59	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	
20660	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	
20680	'31	'32	'33	'34	'35	'36	'37	'38	'39	'40	'41	'42	'43	'44	'45	'46	'47	'48	'49	'50	
20700	'51	'52	'53	'54	'55	'56	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66	'67	'68	'69	'70	
20720	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86	'87	'88	'89	'90	
20740	'91	'92	'93	'94	'95	'96	'97	'98	'99	00	01	02	03	04	05	06	07	08	09	10	
20760	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
20780	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
20800	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
20820	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
20840	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	
20860	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	
20880	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	.0	
20900	.1	.2	.3	.4	.5	.6	.7	.8	.9	,0	,1	,2	,3	,4	,5	,6	,7	,8	,9	ppb	
20920	ppm	'S	H ₂	O ₂	Ox	Nx	Q ²	Jr.	Dr.	ガル	グレ	クロー	シード	ジユ	デシ	ドッ	バイ	ビック	ペク		
20940	ボ	ラン	リント	ガ	イグ	ナク	ボシ	ケシ	ルジ	ベデ	トド	トバ	トリ	レバ	ボ	ドラン	ギリ	ドン	ドン		
20960	』	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、	、		
20980	G	G	I	I	I	K	L	N	R	U	U	U	U	U	W	Y	C	e	oo		

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
23000	鵠	鵠	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	鶴	麋
23020	麋	麋	麋	麋	麌	麌	戔	戔	戔	黐	黐	黐	黐	黐	黐	鼎	叢	叢	麌	麌
23040	麟	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	剗	X	

Changes Since Earlier Versions

The following sections detail the history of this Adobe Technical Note. Note that references to specific sections no longer correspond to the sections found in the current version of this document.

Since the June 11, 1993—Supplement 0—Version

Supplements 1 and 2 were added, with the glyphs shown in Sections 4 and 5, respectively.

Since the October 4, 1994—Supplement 2—Version

Morisawa's RyuminPro-Light (Ryumin Light KL) typeface design is now used for imaging the example glyphs for each CID—FDPC's HeiseiMin-W3 (Heisei Mincho W3) was previously used. Supplements 3 and 4 were added, with the glyphs shown in Sections 6 and 7, respectively.

Since the March 31, 2000—Supplement 4—Version

KozMinPro-Light (Kozuka Mincho Pro L), an Adobe Original typeface design, is now used for illustrating the example glyphs for each CID—RyuminPro-Light was previously used. The glyphs for CIDs 13863 and 15438 were corrected, and the glyphs of the following CID pairs were exchanged:

7776 & 13982

7777 & 13983

Since the August 12, 2000—Supplement 4—Version

The glyphs for CIDs 15408 and 15435 were corrected

Since the November 1, 2000—Supplement 4—Version

The glyphs are printed using KozMinPro-Light (Kozuka Mincho Pro L) CIDFontVersion=1.011. The glyphs for CIDs 740, 8270, 12068, and 13300 were modified, and the glyphs for CIDs 7879 and 8002 were corrected.

Since the June 21, 2002—Supplement 4—Version

All 23,058 glyphs are printed using KozMinProVI-Light (Kozuka Mincho Pro-VI L) CIDFontVersion=6.004. The glyphs for Supplements 5 (CIDs 15444 through 20316) and 6 (CIDs 20317 through 32057) were added as Sections 8 and 9, respectively. The following twenty-four additional glyphs were added to the Adobe-Japan1-0 kana subset definition in Section 1.1: CIDs 7958–7960, 8009–8014, 8210, 8264–8265, 8268, and 8273–8283. Glyph variation notes for CIDs 140, 144, 9583, and 9587 were removed from Section 1.4. Special notes for CIDs 243 and 245 were added in Section 3.1. Special notes for CIDs 8962 and 8964 were added in Section 6.1. Special notes for CIDs 12220 through 12227 were added in Section 7.1. The glyphs for CIDs 243, 245, 8962, and 8964 were modified so that they are centered within their half-width (500-unit) set widths, and the glyphs for CIDs 6510, 7803, 7967, 7981, 9437, 12953, 14935, and 15310 were corrected.

Since the June 11, 2004—Supplement 6—Version

The glyphs for CIDs 740, 1879, 8270, 12068, and 13300 were corrected. KozMinPr6N-Regular (Kozuka Mincho Pr6N R) CIDFontVersion=6.002 is used to print the glyphs. The entire document was completely re-written.

Anticipated Changes

The following sections details changes that are anticipated, specifically additional mappings for the CMap resources, and the prospects for Supplement 7.

Additional CMap Resource Mappings

As of this writing, the only mapping that is scheduled to be added to the Unicode CMap resources for this character collection is U+2B1A to CID+11036.

Adobe-Japan1-7

Supplement 7 is expected to include the following glyphs:

- Three additional glyphs to fully support JIS X 0212-1990 prototypical glyphs.
- Additional U-PRESS glyphs that were established shortly after Supplement 6 was published.
- Additional glyphs to support the ARIB STD-B24 standard.

The following table shows the three glyphs for JIS X 0212-1990 kanji that are expected to be included in Supplement 7, along with their related forms that are in Supplement 5. Adobe-Japan2-0 CIDs are also shown.

Kanji	JIS X 0212-1990	Adobe-Japan2-0	Supplement 5	Kanji	JIS X 0213:2004
暁	34-43	2001	17749	暁	2-14-10
礫	38-11	2345	16923	礫	1-86-39
汎	38-68	2402	16928	汎	1-86-52

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of the publisher. Any software referred to herein is furnished under license, and may only be used or copied in accordance with the terms of such license.

This publication and the information herein is furnished AS IS, is subject to change without notice, and should not be construed as a commitment by Adobe Systems Incorporated. Adobe Systems Incorporated assumes no responsibility or liability for any errors or inaccuracies, makes no warranty of any kind—expressed, implied, statutory, or otherwise—with respect to this publication, and expressly disclaims any and all warranties of merchantability, fitness for particular purposes, and non-infringement of third party rights.

Author

Dr. Ken Lunde, Senior Computer Scientist, CJKV Type Development, Adobe Systems Incorporated

Publishing Date

February 15, 2008