

**ISO/IEC JTC 1/SC 2/WG 2  
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS  
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646<sup>1</sup>**

**Please fill all the sections A, B and C below.**

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

**A. Administrative**

|  |  |
|--|--|
| 1. Title:  | <i>Proposal to add two kana characters</i> |
| 2. Requester's name:   | <i>Joint US/UTC Contribution</i>           |
| 3. Requester type (Member body/Liaison/Individual contribution): | <i>Member body</i>                         |
| 4. Submission date:  | <i>02/09/2011</i>                          |
| 5. Requester's reference (if applicable):                        | <i>See attached L2/10-468</i>              |
| 6. Choose one of the following:                                  |  |
| This is a complete proposal:                                     | <input checked="" type="checkbox"/>        |
| (or) More information will be provided later:                    | <input type="checkbox"/>                   |

**B. Technical – General**

|   |   |   |
|---|---|---|
| 1. Choose one of the following:   |   |   |
| a. This proposal is for a new script (set of characters):   |   |   |
| Proposed name of script:  |   |   |
| b. The proposal is for addition of character(s) to an existing block:   | <input checked="" type="checkbox"/>                               |   |
| Name of the existing block:   | <i>Kana Supplement</i>  |   |
| 2. Number of characters in proposal:  | <i>2</i>  |   |
| 3. Proposed category (select one from below - see section 2.2 of P&P document):   |   |   |
| A-Contemporary <input checked="" type="checkbox"/>  | B.1-Specialized (small collection) <input type="checkbox"/>       | B.2-Specialized (large collection) <input type="checkbox"/> |
| C-Major extinct <input type="checkbox"/>  | D-Attested extinct <input type="checkbox"/>                       | E-Minor extinct <input type="checkbox"/>                    |
| F-Archaic Hieroglyphic or Ideographic <input type="checkbox"/>  | G-Obscure or questionable usage symbols <input type="checkbox"/>  |   |
| 4. Is a repertoire including character names provided?  | <input checked="" type="checkbox"/>                               |   |
| a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?   | <input checked="" type="checkbox"/>                               |   |
| b. Are the character shapes attached in a legible form suitable for review?   | <input checked="" type="checkbox"/>                               |   |
| 5. Fonts related:   |   |   |
| a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?   | <i>Dr. Ken Lunde, Adobe Systems Incorporated, lunde@adobe.com</i> |   |
| b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):  | <i>Dr. Ken Lunde, Adobe Systems Incorporated, lunde@adobe.com</i> |   |
| 6. References:  |   |   |
| a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?   | <input checked="" type="checkbox"/>                               |   |
| b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?  | <input checked="" type="checkbox"/>                               |   |
| 7. Special encoding issues:   |   |   |
| Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? | <input checked="" type="checkbox"/>                               |   |
|   | <i>The proposal includes a recommendation about collation.</i>    |   |

**8. Additional Information:**

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

<sup>1</sup> Form number: N3702-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11)

**C. Technical - Justification**

|  |            |
|--|------------|
| 1. Has this proposal for addition of character(s) been submitted before?<br>If YES explain   | No         |
| 2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?<br>If YES, with whom?<br>If YES, available relevant documents:   | No         |
| 3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?<br>Reference:   | Yes        |
| 4. The context of use for the proposed characters (type of use; common or rare)<br>Reference:  | Rare       |
| 5. Are the proposed characters in current use by the user community?<br>If YES, where? Reference:  | Yes        |
| 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?<br>If YES, is a rationale provided?<br>If YES, reference:  | No         |
| 7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?  | Yes        |
| 8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?<br>If YES, is a rationale for its inclusion provided?<br>If YES, reference:  | No         |
| 9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?<br>If YES, is a rationale for its inclusion provided?<br>If YES, reference:   | No         |
| 10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?<br>If YES, is a rationale for its inclusion provided?<br>If YES, reference:   | Yes<br>Yes |
| 11. Does the proposal include use of combining characters and/or use of composite sequences?<br>If YES, is a rationale for such use provided?<br>If YES, reference:<br>Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?<br>If YES, reference: | No         |
| 12. Does the proposal contain characters with any special properties such as control function or similar semantics?<br>If YES, describe in detail (include attachment if necessary)  | No         |
| 13. Does the proposal contain any Ideographic compatibility character(s)?<br>If YES, is the equivalent corresponding unified ideographic character(s) identified?<br>If YES, reference:  | No         |

## Universal Multiple-Octet Coded Character Set International Organization for Standardization

**Doc Type:** Working Group Document

**Title:** Proposal to add two kana characters

**Source:** Dr. Ken Lunde, Adobe Systems Incorporated

**Status:** Corporate Full Member Contribution

**Action:** For consideration by the UTC

**Date:** 2011-02-09 (originally submitted on 2010-11-16)

### Background

The Adobe-Japan1-4 character collection, which was finalized on 02/21/2000, and which added 6,090 glyphs, included glyphs for two new kana characters, specifically small versions of hiragana “ko” (U+3053; こ) and katakana “ko” (U+30B3; コ). Adobe-Japan1-5, which was finalized in September of 2002, added proportional and ruby versions of both characters. This glyph set now includes eight instances of each character, meaning 16 in total. Neither character is in Unicode, hence this proposal to add them.

### Proposal Details

I propose that these two characters be added to Unicode, and that they be assigned the following names:

HIRAGANA LETTER SMALL KO

KATAKANA LETTER SMALL KO

As primary evidence, I submit the table below that illustrates all 16 instances of these two characters in the Adobe-Japan1-6 character collection. The typeface used for the glyphs in the “Glyph” column is *Kozuka Mincho Pr6N R* (KozMinPr6N-Regular).

| CID   | Glyph | Glyph Description  | Glyph Set      |
|-------|-------|--|----------------|
| 12269 | こ     | Full-width small hiragana “ko”                                       | Adobe-Japan1-4 |
| 12270 | こ     | Vertical version of CID+12269  | Adobe-Japan1-4 |
| 12271 | コ     | Full-width small katakana “ko”                                       | Adobe-Japan1-4 |
| 12272 | コ     | Vertical version of CID+12271  | Adobe-Japan1-4 |
| 12295 | こ     | Full-width small hiragana “ko” optimized for horizontal writing mode | Adobe-Japan1-4 |
| 12385 | コ     | Full-width small katakana “ko” optimized for horizontal writing mode | Adobe-Japan1-4 |
| 12478 | こ     | Full-width small hiragana “ko” optimized for vertical writing mode   | Adobe-Japan1-4 |
| 12568 | コ     | Full-width small katakana “ko” optimized for vertical writing mode   | Adobe-Japan1-4 |
| 15723 | こ     | Proportional small hiragana “ko”                                     | Adobe-Japan1-5 |
| 15724 | コ     | Proportional small katakana “ko”                                     | Adobe-Japan1-5 |
| 16191 | こ     | Vertical version of CID+15723  | Adobe-Japan1-5 |

| CID   | Glyph | Glyph Description                              | Glyph Set      |
|-------|-------|--|----------------|
| 16192 | コ     | Vertical version of CID+15724                  | Adobe-Japan1-5 |
| 16448 | こ     | Full-width small hiragana “ko” for use as ruby | Adobe-Japan1-5 |
| 16449 | コ     | Full-width small katakana “ko” for use as ruby | Adobe-Japan1-5 |
| 16467 | こ     | Vertical version of CID+16448                  | Adobe-Japan1-5 |
| 16468 | コ     | Vertical version of CID+16449                  | Adobe-Japan1-5 |

Additional evidence for KATAKANA LETTER SMALL KO, in both horizontal and vertical forms, can be found on pp 378 and 379 of the document entitled 「CTS 文字コード索引辞書 <JIS・EUC・SK 編>」 (Hakkō Shōji Co., Ltd. 1992. ISBN 4-7952-9120-9) whose scans are provided below. The characters have been shaded in red. The horizontal form is shown on the left, from page 378, with SK (Sha-ken) code 113D, and the vertical form is shown on the right, from page 379, with SK code 123D.

|      |     |      |      |         |      |   |      |      |         |
|------|-----|------|------|---------|------|---|------|------|---------|
| 1131 | ア   | 2521 | A5A1 | 全角・ヨコ組用 | 1231 | ア | 2521 | AAF0 | 全角・タテ組用 |
| 1132 | イ   | 2523 | A5A3 | 全角・ヨコ組用 | 1232 | イ | 2523 | AAF1 | 全角・タテ組用 |
| 1133 | ウ   | 2525 | A5A5 | 全角・ヨコ組用 | 1233 | ウ | 2525 | AAF2 | 全角・タテ組用 |
| 1134 | エ   | 2527 | A5A7 | 全角・ヨコ組用 | 1234 | エ | 2527 | AAF3 | 全角・タテ組用 |
| 1135 | オ   | 2529 | A5A9 | 全角・ヨコ組用 | 1235 | オ | 2529 | AAF4 | 全角・タテ組用 |
| 1136 | ヤ   | 2563 | A5E3 | 全角・ヨコ組用 | 1236 | ヤ | 2563 | AAF6 | 全角・タテ組用 |
| 1137 | ユ   | 2565 | A5E5 | 全角・ヨコ組用 | 1237 | ユ | 2565 | AAF7 | 全角・タテ組用 |
| 1138 | ヨ   | 2567 | A5E7 | 全角・ヨコ組用 | 1238 | ヨ | 2567 | AAF8 | 全角・タテ組用 |
| 1139 | ツ   | 2543 | A5C3 | 全角・ヨコ組用 | 1239 | ツ | 2543 | AAF5 | 全角・タテ組用 |
| 113A | ワ   | 256E | A5EE | 全角・ヨコ組用 | 123A | ワ | 256E | AAF9 | 全角・タテ組用 |
| 113B | カ   | 2575 | A5F5 | 全角・ヨコ組用 | 123B | カ | 2575 | AAFA | 全角・タテ組用 |
| 113C | ケ   | 2576 | A5F6 | 全角・ヨコ組用 | 123C | ケ | 2576 | AAFB | 全角・タテ組用 |
| 113D | コ   | A5F7 | A5F7 | 全角・ヨコ組用 | 123D | コ | AAFC | AAFC | 全角・タテ組用 |
| 113E | ..  | 2145 | A1C5 | 全角・ヨコ組用 | 123E | ∴ | 2145 | AAAC | 全角・タテ組用 |
| 113F | ... | 2144 | A1C4 | 全角・ヨコ組用 | 123F | ∴ | 2144 | AAAB | 全角・タテ組用 |

In order to keep these characters together, and if both characters are accepted, I propose encoding HIRAGANA LETTER SMALL KO at U+1B002, and KATAKANA LETTER SMALL KO at U+1B003. These code points are in the Kana Supplement block.

With regard to collation, these characters should be treated in a fashion similar to the following related and out-of-sequence kana characters: HIRAGANA LETTER SMALL KA (U+3095), HIRAGANA LETTER SMALL KE (U+3096), KATAKANA LETTER SMALL KA (U+30F5), KATAKANA LETTER SMALL KU (U+31F0), and KATAKANA LETTER SMALL KE (U+30F6).

A completed Proposal Summary Form is attached.

That is all.