

Title: Update Suzhou numerals in *CJK Symbols* font (GitHub issue)

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This document is a translation from GitHub issue <https://github.com/unicode-org/cjk-symbols/issues/3> for UTC/L2 submission.

The issue requests to update 19 glyphs in the *CJK Symbols* font as provided in [L2/20-058](#), which is the font used by Unicode in the code charts. Between these, the following characters require UTC attention:

- U+3024 ㄗ HANGZHOU NUMERAL FOUR
- U+3025 ㄘ HANGZHOU NUMERAL FIVE
- U+3026 ㄙ HANGZHOU NUMERAL SIX
- U+3027 ㄚ HANGZHOU NUMERAL SEVEN
- U+3028 ㄛ HANGZHOU NUMERAL EIGHT
- U+3029 ㄜ HANGZHOU NUMERAL NINE
- U+3038 ㄝ HANGZHOU NUMERAL TEN
- U+3039 ㄞ HANGZHOU NUMERAL TWENTY
- U+303A ㄟ HANGZHOU NUMERAL THIRTY

The following characters are updates to glyph outline to make it cleaner, which should not require UTC attention:

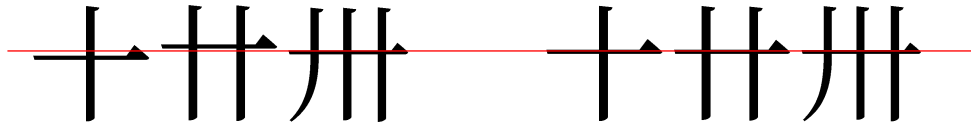
- U+3021 丨 HANGZHOU NUMERAL ONE
- U+3022 𠄎 HANGZHOU NUMERAL TWO
- U+3023 𠄏 HANGZHOU NUMERAL THREE
- U+303E 𠄞 IDEOGRAPHIC VARIATION INDICATOR
- U+1F260 𠄠 ROUNDED SYMBOL FOR FU
- U+1F261 𠄡 ROUNDED SYMBOL FOR LU
- U+1F262 𠄢 ROUNDED SYMBOL FOR SHOU
- U+1F263 𠄣 ROUNDED SYMBOL FOR XI
- U+1F264 𠄤 ROUNDED SYMBOL FOR SHUANGXI
- U+1F265 𠄥 ROUNDED SYMBOL FOR CAI

The glyph change of U+3029 is addressed in [L2/23-167](#).

Request

This document focus on the glyph shape for Suzhou numeral 4 to 9 (U+3024..3029) along with 10, 20 and 30 (U+3038..303A).

For Suzhou numeral 10, 20 and 30 (十廿卅), it is more common to align the vertical height of the middle horizontal stroke.



Left is original, right is updated

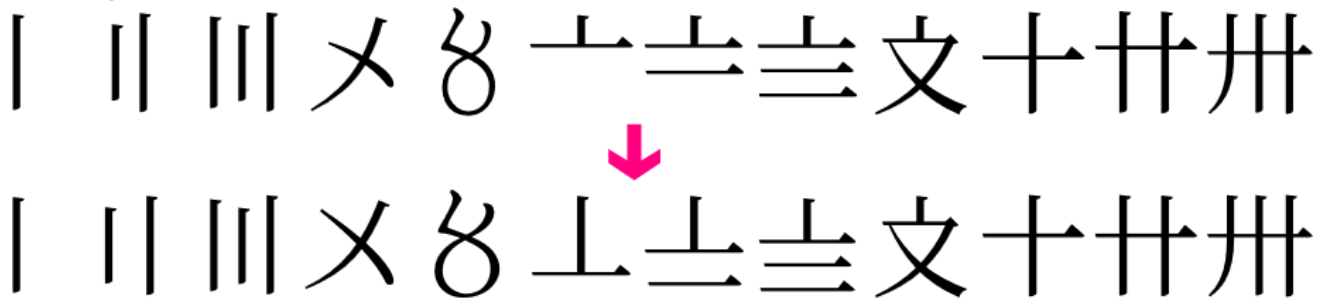
For Suzhou numeral 4, it is more common to fit the glyph to the full em box.

For Suzhou numeral 5, the glyph provided by *Source Han Serif* is unbalanced and the weight does not match other numerals.

For Suzhou numeral 6 and 7, it is more common to make the height to nearly match the height of Suzhou numeral 8 as it should take up the full em height for clearer notation of the numbers.

Suzhou numeral 8 and 9 are modified to take up the full em height.

The changes are shown below.



Evidences for such changes is shown in the next page.

The updated font file is provided in <https://github.com/unicode-org/cjk-symbols/issues/3> as a ZIP file.

Additionally, implementors should be aware that Suzhou numerals 1, 2 and 3 should be rotated when arranged consequently without other numerals in between to prevent numeral boundary confusion. Two examples of 1234 and 521,833 in Suzhou numeral are shown below without positional symbols (marks that symbolise the positional value of the numeral).

丨 二 卅 ㄨ ㄨ 丨 一 卅 三

That is all.

Original issue submitted by [@MY1L](#) on GitHub.

Thanks is given to [@TaicEart](#) for raising the issues with Suzhou numerals on Zhihu first.

Evidences

【苏州码子】Sūzhōu mǎ•zi 我国旧时表示数目的符号,从一到十依次写作丨、||、|||、**×**、**ㄥ**、**⊥**、**⊥**、**⊥**、**文**、**十**。也叫草码。

中国社会科学院语言研究所词典编辑室:《现代汉语词典 (第 7 版)》, 北京: 商务印书馆, 2016.9, ISBN 978-7-100-12450-8, p. 1246

苏州码子 也叫草码。我国传统的表示数目的符号, 从一到十依次写作丨、||、|||、**×**、**ㄥ**、**⊥**、**⊥**、**⊥**、**文**、**十**。

珠算小辞典编写组:《珠算小辞典》, 北京: 中国财政经济出版社, 1988.12, ISBN 7-5005-0264-8/F·0233, p. 109

这种筹算的记数方法, 逐渐演变成我国传统的, 适用毛笔书写记帐的数码字, 称为“苏州码子”。一至十依次写作丨、**||**、**|||**、**×**、**ㄥ**、**⊥**、**⊥**、**⊥**、**文**、**十**。会计记帐时,

傅梓北:《财经珠算脑算教程》, 福州: 福建人民出版社, 1991.11, ISBN 7-211-01813-5/G·1283, p. 2

我国有一种数码, 叫做“苏州码子”。20 年代上海“南市”的门牌上还用“苏州码子”, 而“租界”的门牌都用“阿拉伯数码”。我幼年住在苏州, 没听说“苏州码子”跟“苏州”有什么关系。后来听说, 这种数码起源于琉球, 不知是否有人考证过。“苏州码子”现在几乎没有人用了。它的写法如下:

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)
丨 **||** **|||** **×** **ㄥ** **⊥** **⊥** **⊥** **文** **十**

周有光:《中国语文纵横谈》, 北京: 人民教育出版社, 1992.11, ISBN 7-107-10716-X/G·2023, p. 256

了。它的写法如下:

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)
丨 **||** **|||** **×** **ㄥ** **⊥** **⊥** **⊥** **文** **十**

三大符号系统

周有光:《21 世纪的华语和华文——周有光毫墨文存》, 北京: 生活·读书·新知三联书店, 2002.7, ISBN 7-108-01686-9, p. 115

第二则 肉码记数文字

千百年来,三峡夷陵屠工记录肉块重量,是把肉块称好后,用木炭把数字画在肉块的皮上,便于计算和出售。肉码记数文字可从一记到九十九,举例如下:

① | ② || ③ ||| ④ × ⑤ 8 ⑥ ⊥
⑦ ⊥ ⑧ ≡ ⑨ 文 ⑩ + ⑪ +| (略)

注:木工、石工、裁缝亦通用这种记数文字。此为苏州码,

王作栋, 王志琦, 熊庆文:《宜昌民俗风情》, 武汉: 湖北人民出版社, 2005.5, ISBN 7-216-04229-8/G·1187, p. 268

套专用的数码字,叫做“苏州码子”(图14)。苏州码子是中国民间使用的“商

			×	8	⊥	⊥	≡	文	+
1	2	3	4	5	6	7	8	9	10

图14 苏州码子

叶文宪:《趣味文字》, 济南: 山东人民出版社, 2014.05, ISBN 978-7-209-08275-4, p. 21

数字的大写笔画繁复,写起来费劲,于是有人又创造了一种记数用的“苏州码子”。从“一”到“十”写作“|、||、|||、
X、8、⊥、⊥、≡、文、+”。这种“苏州码子”笔画简单清

韩敬体:《语文应用漫谈》, 北京: 商务印书馆国际有限公司, 2015.7, ISBN 978-7-5176-0155-5, p. 55

COUNTING TABLE	
數目表	
Ling' I' Erh' San' Sou' Wu' Liu' Ch' Pa' Ch'p' Shih'	
0	1 2 3 4 5 6 7 8 9 10
A. The Szechwan System 四川碼	○ X 8 ⊥ ⊥ ≡ 文 +
B. The Large System 大寫	零 壹 貳 參 肆 伍 陸 柒 捌 玖 拾

王澧华, 吴颖:《近代来华外交官汉语教材研究》, 桂林: 广西师范大学出版社, 2016.5, ISBN 978-7-5495-7633-3, p. 268



Example of Suzhou numerals on railway stele in Jingzhang Railway, China

一 二 三 四 五 六 七 八 九 十
 十一 十二 十三 十四 十五 十六 十七 十八 十九 二十

Example of Suzhou numerals made by @TaicEart in [TiSu](#) font, with U+3029 (Suzhou numeral 9) using 2nd suggestion in L2/23-167.

Consecutive alternatives of 1, 2 and 3 are also provided.