

Universal Multiple-Octet Coded Character Set UCS

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Based on the project from BSMI (Bureau of Standards, Metrology and Inspection, the organization for standardization in Taiwan), CMEX (Chinese Foundation for Digitization Technology) proposed a standard drafts, named “CNS 11643-1: Stroke classification for Chinese characters”. It specified totally 35 strokes with identification numbers. These strokes were classified into 5 categories. The attached file included 3 sections and a figure from the draft of CNS 11643-1.

Stroke classification for Chinese characters

1. Scope

This document provides stroke classification for Chinese characters, for stroke sequence, index...use.

2. Definitions

This document defines the following terms::

- (1) grapheme (字形) : The structural shape of script, a Chinese grapheme is composed by one or more strokes in specific connected form with relative positions.
(文字的結構形體，中文字字形係由一或多個筆畫以特定連結方式並依既定相對位置組合而成。)
- (2) stroke (筆畫) : The smallest units for constituting the Chinese grapheme.
構成中文字字形的最小單位。
- (3) stroke feature (筆形) : The visual shape of stroke, its features including the writing orientation and shape.(筆畫的具體形狀，其主要特徵包括書寫方向及形狀。)
- (4) stroke sequence(筆順) : The sequence of strokes of one grapheme, presented in the order of writing sequence(由中文字之組成筆畫依其書寫順序排列而成的筆畫或筆形序列。)
- (5) stroke classification(筆畫分類) : All strokes are classified into five classes according to their stroke features as(Heng(橫), Shu(豎), Pie(撇), Dian(點), and Zhe(折).筆畫依其筆形主要特徵可區分成橫、豎、撇、點、折五大類。)
- (6) basic stroke feature(主筆形) : The representative stroke features for five stroke classifications, ordered as 1 Heng (一), 2 Shu(乙), 3 Pie(丁), 4 Dian(乃) and 5 Zhe(人)(五大類筆畫的代表性筆形，依序為橫(一) 豎(乙) 撇(丁) 點(乃) 折(人))
- (7) subordinate stroke feature(附筆形) : Stroke features derived from, or featured as one basic stroke feature, is a subordinate stroke feature of the specific basic stroke feature(衍生自某一主筆形或依其主要特徵可視為與某一主筆形同屬一類之其他筆形。)
- (8) turning point(折點) : the turning points of bending, curving or hook on some complex stroke features, also briefly called as Ze (折), Wan(彎) and Go(鉤).筆形較複雜之附筆形的折角、彎角或鉤角處。折角、彎角、鉤角等三種折點，分別簡稱為折、彎、鉤。

備考：例如，“人”的折點為橫筆折轉為豎筆處，“八”的折點為豎筆折轉為橫筆處，兩者皆為折角；“几”的折點為豎筆彎轉成橫筆處，稱為彎角；“儿”的折點為橫筆鉤轉成短撇筆處，“刁”的折點為豎筆鉤轉成挑筆處，兩者

皆為鉤角。

(9) turning point number(折數)：Number of turning points in one stroke feature(筆形的折點數目。)

備考：例如，“几”的折數為一折，“丸”及“也”為二折，“乙”為
Number of turning points in one stroke feature.

3. Stroke classification

Stroke is the smallest denomination of Chinese characters, when counting each Chinese character; each stroke must be one stroke.

Figure 1 depicts five stroke class of basic and subordinate stroke feature:

assort-ment	Basic stroke feature	Name in Chinese	Subordinate stroke feature 附筆形			
1	Horizontal line	一 橫 Heng	㇏ 橫挑			
2	Vertical line	丨 豎 Shu				
3	Upper- Right to Lower-Left	㇏ 撇 pie	㇏ 豎撇			
4	Upper-Left to Lower-Right	丶 點 Dian	丶 頓點	㇏ 捺	㇏ 挑	
			Turning point 1 折數 1	Turning point 2 折數 2	Turning point 3 折數 3	Turning point 4 折數 4
5	Corner	㇏ 折 Zhe	㇏ 橫折	㇏ 橫折橫	㇏ 橫折橫折	㇏ 橫折橫折鉤
			㇏ 橫鉤	㇏ 橫折彎	㇏ 橫折曲鉤	
			㇏ 橫撇	㇏ 橫折鉤	㇏	
			㇏ 豎折	㇏ 橫斜鉤		
			㇏ 豎彎折右	㇏ 豎橫折 1		
			㇏ 豎彎折左	㇏ 豎橫折 2		
			㇏ 豎挑	㇏ 豎曲鉤		
			㇏ 豎鉤			
			㇏ 臥鉤			
			㇏ 斜鉤			
			㇏ 彎鉤			
			㇏ 撇頓點			
			㇏ 撇橫			
			㇏ 撇挑			
			㇏ 挑捺			

Figure 2 Ideograph Strokes Example

Seque nce	Stroke	Name in Chinese	Example Ideographs
1000	一	橫	一、三、丁、丕、丈、世、不、上、下
1100	㇀	橫挑	地、坊、牆、釘、牡、矜、玩、提、扶
2000	丨	豎	乚、中、串、訔、乍
3000	㇁	撇	义、艾、爻、禾、乏、乖、采、衣、乎
3100	㇂	豎撇	乃、用、派、齊、几、八、人、班、力
4000	丶	點	丸、义、永、冰、凡、丹、主、求
4100	㇄	頓點	奇、示、麤、父、米、奧、奘、小、卜
4200	㇅	捺	大、人、天、入、走、尺、夫、木
4300	㇆	挑	冰、冶、冽、棣、求、汜、錄、碌、率
5100	㇇	折(橫折)	口、囗、田、品、呂、申、甲、圓
5101	㇈	橫鉤	疋、了、予、矛、子、字、疏
5102	㇉	橫撇	又、双、叕
5103	㇊	豎折	斷、繼
5104	㇋	豎彎折右	區、亡、妄
5105	㇌	豎彎折左	肅、嘯、蕭、簫
5106	㇍	豎挑	食、良、艮、很、狠、鄉
5107	㇎	豎鉤	爭、事、求、水
5108	㇏	臥鉤	心、必、沁、憇、蕊
5109	㇐	斜鉤	戈、弋、戰、我
5110	㇑	彎鉤	狐、嶽、貓、家、逐
5111	㇒	撇頓點	巡、獵、災、畱
5112	㇓	撇橫	互、彙、牙

5113	ㄥ	撇挑	弘、么、公、翁
5114	ㄣ	挑捺	𠂇
5200	ㄣ	橫折橫	𠂇
5201	ㄣ	橫折彎	爿、投
5202	ㄣ	橫折鉤	羽、習、包、勻、鈞、匍、用、青、甫
5203	ㄣ	橫斜鉤	飛、風、瘋
5204	ㄣ	豎橫折 1	亞、鼎、𠂇
5205	ㄣ	豎橫折 2	吳
5206	ㄣ	豎曲鉤	亂、己、巳、巳
5300	ㄣ	橫折橫折	凸
5301	ㄣ	橫折曲鉤	乙
5302	于	豎橫折鉤	號、号、亏、弓、強、丐
5400	ㄣ	橫折橫折鉤	乃