** The Extended Ideographic Description Language (IDLx) **

	Unicode Name	A	Name	B	B	Examples
a-1	left to right	⿰	left-right	◑	◐	潰:◖氵貫
a-2	above to below	⿱	top-down	⊖	⊖	稟:⊖亩木
a-3	surround from bottom left	⿺	L-shaped, left first	◵◶	◕	毯:◕毛炎
a-4	...	...	L-shaped, top first	⊖◵	◔	廷:◔壬廴
a-5	surround from upper left	⿸	Γ-shaped	◷	◖	慮:◖虍思
a-6	surround from upper right	⿹	package	◶	◗	截:◗戈隹
a-7	/	/	surround from bottom right	◷	◔	弌:◔一弋
a-8	surround from below	⿶	plug	◵	◓	凶:◓㐅凵
a-9	surround from left	⿷	C-shaped	◖	◖	玉:◖王丶
a-10	surround from top	⿵	surround from top	◓	◓	閒:◓門月
a-11	/	/	reverse C-shaped	◗	◖◗	咢:◖◗弓工工
a-12	full surround	⿴	surround	◎	◯	凼:◯凵夊
a-13	overlaid	⿻	crossover	⊘	⊘	夫:⊘二人
a-14	/	/	no operator		●	亅:●
a-15	/	/	geta mark		▬	廉:◖严▬
a-16	/	/	rotate 180°		↻	𠫓:↻予
a-17	/	/	horizontal flip		⊖	疋:⊖正
a-18	/	/	similar		≋	黾:◕从≋电
a-19	/	/	parentheses; group		( )	坴:(◕山水土)

Notes:

a-1, **a-2**: The left-right operator ◐ and the top-down operator ⊖ are the most basic analytical operators of IDLx.

a-3: The L-shape, ◵◶, is the only binary relationship that occurs in both of its realizations, ◕ and ◔; this case is well known to learners of Kanji, as there are many common glyphs with either type of operator.

The choice between ◕ and ◔ depends on the element that occupies the left and bottom of the character in question: only 夂 and 辶 (辶, 廴) are written *after* the top right and hence need ◔, as in 這:◔言辶 (observe that using standard Unicode IDL, we are forced to write this as 這:⿺辶言, which, crucially, does not preserve the order in which the factors are normally written).[1] All other elements (i.e. except for 夂 and 辶) that enclose another one from the left and from below in an L-shape take precedence; hence, in e.g. 赵, 走 comes first and 力 comes second, so its formula is 赵:◕走力.[2] **a-11**: XXXXX XXXXX XXXXX XXXXX XXXXX the reversed C-shape: lowest frequency, missing from Unicode IDCs, erroneously replaced by ◯ in formula 咢:⿴弓工工 for which we write 咢:◖◗弓工工.

a-15: The symbol ▬ originated in Japanese manual typesetting. When a composer couldn't clearly read a character in the manuscript or was unable to find a certain kanji in the type cases, they'd instead pick any sort and put it wrong side first onto the composing stick. When galley proofs were printed, that upside-down sort would leave a mark similar to ▬, making it visually clear that something was still missing. In the same way, we use ▬ to stand in for an unresolved element in the formulas. For example, we know the upper left part of 廉 is 严, a fairly common element, but the lower right part is seemingly not encoded in Unicode, so we write out the formula 廉:◖严▬; this is a syntactically valid way of stating what we can and what we cannot say about that glyph. In other words, ▬ represents the unspecified element as much as an *x* in a mathematical formula represents the unknown quantity.

a-13: The crossover operator ⊘ is to operators what the geta mark ▬ is to elements; it represents an unspecified or underspecified operation. Most of the time, ⊘ really represents an element being overlaid onto another one, as in 夫:⊘二人, but more generally, it may be used in any place where no other operator fits, as, for example, in ▬ ▬▬▬▬▬.

Notes
1) — *see* `https://raw.githubusercontent.com/cjkvi/cjkvi-ids/master/ids.txt` *for actual examples*
2) — *see* `https://xxxxxxxxx.com/xxxxx/xxxxx/xxxxxx/ids.txt` *xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx*

徵:(◐彳(⬒山一壬)攵)
毯:◖毛炎 as 毯:(∪◖◗◖)毛炎
廷:◵壬廴 as 廷:(∩◖◗)壬廴

玉:◖王、 as 玉:(∪◖◗◖)王、
凶:◔㐅凵 as 凶:(∩◖◗◖)㐅凵
國:〇囗或 as 國:(∪◖◗◖◗)囗或

	Name	B	Examples	X
a-1	left-right	◐	潰:◐氵貫	
a-2	top-down	⬒	桌:⬒面木	
a-3	L-shaped, left first	◖	毯:◖毛炎	毯:(∪◖◗◖)毛炎
a-4	L-shaped, top first	◵	廷:◵壬廴	廷:(∩◖◗)壬廴
a-5	Γ-shaped	◕	慮:◕虍思	慮:(∪◖◗)虍思
a-6	package	◗	截:◗戈隹	截:(∪◖◗)戈隹
a-7	surround from bottom right	◴	弋:◴一弋	弋:(∩◖◗)一弋
a-8	plug	◔	凶:◔㐅凵	凶:(∩◖◗◖)㐅凵
a-9	C-shaped	◖	玉:◖王、	玉:(∪◖◗◖)王、
a-10	surround from top	◓	閒:◓門月	閒:(∪◖◗◖)門月
a-11	reverse C-shaped	◗	粤:◖◗弓工工	粤:◖(∪◖◗◖)弓工工
a-12	surround	〇	囟:〇白夕	囟:(∪◖◗◖◗)白夕
a-13	crossover	⊘	夫:⊘二人	
a-14	no operator	●	亅:●	
a-15	geta mark	=	廉:◕严=	
a-16	rotate 180°	↻	𠫓:↻予	
a-17	horizontal flip	⊖	㽙:⊖正	
a-18	similar	≋	黾:◕从≋电	
a-19	parentheses; group	( )	㚁:(●亠口冖土九)	

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-1	Yes	◑	◐									
c-2	Yes	⊖	◒									
c-15	No	◑	◔	¬	◐							
c-16	No	⊖	◓	¬		◒						

	Used	G		B	Op	L	T	R	B	l	t	r	b
c-7	Yes	◷		◵	∩	◐	◒				+	+	
c-4	Yes	◔	⊖◷	◔	∩		◒	◐		−	+	+	
c-3	Yes	◔	◑◔	◖	∪	◐			◒	+	−	+	+
c-5	Yes	◔		◕	∪	◐	◒			+	+		+
c-6	Yes	◷		◖	∪		◒	◐		+	+	+	
c-19	No	◔		◖	∪			◐	◒	−	−	+	+
c-17	No	◷		◕	∩			◐	◒	−	−	+	+
c-18	No	◷		◗	∩	◐			◒	+	−		+

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-12	Yes	⊜	◗	∪		◒	◑	◒	−	+	+	+
c-8	Yes	◔	◔	∩	◐	◒	◔		+	+	+	
c-9	Yes	◔	◕	∪	◐	◒		◒	+	+		+
c-10	Yes	◓	◓	∪	◐	◒	◑		+	+	+	
c-25	No	⊜	◒	∩	◐	◒		◒	+	+		+
c-20	No	◔	◔	∪	◐		◑	◒				
c-22	No	◔	◔	∩		◒	◑	◒				
c-24	No	◓	◔	∩	◐		◑	◒				

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-14	Yes	◎	●	∪	◐	◓	◑	◒				
c-26	No	◎	⦿	∩	◐	◒	◑	◒				

	Name	B	E
b-1	left/right	◐	◐
b-2	top/down	⊖	◒
b-3	surround from bottom left	◴	/
b-4	surround from upper left	◷	◕
b-5	surround from upper right	◶	◕
b-6	surround from bottom right	◵	◕
b-7	surround from below	◷	◕
b-8	surround from left	◖	◔
b-9	surround from top	◓	◔
b-10	surround	◎	◉
b-11	any operator		○
b-12	vertical flip		↕

	Unicode Name	A	Name	C	E	Examples
I	left to right	▯	left/right	◐	◐	潰:◐氵貫
2	above to below	⊟	top/down	◓	◒	稟:◓回木
3	surround from bottom left	▢	surround from bottom left	◖◴		毯:◖毛炎
4						廷:◖壬廴
5	surround from upper left	▢	surround from upper left	◗	◔	慮:◗虍思
6	surround from upper right	▢	surround from upper right	◸	◶	截:◸戈隹
7	/	/	surround from bottom right	◵	◕	弐:◵一弋
8	surround from below	▢	surround from below	◷	◕	凶:◷㐅凵
9	surround from left	▢	surround from left	◖	◔	玉:◖王丶
IO	surround from top	▢	surround from top	◓	◔	閒:◓門月
II	/	/	surround from right	◗◖		
I2	full surround	▣	surround	○	◉	図:○白夂
I3	overlaid	▢	crossover	⊘		夫:⊘二人
I4	/	/	any operator	○		
I5	/	/	no operator	●		亅:●
I6	/	/	unspecified element	═		廉:◐严═
I7	/	/	rotate 180°	↻		㐀:↻予
I8	/	/	horizontal flip	⊖		玊:⊖正
I9	/	/	vertical flip		↕	
20	/	/	similar	≈		黽:◒从≈电
2I	/	/	parentheses; group			亮:(◒亠口冖士九)
22	left to middle and right	▥	/			衍:(◐彳氵亍)
23	above to middle and below	▤	/			衰:(◒亠日𧘇)

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	Unicode Name	A	Name	B	C	E	Examples
1	left to right	▯▯	left/right	◐	◖	◖	潰:◖氵貫
2	above to below	▱▱	top/down	⊖	⬤	⬤	稟:⬤亩木
3	surround from bottom left	⬚	surround from bottom left	◔	⬤◔		毯:◔毛炎
							廷:◕壬廴
4	surround from upper left	▢	surround from upper left	◷	◕	◕	慮:◕虍思
5	surround from upper right	▢	surround from upper right	◶	◗	◗	截:◗戋隹
6	/	/	surround from bottom right	◔	◔	◔	弌:◔一弋
7	surround from below	⬓	surround from below	◍	◑	◒	凶:◒㐅凵
8	surround from left	▤	surround from left	◖	◖	◖	玉:◖王丶
9	surround from top	▧	surround from top	◩	◐	◐	閒:◐門月
10	/	/	surround from right	◗		◗◖	
11	full surround	▣	surround	◎	⬤	◉	囟:⬤白㐅
12	overlaid	▣	crossover	⊘	⊘		夫:⊘二人
15	/	/	any operator	○			
16	/	/	no operator	●			亅:●
15	/	/	unspecified element	▬			廉:●严▬
17	/	/	rotate 180°	↻			厺:◎予
18	/	/	horizontal flip	↔			玊:⊖正
19	/	/	vertical flip		↕		
20	/	/	similar	≈			龟:⬤从≈电
13	/	/	parentheses; group	( )			霓:(⬤宀口宀土九)
13	left to middle and right	⦀	/	/			衍:(◖彳氵亍)
14	above to middle and below	☰	/	/			衰:(⬤亠日伙)