

Voynich MS Super Transliteration Alphabet (STA)

First release version 1

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Introduction

The term “Super Transliteration Alphabet” is used to describe a transliteration alphabet for the Voynich MS that is a superset of all alphabets that have been published up to 2020. The most important of these are:

- “FSG” as used by Friedman’s Study groups.
- “Currier” as defined by Prescott Currier.
- “Eva”, which can be basic or extended Eva, or the variety used by Takeshi Takahashi.
- “v101”.

For more information about these alphabets, see: <http://www.voynich.nu/transcr.html>

In particular the, extended Eva and v101 alphabets include a large number of rare or special characters, and the present “STA” definition includes all of these.

The STA alphabet is subdivided into character “Families”. More information about these is provided in the document “STA Family definition”.

The following pages include detailed tables for the definition of all STA characters grouped by family.

The meaning of the cells highlighted in light purple and light red is explained in the document “STA regularisation levels”.

The character counts are valid for the following files:

- “# ZL” is based on the transliteration version ZL 3a
- “# GC” is based on the transliteration version GC 2a

A Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
A1		o	o	o	o	25597	25064	
A2		y	9	᠑	᠑	17872	17439	
A3		a	a	ᠠ	ᠠ	14827	14497	
A4		u	@193;	ᠠ	ᠠ	9	6	
Aa			A		ᠠ		769	
Ab			(ᠠ		402	
Ac		o'	@196;	ᠠ	ᠠ	6	4	
Ad		y'	@190;	ᠠ	ᠠ	2	2	
Ae		a'	*3	ᠠ		5	1	
	Ae P1		@183;		ᠠ			
Af			@189;		ᠠ		6	
Ag		@240;	@187;	ᠠ	ᠠ	2	2	
Ah			@191;		ᠠ		1	
Ai		@190;	@156;	ᠠ	ᠠ	1	1	
Aj			@194;		ᠠ		3	
Ak		@193;		ᠠ		1		
	L1 AI		@185;		ᠠ		1	Only in this combination
Am			@192;		ᠠ		1	
An		@136;		ᠠ		1		

B Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
B1		d	8	ḍ	ḍ	13217	10346	
B2		l	e	ḷ	ḷ	10659	10656	
B3		m	p	ṃ	ṃ	1071	989	
B4		g	*	ḡ	ḡ	156	164	
B5		j	&	ḵ	ḵ	14	36	
B6		z	@252;	ṛ	ṛ	9	1	
B7								B7 = B2
	E3 B7							Currier: G
	F5 B7							Currier: H
	G4 B7							Currier: 1
B8							49	B8 = B3
	E3 B8		P		ṣ			Currier: K
	F5 B8		q		ṣ			Currier: L
	G4 B8							Currier: 5
Ba		@152;	7	ṛ	ḷ	3	2715	
Bb			6		ḷ		115	
Bc		@210;	Q	ṛ	ḷ	1	27	
Bd		@197;	@173;	ṛ	ḷ	2	8	
Be		@175;		ṛ		6		
Bf		@166;		ṛ		2		
Bg		@165;		ṛ		1		
Bh		@174;		ṛ		1		
Bi		@201;		ṛ		1		
Bj		@154;	@176;	ṛ	ḷ	2	1	

C Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
C1		r	y	ʀ	ʀ	6819	6602	
C2		s	s	ʂ	ʂ	2821	2703	
Ca			x		ʁ		98	
Cb			Y		ʀ		55	
Cc			t		ʂ		40	
Cd		@206;	b	ʀ	ʀ	4	28	
Ce			T		ʂ		27	
Cf		{c'}	\$	ʂ	ʂ	4	24	
Cg		@243;	X	ʀ	ʀ	3	14	
Ch		e'	@208;	ʀ	ʂ	7	6	
Ci		@192;	@164;	ʂ	ʂ	4	4	
Cj			@175;		ʂ		2	
Ck			@174;		ʂ		1	
Cl		@135;	@177;	ʂ	ʂ	2	2	
Cm		@138;	@178;	ʂ	ʂ	1	2	
Cn		@164;		ʂ		1		
Co		@241;		ʂ		1		
Cp		@244;		ʂ		1		
Cq		@153;		ʂ		1		

D Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
D1		q	4	↑	↑	5425	5409	
	D1 A1		@185;		↑̄			
Da		q'		↑ ²		6	10	
	Da A1		@186;		↑̄			
Db			@184;		↑		8	
Dc		{q@207;}		↑		1		

E Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
E1		i	i	ゝ	ゝ	190	144	
E2		n	N	㇇	㇇	140	129	
E3							38	E3 = E1
	E3 B7							Currier: G
	E3 B8		P		㇈			Currier: K
Ea		l	@200;	㇑	㇑	1	1	
Eb		@172;	@202;	㇑	㇑	6	6	
Ec			@203;		㇑		1	
Ed			@161;		㇇		5	
Ee		@203;	@169;	㇑	㇑	1	1	
Ef		@208;		㇑		2		

F Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
F1		in	n	↻	↻	1729	1756	
F2		ii	l	↻	↻	86	75	
F3		ir	z	↻	↻	610	510	
F4			iy		↻		100	F4 ≈ F3
F5							11	F5 = F2
	F5 B7							Currier: H
	F5 B8		q		↻			Currier: L
Fa			@180;		↻		4	
Fb			ii		↻		2	Fb ≈ F2
Fc			iN		↻		3	Fc ≈ F1

G Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
G1		iin	m	𐍎	𐍇	4148	4108	
	Ae G1		@183;		𐍇			
G2		iii	@181;	𐍆	𐍅	12	10	
G3		iir	z	𐍆	𐍅	162	154	
G4								G4 = G2
	G4 B7							Currier: 1
	G4 B8							Currier: 5
Ga			in		𐍇		5	Ga ≈ G1
Gb			li		𐍅		1	Gb ≈ G2
Gc			ly		𐍅		13	Gc ≈ G3
Gd			iyy		𐍅		2	Gd ≈ G3

H Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
H1		iiin	M	⋈	⋈	166	173	
H2		iiiiin	iM	⋈	⋈	1	1	
H3		iiir	@181;y	⋈?	⋈?	2	1	
Ha			ln		⋈		5	Ha ≈ H1
Hb			lm		⋈		2	Hb ≈ H1
Hc			lm		⋈		3	Hc ≈ H2
Hd			lz		⋈?		1	Hd ≈ H3

J Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
J1		e	c	◄	◄	10217	10289	
J2		b	@207;	∂	∂		2	
Ja		c	E	◄	◄	12	54	
Jb		h	@198;	↯	↯	5	9	
Jc		@145;	@188;	◄	◄	2	7	
Jd			@158;		∂		1	

K Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
K1		ch	1	ㄱ	ㄱ	11043	11053	
K2		ee	cc	ㄷ	ㄷ	4480	1655	
K3		{ee}	C	ㄷ	ㄷ		2783	
Ka		{oh}		ㄱ		12		
Kb		{co}	@220;	ㄷ	ㄷ	7	3	
Kc		{cy}		ㄱ		4		
Kd		{ca}	@223;	ㄷ	ㄷ	3	1	
Ke		{ih}		ㄱ		4		
Kf		{ci}		ㄱ		1		
Kg		{@131;o}	@170;o	ㄱ	ㄱ	1	1	
Kh			@225;		ㄱ		1	
Ki		{oy}	@212;	ㄱ	ㄱ		1	
Kj		{ai}		ㄱ		1		
Kk		{c@204;}		ㄱ		2		
Kl		@150;		ㄱ		2		
Km		{cl}		ㄱ		1		
Kn		@149;		ㄱ		1		

L Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
L1		sh	2	ረ	ረ	4533	3358	
La			3		ረ		516	
Lb		{ch'}	5	ረ'	ረ'	28	409	
Lc			%		ረ		140	
Ld			+		ረ		95	
Le			!		ረ		50	
Lf			#		ረ		34	
Lg		{i'h}	@213;	ረ	ረ	8	4	
Lh		{cr}	@206	ረ	ረ	4	8	
Li			@214;		ረ		4	
Lj		{@209;h}	@215;	ረ	ረ		2	
Lk			@221;		ረ		4	
Ll			@224;		ረ		5	
Lm			@226;		ረ		2	
Ln			s		ረ		38	
Lo		{c'o}	@219;	ረ	ረ	4	3	
Lp		{c'y}	@217;	ረ	ረ	8	7	
Lq		{c'a}		ረ		1		
Lr		{cs}		ረ		2		
Ls			@227;		ረ		1	
Lt		{c's}		ረ				
Lu		{e'e}		ረ		2		

M Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
M1		eee	ccc	ㄷㄷㄷ	ㄷㄷㄷ	406	27	
M2		eeb	D	ㄷㄷ	ㄷ	6	10	
M3		{eee}	d	ㄷ	ㄷ		332	
M4		e{ee}	cC	ㄷ	ㄷ		20	
M5		{ee}e	Cc	ㄷ	ㄷ		39	
Ma		{chh}		ㄷ		5		
Mb		{c'hh}	@222;	ㄷ	ㄷ	4	3	
Mc		{ch'h}		ㄷ		2		
Md		{c'ha}		ㄷ		1		
Me			@209;		ㄷ		1	

N Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
N1		eeee	cccc	cccc	cccc	7	1	
N2		eeeb	B	ccc∂	ccc∂	8	6	
Na		{eeee}	@210;	cccc	ccc		5	
Nb		e{eee}	cd	cccc	ccc		1	
Nc		{eee}e	dc	cccc	ccc		3	
Nd		ee{ee}	ccC	cccc	ccc		2	

P Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
P1		p	g	ᄃ	ᄄ	1443	879	
P2		f	f	ᄅ	ᄆ	416	233	
P3			j		ᄇ		564	
P4			u		ᄈ		177	
Pa			w		ᄉ		24	
Pb			@233;		ᄊ		3	
Pc		@171;	@236;	ᄋ	ᄌ	5	5	
Pd		@167;		ᄍ		3		
Pe		@168;		ᄎ		2		
Pf		@177;		ᄏ		1		
Pg		@180;		ᄐ		1		
Ph		@184;		ᄑ		1		
Pi		@188;		ᄒ		1		
Pj		@199;		ᄓ		1		
Pk		@213;		ᄔ		1		
Pl		@214;		ᄕ		1		

Q Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
Q1		k	h	𐤊	𐤊	10103	9926	
Q2		t	k	𐤊	𐤊	6018	6119	
Qa		@176;	W	𐤊	𐤊	2	92	
Qb			@242;		𐤊		8	
Qc			@244;		𐤊		3	
Qd			@251;		𐤊		2	
Qe		@146;		𐤊		2		
Qf		@137;		𐤊		1		
Qg		@151;		𐤊		1		
Qh		@156;		𐤊		1		
Qi		@159;		𐤊		1		
Qj		@161;		𐤊		1		
Qk		@186;		𐤊		1		
Ql		@212;		𐤊		1		

R Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
Ra		{cf}	@234;	𑄂𑄃	𑄂𑄃	3	3	
Rb		{cp}		𑄂𑄄		5		
Rc		{ph}	@238;	𑄂𑄅	𑄂𑄅	2	3	
Rd		@130;	@250;	𑄂𑄆	𑄂𑄆	1	1	
Re		{if}		𑄂𑄇		1		
Rf		@183;		𑄂𑄈		1		
Rg		{c@132;}		𑄂𑄉		1		

S Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
S1		{ck}	v	𑄀	𑄁	22	10	
S2		{ct}	@232;	𑄁	𑄁	17	5	
Sa		{kh}	@255;	𑄂	𑄃	7	6	
Sb		{th}	@230;	𑄂	𑄃	1	1	
Sc		{to}	@254;	𑄄	𑄅		1	
Sd		{c@178;}	@150;	𑄁	𑄁	2	1	
Se		{ek}		𑄀		1		
Sf		{c't}	@197;k	𑄁	𑄁	1	1	
Sg		{@246;k}		𑄀		1		

T Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
T1		cph	J	ꠄꠤ	ꠄꠥ	201	122	
T2		cfh	F	ꠄꠦ	ꠄꠧ	67	35	
T3		{iph}		ꠄ꠨		8		
T4		{ifh}	@153;	ꠄ꠩	ꠄ꠪	4	3	
T5			G		ꠄ꠫		89	
T6			U		ꠄ꠬		32	
Ta		{c@132;h}		ꠄ꠭		9		
Tb		{c@133;h}		ꠄ꠮		10		
Tc		{c@196;h}		ꠄ꠯		5		
Td		{c@148;h}		ꠄ꠰		1		
Te		{@200;ph}		ꠄ꠱		1		
Tf		{c@139;h}	@218;	ꠄ꠲	ꠄ꠳	1	1	
Tg		{c@245;h}	@240;	ꠄ꠴	ꠄ꠵	1	1	
Th		{c@155;h}		ꠄ꠶		1		
Ti		{c@179;h}		ꠄ꠷		1		
Tj		{c@181;h}		ꠄ꠸		1		
Tk		{c@216;h}		ꠄ꠹		1		
Tl		{cpo}	@151;	ꠄ꠺	ꠄ꠻	1	1	
Tm		{yfa}	@248;	ꠄ꠼	ꠄ꠽		1	
Tn		{yph}		ꠄ꠾		1		
To		{oph}		ꠄ꠿		2		
Tp		{ofa}		ꠄ꠽		1		
Tq		{cfy}		ꠄ꠿		1		
Tr		{ify}		ꠄ꠽		1		
Ts		{i@133;h}		ꠄ꠮		1		
Tt		{i@182;h}		ꠄ꠯		1		

U Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
U1		ckh	H	𑄑𑄒	𑄑𑄒	869	865	
U2		cth	K	𑄑𑄓	𑄑𑄓	890	910	
U3		{ikh}	@228;	𑄑𑄒	𑄑𑄒	36	30	
U4		{ith}	V	𑄑𑄓	𑄑𑄓	23	23	
U5		{cto}	@253;	𑄑𑄔	𑄑𑄔	10	10	
U6		{cty}	@245;	𑄑𑄕	𑄑𑄕	8	10	
U7		{ykh}	@247;	𑄑𑄒	𑄑𑄒	7	10	
Ua		{cky}	@229;	𑄑𑄕	𑄑𑄕	3	5	
Ub		{cko}	@231;	𑄑𑄔	𑄑𑄔	2	2	
Uc		{c'kh}	@211;	𑄑𑄒	𑄑𑄒		1	
Ud		{c'th}		𑄑𑄓		1		
Ue		{cki}		𑄑𑄒		1		
Uf		{cti}		𑄑𑄒		2		
Ug		{cka}	@246;	𑄑𑄒	𑄑𑄒	1	2	
Uh		{cts}	@241;	𑄑𑄒	𑄑𑄒	1	1	
Ui		{yko}		𑄑𑄔		1		
Uj		{c@162;h}		𑄑𑄒		2		
Uk		{y@162;h}		𑄑𑄒		1		
Ul		{c'@162; @136;}	@243;	𑄑𑄒	𑄑𑄒	1	1	
Um		{c@134;h}		𑄑𑄒		1		
Un		{c@176;h}		𑄑𑄒		1		
Uo		{@246;kh}		𑄑𑄒		1		
Up		@194;	@237;	𑄑𑄒	𑄑𑄒	1	1	

V Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
V1		{cphh}	R	ྲྀྲ	ྲྀྲ	10	11	
V2		{cfhh}	R	ྲྀྲ	ྲྀྲ	6	12	
Va		{iphh}		ྲྀྲ		2		
Vb		{ifhh}		ྲྀྲ		1		
Vc		{cfh'h}		ྲྀྲ		1		
Vd		{aifhh}		ྲྀྲ		1		
Ve		{c'h@148;h}	@239;	ྲྀྲ	ྲྀྲ	1	1	

W Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
W1		{ckhh}	I	𑄀𑄁𑄂	𑄀𑄁	27	36	
W2		{cthh}	L	𑄀𑄁𑄂𑄃	𑄀𑄁	27	32	
Wa		{ckhhh}		𑄀𑄁𑄂𑄃𑄄		3		
Wb		{cthhh}		𑄀𑄁𑄂𑄃𑄄		2		
Wc		{ckh'h}	@235;	𑄀𑄁𑄂𑄃	𑄀𑄁𑄂	2	1	
Wd		{cthh'}	@149;	𑄀𑄁𑄂𑄃	𑄀𑄁𑄂	1	1	
We		{chky}		𑄀𑄁𑄂𑄃		1		
Wf		{c'hkh}	@197;H	𑄀𑄁𑄂𑄃	𑄀𑄁𑄂	1	1	
Wg		{ykhk}	@249;	𑄀𑄁𑄂𑄃	𑄀𑄁𑄂	1	1	
Wh		{ikhk}		𑄀𑄁𑄂𑄃		1		
Wi		{ckoh}		𑄀𑄁𑄂𑄃		1		
Wj		{ckah}		𑄀𑄁𑄂𑄃		1		
Wk		{ctah}		𑄀𑄁𑄂𑄃		1		
Wl		{ctyh}		𑄀𑄁𑄂𑄃		1		
Wm		{ckhy}		𑄀𑄁𑄂𑄃		1		
Wn		{cthy}		𑄀𑄁𑄂𑄃		1		
Wo		{chkhh}		𑄀𑄁𑄂𑄃𑄄		1		
Wp		{@246;thh}		𑄀𑄁𑄂𑄃		1		
Wq		{ck@191;h}		𑄀𑄁𑄂𑄃		2		
Wr		{@246;k@191; @191;h}		𑄀𑄁𑄂𑄃		1		

X Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
X1		x		⌘	⌘	41	25	
X2		v	^	^	^	11	8	
Xa			\		⌘		17	
Xb		@140;	@166;	⌘	⌘	4	7	
Xc			@168;)		6	
Xd		@170;	@201;	~	~	5	5	
Xe		@242;	@171;	⌘	⌘	1	4	
Xf		@169;	@204;	⌘	⌘	4	4	
Xg		@163;	@162;	⌘	^	1	2	
Xh			@199;		⌘		2	
Xi			@163;		?		1	
Xj			@165;		⌘		1	
Xk		@189;	@167;	⌘	⌘	1	1	
Xl		@211;	@179;	⌘	⌘	1	1	
Xm		@185;		⌘		2		
Xn		@147;		⌘		1		
Xo		@187;		⌘		1		
Xp		@195;		⌘		1		

Y Family

The Y family includes characters that are not part of the Voynich script. While such characters should not appear in transliteration files, this happens in a few cases.

STA	Eva	v101	Comment
Y8			Placeholder for the 8-like symbol in the left margin of f11v, of which there are two. Only included in the ZL file, but in version 3a they are still recorded as Eva-d.
Yd	@234;		One of four essentially illegible symbols at the end of the short circular text at the bottom of f68r2. Only recorded as such in the ZL file v. 3b.
Yn	@233;		One of four essentially illegible symbols at the end of the short circular text at the bottom of f68r2. Only recorded as such in the ZL file v. 3b.
Yp	@232;		One of four essentially illegible symbols at the end of the short circular text at the bottom of f68r2. Only recorded as such in the ZL file v. 3b.
Ys	@231;		One of four essentially illegible symbols at the end of the short circular text at the bottom of f68r2. Only recorded as such in the ZL file v. 3b.
Yx	@252;	@155;	The large red symbol in front on locus 7 on f1r. Included in the GC file, and in some others as 'illegible'.
Yy	@253;	@154;	The large red symbol in front on locus 11 on f1r. Included in the GC file, and in some others as 'illegible'.
Yz	@254;		The large red symbol in the top right part of f1r. Not included in any file.

Z Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
Z1		?	?			145	90	Part of the IVTFF definition
	Z1 Z1 Z1	???	???			31	2	Part of the IVTFF definition
Z5		???	???			31	2	Alternative representation of Z1 Z1 Z1

