

## **Voynich MS Super Transliteration Alphabet (STA)**

***Intermediate version 16 – should become first version STA-a***

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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”, either basic or extended
- “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 on-going evolution of the “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”.

## 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		o		769	
Ab			(		᠑		402	
Ac		o'	@196;	ᠠ'	ᠠ	6	4	
Ad		y'	@190;	ᠠ'	ᠠ'	2	2	
Ae		a'	*3	ᠠ'		5	1	
	<b>Ae P1</b>		@183;		ᠠᠠᠠ			
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		
	<b>L1 AI</b>		@185;		ᠠᠠ		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
	M3 B7							Currier: G
	N5 B7							Currier: H
	P4 B7							Currier: 1
B8							49	B8 = B3
	M3 B8		P		ṣ			Currier: K
	N5 B8		q		ṣ			Currier: L
	P4 B8							Currier: 5
Ba		@152;	7	ṅ	ṅ	3	2715	
Bb			6		ṅ		115	
Bc		@210;	Q	ṅ	ṅ	1	27	
Bd		@197;	@173;	ṅ	ṅ	2	8	
Be		@175;		ṅ		6		
Bf		@166;		ṅ		2		
Bg		@165;		ṅ		1		
Bh		@174;		ṅ		1		
Bi		@201;		ṅ		1		
Bj		@154;	@176;	ṅ	ṅ	2	1	

## C Family

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

## D Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
D1		p	g	𐑉	𐑉	1443	879	
D2		f	f	𐑊	𐑊	416	233	
D3			j		𐑋		564	
D4			u		𐑌		177	
Da			w		𐑍		24	
Db			@233;		𐑎		3	
Dc		@171;	@236;	𐑏	𐑏	5	5	
Dd		@167;		𐑐		3		
De		@168;		𐑑		2		
Df		@177;		𐑒		1		
Dg		@180;		𐑓		1		
Dh		@184;		𐑔		1		
Di		@188;		𐑕		1		
Dj		@199;		𐑖		1		
Dk		@213;		𐑗		1		
DI		@214;		𐑘		1		

## E Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
E1		k	h	ሀ	ሀ	10103	9926	
E2		t	k	ሐ	ሐ	6018	6119	
Ea		@176;	W	ሀ	ሀ	2	92	
Eb			@242;		ሐ		8	
Ec			@244;		ሐ		3	
Ed			@251;		ሀ		2	
Ee		@146;		ሐ		2		
Ef		@137;		ሐ		1		
Eg		@151;		ሐ		1		
Eh		@156;		ሐ		1		
Ei		@159;		ሐ		1		
Ej		@161;		ሐ		1		
Ek		@186;		ሐ		1		
El		@212;		ሀ		1		

**F Family**

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
F1		e	c	ƿ	ƿ	10217	10289	
F2		b	@207;	ɔ	ɔ		2	
Fa		c	E	ƿ	ƿ	12	54	
Fb		h	@198;	ɹ	ɹ	5	9	
Fc		@145;	@188;	ɸ	ɸ	2	7	
Fd			@158;		ɔ		1	

## G Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
G1		ch	1	ㄱ	ㄲ	11043	11053	
G2		ee	cc	ㄷ	ㄸ	4480	1655	
G3		{ee}	C	ㄷ	ㅌ		2783	
Ga		{oh}		ㄹ		12		
Gb		{co}	@220;	ㄹ	ㄺ	7	3	
Gc		{cy}		ㄺ		4		
Gd		{ca}	@223;	ㄺ	ㄻ	3	1	
Ge		{ih}		ㄻ		4		
Gf		{ci}		ㄻ		1		
Gg		{@131;o}	@170;o	ㄼ	ㄽ	1	1	
Gh			@225;		ㄽ		1	
Gi		{oy}	@212;	ㄽ	ㄾ		1	
Gj		{ai}		ㄾ		1		
Gk		{c@204;}		ㄾ		2		
Gl		@150;		ㄾ		2		
Gm		{cl}		ㄿ		1		
Gn		@149;		ㅀ		1		



## H Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
H1		sh	2	ረ	ረ	4533	3358	
Ha			3		ረ		516	
Hb		{c'h}	5	ረ'	ረ'	28	409	
Hc			%		ረ		140	
Hd			+		ረ		95	
He			!		ረ		50	
Hf			#		ረ		34	
Hg		{i'h}	@213;	ረ	ረ	8	4	
Hh		{cr}	@206	ረ	ረ	4	8	
Hi			@214;		ረ		4	
Hj		{@209;h}	@215;	ረ	ረ		2	
Hk			@221;		ረ		4	
Hi			@224;		ረ		5	
Hm			@226;		ረ		2	
Hn			s		ረ		38	
Ho		{c'o}	@219;	ረ	ረ	4	3	
Hp		{c'y}	@217;	ረ	ረ	8	7	
Hq		{c'a}		ረ		1		
Hr		{cs}		ረ		2		
Hs			@227;		ረ		1	
Ht		{c's}		ረ				
Hu		{e'e}		ረ		2		

J Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
J1		eee	ccc	ccc	ccc	406	27	
J2		eeb	D	cc̣	cc̣	6	10	
J3		{eee}	d	ccc	ccc		332	
J4		e{ee}	cC	ccc	ccc		20	
J5		{ee}e	Cc	ccc	ccc		39	
Ja		{chh}		ccc		5		
Jb		{c'hh}	@222;	ccc	ccc	4	3	
Jc		{ch'h}		ccc		2		
Jd		{c'ha}		ccc		1		
Je			@209;		ccc		1	

### K Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
K1		eeee	cccc	cccc	cccc	7	1	
K2		eeeb	B	cccc	ccc	8	6	
Ka		{eeee}	@210;	cccc	ccc		5	
Kb		e{eee}	cd	cccc	ccc		1	
Kc		{eee}e	dc	cccc	ccc		3	
Kd		ee{ee}	ccC	cccc	ccc		2	

L Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
L1		q	4	4	4	5425	5409	
	L1 A1		@185;		4̄			
La		q'		4 <sup>2</sup>		6	10	
	La A1		@186;		4 <sup>o</sup>			
Lb			@184;		4		8	
Lc		{q@207;}		4		1		

### M Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
M1		i	i	、	、	190	144	
M2		n	N	ᵹ	ᵹ	140	129	
M3							38	M3 = M1
	M3 B7							Currier: G
	M3 B8		P		ᵹ			Currier: K
Ma		l	@200;	↵	↵	1	1	
Mb		@172;	@202;	↵	↵	6	6	
Mc			@203;		↵		1	
Md			@161;		ᵹ		5	
Me		@203;	@169;	↵	↵	1	1	
Mf		@208;		3		2		

## N Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
N1		in	n	↻	↻	1729	1756	
N2		ii	l	↻	↻	86	75	
N3		ir	z	↻	↻	610	510	
N4			iy		↻		100	N4 ≈ N3
N5							11	N5 = N2
	N5 B7							Currier: H
	N5 B8		q		↻			Currier: L
Na			@180;		↻		4	
Nb			ii		↻		2	Nb ≈ N2
Nc			iN		↻		3	Nc ≈ N1

P Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
P1		iin	m	᳚᳚	᳚᳚	4148	4108	
	Ae P1		@183;		᳚᳚᳚		10	
P2		iii	@181;	᳚᳚	᳚᳚	12	154	
P3		iir	z	᳚᳚	᳚᳚	162		
P4								P4 = P2
	P4 B7							Currier: 1
	P4 B8							Currier: 5
Pa			in		᳚᳚		5	Pa ≈ P1
Pb			li		᳚᳚		1	Pb ≈ P2
Pc			ly		᳚᳚		13	Pc ≈ P3
Pd			iiy		᳚᳚		2	Pd ≈ P3

## Q Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
Q1		iiin	M	𐍏𐍏𐍏	𐍏𐍏	166	173	
Q2		iiiiin	iM	𐍏𐍏𐍏𐍏	𐍏𐍏𐍏	1	1	
Q3		iiir	@181;y	𐍏𐍏𐍏	𐍏𐍏	2	1	
Qa			ln		𐍏𐍏		5	Qa ≈ Q1
Qb			im		𐍏𐍏		2	Qb ≈ Q1
Qc			lm		𐍏𐍏𐍏		3	Qc ≈ Q2
Qd			lz		𐍏𐍏		1	Qd ≈ Q3



R Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
R1		cph	J	𐌸	𐌹	201	122	
R2		cfh	F	𐌸	𐌹	67	35	
R3		{iph}		𐌸		8		
R4		{ifh}	@153;	𐌸	𐌹	4	3	
R5			G		𐌹		89	
R6			U		𐌹		32	
Ra		{c@132;h}		𐌸		9		
Rb		{c@133;h}		𐌸		10		
Rc		{c@196;h}		𐌸		5		
Rd		{c@148;h}		𐌸		1		
Re		{c'h@148;h}	@239;	𐌸	𐌹	1	1	
Rf		{c@139;h}	@218;	𐌸	𐌹	1	1	
Rg		{c@245;h}	@240;	𐌸	𐌹	1	1	
Rh		{c@155;h}		𐌸		1		
Ri		{c@179;h}		𐌸		1		
Rj		{c@181;h}		𐌸		1		
Rk		{c@216;h}		𐌸		1		
Rl		{cpo}	@151;	𐌸	𐌹	1	1	
Rm		{yfa}	@248;	𐌸	𐌹		1	
Rn		{yph}		𐌸		1		
Ro		{oph}		𐌸		2		
Rp		{ofa}		𐌸		1		
Rq		{cfy}		𐌸		1		
Rr		{ify}		𐌸		1		

<b>Rs</b>		{i@133;h}		꠵꠸		1		
<b>Rt</b>		{i@182;h}		꠵꠸		1		
<b>Ru</b>		{ph}	@238;	꠵꠸꠵꠸	꠵꠸	2	3	
<b>Rv</b>		@130;	@250;	꠵꠸꠵꠸	꠵꠸	1	1	
<b>Rw</b>		{@200;ph}		꠵꠸꠵꠸		1		

## S Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
S1		{cphh}	R	ꠘꠞꠟ	ꠘꠞ	10	11	
S2		{cfhh}	r	ꠘꠞꠟ	ꠘꠞ	6	12	
Sa		{cf}	@234;	ꠘꠞ	ꠘꠞ	3	3	
Sb		{cp}		ꠘꠞꠟ		5		
Sc		{iphh}		ꠘꠞꠟ		2		
Sd		{ifhh}		ꠘꠞꠟ		1		
Se		{if}		ꠘꠞ		1		
Sf		{cfh'h}		ꠘꠞꠟ		1		
Sg		{aifhh}		ꠘꠞꠟ		1		
Sh		@183;		ꠘꠞ		1		
Si		{c@132;}		ꠘꠞ		1		

U Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
U1		ckh	H	ᄀᄁ	ᄀᄂ	869	865	
U2		cth	K	ᄀᄃ	ᄀᄄ	890	910	
U3		{ikh}	@228;	ᄀᄅ	ᄀᄆ	36	30	
U4		{ith}	V	ᄀᄇ	ᄀᄈ	23	23	
U5		{cto}	@253;	ᄀᄉ	ᄀᄊ	10	10	
U6		{cty}	@245;	ᄀᄋ	ᄀᄌ	8	10	
U7		{ykh}	@247;	ᄀᄍ	ᄀᄎ	7	10	
Ua		{cky}	@229;	ᄀᄏ	ᄀᄐ	3	5	
Ub		{cko}	@231;	ᄀᄑ	ᄀᄒ	2	2	
Uc		{kh}	@255;	ᄀᄓ	ᄀᄔ	7	6	
Ud		{th}	@230;	ᄀᄕ	ᄀᄌ	1	1	
Ue		{c'kh}	@211;	ᄀᄍ	ᄀᄎ		1	
Uf		{c'th}		ᄀᄏ		1		
Ug		{c'hkh}	@197;H	ᄀᄐᄑ	ᄀᄒᄓ	1	1	
Uh		{cki}		ᄀᄓ		1		
Ui		{cti}		ᄀᄕ		2		
Uj		{cka}	@246;	ᄀᄍᄎ	ᄀᄏᄐ	1	2	
Uk		{cts}	@241;	ᄀᄑᄒ	ᄀᄓᄔ	1	1	
Ul		{to}	@254;	ᄀᄕ	ᄀᄌ		1	
Um		{yko}		ᄀᄍᄎ		1		
Un		{ckhy}		ᄀᄕᄌᄍ		1		
Uo		{c@162;h}		ᄀᄓ		2		
Up		{y@162;h}		ᄀᄍᄎ		1		
Uq		{c'@162; @136;}	@243;	ᄀᄍᄎ	ᄀᄏᄐ	1	1	

Ur		{c@134;h}		$\overset{p}{c}fz$		1		
Us		{c@176;h}		$c\overset{p}{f}z$		1		
Ut		{@246;kh}		$\overset{p}{\cdot}fz$		1		

## V Family

STA	Combi	Eva	v101	Eva	v101	# ZL	# GC	Comment
V1		{ckhh}	l	𑌕𑌕𑌕	𑌕𑌕	27	36	
V2		{cthh}	L	𑌕𑌕𑌕	𑌕𑌕	27	32	
V3		{ck}	v	𑌕	𑌕	22	10	
V4		{ct}	@232;	𑌕	𑌕	17	5	
Va		{ckhhh}		𑌕𑌕𑌕𑌕		3		
Vb		{cthhh}		𑌕𑌕𑌕𑌕		2		
Vc		{ckh'h}	@235;	𑌕𑌕𑌕	𑌕𑌕	2	1	
Vd		{cthh'}	@149;	𑌕𑌕𑌕'	𑌕𑌕	1	1	
Ve		@194;	@237;	𑌕	𑌕	1	1	
Vf		{c@178;}	@150;	𑌕	𑌕	2	1	
Vg		{ykh}	@249;	𑌕𑌕𑌕	𑌕𑌕	1	1	
Vh		{ikh}		𑌕𑌕𑌕		1		
Vi		{ek}		𑌕		1		
Vj		{c't}	@197;k	𑌕	𑌕	1	1	
Vk		{ckoh}		𑌕𑌕𑌕		1		
Vl		{ckah}		𑌕𑌕𑌕		1		
Vm		{ctah}		𑌕𑌕𑌕		1		
Vn		{ctyh}		𑌕𑌕𑌕		1		
Vo		{ckhy}		𑌕𑌕𑌕		1		
Vp		{cthy}		𑌕𑌕𑌕		1		
Vq		{chkhh}		𑌕𑌕𑌕𑌕		1		
Vr		{@246;k}		𑌕		1		
Vs		{@246;thh}		𑌕𑌕𑌕		1		
Vt		{ck@191;h}		𑌕𑌕𑌕		2		

Vu		{@246;k@191; @191;h}		$\frac{p}{\hbar}$		1		
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## 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		





