The SERA User's Guide

"SERA" is an anacronym for "(The) System for Ethiopic Representation in ASCII". Most simply put -SERA is a way to write in Fidel script using Latin letters. More extendedly; SERA is a convention for transcription of Fidel script into Latin that insures the integrity of the format and content of the original document, and that it be fully transportable across all computer mediums.

As important as the preservation of the original content; the transcription system is also designed to be as easy to read and type as possible. SERA has been under continued development since early 1993 with the aim to fill these roles naturally and intuitively.

SERA is a convention for all elements of Ethiopic text which includes; letters, punctuation, and numerals. SERA also provides a mechanism for multilingual writing and the embedding of special control characters for your favorite software.

Ethiopic Letters

Fidel serves many languages for writing but not every group will use Fidel in the same way. Likewise SERA must offer the same kind of flexibility and so adjustable rules are built in. Following the natural rules of the original Ge'ez Fidel "**a**" by default produces **ኣ**. If the default *language* for the text is set for Amharic (noted in the table by $*$), then "**a**" *and* "e" will both provide **አ** and only "**A**" works for **ኣ**.

Similarly, such characters as **ኵ** and **ጕ** may be known to have both the sounds of "**k**^{w}**ï**" or "**k**^{w}**u**" and "**g**^{w}**ï**" or "**g**^{w}**u**". So in SERA both will be acceptable to indicate the same letter. Charcters that in the modern day have a twin with a matching sound can be written in two ways. For example, **ሠ** may be either ‘se or s2e; the user may decide which is more convenient to type or easier to read.

Finally, leftover Latin letters such as B, F, J, L, M, O, R, U, V, Y, are used as alternatives for their lowercase counterparts -this is often nice for personal names. In general, the SERA letter assignments will match the closest ASCII equivalent along phonetic guidelines.

The SERA Fidel Syllabry

	1	2	3	4	5	6	7	8	(12)	9	10	11	12
	ግዕዝ	**ካዕብ**	**ሳልስ**	**ራብዕ**	**ሃምስ**	**ሳድስ**	**ሳብዕ**	**ዲቃላ** →					
ሀ	he	hu	hi	ha	hE	h	ho						
ለ	le	lu	li	la	lE	l	lo				lWa		
ሐ	He	Hu	Hi	Ha	HE	H	Ho				HWa		
መ	me	mu	mi	ma	mE	m	mo	mWe	(mWu)	mWi	mWa	mWE	mW
ሠ	‘se	‘su	‘si	‘sa	‘sE	‘s	‘so				‘sWa		
ረ	re	ru	ri	ra	rE	r	ro				rWa		
ሰ	se	su	si	sa	sE	s	so				sWa		
ሸ	xe	xu	xi	xa	xE	x	xo				xWa		
ቀ	qe	qu	qi	qa	qE	q	qo	qWe	(qWu)	qWi	qWa	qWE	qW
ቐ	‘qe	‘qu	‘qi	‘qa	‘qE	‘q	‘qo						
ⷀ	Qe	Qu	Qi	Qa	QE	Q	Qo	QWe	(QWu)	QWi	QWa	QWE	QW
በ	be	bu	bi	ba	bE	b	bo	bWe	(bWu)	bWi	bWa	bWE	bW
ቨ	ve	vu	vi	va	vE	v	vo				vWa		
ተ	te	tu	ti	ta	tE	t	to				tWa		
ቸ	ce	cu	ci	ca	cE	c	co				cWa		
ኀ	‘he	‘hu	‘hi	‘ha	‘hE	‘h	‘ho	hWe	(hWu)	hWi	hWa	hWE	hW
ነ	ne	nu	ni	na	nE	n	no				nWa		
ኘ	Ne	Nu	Ni	Na	NE	N	No				NWa		
አ	e/a*	u/U	i	A/a	E	I	o/O	ea					
ከ	ke	ku	ki	ka	kE	k	ko	kWe	(kWu)	kWi	kWa	kWE	kW
ኸ	‘ke	‘ku	‘ki	‘ka	‘kE	‘k	‘ko						
ⷈ	Ke	Ku	Ki	Ka	KE	K	Ko	KWe	(KWu)	KWi	KWa	KWE	KW
ⷐ	Xe	Xu	Xi	Xa	XE	X	Xo						
ወ	we	wu	wi	wa	wE	w	wo						
ዐ	‘e	‘u/‘U	‘i	‘A/‘a	‘E	‘I	‘o/‘O						
ዘ	ze	zu	zi	za	zE	z	zo				zWa		
ዠ	Ze	Zu	Zi	Za	ZE	Z	Zo				ZWa		
የ	ye	yu	yi	ya	yE	y	yo				yWa		
ደ	de	du	di	da	dE	d	do				dWa		
ዸ	De	Du	Di	Da	DE	D	Do				DWa		
ጀ	je	ju	ji	ja	jE	j	jo				jWa		
ገ	ge	gu	gi	ga	gE	g	go	gWe	(gWu)	gWi	gWa	gWE	gW
ጘ	‘ge	‘gu	‘gi	‘ga	‘gE	‘g	‘go						
ⷘ	Ge	Gu	Gi	Ga	GE	G	Go	GWe	(GWu)	GWi	GWa	GWE	GW
ጠ	Te	Tu	Ti	Ta	TE	T	To				TWa		
ጨ	Ce	Cu	Ci	Ca	CE	C	Co				CWa		
ጰ	Pe	Pu	Pi	Pa	PE	P	Po				PWa		
ጸ	Se	Su	Si	Sa	SE	S	So				SWa		
ፀ	‘Se	‘Su	‘Si	‘Sa	‘SE	‘S	‘So						
ፈ	fe	fu	fi	fa	fE	f	fo	fWe	(fWu)	fWi	fWa	fWE	fW
ፐ	pe	pu	pi	pa	pE	p	po	pWe	(pWu)	pWi	pWa	pWE	pW

Punctuation And SERA Special Characters

SERA uses three special characters for writing Fidel in ASCII documents. Backslash, \ , is used to begin and end blocks of text written in Fidel or other writing systems such as Roman, Arabic, Hebrew, etc. Backslash can also separate blocks of text written in the same writing system but in different languages -this is useful to insure satisfactory transcription under different rules that languages can follow. Script and language separation is the primary purpose of backslash. We will see shortly that it can also be used for additional special purposes called "escapes".

Apostrophe, ' , also called single quote, serves the purpose of separation in SERA. Apostrophe appearing in an Ethiopic block of SERA text will not appear in the Ethiopic transcription. Apostrophe is usually used after a 6$^{\text{th}}$ form consonant when a vowel follows. Another use of apostrophe is between two vowels to make the ASCII reading a little clearer such as ke'ityoPya instead of keityoPya. This use is left as a typist preference and makes no difference on the final outcome.

Backquote, ‘ , also known as "spacing grave", usually has the function of providing an "alternate" of the token that follows. Examples are the letters series ‘s, ‘h, ‘e, and ‘S for ሠ, ኀ, ዐ, and ፀ respectively. Also punctuations and numbers in Ethiopic writing that have alternatives in purpose such as ‘?, ‘: and numbers ‘1...‘10000.

Ethiopic Punctuation

,	፣	
;	፤	
:-	፦	
-:	፥	
‘:	፡	
:	፥	፡
?	?	፧
‘?	፧	?
‘!	¡	
::	።	
:|:	፨	
<<	«	
>>	»	
''	¨	
‘'	"Vocalized Sadis" control character for linguists	
‘ '	Ignored If Alone	
‘1...‘10000	፩...፼	

The defaults for : and ‘? / ? use are presumed set by a user in the software using SERA. ፧ is the suggested default for ‘? use while no default is suggested for colon. Defaults may be reset to the alternatives at any point; \~‘| would set ? for ፧ which could be reset by \~? It is useful to have fixed ASCII definitions for ፡ and ፥ (namely ‘: and -:) while : is available for one or the other. Colon usage may be set and reset with \~-: \~‘: . To ensure the correct use of : and ? when exporting a document, the settings may be recorded at the start of the document.

Escapes

The core of SERA will always be its transliteration definition for the Fidel syllabary. SERA provides “escapes” or “switches” so that changes of language and scripts can be signaled to a reader without requiring special software to read the document. Special purpose escapes are also provided so that applications may communicate graphic elements and processing directives in an ASCII document.

The backslash character then is chosen for escapes in SERA as it is in agreement with the existing conventions of Unix, LaTeX, C, and other programming languages. Basic escapes are:

\	Script Toggle ... ← fidel → \ ← latin → \ ← fidel → etc. One or more punctuation characters following \ will not require a closing \ The script toggle terminates when the first nonpunctuation charcter is reached.
\\	\ The backslash escape is also in following with normal rules for punctuation.
\~!	Escapes are ignored until closing \~!
\~xxx \{do xxx}	 Perform “xxx”

Whitespace is the required terminator for all escapes. When space, “ ”, is the following whitespace terminator it will be removed from the transcribed output.

Ethiopic and Arabic Numbers in SERA

The Arabic and Ethiopic numerals will both be given with the Arabic numbers found on Latin keyboards. The Arabic numbers, the more common, may be used in the usual way; Ethiopic numbers require the SERA alternate specifier, ‘ , before the number. An understanding of the Ethiopic number system will benefit the composer.

SERA uses a “Fidel For Numbers” of sorts where zeros play the role of vowels. This system allows for a simplification in the writing of Ethiopic numbers.

‘10‘9‘100‘80‘7 = ‘109100807 = ‘10900807 = ፲፱፻፹፯

	ones	tens	hundreds	thousands	ten-thousands
	፩	፲	፻	፲፻	፻፻
		0	00	000	0000
፩	‘1	‘10	‘100	‘1000	‘10000
፪	‘2	‘20	‘200	‘2000	‘20000
፫	‘3	‘30	‘200	‘3000	‘30000
፬	‘4	‘40	‘400	‘4000	‘40000
⋮	⋮	⋮	⋮	⋮	⋮
፱	‘9	‘90	‘900	‘9000	‘90000

Example Texts

Mixed Script Writing

Some Amharic (\amarNa)\ Expressions:

\1) TEnaysTlN!	\ Greetings!	(Lit: May He give health for me.) \
\2) Indemn : aderu?	\ Good Morning.	(Lit: How did you spend the night?) \
\3) amesegnalehu::	\ Thank You. \	
\4) mnm : aydelem::	\ You're Welcome.	(Lit: Nothing it is not.) \
\5) gra : gebeh?	\ Are you confused?	(Lit: Left understand?) \

Will be transcribed into:

Some Amharic (አማርኛ) Expressions:

1) **ጤናይስጥልኝ**!	Greetings!	(Lit: May He give health for me.)
2) **እንደምን፡አደሩ**?	Good Morning.	(Lit: How did you spend the night?)
3) **አመሰግናለሁ።**	Thank You.	
4) **ምንም፡አይደለም።**	You're Welcome.	(Lit: Nothing it is not.)
5) **ግራ፡ገበህ**?	Are you confused?	(Lit: Left understand?)

Classical Style

kexEkspir : befit : tEatr : yemiSfu : marlow-: jorj : pil : jon : lili : tomas : kid : yemibalu : derasyan : neberu:: xEkspir : betenesa : gizE : gn : kesu : befit : weym : besu : gizE : yeneberutn : hulu : belTo : asnaqacew::

be'10500907 : 'a : m : xEkspir : yetEatru : 'sra : Iyetesfafalet : hEdo : bzu : genzeb : slageNe : wede : teweledebet : stratford : wedemibalew : ageru : hEdo : wb : yehone : tlq : bEt : gezto : abatu : Inatu : mistuna : hulet : sEtoc : ljocu : bezihu : bEt : wsT : IndiqemeTu : aderege::

Will be transcribed into:

ከሼክስፒር፡በፊት፡ቴአትር፡የሚጽፉ፡ማርሎው፣ጆርጅ፡ፒል፡ጆን፡ሊሊ፡ ቶማስ፡ኪድ፡የሚባሉ፡ደራስያን፡ነበሩ።ሼክስፒር፡በተነሳ፡ጊዜ፡ግን፡ከሱ፡ በፊት፡ወይም፡በሱ፡ጊዜ፡የነበሩትን፡ሁሉ፡በልጦ፡አስናቃቸው።

በ፲፭፻፺፯፡ዓ፡ም፡ሼክስፒር፡የቴአትሩ፡ሥራ፡እየተስፋፋለት፡ሄዶ፡ብዙ፡ ገንዘብ፡ስላገኘ፡ወደ፡ተወለደበት፡ስትራትፎርድ፡ወደሚባለው፡አገሩ፡ሄዶ፡ ውብ፡የሆነ፡ትልቅ፡ቤት፡ገዝቶ፡አባቱ፡እናቱ፡ሚስቱና፡ሁለት፡ሴቶች፡ ልጆቹ፡በዚሁ፡ቤት፡ውስጥ፡እንዲቀመጡ፡አደረገ።