Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation Internationale de Normalisation Международная организация по стандартизации

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Source: Michael Everson

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- **0. Preliminaries.** Unifon was developed as a set of Latin extensions to assist in the acquisition of English-language literacy. It was also used as a practical orthography for the Hupa, Yurok, Tolowa, and Karok languages. This document proposes only to encode those characters required for modern English use; the other characters require further study.
- 1. Introduction to Unifon. Unifon was developed as an auxiliary "phonetic" alphabet designed to facilitate access to literacy to English-speaking children, by presenting to them a writing system that worked by sound. Tests showed that children were able to learn to read rather quickly using this system, and, having made that breakthrough, were able to transition to traditional English orthography relatively easily. Unifon was developed in the 1950s by Dr John R. Malone, an economist and newspaper equipment consultant who became interested in phonetic writing while consulting with the Bendix Corporation, which was interested in questions of aviation communication. That work was abandoned when the International Air Transport Association selected English as the language of international airline communications in 1957. But Malone's interest in phonetic writing resurfaced when his young son complained about difficulties learning to read. From about 1960 to the 1980s, Margaret S. Ratz used Unifon to teach first-graders at Principia College in Elsah, Illinois. A variety of teaching materials exist using Unifon. From the 1974 to his death in 1993 John M. Culkin, a specialist in media studies, also promoted Unifon. Also significant is the use made of Unifon in the 1970s and 1980s to write Native American languages. Unifon was adapted principally by Tom Parsons of Humboldt State University to provide a practical orthography for several the Hupa, Yurok, Tolowa, and Karok languages. These orthographies were used for a number of years and although other orthographies are used for these languages now, many valuable documents using Unifon exist which should be able to take advantage of UCS encoding.
- **2. Structure.** Unifon is set of extensions to the Latin script. Much Unifon text is written in ALL CAPITAL LETTERS, but the system as developed and described permits the use of casing pairs; when casing is used, the lower-case forms are conventionally (that is, *always*) written in SMALL CAPITAL LETTERS. Unifon uses 40 characters when used for writing English; a number of additional characters were used for the Native American languages, and a few characters were used in earlier versions of Unifon but were later replaced by other characters.
- **3. Encoding model.** Because of the considerable overlap between many Unifon letters and the Latin script, Unifon should be treated as a set of extensions to the Latin script. Most Unifon characters can and should be unified with existing Latin characters. As noted above, when Unifon is used as a

casing script, it is always intended to be displayed as styled text, THAT IS, IN SMALL-CAPS. This has some implications for the design of lower-case letters for the code charts, but that should not be particularly problematic if standard design principles are applied.

4. Unifon characters as used for English. The 40-letter alphabet presently used for English is as follows.

AΔΛΒ¢DEŦRFGHI±JKLMNИOQΦQΦPRS\$TħHUŪ∐VWYSZ

4.1 Unifon letters unified with existing characters. Of the 40 letters used in the modern Unifon alphabet for English, 24 of them—60%—can be unified with existing letters. Note that *none* of the small-cap letters shown below are encoded modifier letters: they are small-caps styled forms of ordinary small letters.

Letter name	Capital	small	SMALL-CAP	Unifon
LATIN LETTER A	A	a	A	[æ]
LATIN LETTER TURNED V	Λ	Λ	Λ	$[\mathfrak{a}]$
LATIN LETTER B	В	b	В	[b]
LATIN LETTER C WITH STROKE	Ø	¢	Ø	[tʃ]
LATIN LETTER D	D	d	D	[d]
LATIN LETTER E	E	e	E	$[\epsilon]$
LATIN LETTER F	F	f	F	[f]
LATIN LETTER G	G	g	G	[g]
LATIN LETTER H	H	h	Н	[h]
LATIN LETTER J	J	j	J	[dʒ]
LATIN LETTER K	K	k	K	[k]
LATIN LETTER L	L	1	L	[1]
LATIN LETTER M	M	m	M	[m]
LATIN LETTER N	N	n	N	[n]
LATIN LETTER O	O	0	O	[c]
LATIN LETTER P	P	p	P	[p]
LATIN LETTER R	R	r	R	[r]
LATIN LETTER S	S	S	S	[s]
LATIN LETTER T	T	t	T	[t]
LATIN LETTER U	U	u	U	$[\Lambda]$
LATIN LETTER V	V	V	V	[v]
LATIN LETTER W	W	W	W	[w]
LATIN LETTER Y	Y	y	Y	[j]
LATIN LETTER Z WITH STROKE	Z	Z	Z	[3]

4.2. New characters for Unifon. A number of Unifon letters should be added in order to support Unifon as presently used to represent the English language. See Figures 4 and 5.

Letter name	Capital	small	SMALL-CAP	
LATIN LETTER CLOSED TURNED V	Δ	Δ	Δ	[eɪ]
LATIN LETTER SMALL CAPITAL I WITH STROKE	${f \Xi}$	Ŧ	${f \Xi}$	[iː]
LATIN LETTER TURNED-E R	\mathbb{R}	€R	\Re	$[\mathfrak{F}]$
LATIN LETTER SMALL CAPITAL I	${f T}$	I	${f T}$	[1]

LATIN LETTER I WITH STROKE AND BASELINE	Ŧ	Ė	Ŧ	[aɪ]
LATIN LETTER REVERSED N WITH BENT RIGHT LEG	Ŋ	Ŋ	N	$[\mathfrak{y}]$
LATIN LETTER O WITH BASELINE	Ω	Ω	Ω	[oʊ]
LATIN LETTER O WITH VERTICAL BAR	0	0	Φ	[ប]
LATIN LETTER O WITH LOW VERTICAL BAR	0	Q	0	[aʊ]
LATIN LETTER O WITH HIGH VERTICAL BAR	O	O	O	[1c]
LATIN LETTER S WITH STROKE	8	8	8	$[\int]$
LATIN LETTER THE	ĥ	Н	Ъ	$[\theta]$
LATIN LETTER DHE	Ћ	ħ	Ћ	[ð]
LATIN LETTER U WITH BASELINE	П	11	П	[u:]
LATIN LETTER CLOSED U	U	u	U	[ju]
LATIN LETTER REVERSED Z	Z	Z	Z	[z]

5. Discussion of individual characters. The characters listed below are quested for encoding here. Comments are given where relevant; code positions and annotations are as suggested for encoding.

T A7AE LATIN CAPITAL LETTER SMALL CAPITAL I

x 026A i latin letter small capital i

- used in Unifon and Gabonese orthographies
- **5.1.** LATIN LETTER SMALL CAPITAL I is U+026A; this is the capital for it. It represents [I] and is also used in several Kulango language publications from Bondounkou, where \mathbb{Z}/I contrasts with I/i. This example (from Psalm 118) comes from $\tilde{\mathcal{I}}$ de $b\tilde{I}$ dall bitese, p 10:

Alleluya! Ĩ kprε Yego bo gyasole, gyɪgalεɪ hῶ kyεrɛ, gyɪgalεɪ bo korigyo tuben haa ti-ɪ. Izraɛl bo yogonɪyωgo, ī dω-kɛ: bo korigyo tuben haa ti-ɪ.

Note should be made of the confusability of I/i and T/I, though it is clear that in fonts they should be quite distinct. In a sans-serif font even where I/i (Ariel) is written I/i (Andale Mono), the upper case of SMALL CAPITAL I should have longer T-like horizontals: I/I, similar to the example given above in Kulango.

A7AF LATIN CAPITAL LETTER SMALL CAPITAL I WITH STROKE

x 1D7B # LATIN SMALL CAPITAL LETTER I WITH STROKE

5.2. LATIN LETTER SMALL CAPITAL I WITH STROKE. In N4262 it was suggested that the ligature was of 9 and e, rather than of a and e, since the intended sound is a [i:]:

$x \neq x$

Given the discussion about SMALL CAPITAL I above, however, it is likely that a unification with U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE would be more advantageous in the context of the UCS, since its glyph behaviour would have to be the same as U+A7AE as discussed above.

 $oldsymbol{\Lambda}$ A7BA LATIN CAPITAL LETTER CLOSED TURNED V $oldsymbol{\Lambda}$ A7BB LATIN SMALL LETTER CLOSED TURNED V

5.3. LATIN LETTER CLOSED TURNED V Although this character looks superfically like a capital Greek delta Δ δ , in origin it is clearly a vowel (it represents [e1]), and should best be analysed either as a CLOSED TURNED V, or a CLOSED A WITHOUT HORIZONTAL MIDBAR. Unification with the Greek letter would be undesirable due to the script property. If it were *really* desired to save a code point, one could unify the lower case here with δ U+1E9F LATIN SMALL LETTER DELTA (which otherwise has no capital), though the default sort for that character would be after d_{ν} U+A771 LATIN SMALL LETTER DUM and before LATIN LETTER E (which would not be particularly desirable).

 ${f R}$ a7BC latin capital letter turned-e r

A7BD LATIN SMALL LETTER TURNED-E R

x 025A ə latin small letter schwa with hook

5.4. LATIN LETTER TURNED-E R. In N4262 it was suggested that one option of encoding this would be by unifying it with LATIN LETTER SCHWA WITH HOOK, adding the capital letter of the already-encoded &. But strictly speaking, since \(\frac{1}{2}\) TURNED E and \(\frac{1}{2}\) SCHWA are distinct, one might expect a case pair \(\frac{1}{2}\) for SCHWA WITH HOOK. It seems preferable to encode TURNED-E R \(\frac{1}{2}\); regarding the lower case, the form chosen here, avoiding the rhotic hook, seems more accurate and distinctive than the others proposed previously in N4262 (shown here for comparison):

$\exists a \neq \partial^a a \neq \Re a \Rightarrow \Re a$

A7BE LATIN CAPITAL LETTER I WITH STROKE AND BASELINE

A7BF LATIN SMALL LETTER I WITH STROKE AND BASELINE

5.5. LATIN LETTER I WITH STROKE AND BASELINE. This character is best encoded following the glyph logic of \mathbb{T}/I and \mathbb{T}/I above; it represents [aɪ].

A7C0 LATIN CAPITAL LETTER REVERSED N WITH BENT RIGHT LEG

N A7C1 LATIN SMALL LETTER REVERSED N WITH BENT RIGHT LEG

x 014B η latin small letter eng

5.6. LATIN LETTER REVERSED N WITH BENT RIGHT LEG. While this character is somewhat reminiscent of LATIN LETTER ENG, and is used to indicate the velar nasal [ŋ], it is clear from the earliest glyphs used for it that it was based upon a modified reversed N with an angled right leg—not upon a regular N with a kind of tail, as eng proper is.

$N\eta \sim D\eta \neq Vu$

It would be a pretty bad idea to add this glyph as a variant of the letter presently used by both the Sami or the African traditions, since one may be fairly certain that this glyph would be rejected by both communities. For Unifon, the character should be encoded explicitly.

 $oldsymbol{\Omega}$ A7C2 Latin Capital Letter 0 with baseline $oldsymbol{\Omega}$ A7C3 Latin small letter 0 with baseline

5.7. LATIN LETTER O WITH BASELINE. This character, which represents [00], is related to other "long" vowels with baselines, namely Δ [e1], \pm [a1], and U [iu].

A7C4 LATIN CAPITAL LETTER O WITH VERTICAL BAR

1 A7C5 LATIN SMALL LETTER O WITH VERTICAL BAR

5.8. LATIN LETTER O WITH VERTICAL BAR. This character, which represents [v], is probably derived conceptually from a ligature, similar to OOm LATIN LETTER OO. It is, however, different from that ligature, and should be encoded separately.

 $oldsymbol{\Omega}$ A7C6 Latin capital letter 0 with low vertical bar

• A7C7 LATIN SMALL LETTER O WITH LOW VERTICAL BAR

5.9. LATIN LETTER O WITH LOW VERTICAL BAR. This character represents [av].

O A7C8 LATIN CAPITAL LETTER O WITH HIGH VERTICAL BAR

• A7C9 LATIN SMALL LETTER O WITH HIGH VERTICAL BAR

5.10. LATIN LETTER O WITH HIGH VERTICAL BAR. This character represents [o1].

S A7CA LATIN CAPITAL LETTER S WITH STROKE

 \mathbf{S} A7CB LATIN SMALL LETTER S WITH STROKE

x A7A9 s latin small letter s with oblique stroke

5.11. LATIN LETTER S WITH STROKE. Alongside the already-encoded $\mathcal{C}_{\mathcal{C}}$ C WITH STROKE, which Unifon uses for [t], this character is used to represent [].

h A7CC LATIN CAPITAL LETTER THE

h A7CD LATIN SMALL LETTER THE

5.12. LATIN LETTER THE. The origin of this character, which represents $[\theta]$, is slightly obscure, though it is most likely based simply on Latin capital H, since there is always a hard right-angle to the right part of the glyph. There is also always a rightward-facing angled hook on the left ascender:

f h A7CE LATIN CAPITAL LETTER DHE f h A7CF LATIN SMALL LETTER DHE

x 045B cyrillic small letter tshe

5.13. LATIN LETTER DHE. This character represents [ð] and is in origin a ligature of Latin T and h. Although it looks superfically like a CYRILLIC CAPITAL LETTER TSHE T, that character has a completely different origin (it was introduced in the 1818 Serbian dictionary of Vuk Stefanović Karadžić, on the basis of the old Cyrillic letter djerv T). The left-hand bar of the T on the Unifon DHE is also quite short (T), mirroring that on the ascender of the Unifon THE (T). The lower case of Cyrillic T is T0, which is confusable with Latin H WITH STROKE T1, in keeping with the true derivation of the character, and helping to prevent confusability with the Maltese letter.

A7D0 LATIN CAPITAL LETTER U WITH BASELINE
 A7D1 LATIN SMALL LETTER U WITH BASELINE

5.14. LATIN LETTER U WITH BASELINE. This character, which represents [u:], is related to other "long" vowels with baselines, namely Δ [eI], \pm [aI], and Ω [ov].

A7D2 LATIN CAPITAL LETTER CLOSED U
 A7D3 LATIN SMALL LETTER CLOSED U

• also used in Swedish dialectology

5.15. LATIN LETTER CLOSED U. This character, which represents [ju], is also used in Swedish dialectology, where it represents a sound similar to [3] (Lundell 1929).

Table of Vowels. If adopting the English rectangular system of classification (Bell-Sweet) the vowels of Swedish and most other languages might be placed as follows:

	front	intermediate	back
high {iu²	$i y^2 u^2$	ы э <i>t</i>	m² u¹
mid {	e ø¹	9	0 Q ²
	& Q1	n ¹	O ^x
low	æ ø¹	No. 2002 75	$a w^{\scriptscriptstyle \text{I}} \alpha^{\scriptscriptstyle 2}$
	а в	в	a

A7D4 LATIN CAPITAL LETTER REVERSED Z
 A7D5 LATIN SMALL LETTER REVERSED Z

5.16. LATIN LETTER REVERSED **z.** This character, which represents [3] (in Unifon Z represents [z]), is simply a reversed z. Interestingly, this letterform was also used for [3] in the Phonotypic Alphabet No. 7 devised by Pitman. (Alphabets 8 and 9 replaced Σ with a reversed Sigma Σ , and the 1847 Alphabet used that with a lower case ezh Σ .)

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Figures.

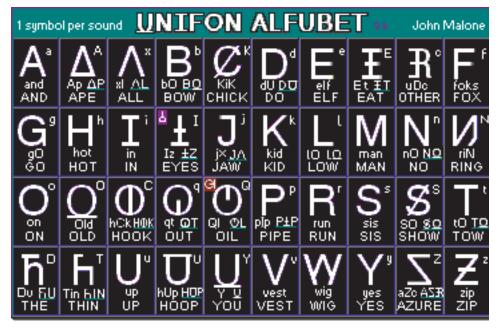


Figure 1. Example of the final version of Unifon. The alphabet given is: AΔΛBØDE±RFGHI±JKLMNNOQΦQOPRS\$TħHUŪ∐VWYSZ



Figure 2. Example of the final version of Unifon. The alphabet given is: $A\Delta\Lambda BCDEERFGHI\pm JKLMNNOQOOOPRSSTHUUUVWSYZ$

EDITORIALS COLUMNS

CHICAGO SUNDAY SUN-TIMES

NEWS REVIEW SPECIAL ARTICLES

Section Two

MY FAIR LANGUAGE

Do We Need A New



GEORGE BERNARD SHAW
A legacy for reform of the language

G. B. SHAW'S WILL --THE BACKGROUND

G. B. SHAW'S WILL

—THE BACKGROUND
Infuriated by such manifest absurdities as pronouncing ph to sound like f. George Bernard Shaw, the great Irish playwight and critic applied his trenchant wit to our alphabetical aggravations and came up with a characteristically iconoclastic solution: Invent a written language with enough characteris so that each letter would designate a specific invariable sound. To this end he willed that much of his estate go toward an award for a more adequate, economical and forthright orthography of the English language. The probate court allowed \$23,240 for prizes to contestants and the expense of cutting type and setting up an edition of Shaw's "Androcles and the Lion" in a doubly typeset volume—half new alphabet and half the orthodox English. This, in the provisio of Shaw's will, is to be distributed to 13,000 public libraries in English-speaking lands.

Among the ten finalists in this competition was one of the 60 Americans who were among the 467 entrants from all over the world. He is a Chicago advertising executive whose background includes wide experience as newspaperman, magazine contributor, consulting economist, Army captain with overseas service and assistant professor at his alma mater, the University of Kansas, He is working on his doctorate at the University of Chicago. He is John R. Malone, 46, whose many hobbies encompass computing equipment, the mathematics of information, communications and invention. His success in the Shavian competition has stimulated wide interest in his proposed world alphabet (described in these pages) and a nonprofit Foundation for a Compatible and Consistent Alphabet has been set up and located at 333 N. Michigan Av. Malone resides with his wife and four children in Park Forest.

Alphabet?

Two and a half years ago, I spent one of the pleasantest evenings of my life listening to and looking at the delights of 'My Fair Lady" . written over George Bernard Shaw's 'Pygmalion." As I'm sure you all know, the story turns on the efforts of a phonetics professor, Henry Higgins, to change the language structure of a little Cockney flower girl to that "upper class" Albertian English-and the cultural trans

formation which this brings about for her.

Early in the show Prof. Enry Iggins sings his plaintive lament: "Oh why can't the English learn to speak?" while his

PATHERIA. On why can't the English learn to speak?" while his precious guttersnipe, Eliza Doolittle, distorts the noble tongue beyond recognition. I believe he knows why, Being of Irish extraction and having something of a sympathy for the Shavian disdain of doing things the same way as others do because that is the custom of the past, the complaint of Prof. Higgins set me to thinking . . . right out there in the theater in plain sight of the beautiful stage sets.

the beautiful stage sets.

AND WHILE THE beautiful, lilting musichall tunes filled the evening, my mind went back to the 6-year-old at home who was having all sorts of trouble with spelling English words. It was neither consistent nor logical as his numbers were. Sometimes he could "sound out" a word; but mostly spelling was a grab bag. Getting the proper letters for a word was pure chance.
"Why can't the English." 2" Guidant.

bag. Getting the proper letters for a word was pure chance.

"Why can't the English . . ?" Suddenly I saw clearly the answer to the professor's retorical question. Obviously they couldn't learn to speak because they hadn't learned to spell because they couldn't. They didn't have their own advanta elphabet and there weren't enough letters in the Latin alphabet with which they had been burdened. Eureks!

As the English are a hybrid people made up of Celts, Druids, Romans, Jutes, Saxons, Angles, Normans, Danies and Norsemen, their language is made up of elements of all these with remnants of Gaelic, Flemish and Platdutsch (a low German tongue) and spelled with the leftovers of an alphabet left by Julius Caesar before the time of Christ. This alphabet was later reimposed upon them by way of the Latin-based Christian church.

SINCE EARLY HEBREW and Phoenician

SINCE EARLY HEBREW and Phoenician times, the written language has generally been related rather closely to the sounds of the language. And the Phoenician and classic Greek languages were excellent examples of this. However, these languages used basically 20 to 25 or so sounds or phonemes, and their alphabets or language symbols had to be within this range. The Latin adaptation made a few ground rules for sounding works in one within this range. The Latin adaptation made a few ground rules for sounding vowels in one of two ways, and using some letters such as Poor Eliza Doolittle! The winsome Cockney flower girl of "My Fair Lady," waged a desperate and delightful struggle to master the King's English for Prof. "Enry 19 'Iggins. Anne Rogers played role in Chicago.

ØR FOLDR. HO ORT +N HEVEN, HALOED BI LA NAM LA KHUDUM KUM. LA WHL BI DUN, AN BRO AZ HT HZ HN HEVEN. G+V UC 1+C DA ØR DAL+ BRED. AND FARGHV UC ØR TRECPACEZ,

AZ WI FARGHV LOZ HO TRECPAC UGENCT UC. AND LID UC NOT

*NTO TEMPTASUN, BUT DIL+VAR UC FRUM IV+L: FAR LAN +Z LU K+MDOM, AND JU PØBR, AND JU GLQR+, FAREVBR AND EVBR, OMEN.

The familiar as it looks in alphabet proposed by John R. Malone. This, of course, is the Lord's Prayer, King James version.

I and V for both vowels and consonants; but Latin, too, was relatively simple, using 22 let-ters to represent from 26 to 28 sounds.

Latin, too, wis featurely simple, costing 22 ters to represent from 26 to 28 sounds.

But English! As a problem in linguistics it is plenty tough. First, it is made up of from 39 to 44 sounds coming from some of the sources indicated above, many of which are not Latin or Greek at all. Using the already inadequate Latin alphabet of 22 letters to represent these sounds made it even tougher. To do this at all satisfactorily at least four letters (J, U, W and Y) have been added. And all sorts of consistent and inconsistent ground rules have been made for giving different letters and combinations of letters different sounds in different words. This was done hundreds of years ago, with or without good cause.

TWO MORE SECTIONS INSIDE

Section Three, covering leisure activi-ties, and Section Four, Feminine Angle and Your Home, are folded inside this

and today we are stuck with the whole kaboodle of them.

kaboodle of them.

IN THE OLDEN DAYS every scribe or clerk had his own feelings about spelling because there were few dictionaries and no printers. A big stew pot of inconsistent rules grew up to cover the sonorous, expressive collection of words from all Europe and elsewhere, which became known as "English." Only a people so patient and stubborn as the English would have even tried to make a pattern of spelling out of such a mixed-up situation. But "muddling through" solved it . . . in a way.

in a way.

Then the typesetters were brought to English shores by William Caxton, the first English printer. From Holland and Flanders he brought them and their type fonts to put "Reynard the Fox" into print—the first English typeset work. At that time, they used a Latin alphabet with 24 letters and had no fixed rules for setting up English. So these Dutch and Flemish printers made their own rules as they went or tried to use the continental rules if



Figure 3a. Article from the *Chicago Sunday Sun-Times*, dated 1960-05-29, discussing Unifon.

PROPOSED NEW ALPHABET

earning Time Is Reduced

type machines are rapidly replacing typecasting machines and metal foundry type. Also through use of photo platemaking and photo offset printing, typewriter-like composing ma chines are being utilized more and more as the means of setting up large areas of printed material. The cost of resetting or recomposing the millions of words in contemporary English could be done in overseas areas to help build up the graphic arts industries in such countries as India, Africa and South America, just as Germany and America are helping to do in Taiwan and Japan at the present.

THE COST OF SUCH transliteration would be small indeed compared with the benefits that would accrue to the world by getting a common language.

a common language.

And why not convert to a form of English which will help you gain access to the knowledge of other nations as well as to their contributions to knowledge. Much of the conversion during the next decade or so could be handled through the United Nations Educational Scientific and Cultural Organization or the International Documentary Center.

And for those who can already read English, it takes less than 45 minutes to retrain yourself to read bits—even an older dog can learn this new trick.

with the Wiek Week's it is possible to teach most 5- or 6-year-olds to write English with this alphabet. There are no rules or exeptions. It is ideal for teaching English to adults from non-English countries. Once confidence and sacility is statisated, the problem of converting to the older spelling forms is relatively easy, because of the compatibility feature, and memory devices built into this alphabet. So fat this alphabet has been texted in teaching children. It is also being used in a test class of Puerto Ricans. In each case the rate of learning is surprising. It is very much like teaching a person to count by means of Arabic numbers.

It may take a generation to get general con-currence for this type of alphabet for English, but given the long history of humanity, this is

a relatively short time, and the economics possible with it are great. For instance, from 12 to 25 pcr cent fewer characters are needed to write a given piece of material in the simpler 40-character alphabet. The cost in reduced learning time for youngsters should enable all nations to upgrade their school systems, whether in America or abroad.

whether in America or abroad,

MANY TECHNICAL developments, such as machines for computing, accounting, check reading and for bibliographic listing and eatherloging await adoption of this type of alphabet. So does the dictating typewriter, which takes the spoken word and types it out directly.

It is hardly needed to point out the commercial and political value in having a world speak English, as its common tongue. But the value is greatest to the poorer nations which would thereby have access to American-English techniques and scientific competence. The people of these countries could then live freely in our world, via the use of our methods and devices.

in our world, via the use of our methods and devices.

Now let's look at the alphabet itself a moment. For technical reasons all the letters have been designed with the same width, as type-writer letters generally are. To do this, some of the fetters have been basically redesigned so that never again will 1, 1, or No. 1 be confused. There is no "lower case" or small letters as such. There is no "lower case" or small letters as such. There is simply a flattened version of the same design. In this way needless configurations are eliminated.

FIRST WE HAVE added 11 vowel symbols to the A, E, I, O and U (and we have dispensed with the Y vowel usage). We have turned the 16 new vowels into five basic families, called the A, E, I, O and U families. The old letters are used to designate the "short" sounds of the letters as they are today: as cat, pet, bit, hot and but. Then there are added five new "long vowels" for each of these as shown in the following chart.

Each of these long wowels is characterized.

in the following chart. Each of these long vowels is characterized by a full width horizontal member. A $\Gamma(k) \Omega$ U which helps you remember. Then there is an aw A, an e as in her \Im , g double o as in look \emptyset , an out as in couch \emptyset and oy as in how Ω and a yay send as in you, or use \emptyset which self-the way is five families look; we will seave the first plant.



In the concomant liet the Cyrillic chay 'I has been added for the "ch" sound as in "chair"; the J has been broadened to fit our rectangle, "ng" as in sing fas been turned into a single character II: s has become "sh" as in sure or shirt, while c has been made uniformly the "soft s" or "hiss" sound as in "cell" or "sin." The voiceless "th" of "thim is represented by the Greek theta stylized to our purpose (neither the Romans or the later day Brooklyn citizens thought much of this sound). The voiced "th" as in "they" is represented by an upside down "T" 1. The modification of the W was made to keep it from filling up with ink or duit as it does today on the typewriter or printing press. The Z has been crossed in the European fashion to dictinguish it from a carelessly made 2. A modification of the Cyrillic zh sound character has been made for the most infrequently used sound in English, that found at the s in leisure, or the z in azure, and in many words of French-origin, such as rouge, beige, etc.

A FEW REMINDERS are needed: the G is always hard as in "get"; only K has the hard "c" sound now found in "crow." All buzzing "s sounds as in business or glasses use z. Dropped entirely out are x and q which can be replaced by combinations of other letters.

Below are the 24 consonants and what they sound like:

B (b) C (ss) (Fich) D (d)

F (f) G (get) H (h) J (j)

K (k) L (f) M (m) N (n)

R (r) M (ng) S (sh) T (0 Es (th) Er (th) V (v) W (w) Y (yet) Z (z) X 2h)

Now there is an added plus to this alphabet, esides such designed in features as being use-



John K. Malone explains his 40-character alphabet and compatible number system. Lower case letters simply are smaller versions of the capital letters.

ful for computers and dictatable typewriters. It is sufficiently broad in phoneme representation so that it can be used for transcribing Russian, Hebrew, Arabic, German, Italian and Spanish phonetically.

With a few conventions or marks it can be used for French and Portuguese. The Romaji version of Japanese can go into it very easily and consistently with the present orthographic

OTHER PHONETIC alphabets have been OTHER PHONETIC alphabets have been proposed before, but this one is sufficiently comprehensive and practical for immediate use in primary schools at home, and in English training and technical schools at home and abroad. The technological conditions are ripening rapidly; the political, commercial and communication imperatives are clear and demanding.

Two can start writing this way tomorrow.

You can start writing this way tomorrow, will find you can learn it easily, rapidly. Wrife as you speak. English will never be the same for you again — and lots easier-to spell. You, American, will be considered among the most thoughtful people on earth—for you will have changed your ways so offers can enjoy your movies, books, technics, riches and general cultural bounty and best of all, you can make your speech and language habits those of the world.

Figure 3b. Article from the *Chicago Sunday Sun-Times*, dated 1960-05-29, discussing Unifon.

OR FOLER HO ORT +N HEVEN, HALOED BI LA NAM. IS KHUDUM KUM. IS WHL BI DUN, AN BRO AZ HT HZ HN HEVEN. G+V UC 1+C DA ØR DAL+ BRED. AND FARG+V UC ØR TRECPACEZ. AZ WI FARG+V LOZ HO TRECPAC UGENCT UC. AND LID UC NOT THAT TEMPTASUN, BUT DILTVER UC FRUM IVTL: FAR LAN TZ LU K+NDOM, ARVE UP & STAND LL GLARH, FAREVER AND EVER, OMEN.

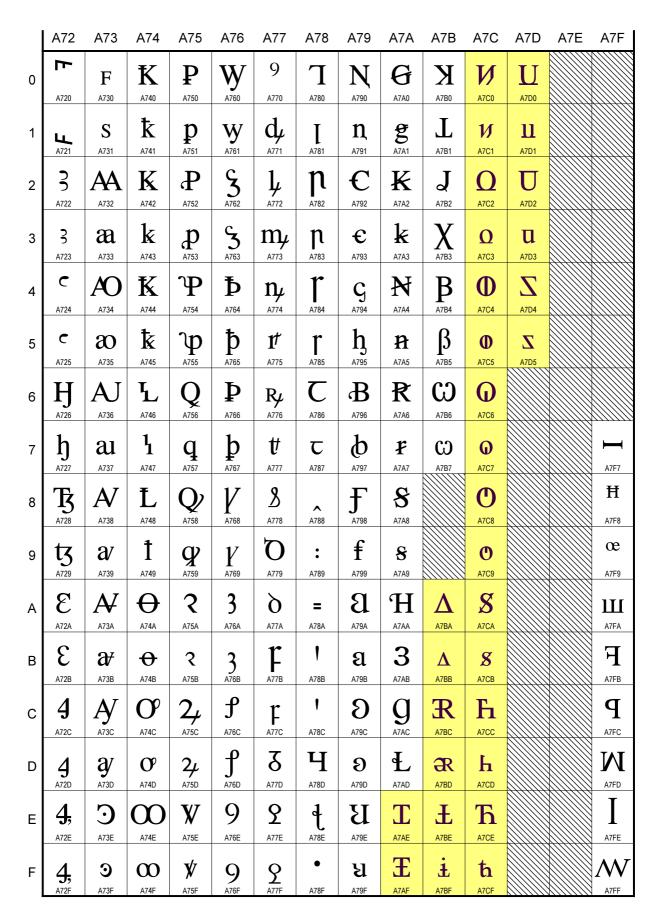
Figure 4. Example of an early version of Unifon (the alphabet as in Figure 1) set using upper- and lower-case. The alphabet given is: AΔΛBCUDEI3FGH+ΔJKLMNИOQΦØΘPRSTΘ1UŪWVWYZX: several letters (YJOGWYX) do not appear in the text.

IF MŁ HED WOD GO hru," hat por Alis, "It wod bæ uv veri litul us wibot mł soldrz. O, ho Ł wis Ł kod sut up lłk u teluskop! Ł hiuk Ł kod, if Ł onli nu ho tu bigin." Far, u sæ, so meni ot-uv-bu-wa hiuz had hapund latli, bat Alis had bigun tu hiuk bat veri fu hiuz indæd wæ ræuli imposubul.

THER SEMD TU BE NO IIS IN WATIN BE THE LITTLE DAR, SO SE WENT BAK TU THE TABUL, HAF HOPIN SE MET FEND UNUTER KE ON IT, AR AT ENI RAT U BOK UV RULZ FAR SUTIN PEPUL UP LEK TELUSKOPS: THIS TEM SE FOND U LITTLE BOTUL ON IT, ("HWIØ SRTUNLI WUZ NOT HIR BIFAR," SED ALIS,) AND ROND THE NEK UV THE BOTUL WUZ U PAPR LABUL, WITE THE WRDZ "DRINK ME" BUTUFULI PRINTID ON IT IN LORI LETRZ.



Figure 5. Example from Carroll [2014; in press], showing Unifon in a casing orthography. Carroll's English original likewise writes "DRINK ME" in all caps.



bbΔ	itio	ns for UPA	A74E	∞	LATIN CAPITAL LETTER OO
A720	F-	MODIFIER LETTER STRESS AND HIGH TONE	A74F	∞	LATIN SMALL LETTER OO
A721	ш	MODIFIER LETTER STRESS AND LOW TONE	A750	₽	LATIN CAPITAL LETTER P WITH STROKE THROUGH DESCENDER
	_	logical additions	A751	p	LATIN SMALL LETTER P WITH STROKE
–9 y A722	γιο	LATIN CAPITAL LETTER EGYPTOLOGICAL	A752	æ	THROUGH DESCENDER LATIN CAPITAL LETTER P WITH FLOURISH
	9	ALEF	A753	æ	LATIN SMALL LETTER P WITH FLOURISH
A723	3	LATIN SMALL LETTER EGYPTOLOGICAL ALEF	A754	Ψ	LATIN CAPITAL LETTER P WITH SQUIRREL
A724 A725	c	LATIN CAPITAL LETTER EGYPTOLOGICAL AIN LATIN SMALL LETTER EGYPTOLOGICAL AIN	A755	φ	TAIL LATIN SMALL LETTER P WITH SQUIRREL TAIL
A723		• this is a case pair	A756	Q̈́	LATIN SMALL LETTER F WITH SQUIKKEL TAIL LATIN CAPITAL LETTER O WITH STROKE
		→ 1D25 ♠ latin letter ain		^	THROUGH DESCENDER
		→ 1D5C * modifier letter small ain	A757	q	LATIN SMALL LETTER Q WITH STROKE THROUGH DESCENDER
		ribbo inounier letter sman am	A758	\mathbf{Q}	LATIN CAPITAL LETTER Q WITH DIAGONAL
May	ani	st additions	A759	an.	STROKE
A726	H	LATIN CAPITAL LETTER HENG	A759	g	LATIN SMALL LETTER Q WITH DIAGONAL STROKE
A727	þ	LATIN SMALL LETTER HENG	A75A	2	LATIN CAPITAL LETTER R ROTUNDA
A728	Ť	LATIN CAPITAL LETTER TZ	A75B	2	LATIN SMALL LETTER R ROTUNDA
A729 A72A	tz E	LATIN SMALL LETTER TZ	A75C	2,	LATIN CAPITAL LETTER RUM ROTUNDA
A72B	3	LATIN CAPITAL LETTER TRESILLO LATIN SMALL LETTER TRESILLO	A75D	24	LATIN SMALL LETTER RUM ROTUNDA
A72C	4	LATIN SMALL LETTER TRESILLO LATIN CAPITAL LETTER CUATRILLO	A75E	V	LATIN CAPITAL LETTER V WITH DIAGONAL STROKE
A72D	4	LATIN SMALL LETTER CUATRILLO	A75F	v	LATIN SMALL LETTER V WITH DIAGONAL
A72E	4,	LATIN CAPITAL LETTER CUATRILLO WITH		•	STROKE
4705		COMMA	A760	W	LATIN CAPITAL LETTER VY
A72F	4,	LATIN SMALL LETTER CUATRILLO WITH COMMA	A761 A762	y Š	LATIN SMALL LETTER VY
			A763	3	LATIN CAPITAL LETTER VISIGOTHIC Z LATIN SMALL LETTER VISIGOTHIC Z
Med	liev	alist additions	A764	Þ	LATIN SMALL LETTER VISIOOTHIC Z LATIN CAPITAL LETTER THORN WITH STROKE
A730	F	LATIN LETTER SMALL CAPITAL F	A765	þ	LATIN SMALL LETTER THORN WITH STROKE
A731	S	LATIN LETTER SMALL CAPITAL S	A766	₽	LATIN CAPITAL LETTER THORN WITH STROKE
A732		LATIN CAPITAL LETTER AA	4 707		THROUGH DESCENDER
A733		LATIN SMALL LETTER AA	A767	þ	LATIN SMALL LETTER THORN WITH STROKE THROUGH DESCENDER
A734 A735	æ	LATIN CAPITAL LETTER AO LATIN SMALL LETTER AO	A768	γ	LATIN CAPITAL LETTER VEND
A736		LATIN SMALL LETTER AU LATIN CAPITAL LETTER AU	A769	V	LATIN SMALL LETTER VEND
A737		LATIN CALITAL LETTER AU	A76A	3	LATIN CAPITAL LETTER ET
A738	A	LATIN CAPITAL LETTER AV	A76B	3 P	LATIN SMALL LETTER ET
A739	av	LATIN SMALL LETTER AV	A76C		LATIN CAPITAL LETTER IS
A73A	\mathcal{A}	LATIN CAPITAL LETTER AV WITH	A76D	f 9	LATIN SMALL LETTER IS
A73B	07	HORIZONTAL BAR	A76E A76F		LATIN CAPITAL LETTER CON LATIN SMALL LETTER CON
AISD	a⊬	LATIN SMALL LETTER AV WITH HORIZONTAL BAR	A770	9	MODIFIER LETTER US
A73C	Ŋ	LATIN CAPITAL LETTER AY			≈ <super> A76F o</super>
A73D	<u>a</u> y	LATIN SMALL LETTER AY	A771	ď،	LATIN SMALL LETTER DUM
A73E	Э	LATIN CAPITAL LETTER REVERSED C WITH	A772	Ĩ,	LATIN SMALL LETTER LUM
A73F	э	DOT LATIN SMALL LETTER REVERSED C WITH DOT	A773	ḿ,	LATIN SMALL LETTER MUM
A740	ĸ	LATIN CAPITAL LETTER K WITH STROKE	A774	n,	LATIN SMALL LETTER NUM
A741	ħ	LATIN SMALL LETTER K WITH STROKE	A775	17	LATIN SMALL LETTER RUM
A742	K	LATIN CAPITAL LETTER K WITH DIAGONAL	A776	Rμ	LATIN LETTER SMALL CAPITAL RUM
A743	1-	STROKE	A777 A778	t S	LATIN SMALL LETTER TUM LATIN SMALL LETTER UM
A743	k	LATIN SMALL LETTER K WITH DIAGONAL STROKE			
A744	K	LATIN CAPITAL LETTER K WITH STROKE AND DIAGONAL STROKE			and Celticist letters
A745	ķ	LATIN SMALL LETTER K WITH STROKE AND	A779	Ŏ	LATIN CAPITAL LETTER INSULAR D
711 10		DIAGONAL STROKE	A77A A77B	β	LATIN SMALL LETTER INSULAR D LATIN CAPITAL LETTER INSULAR F
A746	L	LATIN CAPITAL LETTER BROKEN L	A77C		LATIN CAFITAL LETTER INSULAR F
A747	ŀ	LATIN SMALL LETTER BROKEN L	A77D	ξ	LATIN CAPITAL LETTER INSULAR G
A748	Ļ	LATIN CAPITAL LETTER L WITH HIGH STROKE			• lowercase is 1D79 g
A749 A74A	† O	LATIN SMALL LETTER L WITH HIGH STROKE LATIN CAPITAL LETTER O WITH LONG	A77E	ያ	LATIN CAPITAL LETTER TURNED INSULAR G
Λι 1 Λ	J	STROKE OVERLAY	A77F		LATIN SMALL LETTER TURNED INSULAR G
A74B	Ð	LATIN SMALL LETTER O WITH LONG STROKE	A780	$\frac{2}{2}$	LATIN CAPITAL LETTER TURNED L
A740	$\boldsymbol{\alpha}$	OVERLAY	A781	Ï	LATIN SMALL LETTER TURNED L
A74C A74D	O,	LATIN CAPITAL LETTER O WITH LOOP LATIN SMALL LETTER O WITH LOOP	A782	η	LATIN CAPITAL LETTER INSULAR R
טדווו	U	LATIN SWALL LETTEN O WITH LOOF	A783	η	LATIN SMALL LETTER INSULAR R

A79F

A784	r	LATIN CAPITAL LETTER INSULAR S
A785	r	LATIN SMALL LETTER INSULAR S
A786	Ċ	LATIN CAPITAL LETTER INSULAR T
A787	τ	LATIN SMALL LETTER INSULAR T

Modifier letters

MODIFIER LETTER LOW CIRCUMFLEX A788 ACCENT

→ 02C6 ^ modifier letter circumflex accent

 \rightarrow 2038 $_{\wedge}$ caret

A789 MODIFIER LETTER COLON

used as a tone letter in some orthographies

• Budu (Congo), Sabaot (Kenya), and several Papua New Guinea languages

→ 003A: colon

A78A MODIFIER LETTER SHORT EQUALS SIGN

• used as a tone letter in some orthographies

• Budu (Congo)

 \rightarrow 003D = equals sign

Orthographic letters for glottals

A78B LATIN CAPITAL LETTER SALTILLO

• Me'phaa (Mexico)

A78C LATIN SMALL LETTER SALTILLO

• saltillos are used as a casing pair for glottal stop in some orthographies

• the lowercase is widely used in many languages in Mexico and other regions, including Izere in Nigeria

→ 0027 ' apostrophe

→ 0242 2 latin small letter glottal stop

→ 0294 ? latin letter glottal stop

→ 02BC ' modifier letter apostrophe

→ 02C0 ° modifier letter glottal stop

Additional letter

A78D **Y** LATIN CAPITAL LETTER TURNED H

• used in the Dan/Gio orthography in Liberia

• lowercase is 0265 y

Phonetic symbol

A78E LATIN SMALL LETTER L WITH RETROFLEX

HOOK AND BELT

• voiceless lateral retroflex fricative

· used to transcribe Toda

A78F LATIN LETTER SINOLOGICAL DOT

> • used for transliteration of Phags-Pa and phonetic transcription of Tangut

→ 00B7 · middle dot

Additional letters

A790 N LATIN CAPITAL LETTER N WITH DESCENDER

A791 LATIN SMALL LETTER N WITH DESCENDER

Janalif

A792 LATIN CAPITAL LETTER C WITH BAR

= Cambrian symbol

A793 LATIN SMALL LETTER C WITH BAR

Nanai

Additions for Lithuanian dialectology

c LATIN SMALL LETTER C WITH PALATAL HOOK

A795 h LATIN SMALL LETTER H WITH PALATAL HOOK → A727 h latin small letter heng

Letters for Middle Vietnamese

B LATIN CAPITAL LETTER B WITH FLOURISH → 0191 F latin capital letter f with hook

A797 LATIN SMALL LETTER B WITH FLOURISH

· old Ewe orthography

· also used in German dialectology

Archaic letters for Ewe

A798 LATIN CAPITAL LETTER F WITH STROKE A799 LATIN SMALL LETTER F WITH STROKE A79A \mathfrak{a} LATIN CAPITAL LETTER VOLAPUK AE A79B LATIN SMALL LETTER VOLAPUK AE A79C LATIN CAPITAL LETTER VOLAPUK OE A79D LATIN SMALL LETTER VOLAPUK OE ຄ A79E В LATIN CAPITAL LETTER VOLAPUK UE

u LATIN SMALL LETTER VOLAPUK UE

Archaic letters for Volapük

Latvian letters for pre-1921 orthography

LATIN CAPITAL LETTER G WITH OBLIQUE STROKE A7A0 G

Δ7Δ1 LATIN SMALL LETTER G WITH OBLIQUE STROKE

A7A2 LATIN CAPITAL LETTER K WITH OBLIQUE STROKE

A7A3 LATIN SMALL LETTER K WITH OBLIQUE STROKE

A7A4 LATIN CAPITAL LETTER N WITH OBLIQUE STROKE

A7A5 LATIN SMALL LETTER N WITH OBLIQUE STROKE

A7A6 LATIN CAPITAL LETTER R WITH OBLIQUE STROKE

A7A7 LATIN SMALL LETTER R WITH OBLIQUE STROKE

A7A8 LATIN CAPITAL LETTER S WITH OBLIQUE STROKE

A7A9 LATIN SMALL LETTER S WITH OBLIQUE STROKE

• also used in pre-1950 Lower Sorbian orthography

→ 1E9C f latin small letter long s with diagonal stroke

Additional letters

A7AA H LATIN CAPITAL LETTER H WITH HOOK

lowercase is 0266 ft

· used in Chad

LATIN CAPITAL LETTER REVERSED OPEN E A7AB 3

• lowercase is 025C 3

A7AC Q LATIN CAPITAL LETTER SCRIPT G

• lowercase is 0261 g

LATIN CAPITAL LETTER L WITH BELT A7AD Ł

• lowercase is 026C 4

Additions for Unifon

A7AE T LATIN CAPITAL LETTER SMALL CAPITAL I

A7AF ${\bf \Xi}$ LATIN CAPITAL LETTER SMALL CAPITAL I

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Letters for Americanist orthographies Additions for Extended IPA

- A7B0 X LATIN CAPITAL LETTER TURNED K
 - lowercase is 029E x
- A7B1 L LATIN CAPITAL LETTER TURNED T
 - lowercase is 0287 1
 - also used in Unifon

Letter for African languages

- A7B2 J LATIN CAPITAL LETTER J WITH CROSSED TAIL Addition for UPA
 - lowercase is 029D j

Letter for German dialectology

- A7B3 χ Latin Capital Letter Chi
- lowercase is AB53 χ

Letters for African languages

- LATIN CAPITAL LETTER BETA
- A7B5 LATIN SMALL LETTER BETA
- Ü LATIN CAPITAL LETTER OMEGA
- A7B7 ω LATIN SMALL LETTER OMEGA

Additions for Unifon

- A7BA Δ LATIN CAPITAL LETTER CLOSED TURNED V
- A7BB LATIN SMALL LETTER CLOSED TURNED V
- A7BC LATIN CAPITAL LETTER TURNED-E R
- A7BD LATIN SMALL LETTER TURNED-E R
- LATIN CAPITAL LETTER I WITH STROKE AND A7BE ± BASELINE
- LATIN SMALL LETTER I WITH STROKE AND A7BF **BASELINE**
- LATIN CAPITAL LETTER REVERSED N WITH A7C0 И BENT RIGHT LEG
- A7C1 и LATIN SMALL LETTER REVERSED N WITH BENT RIGHT LEG
- A7C2 Ω LATIN CAPITAL LETTER O WITH BASELINE
- A7C3 LATIN SMALL LETTER O WITH BASELINE
- A7C4 LATIN CAPITAL LETTER O WITH VERTICAL
- A7C5 o LATIN SMALL LETTER O WITH VERTICAL BAR
- A7C6 LATIN CAPITAL LETTER O WITH LOW VERTICAL BAR
- A7C7 LATIN SMALL LETTER O WITH LOW VERTICAL
- A7C8 **O** LATIN CAPITAL LETTER O WITH HIGH VERTICAL BAR
- A7C9 o LATIN SMALL LETTER O WITH HIGH VERTICAL BAR
- A7CA LATIN CAPITAL LETTER S WITH STROKE
- A7CB 8 LATIN SMALL LETTER S WITH STROKE
- A7CC **h** LATIN CAPITAL LETTER THE
- A7CD LATIN SMALL LETTER THE
- A7CE To LATIN CAPITAL LETTER DHE
- A7CF LATIN SMALL LETTER DHE
- A7D0 U LATIN CAPITAL LETTER U WITH BASELINE
- A7D1 LATIN SMALL LETTER U WITH BASELINE
- A7D2 П LATIN CAPITAL LETTER CLOSED U
- A7D3 LATIN SMALL LETTER CLOSED U
- A7D4 LATIN CAPITAL LETTER REVERSED Z
- LATIN SMALL LETTER REVERSED Z

Additional letter

A7F7 - LATIN EPIGRAPHIC LETTER SIDEWAYS I

Printed: 24-Feb-2014

• Celtic inscriptions

- A7F8 ^Ħ MODIFIER LETTER CAPITAL H WITH STROKE
 - · faucalized
 - ≈ <super> 0126 **Ħ**
- A7F9 MODIFIER LETTER SMALL LIGATURE OE
 - labialized: open-rounded
 - \approx <super> 0153 œ

A7FA ш LATIN LETTER SMALL CAPITAL TURNED М

Ancient Roman epigraphic letters

- A7FB **T** LATIN EPIGRAPHIC LETTER REVERSED F
- A7FC LATIN EPIGRAPHIC LETTER REVERSED P
- A7FD W LATIN EPIGRAPHIC LETTER INVERTED M
- A7FE LATIN EPIGRAPHIC LETTER I LONGA
- A7FF $\,$ $\,$ $\,$ LATIN EPIGRAPHIC LETTER ARCHAIC $\,$ $\,$

A. Administrative

1. Title

Revised proposal to encode Unifon characters in the UCS.

2. Requester's name

Michael Everson

3. Requester type (Member body/Liaison/Individual contribution)

Liaison contribution.

4. Submission date

2014-02-24

- 5. Requester's reference (if applicable)
- 6. Choose one of the following:

6a. This is a complete proposal

No.

6b. More information will be provided later

Yes.

B. Technical - General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

No.

Proposed name of script

1b. The proposal is for addition of character(s) to an existing block

Yes.

1c. Name of the existing block

Latin Extended D.

2. Number of characters in proposal

30

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

Category A.

4. Is a repertoire including character names provided?

Yes.

4a. If YES, are the names in accordance with the "character naming guidelines"

ics.

4b. Are the character shapes attached in a legible form suitable for review?

Yes.

5. Fonts related:

5a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

Michael Everson.

5b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

Michael Everson, Fontlab and Fontographer.

6. References:

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? **Yes**.

7. Special encoding issue: Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

8. Additional Information: Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

See above.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? If YES explain

No.

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2a. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Linguists, teachers, educationists.

4a. The context of use for the proposed characters (type of use; common or rare)

Relatively rare.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

Chiefly in the US.

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

If possible, yes.

6a. If YES, is a rationale provided?

Keep with other Latin letters.

6b. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Not necessarily.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

No.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences?

Yes.

11b. If YES, is a rationale for such use provided?

No.

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?