



A simple SKU system whose numerals identify an item by its word.

DEVELOPED BY

C. C. ELIAN

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C.C. Elian
Artist

Contact C.C. Elian = eskua@ccelian.com

<http://www.ccelian.com>

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THE ELIAN SKU ALPHABET SYSTEM ON A SINGLE PAGE
(Expanded version on subsequent pages)

The basis of this SKU system is a 9-square grid with the Latin alphabet placed in order, as indicated below. The alphabet goes through 3 cycles.

3	6	9	C-L-U	F-O-X	I-R
			31-32-33	61-62-63	91-92-93
2	5	8	B-K-T	E-N-W-H-Q-Z	
			21-22-23	51-52-53	81-82-83
1	4	7	A-J-S	D-M-V	G-P-Y
			11-12-13	41-42-43	71-72-73
BOX NUMBERS					

Every letter has a two-digit number assigned to it. The first numeral is that of the box number (1-9,) and the second that of the alphabetical cycle in order (1-3.)

A - 11	B - 21	C - 31	D - 41	E - 51	F - 61	G - 71	H - 81	I - 91
J - 12	K - 22	L - 32	M - 42	N - 52	O - 62	P - 72	Q - 82	R - 92
S - 13	T - 23	U - 33	V - 43	W - 53	X - 63	Y - 73	Z - 83	0 = space



The Elian SKU Alphabet

W₄H

What it is:

A method of writing SKU numbers such that the numerals correspond to letters of the alphabet. The barcode aspect is an adjunct that allows the numbers to be scanned. A UPC (Universal Product Code, or UCC-12) is a kind of SKU, but with specific formal rules¹. (<http://www.techterms.com/definition/sku>)

Why it is:

The Elian SKU alphabet (ESKUA) accommodates the fact that people are composed of various impressionable systems, abstract and concrete, including when they work with numbers. Therefore, care must be taken to design as many of these number-person interactions such that numbers foster psychological and sensory flow by relating closely to the sensory experience of the item in question. Numbers are entities of profound beauty; they do not deserve to be scapegoated for their impersonal and unfeeling nature. Rather, we can design bridges between those who input numerical data and the numbers themselves, e.g. the numerical systems being used. ESKUA makes it possible for databases to be one degree of separation from common words and names.

How it works:

As the following pages show (for the one-page version, please see page 3,) the system is based solely on the placement of the Latin alphabet within a 9-square grid. Each letter is then identified by two numerals, the first is the number of the box (1-9,) the second that of a particular letter's cycle (1, 2, or 3.)

Where it is used:

SKU numbers are used to track inventory of a given item, as well as designating it. A barcode allows the number to be scanned into a database. ESKUA is particularly useful with files based upon the name of a person, or generic grocery produce items. This SKU system is a step along the way towards humanizing technology.

Who developed it:

C. C. Elian, artist, developed this system. Many of my artistic efforts are in great part designed to incorporate art elements into social applications.

The

ELIAN SKU ALPHABET (ESKUA)

“SKU” is the acronym for “Stock Keeping Unit.” A barcode is usually added to a SKU number for the sake of scanning it into a database. In theory a SKU doesn’t need a barcode to be useful. The reality, nonetheless, is that most inventories and product/services databases are handled via computers and a barcode is the fastest way to enter a SKU. The barcode itself is created by readily accessible software designed to translate a string of numerals into a corresponding barcode².

With the *Eliau SKU alphabet* (ESKUA) each numeric couplet of the SKU’s numbers represents a specific letter of the Latin alphabet. The full string of numerals then spells out the actual word used to describe an item: i.e., the SKU for “pencil,” in ESKUA would spell “pencil,” (*illustration 1*.) This method of assigning a SKU number means that the cashier/data processor simply has to type in the conventional name of the item via the direct correlation between a two-numeral number and a letter of the alphabet, rather than having to memorize an arbitrary number that has no translation into a specific word.



Illustration 1

It is much easier and more intuitive with ESKUA to input an item into a database since the mind naturally wants to keep referring to an item by its common name, rather than having to memorize a numerical code. By its nature, a numerical referent is an intellectual abstraction and disconnects the interpreter from having a concrete experience of the item referenced. The further the form of the number

from a sensory description of the item that it represents, the more biologically abstract is the action of data processing³. This is true in both directions of interaction, be it inputting into a database or reading from it.

Has it ever happened to you at the checkout of a grocery store that the cashier doesn't know how to enter the item that you just handed them? If it is a lettuce, you say "It's Romaine..." and the cashier has both a micro and macro expression, the former says that you are correctly identifying the item – because they too know that it is "Romaine"– and the latter says that finding the price of an item by entering its descriptive name isn't the way "it" works.

A SKU is needed instead, and it's an arbitrary number that varies from business to business⁴. We all know the cashier's next actions: to go through a printed list of words for store items, organized by category, and in this way find the corresponding SKU number for a head of Romaine lettuce.

The *Eliau SKU Alphabet* is intended to remedy this schism between how a thing is named and how it is entered into, and read out of, a database.



Romaine

92 - R, 62- O, 42 - M, 11 - A, 91 - I, 52 - N, 51 - E, 0 -End of word marker

Illustration 2

The basis for the numbers in ESKUA is a 9-square grid with the Latin alphabet placed in its order, as indicated in *Illustrations 3* and *4* - e.g.: the alphabet goes through three cycles, and each cycle starts bottom left and moves to the top, back to the bottom middle, then to the top middle, back to the bottom right, then finally to the top right:⁵

Each quadrant therefore contains three cycles, one for each of the possible letters, and each SKU number always consists of two numerals. The first numeral indicates the quadrant in which a letter is located (1-9). The second numeral represents one of the three possible cycles in which a letter can occur in that quadrant (1-3). The rationale for this order is: knowing first which quadrant is being referenced is

intellectually efficient because it immediately reduces the pool of possible letters from 26 to 3.

For example, the numbers 11, 12, 13, represent all three letters in quadrant, "1", containing "A," "J," and "S.;" 61, 62, and 63 represent quadrant "6" containing the letters "F," "O," and "X." The numeric correspondences are very easy to learn because while the first numeral of a couplet is 1 through 9, the second numeral will always be only 1 through 3. All of the necessary elements for learning the system is contained in *Illustration 4*.

3	6	9
2	5	8
1	4	7

BOX NUMBERS

Illustration 3

CLU	FOX	IR
31-32-33	61-62-63	91-92-93
BKT	ENW	HQZ
21-22-23	51-52-53	81-82-83
AJS	DMV	GPY
11-12-13	41-42-43	71-72-73

Illustration 4

The following illustrations (5 through 7) demonstrate cycle by cycle the two-digit number for each letter of the alphabet.

C	F	I
31	61	91
B	E	H
21	51	81
A	D	G
11	41	71

1st cycle of letters and their numerical values

A	B	C	D	E	F	G	H	I
11	21	31	41	51	61	71	81	91

Illustration 5

L	O	R
32	62	92
K	N	Q
22	52	82
J	M	P
12	42	72

2nd cycle of letters and their numerical values

J	K	L	M	N	O	P	Q	R
12	22	32	42	52	62	72	82	92

Illustration 6

U 33	X 63	93
T 23	W 53	Z 83
S 13	V 43	Y 73

3rd Cycle of letters and their numerical values

S	T	U	V	W	X	Y	Z	
13	23	33	43	53	63	73	83	93

Illustration 7

Based on these placements, here are all of the letters and their associated numbers⁶ :

A	B	C	D	E	F	G	H	I
11	21	31	41	51	61	71	81	91
J	K	L	M	N	O	P	Q	R
12	22	32	42	52	62	72	82	92
S	T	U	V	W	X	Y	Z	.
13	23	33	43	53	63	73	83	93

Illustration 8

The design of this SKU system contributes to the idea that more humane numerical systems are beneficial to those who must work with them. If anyone can build upon this particular system, they are most welcome to do so. I'm always interested in the results of those who use my various systems (ESKUA@cclian.com).

Below are a couple of examples of words in ESKUA. The zero (0) indicates a space between words.



APPENDIX A

Different styles of barcodes result in different widths⁷ .



Here are all of the letters and their associated barcodes based upon the *Interleaved 2 of 5* style:



31.12.22



Sample ESKUA Letterhead

Endnotes

Page 4

² (<http://www.techterms.com/definition/sku>)

Page 5

² Some existing barcodes also indicate letters of the alphabet, with the letters printed below the barcode itself. For an illustration on some styles of barcodes, please see *Appendix A*. on page 11

Page 6

³ Granted, some items might require a lengthier numerical descriptions, however, even abbreviations are more sensible than arbitrary numbers.

⁴ Rumor has it that unrelated grocery stores have informally started using the same numbers for the same items.

⁵ Technically, the first letter placement can be from any point within the grid as long as the selected order is consistently used.

Page 9

⁵ Although I use a zero (0) for a space/end-of-word indicator, the number 93 could also serve as a space marker since there is no 27th letter in the Roman alphabet.

Page 11

⁵ For a thorough discussion of barcodes I suggest reading the entry in Wikipedia: <http://en.wikipedia.org/wiki/Barcodes>.

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