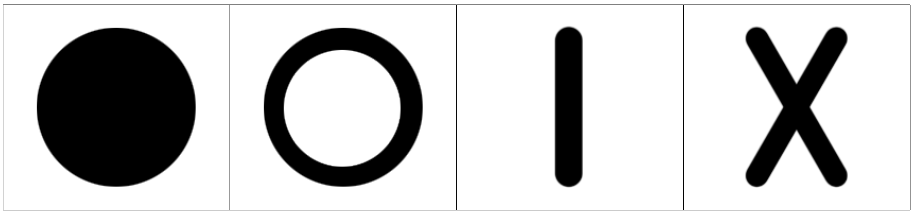
SIMPLE NUMBERS, DIGITS, NOTATION (NUMBER SYSTEM) IN «MЄ»

NOTATION (OR NUMBER SYSTEM) IN «MЄ» IS NOT POSITIONAL AS WE KNOW POSITIONAL SYSTEMS. NUMBER SYSTEM IN «MЄ» HAS NO FIXED BASE, THE BASE MAY BE ANYTHING YOU LIKE. IT CAN BE OCTAL (BASED ON 8), DECIMAL (BASED ON 10), DUODECIMAL (BASED ON 12 WHICH IS A DOZEN) OR ANYTHING ELSE. NOTATION (OR NUMBER SYSTEM) IN «MЄ» IS VERY SIMPLE, INTUITIVE AND EASY TO UNDERSTAND. IT IS ALSO DURABLE AND VANDAL RESISTANT WHILE IT CAN BE EASILY RECOVERED USING OPTICAL METHODS.

THE SYMBOLS WHICH ARE USED TO DESCRIBE NUMBERS ARE ONLY FOUR SYMBOLS:



- THE SYMBOL, WHICH REMINDS THE LATIN LETTER «I», REPRESENTS NUMBER 1 (ONE).
- THE SYMBOL, SIMILAR TO THE LATIN «X», IS NUMBER 4 (FOUR).

SYMBOL «I» IS ONE STICK AND SYMBOL «X» IS FOUR SMALL STICKS (NOT TWO BIG CROSSED, BUT FOUR SMALL, INSTEAD).

THE SYMBOL, WHICH IS SIMILAR TO THE LATIN «O» DEPICTS ONE FULL DIGIT. IF THE SYSTEM IS USED FOR OCTAL CALCULATIONS THEN «O» IS AN EIGHT (8). IF THE SYSTEM IS USED FOR DECIMAL CALCULATIONS THEN «O» IS A TEN (10). IF THE SYSTEM IS USED FOR DUODECIMAL CALCULATIONS THEN «O» IS A DOZEN (12). AND SO ON.

TO SIMPLIFY FURTHER DESCRIPTION WE WILL ASSUME THAT THE SYSTEM IS USED FOR DECIMAL CALCULATIONS IN THE TEXT BELOW. ANYTIME THIS ASSUMPTION CAN BE CHANGED AND CALCULATIONS WILL FOLLOW.

SEVERAL «O» SYMBOLS DO NOT STACK IN THE ORDINARY WAY –
ONE «O» MEANS 10 (10 ITSELF = 10^1),
TWO «O» SYMBOLS MEAN 100 (10 MULTIPLIED BY 10 = 10^2),
THREE «O» SYMBOLS MEAN 1000 (10 * 10 * 10 = 10^3) AND SO ON…
SIX «O» SYMBOLS ARE A MILLION (10^6).

THE BLACK CIRCLE – THE LETTER WITH THE SOUND [m] OR [ɱ] –
REPRESENTS A NULL (ZERO, VOID, NOTHING).

THE NUMBERS ARE WRITTEN FROM LEFT TO RIGHT, FROM BIGGEST DIGIT TO SMALLEST DIGIT, JUST LIKE ORDINARY MODERN HINDU–ARABIC NUMERAL SYSTEM.
THE ALGORITHM OF WRITING IS FOLLOWING:

- AT FIRST WE WRITE THE «DIGIT» ITSELF,
- AND THEN WE WRITE THE «WEIGHT» OF THE DIGIT (ONE OR SEVERAL «O» SYMBOLS, WHICH SHOW THE SIZE OF THE DIGIT).
- INSIDE A COMPLEX DIGIT, BIGGER SYMBOLS OF A DIGIT («X») ARE WRITTEN AT FIRST (AT LEFT), AND SMALLER SYMBOLS («I») ARE WRITTEN AT END (AT RIGHT).

IT IS MUCH EASIER TO EXPLAIN IN EXAMPLES.
LET US USE THE SYSTEM FOR DECIMAL CALCULATIONS.
LET US USE LATIN SYMBOLS FOR SIMPLICITY.

		BLACK CIRCLE = 0.		
I = 1.	II = 2.	III = 3.	X = 4.	XI = 5.
XII = 6.	XIII = 7.	XX = 8.	XXI = 9.	O = 10.

ONCE AGAIN, IT IS CORRECT TO WRITE 5 (FIVE) AS «XI» (4+1), WHILE THE «IX» IS THE WRONG FORM, AS «X»-SYMBOLS MUST BE WRITTEN BEFORE (AT THE LEFT SIDE FROM) THE «I»-SYMBOLS.

- 1, 2 AND 3 ARE A COLLECTION OF SIMPLE «I» STICKS, LIKE IN ROMAN SYSTEM.
- 4 IS FOUR SMALL STICKS OF THE SYMBOL «X».
- 5 IS «X» PLUS ONE I-STICK, THAT IS WHY «I» IS AFTER «X». IT IS IMPORTANT THAT BIGGER SYMBOLS OF A COMPLEX DIGIT ARE WRITTEN AT FIRST (AT LEFT), AND SMALLER SYMBOLS ARE WRITTEN AT END (AT RIGHT).
- THIS WAY, 6 IS 4 PLUS 2, XII.

- SEVEN IS 4+3, XIII.
- EIGHT IS DOUBLE 4, XX.
- NINE IS 8+1, XXI.
- AND TEN IS A CIRCLE, A RING, WHICH REPRESENTS A «MANY» SYMBOL, AN «O», IF THE SYSTEM IS USED FOR DECIMAL CALCULATIONS.

WHEN THE NUMBER IS JUST TEN, IT MAY BE WRITTEN AS «O», IF YOU NEED SPEED, BUT WHEN IT IS MORE THAN TEN, THEN ONE STICK MUST BE PLACED BEFORE THE «O», TO SHOW THAT THE NUMBER OF «O» SYMBOLS IS ONE.

IO = O = 10.

11 = 10 + 1 = IOI. 12 = 10 + 2 = IOII. 13 = 10 + 3 = IOIII. 14 = 10 + 4 = IOX.
15 = 10 + 5 = IOXI. 16 = IOXII. 17 = IOXIII. 18 = IOXX. 19 = IOXXI.
20 = 2 * 10 = IIO. 21 = 20 * 10 + 1 = IIOI. 22 = 2 * 10 + 2 = IIOII. 23 = IIOIII.
24 = IIOX. 25 = IIOXI. 26 = IIOXII. 27 = IIOXIII. 28 = IIOXX.
29 = IIOXXI. 30 = IIIO. 31 = IIIOI. 32 = IIIOII. 33 = IIIOIII.

SOME EXAMPLES OF NUMBERS GREATER THAN 30:

36 = IIIOXII. 47 = XOXIII. 58 = XIOXX. 69 = XIIOXXI.
71 = XIIIOI. 84 = XXOX. 90 = XXIO. 92 = XXIOII.

AND SO ON…

THE MOST INTERESTING PART GOES HERE. WHEN THE NUMBER IS BIGGER THAN 99, IT HAS THIRD DIGIT, AS 123 HAS. HERE, IN THIS EXAMPLE, IN 123, 3 IS THE SMALLEST DIGIT, 2 IS THE BIGGER DIGIT, AND 1 IS THE BIGGEST DIGIT (AS IT REPRESENTS THE NUMBER OF HUNDREDS). THE SAME WAY IS EVERYTHING IN «MЄ».

100 = 1*100 + 0*10 + 0 = IOO = OO.

THE NUMBER OF NEIGHBOURING «O» SYMBOLS SHOWS THE «POWER» OF DIGIT (10-S, 100-S, 1000-S AND SO ON), IN OTHER WORDS, THE NUMBER OF «O»S IS THE POWER OF 10. ONE «O» MEANS 10^1=10. TWO «O»S MEAN 10^2=100. THREE «O»S MEAN 10^3=1000. SIX «O»S MEAN 10^6=1'000'000 (A MILLION).

101 = 1*100 + 0*10 + 1 = IOOI.	102 = 1*100 + 0*10 + 2 = IOOII.
104 = 1*100 + 0*10 + 4 = IOOX.	105 = 1*100 + 0*10 + 5 = IOOXI.
123 = 1*100 + 2*10 + 3 = IOOIIOIII.	145 = 1*100 + 4*10 + 5 = IOOXOXI.
205 = 2*100 + 0*10 + 5 = IIOOXI.	368 = 3*100 + 6*10 + 8 = IIIOOXIIOXX.
520 = 5*100 + 2*10 + 0 = XIOOIIO.	609 = 6*100 + 0*10 + 9 = XIIOOXXI.

THE SAME WAY THE BIGGER NUMBERS ARE BUILT.

999 = 9*100 + 9*10 + 9 = XXIOOXXIOXXI.

1000 = 1*1000 + 0*100 + 0*10 + 0 = IOOO.

1001 = 1*1000 + 0*100 + 0*10 + 1 = IOOOI.

1023 = 1*1000 + 0*100 + 2*10 + 3 = IOOOIIOIII.

1234 = 1*1000 + 2*100 + 3*10 + 4 = IOOOIIOOIIIOX.

5678 = 5*1000 + 6*100 + 7*10 + 8 = XIOOOXIIOOXIIIOXX.

12'894 = 1*10'000 + 2*1000 + 8*100 + 9*10 + 4 = IOOOOIIOOOXXOOXXIOX.

1'000 = IOOO = OOO.

10'000 = IOOOO = OOOO.

100'000 = IOOOOO = OOOOO.

1'000'000 = IOOOOOO = OOOOOO.

SIMPLE MATHEMATICAL OPERATIONS IN «MЄ»

SIMPLE MATHEMATICAL (OR ARITHMETICAL) AND LOGICAL OPERATIONS IN «MЄ» ARE: ADDITION (SUMMATION, INCREMENT), SUBTRACTION (REDUCTION, DECREMENT), MULTIPLICATION, DIVISION (SEPARATION, PARTITION).

USABLE SYMBOLS OF OPERATIONS:

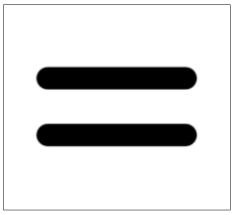
△	▽	#	÷

A SYMBOL OF SUMMATION IN OUR WORLD IS KNOWN AS A PLUS SIGN «+», IN «MЄ» IT IS INSCRIBED AS A TRIANGLE WHICH HAS ITS BASE HORIZONTAL AT THE BOTTOM AND ITS SHARP CORNER IS LOOKING UPWARDS (INTO THE SKY), WHICH INTUITIVELY IS MUCH MORE UNDERSTANDABLE AS A GROWTH AND A RAISE THAN TWO CROSSED STICKS.

A SYMBOL OF REDUCTION IN OUR WORLD IS KNOWN AS A MINUS SIGN «-», IN «MЄ» IT IS INSCRIBED AS A TRIANGLE WHICH HAS ITS BASE HORIZONTAL IN THE TOP AND ITS SHARP CORNER IS LOOKING DOWNWARDS (INTO THE GROUND), WHICH INTUITIVELY IS MUCH MORE UNDERSTANDABLE AS A DECLINE AND A DECREASE THAN ONE STICK.

A SYMBOL OF MULTIPLICATION IN OUR WORLD HAS SEVERAL SIGNS: A DOT, AN X-LIKE CROSS, A STAR. THE REAL MEANING OF MULTIPLICATION IS A RECTANGULAR FORMATION OF OBJECTS. FOR EXAMPLE: 3 × 2 MEANS 3 ROWS OF 2 OBJECTS OR 2 ROWS OF 3 OBJECTS, 5×6 MEANS 5 ROWS OF 6 OBJECTS OR 6 ROWS OF 5 OBJECTS. IN ANY WAY, MULTIPLICATION MEANS A RECTANGULAR (ORTHGONAL) FORMATION OF OBJECTS. THAT IS WHY THE SYMBOL OF MULTIPLICATION IN «MЄ» IS SIMILAR TO A SYMBOL OF SQUARE, THE LINES AT THE EDGES OF THE SIGN MEAN THE CONTINUATION OF THE FORMATION IN TWO DIMENSIONS (ROWS AND COLUMNS).

A SYMBOL OF DIVISION IN «MЄ» IS SIMILAR TO ORDINARY DIVISION SYMBOL, WHICH REMINDS A SYMBOL OF FRACTION. THE HORIZONTAL LINE BETWEEN TWO DOTS MEANS THE SEPARATION OF AN OBJECT INTO TWO DOTS.



A SYMBOL OF EQUATION IN «MЄ» IS THE SAME AS IN MODERN LANGUAGAES – TWO PARALLEL HORIZONTAL LINES MEAN THE SAMENESS OF TWO LINES, TWO OBJECTS, TWO THINGS.

SOME EXAMPLES WITH THEIR MEANING ARE BELOW.

! ATTENTION ! ALL THE EXAMPLES BELOW USE THE SPECIAL MEH TTF FONT.
INSTALL THE FONT INTO YOUR OPERATING SYSTEM TO VIEW THE EXAMPLES CORRECTLY.

● = ●	0 = 0
I ▵ II = III	1 + 2 = 3
XXI ▿ XX = I	9 – 8 = 1
XIII # XI = IIIOXI	7 × 5 = 35
XOII ÷ XII = XIII	42 ÷ 6 = 7

FRACTIONAL NUMBERS IN «MЄ»

WHEN THE NUMBER IS NOT INTEGER (WHOLE NUMBER), THE NUMBER IS FRACTIONAL, WE CAN USE SPECIAL SYMBOLS TO ENSCRIPT SUCH NUMBERS:

- A DIVISION SYMBOL SHOWS A FRACTIONAL NUMBER;
- AN INCREMENT (ADDITION) SYMBOL CAN BE USED TO CONCATENATE SEVERAL FRACTIONAL NUMBERS OR AN INTEGER NUMBER WITH A FRACTION.

I÷X = ●△(I÷X)	1/4 = 0 + 1/4
X÷XIII = ●△(X÷XIII)	4/7 = 0 + 4/7
IOXI÷IOOIIOXX	15/128
I△(I÷X)	1 + (1/4), 1 AND 1/4
III△(I÷XI)	3 + (1/5)
II△(XI÷IO)	2.5 = 2 + 5/10
IOIII△(XIIOXX÷IOO)	13.68 = 13 + 0.68 = 13 + (68/100)

«MЄ» NUMBERING SYSTEM IS NOT INTENTED TO BE USED FOR WRITING FRACTIONAL NUMBERS, BUT IF YOU WISH TO DO SO, THIS CAN BE DONE USING THE ADDITION AND DIVISION OPERATORS TOGETHER WITH PARENTHESES.

MEANING OF THIS NUMBER SYSTEM

IT IS EVIDENT THAT THIS NUMBER SYSTEM OF «MЄ» IS NOT AS EASY TO READ AS THE MODERN HINDU–ARABIC NUMERAL SYSTEM. THE MAIN REASON AND THE MAIN AIM OF THIS «MЄ» NUMBER SYSTEM IS THE ABILITY TO DECODE (DECYPHER, UNDERSTAND, LEARN, GUESS) THE MEANING OF THE SYMBOLS MUCH EASIER THAN IN THE MODERN SYSTEM.

SURELY, MODERN HINDU–ARABIC NUMERAL SYSTEM IS VERY FAST TO READ AND FAST TO WRITE IT DOWN. AT THE SAME TIME, «MЄ» SYSTEM IS MUCH MORE VANDAL RESISTANT, HAS A LOT OF EXCESS INFORMATION WHICH HELPS PREVENTING LOSS OF INFORMATION WHEN THE WRITING IS DAMAGED OR CORRUPTED IN THE PROCESS OF TRANSMISSION.

WHEN THE NUMBERS ARE TRANSMITTED IN THE DIGITAL COMPUTER SYSTEMS, THEY ARE OFTEN TRANSMITTED AS A SEQUENCE OF BYTES. EACH BYTE IS A SEQUENCE OF BITS (BINARY DIGITS, ZEROES AND ONES). IN MOST CASES OF TRANSMISSION, THE RECEIVER

KNOWS THE SIZE OF THE NUMBER ONLY AFTER THE WHOLE SET OF BITS AND BYTES HAS BEEN TRANSMITTED.

THE «MЄ» SYSTEMS HAS OTHER AIMS. THIS SYSTEM IS INTENDED TO TRANSMIT SYMBOLS USING THE UNCOMPRESSED BITMAP (GRAPHICAL) FORMAT. THIS FORMAT IS MUCH MORE VANDAL RESISTANT. IT ALLOWS COMPUTERS TO GUESS APPROXIMATE SIZE OF THE NUMBER BEFORE THE END OF ITS TRANSMISSION. FOR EXAMPLE, WHEN ORDINARY COMPUTER RECEIVES NUMBERS 1, 2, AND THEN 3, IT DOES NOT KNOW WHETHER THE NUMBER IS 123, OR 1234 OR 12345 OR EVEN 123'456'789. USING THE «MЄ» SYSTEM, THE COMPUTER CAN EASILY GUESS THE SIZE OF THE NUMBER. IT SEES «IOOOO» SEQUENCE AND KNOWS THAT THE NUMBER IS SOMETHING NEAR 10'000.

OF COURSE, «MЄ» SYSTEM IS VERY HEAVY FOR AN ORDINARY DATA TRANSMITTION, IT CONTAINS A LOT OF EXCESS DATA, BUT IT IS THE PRICE FOR A BETTER RELIABILITY. SURELY, THERE ARE MANY OTHER WAYS TO INCREASE THE RELIABILITY IN A MORE EFFICIENT WAY. THE «MЄ» SYSTEM OFFERS ONLY THE SIMPLIEST METHOD OF IT.

AS AN ADDITIONAL FEATURE, THE «MЄ» SYSTEM CAN BE EASILY EXTENDED FROM DECIMAL SYSTEM TO ANY OTHER EXISTING SYSTEM. THE RADIX (SIZE OF THE BIGGEST DIGIT) OF THE SYSTEM MAY BE OTHER THAN 10, IT MAY BE 8, 12, 16, 60 OR EVEN 999 IF WE WANT SO. THIS IS THE BEST ADVANTAGE OF THIS SYSTEM AGAINST THE MODERN ONES.

WHEN EXTENDING THE DECIMAL SYSTEM TO HEXADEMICAL SYSTEM USING THE HINDU-ARABIC NUMERAL SYSTEM, WE MUST CREATE NEW SYMBOLS FOR 10 (A), 11 (B), 12 (C), 13 (D), AND SO ON. THAT MEANS, WE USE THE ALPHABET'S LETTERS FOR MISSING SYMBOLS (A FOR 10, B FOR 11, C FOR 12 AND SO ON). NOW IMAGINE WHAT HAPPENS IF WE HAVE USED ALL THE LETTERS (FROM A TO Z) AND NO FREE LETTERS ARE AVAILABLE. WHAT ARE WE TO DO ? INVENT SOME STRANGE HIEROGLYPHS FOR MISSING NUMBERS ? CAN YOU IMAGINE A HIEROGPLYPH WITH THE MEANING OF 999 ? WE HAVE LIMITED SPACE AND WE CANNOT MAKE A HIEROGLYPH TOO DIFFICULT TO READ. DOING SO WE WILL BE UNABLE TO DECYPHER IT. WHEN THE HIEROGLYPHS ARE TOO COMPLICATED TO READ AND WRITE, WE SHOULD INCREASE THE NUMBER OF HIEROGLYPHS AND READ SEVERAL HIEROGLYPHS AS ONE SYMBOL. ALL TODAY KNOWN ANCIENT NUMBER SYSTEMS USED SUCH A METHOD.

REMEMBER ANCIENT EGYPTIANS, MAYANS, SUMERIANS AND OTHERS. THEIR NUMBER SYSTEMS WERE VERY SIMPLE TO READ AND WRITE. THAT IS EXACTLY WHAT «MЄ» SYSTEM DOES – IT MAKES USE OF SEVERAL SIMPLE HIEROGLYPHS TO CREATE SYMBOLS. AND THE

SIMPLICITY OF THIS SYSTEM IS EXTREME – ONLY FOUR HIEROGLYPHS ARE USED (A BLACK CIRCLE, A RING, AN I-SYMBOL, AN X-SYMBOL).

AS AN EXAMPLE, WE CAN CREATE A HEXADEMICAL SYSTEM IN «MЄ» WITHOUT CREATING NEW SYMBOLS FOR 11, 12 AND OTHERS. JUST BIND THE CIRCLE TO 16 AND THIS IS DONE ! SIMPLE ENOUGH. AN IMAGINARY HEXADEMICAL EXAMPLES OF «MЄ» ARE BELOW.

X = IIII	X = 4
O = XXXX	O = 16 = 1 * 16
XXXIII △ I = O	15 + 1 = 16
O ▽ I = XXXIII	16 – 1 = 15
XXX △ XI = IOI	12 + 5 = 17 = 1*16 + 1
(II # O) △ I = IIOI	(2 * 16) + 1 = 33
O # O = OO	16 * 16 = 256
IIO # O = IIOO	32 * 16 = 512

HOWEVER, IT IS MORE NATURAL TO USE A DECIMAL SYSTEM WHILE WE HAVE TWO HANDS WITH FIVE FINGERS ON EACH HAND, THAT IS 10 FINGERS ON THE HANDS TOTAL. SO, THE ORDINARY DECIMAL «MЄ» SYSTEM HAS THE FOLLOWING BINDINGS.

● = ● △ ● = I ▽ I	0 = 0 + 0 = 1 - 1
I = ● △ I = II ▽ I	1 = 0 + 1 = 2 - 1
II = I △ I = III ▽ I	2 = 1 + 1 = 3 - 1
III = II △ I = X ▽ I	3 = 2 + 1 = 4 - 1
X = III △ I = XI ▽ I	4 = 3 + 1 = 5 - 1
XI = X △ I = XII ▽ I	5 = 4 + 1 = 6 - 1
XII = XI △ I = XIII ▽ I	6 = 5 + 1 = 7 - 1
XIII = XII △ I = XX ▽ I	7 = 6 + 1 = 8 - 1
XX = XIII △ I = XXI ▽ I	8 = 7 + 1 = 9 - 1
XXI = XX △ I = O ▽ I	9 = 8 + 1 = 10 - 1
IO = O = XXI △ I = IOI ▽ I	10 = 9 + 1 = 11 - 1
IOI = O △ I = IOII ▽ I	11 = 10 + 1 = 12 - 1
IOII = IOI △ I = IOIII ▽ I	12 = 11 + 1 = 13 - 1
IOIII = IOII △ I = IOX ▽ I	13 = 12 + 1 = 14 - 1
. . .	...

THE SIMPLIER THE SYSTEM IS – THE EASIER TO LEARN IT, THE MORE RELIABLE IT IS.

●	○