

Griffith

NOTE: AS OF THIS DATE THE LINK COMPUTER WILL BE CALLED THE DELTA COMPUTER

PROJECT STRETCH

DELTA COMPUTER MEMO #12

Subject: Delta Computer Internal Decimal Code

By: W. Wolensky

Date: October 26, 1956

A consistent decimal code and collating sequence simplifies character recognition and internal decimal machine logic. A decimal code containing the desirable characteristics is proposed.

The characteristics of the decimal code presented for internal use of the Delta computer are:

- 1. A numerical excess three principle**
 - 1a. a simplified scheme for generating complements results**
- 2. An alphanumeric code that is arithmetically consistent with the accepted collating sequence.**
 - 2a. a simplification of compare circuitry, controls and time results**
- 3. Every legitimate character has at least one bit to represent it for transmission (assuming an odd parity bit concept). The only character containing no bits (internal machine) is the "blank" which can be interpreted as the absence of a character.**
- 4. The code is readable and logically grouped.**

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It is assumed that alphanumeric data entering the Delta system if not in this code originally, will be edited or converted to the internal code for processing. Editing or code converting abilities are planned which should facilitate conversion from any one code to another.

Comments on the code format, organization, advantages or disadvantages are solicited.



W. Wolensky

WW/jh

**DELTA COMPUTER
INTERNAL DECIMAL-ALPHANUMERIC CODE**

0, for EVEN
1, for ODD
PARITY CHK

C	B	A	8	4	2	1	CHAR.	C	B	A	8	4	2	1	CHAR.	C	B	A	8	4	2	1	CHAR.	C	B	A	8	4	2	1	CHAR.	
UNASSIGNED								UNASSIGNED								UNASSIGNED								UNASSIGNED								
1	1	1	1	0	0		9	1	0	1	1	0	0		Z	0	1	1	1	0	0		M	0	0	1	1	0	0		@	
1	1	1	0	1	1		8	1	0	1	0	1	1		Y	0	1	1	0	1	1		L	0	0	1	0	1	1		#	
↓	↓	1	0	1	0		7	↓	↓	1	0	1	0		X	↓	↓	1	0	1	0		K	↓	↓	1	0	1	0		%	
		1	0	0	1		6			1	0	0	1		W			1	0	0	1		J			1	0	0	1		3	
		1	0	0	0		5			1	0	0	0		V			1	0	0	0		I			1	0	0	0		/	
		0	1	1	1		4			0	1	1	1		U			0	1	1	1		H			0	1	1	1		*	
		0	1	1	0		3			0	1	1	0		T			0	1	1	0		G			0	1	1	0		\$	
		0	1	0	1		2			0	1	0	1		S			0	1	0	1		F			0	1	0	1		÷	
		0	1	0	0		1			0	1	0	0		R			0	1	0	0		E			0	1	0	0		‡	
		1	1	0	0	1	0			0	0	1	1		Q			0	0	1	1		D			0	0	1	1		‡	
UNASSIGNED										0	0	1	0		P			0	0	1	0		C			0	0	1	0		.	
UNASSIGNED										0	0	0	1		θ			0	0	0	1		B			0	0	0	1		&	
UNASSIGNED								1	0	0	0	0	0		N			0	0	0	0		A			0	0	0	0	0	0	b ← BLANK

DESIGNATES NUMERIC

ALPHABET & SPECIAL CHAR. AREA.
PROGRAMMER ASSIGNS CHAR. REPRESENTATION
TO SPECIFIC CODE PLACE IN COLLATING SEQU.

COLLATING SEQUENCE
(FOR CODE REPRESENTATION SHOWN)

BLANK(b) & . ‡ ‡ A through M N through Z 0 through 9

10/26/56
N.W.