December 17, 1962

MEMORANDUM TO: Users of 1401 Autocoder System

SUBJECT: 1401 Autocoder System, Program #1401-AU-037, Version 3, Modification Level 4

This modification letter has been prepared for distribution to all users of the 1401 Autocoder System and contains changes to Version 3, Modification Level 3 of that system. These change cards, enclosed, listed and identified below (Attachment #1) are to be inserted in the system deck as follows:

Card Number (Cols. 72-75)	Place between cards in system deck
C062	C060 - 618
C063 - C067	C061 - 636
C068	764 - 765
C069 - C072	C004 - 909
C073 - C075	1079 - 1080
C079 - C080	1243 - 1233

Card C062 corrects the d - modifier on Write Disk Check instructions. The processor will now give an R d-modifier rather than the previous W d - modifier

Cards C063 to C065 and C073 to C080 restores the "chain" ability connected with blank op codes which was inherent in the processor previous to modification level 3. With these change cards source statements with blank op codes will be flagged as bad op codes and the op code of the previous instruction will be inserted as well. Hence customers who made use of this "chain" ability previously will be able to reassemble without changing many cards in their source decks.

Cards C066 to C067 correct an error where the CHAIN Macro following a B M instruction gave two character instructions rather than the desired one character instruction.

Card C068 revises an error routine to permit completion of assembly when an erroneously punched literal card was encountered. Previously when the processor encountered a source statement with a long literal and no comma separating the operands it went into an unending loop, or came to a process error halt.

Cards C069 - C072 correct a bad modify aaddress statement within the processor. This will now permit a valid noise record test in pass 5 of the processor.

Note: Please check your system deck to see if change cards C034, C035 and C036 have been removed according to the instructions of the memorandum dated May 2, 1962. These cards appear in the systems between cards 820 and 821. If they are not removed some literals will not be correctly generated.

The following minor restrictions are presently in effect with regard to the use of 1401 Autocoder.

1. 3 and 4 character alphameric literals which are identical except for a double @ (i.e., @XXX@ and @XXX@@)can not be generated correctly by the processor.

2. When reassembling with alterations no instructions can be changed immediately after the last GENIO instruction.

3. When reassembling with alterations in IOCS programs, regeneration of IOCS can not be correctly completed if a previous reassembly has altered within the GENIO instructions.

We appreciate your cooperation in making these changes. A list of the material distributed with this letter follows:

Item No.	Contents
1	19 cards (designated as C062, C063, C064, etc.)
2	Attachment #1 - listing of change cards
3	Attachment #2 - symbolic changes to Autocoder listing

Initial requests for this system which are filled after the date of this letter will not include the cards itemized above, as there cards are included in the system deck as corrections. However, the Autocoder listing does not include these corrections and should be corrected by the user by referring to attachment #2. Any discrepancy between the material received and the above list, as well as any errors in card reproduction should be directed to the attention of the Manager of the Program Information Department, IBM, 112 East Post Road, White Plains, New York.

Continued reporting of any difficulties encountered in using 1401 Autocoder will be appreciated.

GP Applied Programming

Attachments

cc: Branch Offices
(No attachments sent with carbons)

Attachment #1 - Listing of Change Cards

1401 Autocoder System, Program #1401-AU-037
Version 3, Modification Level 4

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F3RM2 WDC                                L009C40,040040,040040,0400401040C0623733L
BS11                                     L004/70,040040,040040,0400401040C0633734L
BO13A68PBO13A68JBO13A68XCA69115H099      L035S21,/95S03,S11S18,0400401040C0643734L
C099A78BO13SMS45IIIBO36*                 L024S45,S29S34,S41S45,0400401040C0653734L
BS46R52RBS46R52S                         L016840,833040,040040,0400401040C0663734L
B848R82&MR78R82YS53R82B848 "             L028S73,S54S61,S68S72,S730401040C0673734L
N                                        L001U20,040040,040040,0400401040C0683741L
)R02                                     L004M64,040040,040040,0400401040C0693751L
#Q97Q94                                  L007P10,040040,040040,0400401040C0703751L
MR01L99                                  L007Q29,040040,040040,0400401040C0713751L
013000I"                                 L008R02,Q98R02,040040,0400401040C0723751L
LP75199                                  L007K93,040040,040040,0400401040C0733771L
BW37H43*BB/56                            L014P99,P94P95,P99040,0400401040C0743771L
B314                                     L004M02,040040,040040,0400401040C0753771L
B183                                     L004W36,040040,040040,0400401040C0763773L
LP98195LLB201                            L014327,321322,323327,0400401040C0773773L
Y198005                                  L007'91,040040,040040,0400401040C0783773L
Y199G41                                  L007P57,040040,040040,0400401040C0793774L
Y196H16                                  L007R44,040040,040040,0400401040C0803774L
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Attachment #2 - Symbolic Listing Changes

1401 Autocoder System, Program #1401-AU-037
Version 3, Modification Level 4

Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands
Change	3/8	408	3	76		BCE	WMMCHK,HLDCD,R
	3/8	409	3	77		BCE	WMMCHK,HLDCD,S
Change	3/10		4	41		B	FLAGOP
Delete	3/10		4	413		B	BADOP
	3/10		4	414		DCW	@ @
	3/10		4	415		DCW	@"@
Add	3/10		4	413		BCE	SAVCOD,EQVADD-1,P
	3/10		4	414		BCE	SAVCOD,EQVADD-1,J
	3/10		4	415		BCE	SAVCOD,EQVADD-1,X
	3/10		4	416	FLAGOP	MCW	EQVADD,FREE&15 Weaver's notes say C not MCW
	3/10		4	417		SBR	XL3
	3/10		4	418		C	XL3,&FREE&11
	3/10		4	419		B	TLUXT Weaver's notes say SAVCOD = 613
	3/10		4	41A		MCW	@*@,000&X3-1
	3/10		4	41B		B	TLUXT-7
	3/10		4	41C	WMMCHK	BCE	BLNKX,SAVOP-6,&
	3/10		4	41D		MCW	@ @,SAVOP-6
	3/10		4	41E		MZ	WMMCHK&7,SAVOP-6
	3/10		4	41F		B	BLNKX
	3/10		4	41G		DCW	@*@
	3/10		4	41H		DCW	@"@
	3/10		4	41I		XFR	0

Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands
Change	3/23	962	8	68		DCW	@F3RM2 WDC@
Change	4/32	1395	12	76		N	&1,XL3
Change	5/6	349	3	19		MA	@013@,LIMAD
Change	7/19	925	9	07		BCE	BADOP,INPUT4&12,*
			9	071		B	
			9	072		B	SETLIT

Note: These symbolic changes revlect the in-line patches and will not correspond to the actual instructions of the patch cards.

December 21, 1962

MEMORANDUM TO: Users of 1401 Autocoder System

SUBJECT: Addenda to Program Number 1401-AU-037, Version 3, Modification Level 4

The following information is necessary to complete the documentation for Modification Level 4:

Change Cards C076 through C078 are to be placed in the system deck between cards 1181 and 1182.

We appreciate your cooperation in making these changes.

Initial requests for this system which are filled after the date of this letter will not include the cards itemized above, as there cards are included in the system deck as corrections.

Continued reporting of any difficulties encountered in using 1401 Autocoder will be appreciated.