

August 13, 1962

MEMORANDUM TO: Users of 1401 Autocoder System

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

This modification letter has been prepared for distribution to all users of the 1401 Autocoder System and contains changes to Version 3, Modification Level 2 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
C038-C042	0086-0087
C043	C008-0351
C044-C050	C030-0454
C051-C055	C032-0499
C056-C059	0553-0554
C060	0617-0618
C061	0635-0636

Cards C038 to C042 correct the error condition caused by a random groupmark-wordmark in memory when an updating run is desired.

Card C043 corrects the error condition resulting from a unique comments card containing DIOCS in columns 16-20.

Cards C044 to C050 correct the error condition involving internal labels of a macro.

Cards C051 to C055 correct the error condition resulting from two consecutive commas in two consecutive cards of a macro statement which uses the second card for additional parameters.

Cards C056 to C059 provide more flexibility in the use of control cards concerning the machine size of the IBM 1401 being used for assembling. Autocoder will now use the machine size specified in column 21 and will ignore this column only if the size specified is greater than that being used. In this case, it will use only 4K.

A blank operation code or blank card assembles incorrectly, using the op code of the previous instruction. Cards C060 to C061 correct this condition by flagging it.

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

Item No.	Contents
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1	24 cards (designated as C038, C039, C040, 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 these 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)

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

BK12	L004-08,040040,040040,0400401040C0383713L
,K41LK41Z98	L011J36,J30040,040040,0400401040C0393713L
)K41Z98	L007J70,040040,040040,0400401040C0403713L
)K41//38//MK40963P900836B!09	L028K39,K16K20,K21K22,K29K361040C0413713L
' "	L002K41,K41040,040040,0400401040C0423713L
B634006*B670S	L013661,657040,040040,0400401040C0433722L
BW37021,	L008O05,040040,040040,0400401040C0443726L
NB11	L004Q76,040040,040040,0400401040C0453726L
NB22	L004R90,040040,040040,0400401040C0463726L
BB310'1)	L008?40,040040,040040,0400401040C0473726L
N466011MH45A67C019W05BJ44SC020U59BJ44S	L038B04,A74A81,A88A93,B000401040C0483726L
BR50U63M%U1001R'44M%U1001RHJ07?41	L033B37,B09B12,B20B23,B310401040C0493726L
MI06A67	L007D59,040040,040040,0400401040C0503726L
MT31075	L007S77,040040,040040,0400401040C0513727L
MU78086MW36020MU61075MW48006	L028U10,T90T97,U04040,0400401040C0523727L
MU78L01MU82N66BE90MU62075BO33M/92018	L036U50,U22U29,U33U40,U440401040C0533727L
LW280?0H099AW29089	L018V52,V42V46,040040,0400401040C0543727L
;1UNKNOWNMH10095BV20*	L021W48,W29W30,W37W44,W480401040C0553727L
HR39YP19P34BP191216YP97P34BP191215	L034O99,O70O77,O85O92,0400401040C0563731L
YP31P34BP191214BP97CP34R39BP66U/I9IHP34	L039P38,P07P15,P19P26,P31P351040C0573731L
CP34R42BP31/BP97	L027P65,P46P51,P55040,0400401040C0583731L
MR47121	L007P96,040040,040040,0400401040C0593731L
B/59119	L008P62,040040,040040,0400401040C0603733L
B/71A69 BP28BO13A68ABO13A681BP28 "	L034/92,/67/71,/79/87,/91/921040C0613734L

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Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands	Sfx	Ct	Loc	Instructio n
-											
Change	1/10	470	4	52		B	CLRARE	R	4	2005	B K12
Change	1/10	501	4	71	LIST	SW	ENDRT	R	4	2126	, K41
	1/10	502	4	72		LCA	ENDRT,1998	R	7	2130	L K41 Z98
Change	1/10	508	4	78		CW	ENDRT,1998	R	7	2164	) K41 Z98
Change	1/10	516	4	86	CLRARE	CW	ENDRT	R	4	2212	) K41
	1/10	517	4	87		CS	1138	R	4	2216	/ /38
Add	1/10	518	4	871		CS		R	1	2220	/
	1/10		4	872		CS		R	1	2221	/
	1/10		4	873		MCW	RCDMRK,963	R	7	2222	M K40 963
	1/10		4	874		MRCM	900,836	R	7	2229	P 900 836
	1/10		4	875		B	START	R	4	2236	B !09
	1/10		4	876	RCDMRK	DCW	@'@	R	1	2240	
	1/10		4	877	ENDRT	DCW	@"@	R	1	2241	
	1/10		4	878		EX	0	R			B 000
Change	2/4	273	2	61		BCE	THRU,MAINX&5,*	I	8	0649	B 634 006
*											
Change	2/4	279	2	67		BE	GOTIT	I	5	0657	B 670 S
Change	2/43	1924	18	98		BCE	MOVED,MAINX&20,,	X	8	2598	B W37 021
,											
Change	2/44	1988	19	54		NOP	TDFLIB	X	4	2873	N B11

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Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands	Sfx	Ct	Loc	Instructio n
-											
Change	2/44	2008	19	74		NOP	TDFLB2	X	4	2987	N B22
Change	2/45	2019	19	85	LOZSC	BCE	OUTSD,MAINX&X1,)	X	8	3033	B B31 0'1
)											
Change	2/45	2044	20	10	SHIFTL	NOP	PARTB,MAINX&10	X	7	3167	N 466 011
	2/45	2045	20	11		MCW	@N@,SHIFTL	X	7	3174	M H45 A67
	2/45	2046	20	12		C	MAINX&18,WHOOPS	X	7	3181	C 019 W05
	2/45	2047	20	13		BE	MASKS	X	5	3188	B J44 S
	2/45	2048	20	14		C	MAINX&19,INCLD	X	7	3193	C 020 U59
	2/45	2049	20	15		BE	MASKS	X	5	3200	B J44 S
	2/45	2050	20	16		B	BOUTS	X	4	3205	B R50
	2/45	2051	20	17	TDFLIB	DCW	&KINGS	X	3	3211	U63
	2/45	2052	20	18		DCW	@M%U1001R@	X	8	3219	
	2/45	2053	20	19	TDFLB2	DCW	&EOF1B	X	3	3222	'44
	2/45	2054	20	20		DCW	@M%U1001R@	X	8	3230	
	2/45	2055	20	21	OUTSD	SBR	ZONCH&3,DEFND	X	7	3231	H J07 ?41
Change	2/46	2098	20	64	LBLMV	MCW	@M@,SHIFTL	X	7	3453	M I06 A67
Change	2/46	2102	20	68		B	SHIFTL	X	4	3475	B A67
Change	2/36	1639	16	15		MCW	SIMPLE-7,MAINX&74	X	7	1271	M T31 075

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Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands	Sfx	Ct	Loc	Instructio n
-											
Change	2/37	1673	16	49		MCW	ENDSTX,MAINX&85	X	7	1383	M U76 086
Change	2/37	1676	16	52		MCW	@*@,MAINX&5	X	7	1404	M W48 006
Change	2/37	1678	16	54	POTS	MCW	ENDSTX,SWITCH	X	7	1415	M U76 L01
	2/37	1679	16	55		MCW	ENDSTX&4,NEXTCD	X	7	1422	M U82 N66
	2/37	1686	16	62		MCW	MOVINP-7,MAINX&17	X	7	1444	M /92 018
Change	2/37	1703	16	79	LOWER	LCA	@;@,0&X3	X	7	1535	L W28 0?0
	2/37	1705	16	81		A	@1@,INDEX1	X	7	1546	A W29 089
Change	2/38						@;@	X	1	1628	
	2/38						@1@	X	1	1629	
Add	2/38	1718	16	941	MOVED	MCW	IOCSAV,INDEX2&1	X	7	1637	M H10 095
	2/38	1718	16	942		B	MOVEC	X	4	1644	B V20
	2/38						@*@	X	1	1648	
Change	3/3	219	2	07		SBR	SVSZ#3		4	2666	H R39
	3/3	220	2	08		MZ	COMPAR,CLEAR&3		7	2670	Y P19 P34
	3/3	221	2	09		BCE	COMPAR,FREE&21,6		8	2677	B P19 121
6											
	3/3	222	2	10		MZ	INOBJ,CLEAR&3		7	2685	Y P97 P34
	3/3	223	2	11		BCE	COMPAR,FREE&21,5		8	2692	B P19 121
5											
	3/3	224	2	12		MZ	CLEAR,CLEAR&3		7	2700	Y P31 P34

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Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands	Sfx	Ct	Loc	Instructio n
-											
Change 4	3/3	225	2	13		BCE	COMPAR, FREE&21, 4		8	2707	B P19 121
	3/3	226	2	14		B	INOBJ		4	2715	B P97
	3/3	227	2	15	COMPAR	C	CLEAR&2, SVSZ		7	2719	C P34 R39
	3/3	228	2	16		BH	CLEAR&35		5	2726	B P66 U
	3/3	229	2	17	CLEAR	CS	15999		4	2731	/ I9I
	3/3	230	2	18		SBR	CLEAR&3		4	2735	H P34
	3/3	231	2	19		C	CLEAR&3, @I99@		7	2739	C P34 R42
	3/3	232	2	20		BU	CLEAR		5	2746	B P31 /
	3/3	233	2	21		B	INOBJ		4	2751	B P97
Delete	3/3	234	2	22		BE	INOBJ			2761	
Change	3/3	243	2	24		MCW	@3@, FREE&21		7	2790	M R47 121
Change	3/20	884	8	09	ABSCOD	BCE	OPBLK, FREE&19,		8	2755	B /59 119
Change	3/10	475	4	40	OPBLK	BCE	OPBLNK, EQVADD,		8	1159	B /71 A69
	3/10	476	4	41		B	BADOP		4	1167	B P28
Add A	3/10	477	4	42	OPBLNK	BCE	SAVCOD, EQVADD-1, A		8	1171	B O13 A68
	3/10	478	4	43		BCE	SAVCOD, EQVADD-1, 1		8	1179	B O13 A68
1	3/10	479	4	44		B	BADOP		4	1187	B P28

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Action	Pass/ Page#	Seq.	Pg.	Lin.	Label	Op	Operands	Sfx	Ct	Loc	Instructio n
-											
	3/10	480	4	45		DCW	@ @		1	1191	
	3/10	481	4	46		DCW	@"@		1	1192	
	3/10	482	4	47		XFR	0				B 000