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CLEAR STORAGE 1      ,008015,022026,030037,044,049,053053N000000N00001026      1
CLEAR STORAGE 2      L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0?  2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039      ,0010011040      3
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FORTRAN COMPILER -- LOADER PHASE -- PHASE 52B PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101			JOB		FORTRAN COMPILER -- LOADER PHASE -- PHASE 52B						
102			CTL		6611						
103			*								
104			*		RELOCATABLE FUNCTION ROUTINES AND SUBROUTINES ARE LOADED.						
105			*		A TABLE OF THE STARTING ADDRESSES OF THESE ROUTINES IS						
106			*		CREATED.						
107			*								
108			*		RELOCATION OF RELOCATABLE FUNCTIONS IN THE 1401 FORTRAN						
109			*		COMPILER IS ACCOMPLISHED BY TAGGING THE LOAD INSTRUCTION IN						
110			*		LOCATION 40, AND THE SUBSEQUENT SET WORD MARK INSTRUCTIONS, TO						
111			*		INDICATE WHAT FIELDS ARE TO BE RELOCATED. IT IS ASSUMED THAT						
112			*		THEY ARE RELOCATED BY THE LOAD ADDRESS LESS 2000, SINCE THEY						
113			*		ARE ASSEMBLED TO BE LOADED AT 2000. THE UTILITY THAT CONVERTS						
114			*		AUTOCODER DECKS TO RELOCATABLE FORM ASSUMES ADDRESSES ABOVE						
115			*		2000 ARE TO BE RELOCATED.						
116			*								
117			*		IF THE INDEX TAG OF THE A FIELD OF THE LOAD INSTRUCTION HAS A						
118			*		AND B ZONES, IT MEANS THE B ADDRESS OF THE LOAD INSTRUCTION AND						
119			*		BOTH ADDRESSES OF THE SET WORD MARK INSTRUCTIONS, EXCEPT THOSE						
120			*		THAT ARE 040, ARE TO BE RELOCATED. OTHERWISE THEY ARE NOT TO						
121			*		BE RELOCATED. IF THE INDEX TAG OF THE B ADDRESS OF THE LOAD						
122			*		INSTRUCTION HAS AN A ZONE IT INDICATES THAT ONLY THE B ADDRESS						
123			*		(WORD MARK + 4--6) OF THE FIRST FIELD IS TO BE RELOCATED, IF						
124			*		IT HAS AN B ZONE IT INDICATES THAT ONLY THE A ADDRESS (WORD						
125			*		MARK + 1--3) IS TO BE RELOCATED. IF IT HAS BOTH A AND B ZONES						
126			*		IT INDICATES THAT BOTH ADDRESSES ARE TO BE RELOCATED.						
127			*								
128			*		IF THE INDEX TAG OF EITHER ADDRESS IN A SET WORD MARK						
129			*		INSTRUCTION HAS AN A ZONE IT INDICATES THAT ONLY THE B ADDRESS						
130			*		(WORD MARK + 4-6) OF THE TAGGED FIELD IS TO BE RELOCATED, IF						
131			*		IT HAS AN B ZONE IT INDICATES THAT ONLY THE A ADDRESS (WORD						
132			*		MARK + 1-3) IS TO BE RELOCATED. IF IT HAS BOTH A AND B ZONES						
133			*		IT INDICATES THAT BOTH ADDRESSES ARE TO BE RELOCATED.						
134			*								
135			*		THE BEGINNING OF THE SERIES ROUTINE USED BY THE TRANSCENDENTAL						
136			*		FUNCTIONS IS MARKED BY UNDERSCORE CHARACTERS (11-7-8) IN						
137			*		COLUMNS 1-5 OF THE FIRST LOAD CARD. THE BASE ADDRESS IS SAVED						
138			*		AT THIS POINT IN SERBAS. THEN, ADDRESSES ABOVE 4K, WHICH ARE						
139			*		ABOVE 14K, ARE CONVERTED TO ADDRESSES ABOVE 2K, AND RELOCATED						
140			*		BY SERBAS. THIS IS DONE SO THAT THE TRANSCENDENTAL FUNCTION						
141			*		ROUTINES CAN ACCESS ADDRESSES WITHIN THE SERIES FUNCTION.						
142			*								
143			X1	EQU	89				0089		
144			X2	EQU	94				0094		
145			X3	EQU	99				0099		
146			*								
147			*		STUFF IN THE RESIDENT AREA						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148			*								
149			PHASID	EQU	110 PHASE ID, FOR SNAPSHOT DUMPS			0110			
150			FUNC1	EQU	111 SWITCH TO SELECT FIRST RELOCATABLE FUNC			0111			
151			SINCOS	EQU	118 SAW SINIF OR COSF IF NO WM			0118			
152			FUNCN	EQU	139 SWITCH TO SELECT LAST RELOCATABLE FUNC			0139			
153			GOTXL	EQU	185 XLINKF WAS LOADED			0185			
154			RELTAB	EQU	188 TOP OF RELOCATABLE FUNCTIONS & 1			0188			
155			ARYTOP	EQU	194 TOP OF ARRAYS IN OBJECT CODE			0194			
156			SNAPSH	EQU	333 CORE DUMP SNAPSHOT			0333			
157			TOPCOR	EQU	688 TOP CORE ADDRESS FROM PARAM CARD			0688			
158			LOADNX	EQU	700 LOAD NEXT OVERLAY			0700			
159			CLEARL	EQU	707 CS AT START OF OVERLAY LOADER			0707			
160			CDOVLY	EQU	769 1 IF RUNNING FROM CARDS, N IF FROM TAPE			0769			
161			TPREAD	EQU	780 TAPE READ INSTRUCTION IN OVERLAY LOADER			0780			
162			LOADXX	EQU	793 EXIT FROM OVERLAY LOADER			0793			
163			CLRBOT	EQU	833 BOTTOM OF CORE TO CLEAR IN OVERLAY LOADER			0833			
164			*								
165			* STUFF IN PREVIOUS PHASE (52A)								
166			*								
167			EXLINK	EQU	840 139 I XLINKF ENTRY			0840			
168			USER1	EQU	876 127 R USER FUNCTION ENTRY			0876			
169			SX2	EQU	927			0927			
170			CONBOT	EQU	930 BOTTOM OF CONSTANTS - 1			0930			
171			ARYBOT	EQU	933 BOTTOM OF ARRAYS - 1			0933			
172			*								
173				ORG	333				0333		
174			LOADD1	EQU	*&1 LOAD ADDRESS			0333			
175	333		H		333	4		0333	.	333	4
176	337		BEGINN	CS	80	4		0337	/	080	4
177	341		MCW		X3,SX3	7		0341	M	099 W35	4
178	348		SBR		X3,1&X3	7		0348	H	099 0?1	4
179	355		SW		1,40 SET WORD	7		0355	,	001 040	4
180	362		SW		47,54 MARKS TO	7		0362	,	047 054	4
181	369		SW		61,68 READ RELOCATABLE	7		0369	,	061 068	5
182	376		SW		72 SUBPROGRAMS	4		0376	,	072	5
183	380		MCW		CDOVLY,RDCARD CARDS IF 1, TAPE IF NOP	7		0380	M	769 /60	5
184	387		B		RDREC SKIP BOUNDARY -- FIVE BRACKETS	4		0387	B	/49	5
185	391		MCW		83,X2	7		0391	M	083 094	5
186	398		MN		0&X2	4		0398	D	0!0	5
187	402		MN			1		0402	D		5
188	403		SBR		TSTUND&6	4		0403	H	!95	6
189	407		MCW		KUND1 TOO BIG IF THIS GETS CLOBBERED	4		0407	M	V65	6
190	411		NOP			1		0411	N		6
191	412		OUTER	MCW	X3,ADD14K&3	7		0412	M	099 436	6
192	419		MZ		BRANCH,ADD14K&2 X3 ZONE	7		0419	Y	V66 435	6
193	426		MCW		K14K,X3	7		0426	M	V60 099	6
194			* WHY NOT SBR		X3,0-0 ???						
195	433		ADD14K	NOP	0-0 SUBTRACT 2000 FROM X3 BECAUSE	4		0433	N	000	6
196	437		SAR		X3 RELOCABLES ORG AT 2000	4		0437	Q	099	7
197	441		GETUND	B	RDREC	4		0441	B	/49	7

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	445		CHKUND	C	5,KUND4			DOES RECORD BEGIN WITH UNDERLINES	7 0445	C 005 V70	7
199	452			BU	NOTUND			NO	5 0452	B 468 /	7
200	457			MCW	X3,SERBAS			SAVE BASE ADDRESS FOR SERIES FUNCTION	7 0457	M 099 V73	7
201	464			B	GETUND			YES, GET ANOTHER RECORD	4 0464	B 441	7
202	468		NOTUND	MCW	AFUNC1,X1			NEXT LOAD SWITCH	7 0468	M V63 089	7
203	475		SBRNOP	SBR	AFUNC1,1&X1			NOP FOR SECOND PASS SIN FLAG	7 0475	H V63 0 1	8
204	482			C	X1,AFUNCN			END OF LOAD FLAGS?	7 0482	C 089 V76	8
205	489			BE	SWITCH			YES	5 0489	B T59 S	8
206	494			MCW	SBR,SBRNOP				7 0494	M V77 475	8
207	501			C	SX2,AUSER1				7 0501	C 927 V80	8
208	508		SWICH1	BE	GOTUSR			USER FUNCTIONS?	5 0508	B U23 S	8
209	513		RETUSR	MCW	SX2,X2			DECREMENT	7 0513	M 927 094	9
210	520			C	0&X2			FUNCTION TABLE	4 0520	C 0!0	9
211	524			SAR	SX2			POINTER	4 0524	Q 927	9
212	528			BW	SKIP,0&X1			DON'T NEED DECK IF WM IN LOAD FLAG	8 0528	V T35 0 0 1	9
213	536		MCWNOP	MCW	NOP,SWICH2			ALLOW STORING LOAD ADDRESS UNLESS NOP	7 0536	M V81 583	9
214	543		TSTREL	BWZ	NOREL,42,2			NO RELOCATION	8 0543	V /31 042 2	9
215	551			MN	46,LOAD&6			LOAD FROM WHERE	7 0551	D 046 578	10
216	558				CHAIN 5						MACRO
217				MN			1	0558	D		GEN 10
218				MN			1	0559	D		GEN 10
219				MN			1	0560	D		GEN 10
220				MN			1	0561	D		GEN 10
221				MN			1	0562	D		GEN 10
222	563			MZ	46,LOAD&6			LOAD TO WHERE	7 0563	Y 046 578	10
223	570			MN			1	0570	D		11
224	571			MZ			1	0571	Y		11
225	572		LOAD	LCA	0,0&X3			LOAD THE FIELD FROM THE RECORD	7 0572	L 000 0?0	11
226	579			SBR	X2				4 0579	H 094	11
227	583		SWICH2	NOP	MZ45			SKIP STORING LOAD ADDRESS IF BRANCH	4 0583	N 608	11
228	587			MCW	SX2,X1				7 0587	M 927 089	11
229	594			SBR	3&X1,1&X2			STORE FUNCTION LOAD ADDRESS	7 0594	H 0 3 0!1	11
230	601			MCW	BRANCH,SWICH2			SKIP OVER STORING LOAD ADDRESS	7 0601	M V66 583	12
231	608		MZ45	MZ	45,SAVZON			RELOCATION TAG FOR FIRST FIELD	7 0608	Y 045 V82	12
232	615			B	RELOC				4 0615	B S17	12
233	619			S	X1&1				4 0619	S 090	12
234	623		LOOP	C	50&X1,A40			WHY NOT BCE NORELX,50&X1,0 ???	7 0623	C 0V0 V85	12
235	630			BE	NORELX			AT WM ADDRESS 040 OR AT 1040 INSTR	5 0630	B 11 S	12
236	635			MCW	50&X1,SWCW&3				7 0635	M 0V0 667	13
237	642			MZ	BRANCH,SWCW&2			X3 TAG	7 0642	Y V66 666	13
238	649			BCE	SWCW,SWCW,)				8 0649	B 664 664)	13
239	657			MCW	SW,SWCW			IN CASE WE ARE DOING THE B FIELD	7 0657	M V86 664	13
240	664		SWCW	SW	0&X3			SET OR CLEAR RELOCATED WORD MARK	4 0664	, 0?0	13
241	668			SAR	X2				4 0668	Q 094	13
242	672			B	CONT			BRANCH AROUND PHASE LOADER	4 0672	B 934	14
243	676			NOP	0				4 0676	N 000	14
244	680			DCW	@}@				1 0680		GMARK 14
245				ORG	201					0201	
246	203		DSA	LOADD1			3	0203	333		15
247			EX	LOADXX						B 793	16

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248				JOB	FORTRAN COMPILER -- LOADER PHASE -- PHASE 52C						
249				ORG	934				0934		
250			LOADDD	EQU	*&1 LOAD ADDRESS			0934			
251	934		CONT	MZ	49&X1,SAVZON RELOCATION TAG FROM SW INSTRUCTION	7		0934	Y 009 V82		19
252	941			B	RELOC	4		0941	B S17		19
253				*	ADD EITHER 3 OR 4 TO X1 TO GET TO NEXT SW ADDRESS						
254				*	THIS WOULD BE SIMPLER IF SBR/NOP X1,1&X1 THEN SBR X1,3&X1 ???						
255	945		NOPADD	NOP	K4,X1 SOMETIMES ADD, SOMETIMES NOP	7		0945	N V87 089		19
256	952		ADDNOP	A	K3,X1 SOMETIMES ADD, SOMETIMES NOP	7		0952	A V88 089		19
257	959			BCE	EXCH43,NOPADD,A	8		0959	B 993 945 A		19
258	967			MCW	ADD,NOPADD	7		0967	M V89 945		20
259	974			MCW	NOP,ADDNOP	7		0974	M V81 952		20
260	981			BCE	NOPADD,SWCW,) ???	8		0981	B 945 664)		20
261	989			B	LOOP	4		0989	B 623		20
262	993		EXCH43	MCW	NOP,NOPADD	7		0993	M V81 945		20
263	1 000			MCW	ADD,ADDNOP	7		1000	M V89 952		21
264	1 007			B	LOOP	4		1007	B 623		21
265				*							
266				*	DONE WITH RELOCATION OF ONE DECK						
267				*							
268	1 011		NORELX	MCW	46,WHERE TOP ADDRESS LOADED?	7		1011	M 046 V92		21
269	1 018			MCW	NOP,NOPADD RESET ADD 3/4	7		1018	M V81 945		21
270	1 025			MCW	ADD,ADDNOP TOGGLE	7		1025	M V89 952		21
271	1 032			B	RDREC	4		1032	B /49		21
272	1 036			BCE	EXEND,68,B EX CARD?	8		1036	B 56 068 B		22
273	1 044			BCE	EXEND,40,/ END CARD?	8		1044	B 56 040 /		22
274	1 052			B	TSTREL	4		1052	B 543		22
275	1 056		EXEND	MCW	WHERE,*&11 CAN WE USE LOAD&6 HERE ???	7		1056	M V92 73		22
276	1 063			MZ	BRANCH,*&3 X3 TAG	7		1063	Y V66 72		22
277	1 070			NOP	0&X3	4		1070	N 0?0		22
278	1 074			SAR	X3	4		1074	Q 099		23
279	1 078			SBR	SX3	4		1078	H W35		23
280	1 082			SBR	X3,1&X3 NEXT FUNCTION LOAD ADDRESS	7		1082	H 099 0?1		23
281	1 089		TSTUND	BCE	OUTER,0,_ NOT TOO BIG IF STILL UNDERLINE	8		1089	B 412 000 _		23
282	1 097			CS	332	4		1097	/ 332		23
283	1 101			CS		1		1101	/		23
284	1 102			CC	1	2		1102	F 1		23
285	1 104			MCW	ERROR2,270	7		1104	M W28 270		24
286	1 111			W		1		1111	2		24
287	1 112			CC	1	2		1112	F 1		24
288	1 114			BCE	HALT,CDOVLY,1	8		1114	B /27 769 1		24
289	1 122			RWD	1	5		1122	U %U1 R		24
290	1 127		HALT	H	HALT	4		1127	. /27		24
291				*							
292				*	NO RELOCATION, SIMPLY EXECUTE THE LOAD CODE						
293				*							
294	1 131		NOREL	SBR	71,NORELX	7		1131	H 071 11		24
295	1 138			MCW	BRANCH,68	7		1138	M V66 068		25
296	1 145			B	40	4		1145	B 040		25
297				*							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298					* READ A RECORD OF THE RELOCATABLE LIBRARY EITHER						
299					* FROM CARD OR TAPE						
300					*						
301	1	149	RDREC	SBR	RDREX&3	4		1149	H /87		25
302	1	153		MCW	KB1,1 IN CASE IT WAS A GM IN THE PREV RECORD	7		1153	M W29 001		25
303	1	160	RDCARD	R	RDREX NOP IF LOADED FROM TAPE	4		1160	1 /84		25
304	1	164	REREAD	MCW	KP9,ERRCNT	7		1164	M W30 W31		25
305	1	171	RDTAPE	RT	1,1	8		1171	M %U1 001 R		26
306	1	179		BER	TAPERR	5		1179	B /88 L		26
307	1	184	RDREX	B	0	4		1184	B 000		26
308					*						
309	1	188	TAPERR	BSP	1	5		1188	U %U1 B		26
310	1	193		S	KP1,ERRCNT	7		1193	S W32 W31		26
311	1	200		BWZ	RDTAPE,ERRCNT,B	8		1200	V /71 W31 B		26
312	1	208		NOP	3333	4		1208	N C33		27
313	1	212		H		1		1212	.		27
314	1	213		B	REREAD	4		1213	B /64		27
315					*						
316					* RELOCATE FIELDS OF LOADED INSTRUCTIONS						
317					*						
318	1	217	RELOC	SBR	RELOCX&3	4		1217	H T34		27
319	1	221		BWZ	RELOCX,SAVZON,2 NO RELOCATION	8		1221	V T31 V82 2		27
320	1	229		BWZ	RELX1,SAVZON,S B FIELD RELOCATION ONLY	8		1229	V S88 V82 S		27
321	1	237		MCW	X3,SX3	7		1237	M 099 W35		27
322	1	244		BWZ	RELNZ1,4&X2,2 IS RELOCATED FIELD BELOW 4K	8		1244	V S66 0!4 2		28
323	1	252		MCW	SERBAS,X3 NO, MUST BE ABOVE 14K = 16K-2K	7		1252	M V73 099		28
324	1	259		MZ	*-4,4&X2 THOUSANDS TAG SET TO 2	7		1259	Y S61 0!4		28
325	1	266	RELNZ1	MA	X3,4&X2 RELOCATE A FIELD	7		1266	# 099 0!4		28
326	1	273		MCW	SX3,X3	7		1273	M W35 099		28
327	1	280		BM	RELOCX,SAVZON A FIELD RELOCATION ONLY	8		1280	V T31 V82 K		29
328	1	288	RELX1	MCW	X3,SX3	7		1288	M 099 W35		29
329	1	295		BWZ	RELNZ2,7&X2,2 IS RELOCATED FIELD BELOW 4K	8		1295	V T17 0!7 2		29
330	1	303		MCW	SERBAS,X3 NO, MUST BE ABOVE 14K = 16K-2K	7		1303	M V73 099		29
331	1	310		MZ	*-4,7&X2 THOUSANDS TAG SET TO 2	7		1310	Y T12 0!7		29
332	1	317	RELNZ2	MA	X3,7&X2 RELOCATE B FIELD	7		1317	# 099 0!7		30
333	1	324		MCW	SX3,X3	7		1324	M W35 099		30
334	1	331	RELOCX	B	0	4		1331	B 000		30
335					*						
336					* DON'T NEED THE FUNCTION						
337					* SKIP UNTIL END OR EX RECORD						
338					*						
339	1	335	SKIP	B	RDREC	4		1335	B /49		30
340	1	339		BCE	GETUND,40,/	8		1339	B 441 040 /		30
341	1	347		BCE	GETUND,68,B	8		1347	B 441 068 B		30
342	1	355		B	SKIP	4		1355	B T35		31
343					*						
344					* GOT TO END OF LOAD FLAGS						
345					* START OVER AT SINCOS TO STORE THE ENTRY TABLE						
346					*						
347	1	359	SWITCH	NOP	DONE SECOND TIME IT IS A BRANCH	4		1359	N U41		31

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	1	363		MCW	BRANCH,SWITCH			7	1363	M V66 T59	31
349	1	370		SBR	AFUNC1,SINCOS			7	1370	H V63 118	31
350	1	377		MCW	SX3,X2			7	1377	M W35 094	31
351	1	384		SBR	RELTAB,1&X2			7	1384	H 188 0!1	31
352	1	391		MCW	NOP,SBRNOP			7	1391	M V81 475	32
353	1	398		MCW	NOP,MCWNOP			7	1398	M V81 536	32
354	1	405		MCW	BRANCH,SWICH2			7	1405	M V66 583	32
355	1	412		MCW	SX3,SX3D			7	1412	M W35 W38	32
356	1	419		B	CHKUND			4	1419	B 445	32
357				*							
358				*	DOWN TO USER FUNCTIONS IN THE ADDRESS TABLE						
359				*							
360	1	423	GOTUSR	MCW	SX3,SX3C			7	1423	M W35 W41	32
361	1	430		MCW	NOP,SWICH1			7	1430	M V81 508	33
362	1	437		B	RETUSR			4	1437	B 513	33
363				*							
364	1	441	DONE	MCW	SX3,X3			7	1441	M W35 099	33
365	1	448		MCW	TOPCOR,X2			7	1448	M 688 094	33
366	1	455		C	0&X2			4	1455	C 0!0	33
367	1	459		SAR	X2			4	1459	Q 094	33
368	1	463		SBR	ARYBOT			4	1463	H 933	33
369	1	467		C	0&X2			4	1467	C 0!0	34
370	1	471		SAR	CONBOT			4	1471	Q 930	34
371	1	475		BCE	BLANK,EXLINK,			8	1475	B V08 840	34
372	1	483		MCW	EXLINK,X1			7	1483	M 840 089	34
373	1	490		MA	A13,X1			7	1490	# W44 089	34
374	1	497		MCW	ARYTOP,0&X1			7	1497	M 194 0!0	34
375	1	504		CW	GOTXL			4	1504) 185	35
376	1	508	BLANK	MCW	SX3C,X1			7	1508	M W41 089	35
377	1	515		MCW	SX3D,X2			7	1515	M W38 094	35
378	1	522		SBR	TPREAD&6,934			7	1522	H 786 934	35
379	1	529		SBR	CLRBOT			4	1529	H 833	35
380	1	533		SBR	LOADXX&3,934			7	1533	H 796 934	35
381	1	540		SBR	CLEARL&3,1696			7	1540	H 710 W96	36
382	1	547		LCA	RELOAD,PHASID			7	1547	L W53 110	36
383	1	554		B	LOADNX			4	1554	B 700	36
384				*							
385				*	DATA						
386				*							
387	1	560	K14K	DSA	14000			3	1560	!0?	36
388	1	563	AFUNC1	DCW	FUNC1			3	1563	111	36
389	1	564		DC	#1			1	1564		36
390	1	565	KUND1	DCW	@_@			1	1565		36
391	1	566	BRANCH	B				1	1566	B	36
392	1	570	KUND4	DCW	@____@			4	1570		37
393	1	573	SERBAS	DCW	#3			3	1573		37
394	1	576	AFUNCN	DSA	FUNCN&1			3	1576	140	37
395	1	577	SBR	SBR				1	1577	H	37
396	1	580	AUSER1	DSA	USER1			3	1580	876	37
397	1	581	NOP	NOP				1	1581	N	37

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398	1	582	SAVZON	DCW	#1			1 1582			37
399	1	585	A40	DSA	40			3 1585	040		38
400	1	586	SW	SW				1 1586	,		38
401	1	587	K4	DCW	4			1 1587			38
402	1	588	K3	DCW	3			1 1588			38
403	1	589	ADD	A				1 1589	A		38
404	1	592	WHERE	DCW	#3			3 1592			38
405	1	628	ERROR2	DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@			36 1628			39
406	1	629	KB1	DCW	#1			1 1629			39
407	1	630	KP9	DCW	&9			1 1630			39
408	1	631	ERRCNT	DCW	#1 TAPE ERROR COUNTER			1 1631			39
409	1	632	KP1	DCW	&1			1 1632			40
410	1	635	SX3	DCW	#3			3 1635			40
411	1	638	SX3D	DCW	#3			3 1638			40
412	1	641	SX3C	DCW	#3			3 1641			40
413	1	644	A13	DSA	13			3 1644	013		40
414	1	653	RELOAD	DCW	@RELOAD SS@			9 1653			40
415	1	654		DCW	@}@			1 1654		GMARK	40
416				ORG	201				0201		
417	203		DSA	LOADDD	LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM			3 0203	934		41
418			EX	BEGINN					B 337		42
419				END					/ 000 080		

